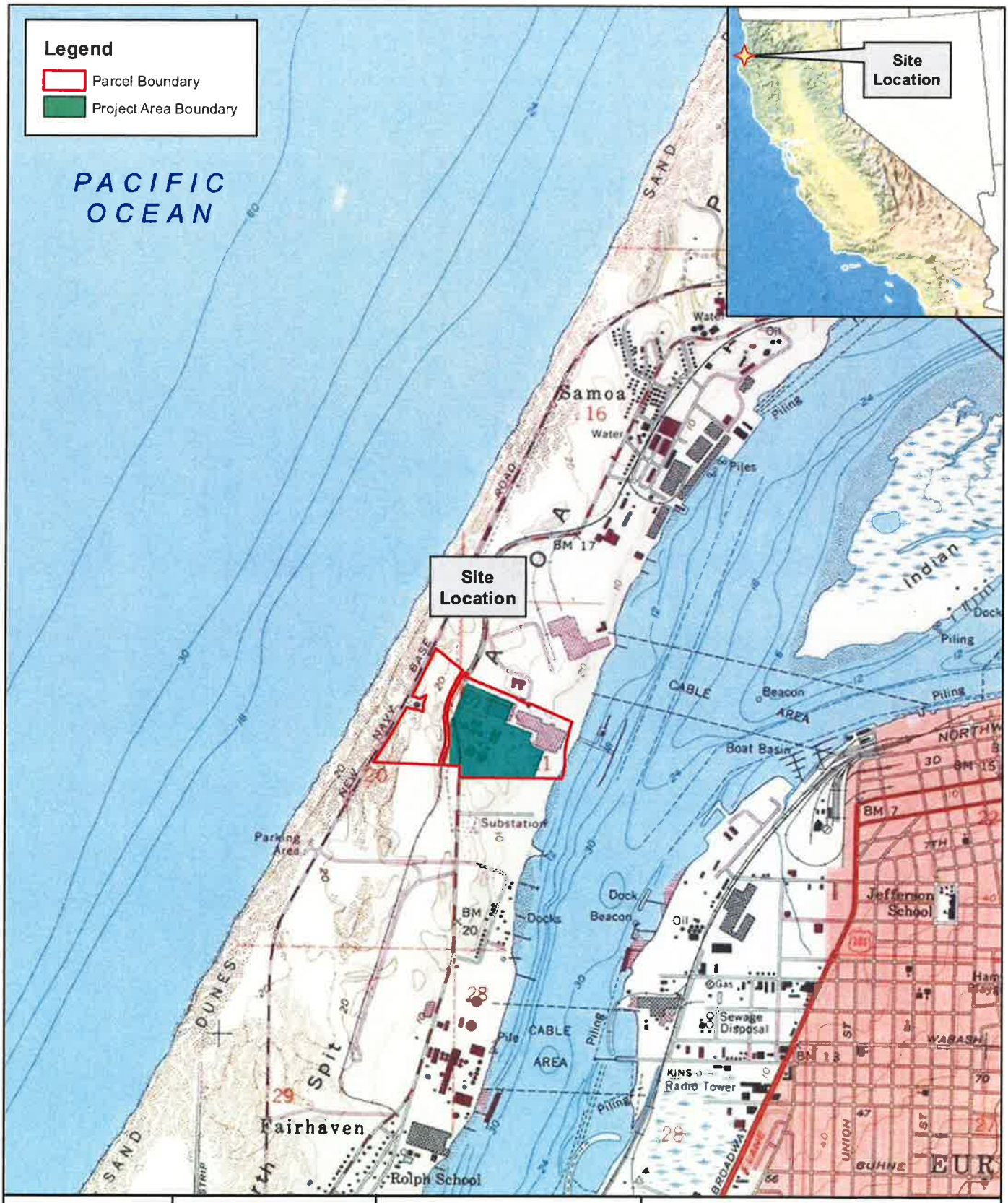
SAMOA – TCF DRIVE 1

PHASE II TARGETED BROWNFIELDS ASSESSMENT

DATA SUMMARY PACKAGE

FIGURES



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PREPARED BY:
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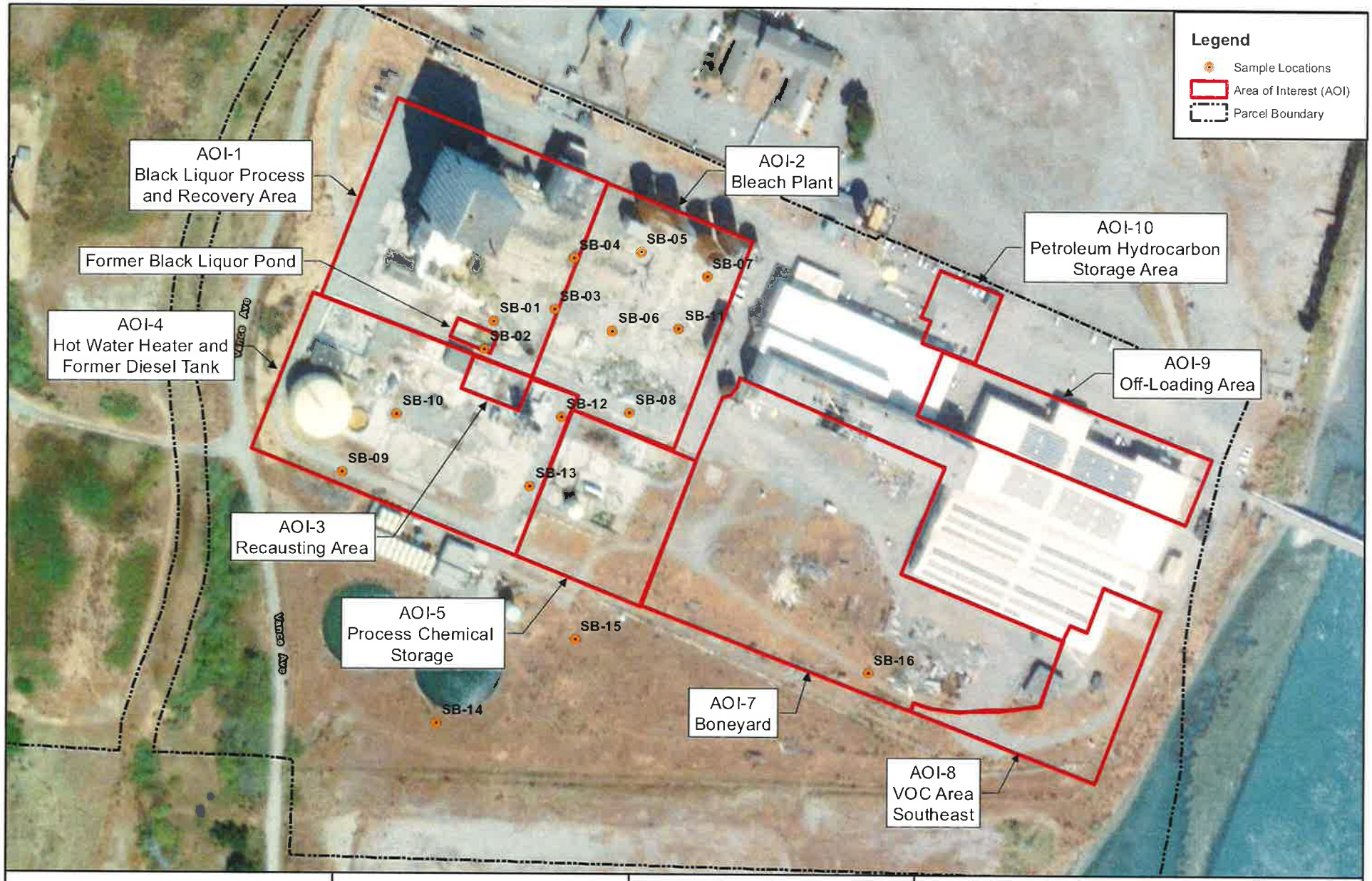
PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE 1
SITE LOCATION MAP
Samoa Pulp Mill Site
Targeted Brownfields Phase II Assessment
Samoa, Humboldt County, CA

TDD:0006/1302-T6-R9-19-04-0001



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0 Feet 400

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PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE 2
SAMPLING LOCATIONS
Samoa Pulp Mill Site
Targeted Brownfields Phase II Assessment
Samoa, Humboldt County, CA

TDD:0006/1302-T6-R9-19-04-0001

SAMOA – TCF DRIVE 1

PHASE II TARGETED BROWNFIELDS ASSESSMENT

DATA SUMMARY PACKAGE

SAMPLE COORDINATES

SAMOA – TCF DRIVE 1 TBA SAMPLE COORDINATES

SampleID	Latitude	Longitude
SB-01	40.80481988280	-124.19544325400
SB-02	40.80468334170	-124.19550151200
SB-03	40.80488597000	-124.19505510300
SB-04	40.80513844310	-124.19494005600
SB-05	40.80517965890	-124.19450830900
SB-06	40.80478807730	-124.19468008100
SB-07	40.80506514940	-124.19407786700
SB-11	40.80480769700	-124.19425078000
SB-09	40.80406795050	-124.19639144100
SB-10	40.80435328530	-124.19605403700
SB-08	40.80439170760	-124.19455451900
SB-12	40.80436147920	-124.19499270500
SB-13	40.80401919220	-124.19518283700
SB-14	40.80285403810	-124.19573843400
SB-15	40.80327979910	-124.19486226500
SB-16	40.80315596090	-124.19296431100

SAMOA – TCF DRIVE 1

PHASE II TARGETED BROWNFIELDS ASSESSMENT

DATA SUMMARY PACKAGE

TABLES

Table 1
Metals Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID			**SB1-1**	**SB1-1A (Duplicate of SB1-1)**	**SB1-5**	**SB1-8**	**SB2-1**	**SB2-5**	**SB2-5MS/MSD**	**SB2-8**	**SB3-1**
Sample Date			**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**
Sample Depth (feet below ground surface)			**0-0-5**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**5**	**8**	**0-0-5**
Analyte	**RSL Residential (mg/kg)**	**DTSC-SL Residential (mg/kg)**	**Metals - Soil (mg/kg)**								
Antimony	31	--	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)
Arsenic*	--	--	ND (<2)	ND (<2)	ND (<2)	ND (<2)	2.2	ND (<2)	ND (<2)	ND (<2)	ND (<2)
Barium	15,000	--	54	54	19	25	110	22	20	20	85
Beryllium	160	16	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
Cadmium	71	--	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
Chromium	120,000	--	54	72	74	65	50	64	62	37	60
Cobalt	23	--	9.4	10	9.3	9.2	13	8.6	9	6.2	14
Copper	3,100	--	13	14	5.4	5	23	5.1	5.1	ND (<5)	30
Lead	400	80	6.6	6.3	3.2	3	5.4	3	3.2	2.1	6.9
Mercury	11	1	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Molybdenum	390	--	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)
Nickel	1,500	490	47	53	50	46	57	45 J	47 J	33	54
Selenium	390	--	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)
Silver	390	--	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
Thallium	0.78	--	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)
Vanadium	390	--	39	41	41	35	48	36	39	25	49
Zinc	23,000	--	43	41	29	27	49	29	27	21	47

Notes:
Metals by EPA Method 6010B, Mercury by EPA Method 7471A
Bold, Underlined and Highlighted = Analytical result exceeds screening
RSL = United States Environmental Protection Agency (EPA). Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSL). May 2019.
DTSC-SL = California Department of Toxic Substances Control (DTSC). Human Health Risk Assessment Note 3 – Modified Screening Levels (SL), non-cancer endpoint. April, 2019.
* Arsenic was compared to the regional background concentration of 5.7 mg/kg (Kearney 1996)
ND = not detected above the reporting limit (<RL)
mg/kg = milligram per kilogram
SB = Soil boring
-- = Not Applicable
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

Table 1
Metals Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

SB3-5	SB3-8	SB4-1	SB4-5	SB4-8	SB4-8A (Duplicate of SB4-8)	SB5-1	SB5-5	SB5-8	SB6-1	SB6-5	SB6-8	SB7-1	SB7-5
06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019
5	8	0-0-5	5	8	8	0-0-5	5	8	0-0-5	5	8	0-0-5	5
Metals - Soil (mg/kg)													
ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
33	34	52	37	22	22	77	21	26	18	24	31	23	24
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
74	74	60	80	74	68	53	55	76	59	68	52	71	72
8.9	10	12	10	9.8	9.6	16	7	9.2	4.4	6.6	4.1	10	9.4
5.7	8.3	25	8.2	5.3	5.2	28	ND (<5)	ND (<5)	ND (<5)	ND (<5)	ND (<5)	7.6	5.7
3.4	3.7	3.9	6.1	3.4	3.1	4.8	2	2.7	ND (<0.8)	2.6	4.4	3.4	3.4
ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)
46	47	53	53	50	48	67	36	49	13	34	14	46	47
ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)
ND (<0.5)	ND (<0.5)	37	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
38	41	43	43	42	41	47	31	34	26	36	25	40	39
28	30	48	32	29	29	48	22	29	11	23	9.8	28	30

Table 1
Metals Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

SB7-8	SB8-1	SB8-5	SB8-8	SB8-8MS/MSD	SB9-1	SB9-5	SB9-8	SB10-1	SB10-5	SB10-5A	SB10-8	SB11-1	SB11-5
06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019
8	0-0-5	5	8	8MS/MSD	0-0-5	5	8	0-0-5	5	5	8	0-0-5	5
Metals - Soil (mg/kg)													
ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)	ND (<2)
ND (<2)	2.1	ND (<2)	2	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
23	22	23	29	21	26	26	41	100	20	20	28	20	22
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
65	46	60	78	84	76	83	63	65	38 J	67 J	75	59	80
9.3	8.6	7.7	9.3	9.2	9.6	10	8.1	9.3	5.9	9	9.5	8.6	18
5	5.2	ND (<5)	ND (<5)	5.4	5.6	5.2	ND (<5)	17	ND (<5)	5.5	ND (<5)	7	53
3.1	2.9	2.3	3.2	3.1	3.6	3.8	2.9	21	2.1	3.3	3.2	3	4.1
ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1) J	ND (<0.1) J	ND (<0.1)	ND (<0.1)	ND (<0.1)
ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)
49	41	40	49 J	47 J	51	51	42	50	32 J	46 J	51	44	53
ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2) J	ND (<2) J	ND (<2)	ND (<2)	ND (<2)
40	36	33	40	40	40	42	34	36	24 J	40 J	41	35	38
28	27	23	27	28	29	30	25	61	21	29	30	25	28

Table 1
Metals Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

SB11-8	SB12-1	SB12-5	SB12-8	SB13-1	SB13-5	SB13-8	SB14-1	SB14-5	SB14-8	SB15-1	SB15-5	SB15-5A (Duplicate of SB15-5)	SB15-8
06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/28/2019	06/26/2019	06/28/2019	06/28/2019	06/26/2019	06/28/2019	06/28/2019	06/28/2019
8	0-0-5	5	8	0-0-5	5	8	0-0-5	5	8	0-0-5	5	5	8
Metals - Soil (mg/kg)													
ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
ND (<2)	ND (<2)	2	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
19	22	30	20	60	23	19	25	23	23	20	21	30	27
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
47	70	78	41	63	60	55	55	77	68	70	94	100	77
7.3	9.2	9.9	7.6	13	9.1	8.1	7.8	9.6	8.8	8.2	10	10	9.3
ND (<5)	ND (<5)	5.3	ND (<5)	18	5.1	ND (<5)	ND (<5)	ND (<5)	ND (<5)	5.2	5.5	5.4	5.1
2.4	3.2	3.3	2.8	4.2	3.4	2.8	2.7	3.6	3.4	5.7	3.3	3.5	3.5
ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)	ND (<1)
39	47	52	40	56	46	45	40	49	46	41	53	53	47
ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)	ND (<4.8)
ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
30	40	41	29	44	39	32	34	41	38	36	45	44	40
23	27	30	24	38	28	26	25	29	28	37	30	29	29

Table 1
Metals Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

SB16-1	SB16-5	SB16-8
06/26/2019	06/28/2019	06/28/2019
0-0-5	5	8
Metals - Soil (mg/kg)		
ND (<2)	ND (<2)	ND (<2)
ND (<2)	2.3	ND (<2)
78	21	28
ND (<0.5)	ND (<0.5)	ND (<0.5)
1.8	ND (<0.5)	ND (<0.5)
65	75	59
10	9.4	8
120	5.4	8.3
14	3.3	2.9
ND (<0.1)	ND (<0.1)	ND (<0.1)
ND (<1)	ND (<1)	ND (<1)
120	49	43
ND (<4.8)	ND (<4.8)	ND (<4.8)
ND (<0.5)	ND (<0.5)	ND (<0.5)
ND (<2)	ND (<2)	ND (<2)
38	42	35
120	28	27

Table 2
Summary of Dioxins/Furans Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID		**SB1-1**	**SB1-1A (Duplicate of SB1-1)**	**SB1-5**	**SB1-8**	**SB2-1**	**SB2-5**	**SB2-8**	**SB3-1**	**SB3-5**	**SB3-8**	**SB4-1**	**SB4-5**
Sample Date		**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/26/2019**	**06/26/2019**	**06/26/2019**	**06/26/2019**	**06/28/2019**
Sample Depth (feet below ground surface)		**0-0-5**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**
Analyte	**Screening Level**	**Dioxins/Furans - Soil (pg/g)**											
2,3,7,8-TCDD	--	ND (<0.366)	ND (<0.437)	ND (<0.493)	ND (<0.458)	ND (<0.421)	ND (<0.425)	ND (<0.366)	ND (<0.487)	ND (<0.482)	ND (<0.423)	ND (<0.363)	ND (<0.468)
12378-PeCDD	--	ND (<0.506)	ND (<0.584)	ND (<0.584)	ND (<0.737)	ND (<0.601)	ND (<0.428)	ND (<0.345)	ND (<0.417)	ND (<0.66)	ND (<0.592)	ND (<0.492)	ND (<0.568)
123478-HxCDD	--	ND (<0.834)	ND (<0.852)	ND (<0.961)	ND (<1.15)	ND (<0.787)	ND (<0.631)	ND (<0.512)	ND (<0.77)	ND (<1.25)	ND (<1.01)	ND (<0.956)	ND (<1.02)
123678-HxCDD	--	ND (<0.939)	ND (<0.904)	ND (<0.918)	ND (<1.18)	ND (<0.796)	ND (<0.695)	ND (<0.564)	ND (<0.759)	ND (<1.36)	ND (<1.1)	ND (<0.909)	ND (<1.12)
123789-HxCDD	--	ND (<0.868)	ND (<0.86)	ND (<0.921)	ND (<1.14)	ND (<0.776)	ND (<0.649)	ND (<0.527)	ND (<0.75)	ND (<1.28)	ND (<1.03)	ND (<0.914)	ND (<1.05)
1234678-HpCDD	--	30.1	44	ND (<1.21)	ND (<1.68)	ND (<1.2)	ND (<0.97)	ND (<0.834)	22.2	ND (<1.23)	ND (<1)	14.1	ND (<1.61)
OCDD	--	155 J	314 J	62.8	ND (<3.51)	ND (<3.27)	ND (<1.89)	ND (<1.76)	189	40.4	52.5	114	117
2,3,7,8-TCDF	--	ND (<0.31)	ND (<0.295)	ND (<0.296)	ND (<0.322)	ND (<0.293)	ND (<0.253)	ND (<0.331)	ND (<0.317)	ND (<0.381)	ND (<0.345)	ND (<0.235)	ND (<0.363)
12378-PeCDF	--	ND (<0.424)	ND (<0.372)	ND (<0.385)	ND (<0.391)	ND (<0.319)	ND (<0.29)	ND (<0.328)	ND (<0.302)	ND (<0.421)	ND (<0.364)	ND (<0.273)	ND (<0.538)
23478-PeCDF	--	ND (<0.367)	ND (<0.294)	ND (<0.303)	ND (<0.35)	ND (<0.265)	ND (<0.245)	ND (<0.258)	ND (<0.249)	ND (<0.345)	ND (<0.304)	ND (<0.223)	ND (<0.419)
123478-HxCDF	--	ND (<0.495)	ND (<0.42)	ND (<0.375)	ND (<0.535)	ND (<0.343)	ND (<0.354)	ND (<0.395)	ND (<0.381)	ND (<0.564)	ND (<0.443)	ND (<0.325)	ND (<0.559)
123678-HxCDF	--	ND (<0.433)	ND (<0.42)	ND (<0.365)	ND (<0.527)	ND (<0.335)	ND (<0.307)	ND (<0.405)	ND (<0.389)	ND (<0.503)	ND (<0.416)	ND (<0.342)	ND (<0.572)
234678-HxCDF	--	ND (<0.555)	ND (<0.481)	ND (<0.387)	ND (<0.556)	ND (<0.356)	ND (<0.354)	ND (<0.434)	ND (<0.39)	ND (<0.579)	ND (<0.432)	ND (<0.336)	ND (<0.622)
123789-HxCDF	--	ND (<0.679)	ND (<0.671)	ND (<0.591)	ND (<0.766)	ND (<0.513)	ND (<0.454)	ND (<0.551)	ND (<0.57)	ND (<0.734)	ND (<0.545)	ND (<0.487)	ND (<0.76)
1234678-HpCDF	--	ND (<0.677)	ND (<0.732)	ND (<0.442)	ND (<0.703)	ND (<0.462)	ND (<0.372)	ND (<0.372)	ND (<0.439)	ND (<0.653)	ND (<0.417)	ND (<0.423)	ND (<0.587)
1234789-HpCDF	--	ND (<0.895)	ND (<1.03)	ND (<0.576)	ND (<0.81)	ND (<0.629)	ND (<0.545)	ND (<0.526)	ND (<0.6)	ND (<1.03)	ND (<0.62)	ND (<0.618)	ND (<0.919)
OCDF	--	ND (<3.32)	ND (<2.81)	ND (<2.19)	ND (<3.1)	ND (<2.79)	ND (<1.61)	ND (<1.64)	ND (<2.36)	ND (<2.01)	ND (<2.02)	ND (<1.96)	ND (<3.09)
Total TCDD	--	ND (<0.366)	ND (<0.437)	ND (<0.493)	ND (<0.458)	ND (<0.421)	ND (<0.425)	ND (<0.366)	ND (<0.487)	ND (<0.482)	ND (<0.423)	ND (<0.363)	ND (<0.468)
Total PeCDD	--	ND (<0.506)	ND (<0.584)	ND (<0.584)	ND (<0.737)	ND (<0.601)	ND (<0.428)	ND (<0.345)	ND (<0.417)	ND (<0.66)	ND (<0.592)	ND (<0.492)	ND (<0.568)
Total HxCDD	--	ND (<0.939)	ND (<0.904)	ND (<0.961)	ND (<1.18)	ND (<0.796)	ND (<0.695)	ND (<0.564)	ND (<0.77)	ND (<1.36)	ND (<1.1)	ND (<0.956)	ND (<1.12)
Total HpCDD	--	53.2	84.2	ND (<1.21)	ND (<1.68)	ND (<1.2)	ND (<0.97)	ND (<0.834)	41.7	ND (<1.23)	ND (<1)	27	ND (<1.61)
Total TCDF	--	ND (<0.31)	ND (<0.295)	ND (<0.296)	ND (<0.322)	ND (<0.293)	ND (<0.253)	ND (<0.331)	ND (<0.317)	ND (<0.381)	ND (<0.345)	ND (<0.235)	ND (<0.363)
Total PeCDF	--	ND (<0.424)	ND (<0.372)	ND (<0.385)	ND (<0.391)	ND (<0.319)	ND (<0.29)	ND (<0.328)	ND (<0.302)	ND (<0.421)	ND (<0.364)	ND (<0.273)	ND (<0.538)
Total HxCDF	--	ND (<0.679)	ND (<0.671)	ND (<0.591)	ND (<0.766)	ND (<0.513)	ND (<0.454)	ND (<0.551)	ND (<0.57)	ND (<0.734)	ND (<0.545)	ND (<0.487)	ND (<0.76)
Total HpCDF	--	ND (<0.895)	ND (<1.03)	ND (<0.591)	ND (<0.81)	ND (<0.629)	ND (<0.545)	ND (<0.526)	ND (<0.6)	ND (<1.03)	ND (<0.62)	ND (<0.618)	ND (<0.919)
TCDD TEQ	220	0.348	0.534	0.0188	0.0	0.0	0.0	0.0	0.279	0.0121	0.0158	0.175	0.0351

Notes:
Dioxins/Furans by EPA 8290A
Bold, Underlined and Highlighted = Analytical result exceeds screening levels
ND = not detected above the reporting limit (<RL)
pg/g = picogram/gram
SB = Soil boring
Screening level = 2,3,7,8-TCDD screening level based on California Department of Toxic Substances Control (DTSC) HERO note 2 (April 2017)
TEQ = Total Toxic Equivalency
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

Table 2
Summary of Dioxins/Furans Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID		**SB4-8**	**SB4-8A (Duplicate of SB4-8)**	**SB5-1**	**SB5-5**	**SB5-8**	**SB6-1**	**SB6-5**	**SB6-8**	**SB7-1**	**SB7-5**	**SB7-5A (Duplicate of SB7-5)**	**SB7-8**
Sample Date		**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**
Sample Depth (feet below ground surface)		**8**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**5A**	**8**
Analyte	**Screening Level**	**Dioxins/Furans - Soil (pg/g)**											
2,3,7,8-TCDD	--	ND (<0.444)	ND (<0.339)	ND (<0.418)	ND (<0.454)	ND (<0.329)	ND (<0.36)	ND (<0.364)	ND (<0.465)	ND (<0.468)	ND (<0.467)	ND (<0.263)	ND (<0.442)
12378-PeCDD	--	ND (<0.594)	ND (<0.577)	ND (<0.517)	ND (<0.628)	ND (<0.441)	ND (<0.577)	ND (<0.504)	ND (<0.816)	ND (<0.781)	ND (<0.564)	ND (<0.354)	ND (<0.508)
123478-HxCDD	--	ND (<0.924)	ND (<0.85)	ND (<0.782)	ND (<0.775)	ND (<0.718)	ND (<0.733)	ND (<0.621)	ND (<0.92)	ND (<0.876)	ND (<0.673)	ND (<0.517)	ND (<0.659)
123678-HxCDD	--	ND (<0.978)	ND (<0.892)	3.59	ND (<0.868)	ND (<0.748)	8.52	ND (<0.753)	9.98	ND (<1.04)	ND (<0.737)	ND (<0.578)	ND (<0.769)
123789-HxCDD	--	ND (<0.931)	ND (<0.853)	3	ND (<0.804)	ND (<0.718)	5.43	ND (<0.671)	6.78	ND (<0.938)	ND (<0.69)	ND (<0.536)	ND (<0.698)
1234678-HpCDD	--	9	7.34	12.7	10.2	4.28	15	ND (<1.22)	12.9	24.1	7.55 J	14.2 J	4.56
OCDD	--	49.4	39.4	48.7	43.1	25.1	78.7	11.2	55.4	330	92 J	232 J	15.6
2,3,7,8-TCDF	--	ND (<0.309)	ND (<0.263)	ND (<0.342)	ND (<0.361)	ND (<0.307)	43.3	3.50	140	ND (<0.386)	ND (<0.334)	ND (<0.229)	ND (<0.282)
12378-PeCDF	--	ND (<0.382)	ND (<0.377)	ND (<0.491)	ND (<0.568)	ND (<0.333)	2.19 J	ND (<0.445)	18.7	ND (<0.55)	ND (<0.412)	ND (<0.255)	ND (<0.358)
23478-PeCDF	--	ND (<0.312)	ND (<0.327)	ND (<0.378)	ND (<0.45)	ND (<0.272)	ND (<0.334)	ND (<0.332)	5.27	ND (<0.5)	ND (<0.342)	ND (<0.224)	ND (<0.299)
123478-HxCDF	--	ND (<0.557)	ND (<0.494)	ND (<0.52)	ND (<0.674)	ND (<0.425)	ND (<0.479)	ND (<0.52)	4.63	ND (<0.685)	ND (<0.46)	ND (<0.362)	ND (<0.419)
123678-HxCDF	--	ND (<0.505)	ND (<0.445)	ND (<0.511)	ND (<0.57)	ND (<0.401)	ND (<0.484)	ND (<0.477)	ND (<0.622)	ND (<0.639)	ND (<0.432)	ND (<0.34)	ND (<0.386)
234678-HxCDF	--	ND (<0.585)	ND (<0.518)	ND (<0.561)	ND (<0.7)	ND (<0.448)	ND (<0.567)	ND (<0.589)	ND (<0.76)	ND (<0.796)	ND (<0.467)	ND (<0.357)	ND (<0.434)
123789-HxCDF	--	ND (<0.825)	ND (<0.748)	ND (<0.793)	ND (<0.865)	ND (<0.648)	ND (<0.762)	ND (<0.675)	ND (<0.955)	ND (<0.887)	ND (<0.63)	ND (<0.5)	ND (<0.57)
1234678-HpCDF	--	ND (<0.79)	ND (<0.562)	ND (<0.731)	ND (<0.936)	ND (<0.561)	ND (<0.806)	ND (<0.694)	ND (<0.972)	ND (<0.91)	ND (<0.491) J	1.80 J	ND (<0.469)
1234789-HpCDF	--	ND (<1.11)	ND (<0.855)	ND (<1.01)	ND (<1.43)	ND (<0.742)	ND (<1.14)	ND (<1.08)	ND (<1.44)	ND (<1.43)	ND (<0.786)	ND (<0.664)	ND (<0.786)
OCDF	--	ND (<1.44)	ND (<2.74)	ND (<2.74)	ND (<2.7)	ND (<2.2)	ND (<2.98)	ND (<3.58)	ND (<2.97)	ND (<3.86)	ND (<2.5)	ND (<2.02)	ND (<2.76)
Total TCDD	--	ND (<0.444)	ND (<0.339)	ND (<0.418)	ND (<0.454)	ND (<0.329)	ND (<0.36)	ND (<0.364)	ND (<0.465)	7.50	ND (<0.467)	ND (<0.263)	ND (<0.442)
Total PeCDD	--	ND (<0.594)	ND (<0.577)	ND (<0.517)	ND (<0.628)	ND (<0.441)	ND (<0.577)	ND (<0.504)	ND (<0.816)	ND (<0.781)	ND (<0.564)	ND (<0.354)	ND (<0.508)
Total HxCDD	--	6.47	ND (<0.892)	22.2	9.86	7.72	57.5	4.67	62.6	ND (<1.04)	ND (<0.737) J	3.08 J	6.63
Total HpCDD	--	16.4	12.9	21.9	17.8	4.28	29.2	ND (<1.22)	25.8	45.8	14.8 J	28.8 J	9.36
Total TCDF	--	ND (<0.309)	ND (<0.263)	ND (<0.342)	ND (<0.361)	ND (<0.307)	88.6 M1	3.50	232 M1	14.6 M1	4.63 J	2.54 J	ND (<0.282)
Total PeCDF	--	ND (<0.382)	ND (<0.377)	ND (<0.491)	ND (<0.568)	ND (<0.333)	2.19	ND (<0.445)	34.4	ND (<0.55)	ND (<0.412)	ND (<0.255)	ND (<0.358)
Total HxCDF	--	ND (<0.825)	ND (<0.748)	ND (<0.793)	ND (<0.865)	ND (<0.648)	ND (<0.762)	ND (<0.675)	4.63	3.11	ND (<0.63) J	1.55 J	ND (<0.57)
Total HpCDF	--	ND (<1.11)	ND (<0.855)	ND (<1.01)	ND (<1.43)	ND (<0.742)	ND (<1.14)	ND (<1.08)	ND (<1.44)	ND (<1.43)	ND (<0.786) J	3.94 J	ND (<0.786)
TCDD TEQ	220	0.105	0.0852	0.801	0.115	0.0503	5.96	0.353	18.4	0.340	0.103	0.230	0.503

Notes:
Dioxins/Furans by EPA 8290A
Bold, Underlined and Highlighted = Analytical result exceeds screening levels
ND = not detected above the reporting limit (<RL)
pg/g = picogram/gram
SB = Soil boring
Screening level = 2,3,7,8-TCDD screening level based on California Department of Toxic Substances Control (DTSC) HERO note 2 (April 2017)
TEQ = Total Toxic Equivalency
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

Table 2
Summary of Dioxins/Furans Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID		**SB8-1**	**SB8-5**	**SB8-8**	**SB9-1**	**SB9-5**	**SB9-8**	**SB10-1**	**SB10-5**	**SB10-5A**	**SB10-8**	**SB11-1**	**SB11-5**
Sample Date		**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**
Sample Depth (feet below ground surface)		**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**5**	**8**	**0-0-5**	**5**
Analyte	**Screening Level**	**Dioxins/Furans - Soil (pg/g)**											
2,3,7,8-TCDD	--	ND (<0.38)	ND (<0.308)	ND (<0.296)	ND (<0.39)	ND (<0.419)	ND (<0.357)	ND (<0.356)	ND (<0.278)	ND (<0.308)	ND (<0.317)	ND (<0.457)	ND (<0.342)
12378-PeCDD	--	ND (<0.488)	ND (<0.366)	ND (<0.398)	ND (<0.474)	ND (<0.486)	ND (<0.499)	ND (<0.467)	ND (<0.349)	ND (<0.394)	ND (<0.378)	ND (<0.541)	ND (<0.421)
123478-HxCDD	--	ND (<0.68)	ND (<0.448)	ND (<0.579)	ND (<0.663)	ND (<0.634)	ND (<0.641)	ND (<0.601)	ND (<0.552)	ND (<0.659)	ND (<0.65)	ND (<0.698)	ND (<0.589)
123678-HxCDD	--	ND (<0.684)	ND (<0.454)	ND (<0.612)	ND (<0.756)	ND (<0.681)	ND (<0.693)	ND (<0.676)	ND (<0.594)	ND (<0.644)	ND (<0.623)	ND (<0.763)	ND (<0.599)
123789-HxCDD	--	ND (<0.668)	ND (<0.442)	ND (<0.583)	ND (<0.694)	ND (<0.643)	ND (<0.653)	ND (<0.625)	ND (<0.561)	ND (<0.637)	ND (<0.623)	ND (<0.715)	ND (<0.582)
1234678-HpCDD	--	ND (<1.08)	ND (<0.993)	ND (<1.02)	4.22	7.45	3.87	19.6	2.83	2.85	ND (<0.947)	51.4	32.5
OCDD	--	ND (<3.03)	ND (<2.43)	ND (<2.72)	24.2	40.7	24.4	79.7	12.7	16	ND (<2.31)	887	551
2,3,7,8-TCDF	--	ND (<0.251)	ND (<0.208)	ND (<0.191)	ND (<0.293)	ND (<0.312)	ND (<0.305)	ND (<0.307)	ND (<0.278)	ND (<0.268)	ND (<0.272)	ND (<0.298)	ND (<0.316)
12378-PeCDF	--	ND (<0.294)	ND (<0.206)	ND (<0.239)	ND (<0.344)	ND (<0.34)	ND (<0.336)	ND (<0.346)	ND (<0.315)	ND (<0.29)	ND (<0.297)	ND (<0.335)	ND (<0.314)
23478-PeCDF	--	ND (<0.232)	ND (<0.166)	ND (<0.192)	ND (<0.271)	ND (<0.259)	ND (<0.267)	ND (<0.273)	ND (<0.263)	ND (<0.233)	ND (<0.245)	ND (<0.277)	ND (<0.252)
123478-HxCDF	--	ND (<0.34)	ND (<0.236)	ND (<0.282)	ND (<0.45)	ND (<0.347)	ND (<0.376)	ND (<0.471)	ND (<0.342)	ND (<0.317)	ND (<0.311)	ND (<0.351)	ND (<0.267)
123678-HxCDF	--	ND (<0.358)	ND (<0.258)	ND (<0.286)	ND (<0.489)	ND (<0.361)	ND (<0.367)	ND (<0.454)	ND (<0.344)	ND (<0.348)	ND (<0.336)	ND (<0.329)	ND (<0.29)
234678-HxCDF	--	ND (<0.361)	ND (<0.268)	ND (<0.316)	ND (<0.498)	ND (<0.395)	ND (<0.423)	ND (<0.502)	ND (<0.348)	ND (<0.333)	ND (<0.342)	ND (<0.353)	ND (<0.302)
123789-HxCDF	--	ND (<0.522)	ND (<0.377)	ND (<0.453)	ND (<0.598)	ND (<0.51)	ND (<0.547)	ND (<0.627)	ND (<0.514)	ND (<0.493)	ND (<0.51)	ND (<0.518)	ND (<0.418)
1234678-HpCDF	--	ND (<0.48)	ND (<0.335)	ND (<0.532)	ND (<0.491)	ND (<0.458)	ND (<0.452)	1.57 J	ND (<0.46)	ND (<0.478)	ND (<0.376)	3.87	2.65
1234789-HpCDF	--	ND (<0.716)	ND (<0.511)	ND (<0.537)	ND (<0.735)	ND (<0.665)	ND (<0.753)	ND (<0.707)	ND (<0.675)	ND (<0.673)	ND (<0.522)	ND (<0.621)	ND (<0.488)
OCDF	--	ND (<2.41)	ND (<2.04)	ND (<2.36)	ND (<2.59)	ND (<2.22)	ND (<1.94)	ND (<1.13)	ND (<1.95)	ND (<2)	ND (<1.8)	ND (<2.22)	ND (<1.92)
Total TCDD	--	ND (<0.38)	ND (<0.308)	ND (<0.296)	10.3	9.23	3.34	ND (<0.356)	ND (<0.278)	ND (<0.308)	ND (<0.317)	ND (<0.457)	ND (<0.342)
Total PeCDD	--	ND (<0.488)	ND (<0.366)	ND (<0.398)	4.34	6.82	ND (<0.499)	ND (<0.467)	ND (<0.349)	ND (<0.394)	ND (<0.378)	ND (<0.541)	ND (<0.421)
Total HxCDD	--	ND (<0.684)	ND (<0.454)	ND (<0.612)	ND (<0.756)	ND (<0.681)	ND (<0.693)	5.93	ND (<0.594)	ND (<0.659)	ND (<0.65)	9.86	4.70
Total HpCDD	--	ND (<1.08)	ND (<0.993)	ND (<1.02)	8.55	14.3	6.92	35.1	5.17 J	2.85 J	ND (<0.947)	104	65.6
Total TCDF	--	ND (<0.251)	ND (<0.208)	19.8 J	ND (<0.293)	ND (<0.312)	ND (<0.305)	ND (<0.307)	ND (<0.278)	ND (<0.268)	ND (<0.272)	ND (<0.298)	ND (<0.316)
Total PeCDF	--	ND (<0.294)	ND (<0.206)	ND (<0.239)	ND (<0.344)	ND (<0.34)	ND (<0.336)	ND (<0.346)	ND (<0.315)	ND (<0.29)	ND (<0.297)	ND (<0.353)	ND (<0.314)
Total HxCDF	--	ND (<0.522)	ND (<0.377)	ND (<0.453)	ND (<0.598)	ND (<0.51)	ND (<0.547)	2.37	ND (<0.514)	ND (<0.493)	ND (<0.51)	7.74	4.95
Total HpCDF	--	ND (<0.716)	ND (<0.511)	ND (<0.537)	ND (<0.735)	ND (<0.665)	ND (<0.753)	3.94	ND (<0.675)	ND (<0.673)	ND (<0.522)	9.65	6.10
TCDD TEQ	220	0.0	0.0	0.0	0.0495	0.867	0.0460	0.24	0.0321	0.0333	0.0	0.819	0.368

Notes:
Dioxins/Furans by EPA 8290A
Bold, Underlined and Highlighted = Analytical result exceeds screening levels
ND = not detected above the reporting limit (<RL)
pg/g = picogram/gram
SB = Soil boring
Screening level = 2,3,7,8-TCDD screening level based on California Department of Toxic Substances Control (DTSC) HERO note 2 (April 2017)
TEQ = Total Toxic Equivalency
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

Table 2
Summary of Dioxins/Furans Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID		**SB11-8**	**SB12-1**	**SB12-5**	**SB12-8**	**SB13-1**	**SB13-5**	**SB13-8**	**SB14-1**	**SB14-5**	**SB14-8**	**SB15-1**	**SB15-5**
Sample Date		**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/28/2019**	**06/26/2019**	**06/28/2019**	**06/28/2019**	**06/26/2019**	**06/28/2019**
Sample Depth (feet below ground surface)		**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**	**8**	**0-0-5**	**5**
Analyte	**Screening Level**	**Dioxins/Furans - Soil (pg/g)**											
2,3,7,8-TCDD	--	ND (<0.308)	ND (<0.282)	ND (<0.345)	ND (<0.369)	ND (<0.356)	ND (<0.343)	ND (<0.37)	ND (<0.444)	ND (<0.199)	ND (<0.179)	ND (<0.46)	ND (<0.35)
12378-PeCDD	--	ND (<0.418)	ND (<0.332)	ND (<0.436)	ND (<0.473)	ND (<0.416)	ND (<0.475)	ND (<0.459)	ND (<0.485)	ND (<0.319)	ND (<0.275)	ND (<0.533)	ND (<0.354)
123478-HxCDD	--	ND (<0.543)	ND (<0.466)	ND (<0.618)	ND (<0.673)	ND (<0.672)	ND (<0.741)	ND (<0.761)	ND (<0.607)	ND (<0.413)	ND (<0.36)	ND (<0.924)	ND (<0.538)
123678-HxCDD	--	ND (<0.592)	ND (<0.519)	ND (<0.689)	ND (<0.66)	ND (<0.675)	ND (<0.819)	ND (<0.783)	ND (<0.778)	ND (<0.393)	ND (<0.411)	ND (<1.04)	ND (<0.515)
123789-HxCDD	--	ND (<0.556)	ND (<0.482)	ND (<0.639)	ND (<0.653)	ND (<0.66)	ND (<0.763)	ND (<0.756)	ND (<0.674)	ND (<0.395)	ND (<0.377)	ND (<0.961)	ND (<0.515)
1234678-HpCDD	--	ND (<0.886)	3.49	ND (<0.793)	ND (<0.892)	ND (<0.85)	ND (<1.25)	ND (<1.06)	ND (<0.971)	10.1	19.3	ND (<1.56)	35.9
OCDD	--	ND (<2.47)	29.2	ND (<1.82)	5.50	10.5	ND (<3.21)	ND (<3)	ND (<2.15)	51.1	159	149	228
2,3,7,8-TCDF	--	ND (<0.307)	ND (<0.187)	ND (<0.216)	ND (<0.308)	ND (<0.322)	ND (<0.305)	ND (<0.319)	ND (<0.363)	ND (<0.248)	ND (<0.182)	ND (<0.331)	ND (<0.326)
12378-PeCDF	--	ND (<0.357)	ND (<0.22)	ND (<0.274)	ND (<0.357)	ND (<0.39)	ND (<0.369)	ND (<0.37)	ND (<0.416)	ND (<0.196)	ND (<0.218)	ND (<0.469)	ND (<0.308)
23478-PeCDF	--	ND (<0.278)	ND (<0.185)	ND (<0.224)	ND (<0.281)	ND (<0.321)	ND (<0.32)	ND (<0.293)	ND (<0.313)	ND (<0.159)	ND (<0.179)	ND (<0.372)	ND (<0.247)
123478-HxCDF	--	ND (<0.355)	ND (<0.237)	ND (<0.306)	ND (<0.39)	ND (<0.494)	ND (<0.506)	ND (<0.454)	ND (<0.38)	ND (<0.232)	ND (<0.271)	ND (<0.546)	ND (<0.314)
123678-HxCDF	--	ND (<0.371)	ND (<0.219)	ND (<0.274)	ND (<0.413)	ND (<0.514)	ND (<0.468)	ND (<0.506)	ND (<0.334)	ND (<0.252)	ND (<0.246)	ND (<0.438)	ND (<0.344)
234678-HxCDF	--	ND (<0.407)	ND (<0.246)	ND (<0.308)	ND (<0.421)	ND (<0.515)	ND (<0.512)	ND (<0.518)	ND (<0.413)	ND (<0.25)	ND (<0.271)	ND (<0.587)	ND (<0.341)
123789-HxCDF	--	ND (<0.52)	ND (<0.331)	ND (<0.423)	ND (<0.654)	ND (<0.759)	ND (<0.684)	ND (<0.859)	ND (<0.484)	ND (<0.383)	ND (<0.367)	ND (<0.719)	ND (<0.542)
1234678-HpCDF	--	ND (<0.445)	ND (<0.279)	ND (<0.408)	ND (<0.582)	ND (<0.51)	ND (<0.491)	ND (<0.516)	ND (<0.517)	ND (<0.353)	ND (<0.477)	ND (<1.03)	ND (<0.445)
1234789-HpCDF	--	ND (<0.683)	ND (<0.418)	ND (<0.612)	ND (<0.766)	ND (<0.683)	ND (<0.781)	ND (<0.799)	ND (<0.756)	ND (<0.501)	ND (<0.744)	ND (<1.52)	ND (<0.644)
OCDF	--	ND (<2.44)	ND (<1.71)	ND (<2.16)	ND (<2.49)	ND (<2.43)	ND (<3.06)	ND (<3.11)	ND (<2.24)	ND (<1.72)	ND (<1.91)	ND (<2.8)	ND (<2.07)
Total TCDD	--	ND (<0.308)	ND (<0.282)	ND (<0.345)	ND (<0.369)	ND (<0.356)	ND (<0.343)	ND (<0.37)	ND (<0.444)	18.4	5.76	ND (<0.46)	3.28
Total PeCDD	--	ND (<0.418)	ND (<0.332)	ND (<0.436)	ND (<0.473)	ND (<0.416)	ND (<0.475)	ND (<0.459)	ND (<0.485)	14.6	2.14	ND (<0.533)	ND (<0.354)
Total HxCDD	--	ND (<0.592)	ND (<0.519)	ND (<0.689)	ND (<0.673)	ND (<0.675)	ND (<0.819)	ND (<0.783)	ND (<0.778)	5.13	3.45	ND (<1.04)	4.81
Total HpCDD	--	ND (<0.886)	7.60	ND (<0.793)	ND (<0.892)	ND (<0.85)	ND (<1.25)	ND (<1.06)	ND (<0.971)	18.4	34.6	ND (<1.56)	63.2
Total TCDF	--	ND (<0.307)	ND (<0.187)	ND (<0.216)	ND (<0.308)	ND (<0.322)	ND (<0.305)	ND (<0.319)	ND (<0.363)	5.97	ND (<0.182)	ND (<0.331)	ND (<0.326)
Total PeCDF	--	ND (<0.357)	ND (<0.22)	ND (<0.274)	ND (<0.357)	ND (<0.39)	ND (<0.369)	ND (<0.37)	ND (<0.416)	ND (<0.196)	ND (<0.218)	ND (<0.469)	ND (<0.308)
Total HxCDF	--	ND (<0.52)	ND (<0.331)	ND (<0.423)	ND (<0.654)	ND (<0.759)	ND (<0.684)	ND (<0.859)	ND (<0.484)	ND (<0.383)	1.24	ND (<0.719)	ND (<0.542)
Total HpCDF	--	ND (<0.683)	ND (<0.418)	ND (<0.612)	ND (<0.766)	ND (<0.683)	ND (<0.781)	ND (<0.799)	ND (<0.756)	ND (<0.501)	3.90	ND (<1.52)	ND (<0.644)
TCDD TEQ	220	0.0	0.0437	0.0	0.00165	0.00315	0.0	0.0	0.0	0.116	0.241	0.0447	0.427

Notes:
Dioxins/Furans by EPA 8290A
Bold, Underlined and Highlighted = Analytical result exceeds screening levels
ND = not detected above the reporting limit (<RL)
pg/g = picogram/gram
SB = Soil boring
Screening level = 2,3,7,8-TCDD screening level based on California Department of Toxic Substances Control (DTSC) HERO note 2 (April 2017)
TEQ = Total Toxic Equivalency
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

Table 2
Summary of Dioxins/Furans Analytical Data - Soil Samples
Phase II Investigation Targeted Brownfields Assessment
1 TCF Drive, Samoa, CA

Sample ID		**SB15-5A (Duplicate of SB15-5)**	**SB15-8**	**SB16-1**	**SB16-5**	**SB16-8**
Sample Date		**06/28/2019**	**06/28/2019**	**06/26/2019**	**06/28/2019**	**06/28/2019**
Sample Depth (feet below ground surface)		**5**	**8**		**5**	**8**
Analyte	**Screening Level**	**Dioxins/Furans - Soil (pg/g)**				
2,3,7,8-TCDD	--	ND (<0.41)	ND (<0.175)	ND (<0.311)	ND (<0.272)	ND (<0.473)
12378-PeCDD	--	ND (<0.399)	ND (<0.256)	ND (<0.344)	ND (<0.328)	ND (<0.524)
123478-HxCDD	--	ND (<0.643)	ND (<0.357)	ND (<0.933)	ND (<0.485)	ND (<0.733)
123678-HxCDD	--	ND (<0.695)	ND (<0.365)	27.3	ND (<0.534)	ND (<0.726)
123789-HxCDD	--	ND (<0.655)	2.17 J	13.5	ND (<0.499)	ND (<0.715)
1234678-HpCDD	--	24.3	32.2	409	17.3	5.66
OCDD	--	165	186	2,600	132	32.4
2,3,7,8-TCDF	--	ND (<0.281)	0.358 J	57.9	ND (<0.238)	ND (<0.355)
12378-PeCDF	--	ND (<0.32)	ND (<0.168)	15.4	ND (<0.264)	ND (<0.377)
23478-PeCDF	--	ND (<0.268)	ND (<0.144)	13.8	ND (<0.224)	ND (<0.301)
123478-HxCDF	--	ND (<0.363)	ND (<0.185)	13.9	ND (<0.318)	ND (<0.374)
123678-HxCDF	--	ND (<0.341)	ND (<0.185)	5.91	ND (<0.295)	ND (<0.394)
234678-HxCDF	--	ND (<0.366)	ND (<0.191)	5.69	ND (<0.331)	ND (<0.405)
123789-HxCDF	--	ND (<0.523)	ND (<0.287)	ND (<0.532)	ND (<0.451)	ND (<0.604)
1234678-HpCDF	--	ND (<0.461)	1.20 J	44.3	ND (<0.422)	ND (<0.493)
1234789-HpCDF	--	ND (<0.71)	ND (<0.396)	ND (<0.827)	ND (<0.639)	ND (<0.74)
OCDF	--	ND (<2.44)	ND (<1.23)	113	ND (<2.24)	ND (<2.34)
Total TCDD	--	3.26	4.25	ND (<0.311)	3.83	14.9
Total PeCDD	--	ND (<0.399)	2.02	ND (<0.344)	2.14	8.09
Total HxCDD	--	5.84	8.43	139	3.04	ND (<0.733)
Total HpCDD	--	44.3	57.2	957	30.6	11.2
Total TCDF	--	ND (<0.281)	4.55 J	328	ND (<0.238)	ND (<0.355)
Total PeCDF	--	ND (<0.32)	ND (<0.168)	142	ND (<0.264)	ND (<0.377)
Total HxCDF	--	ND (<0.523)	1.81	110	ND (<0.451)	ND (<0.604)
Total HpCDF	--	ND (<0.71)	3.31	124	ND (<0.639)	ND (<0.74)
TCDD TEQ	220	0.293	0.643	22.4	0.213	0.0663

Notes:
Dioxins/Furans by EPA 8290A
Bold, Underlined and Highlighted = Analytical result exceeds screening levels
ND = not detected above the reporting limit (<RL)
pg/g = picogram/gram
SB = Soil boring
Screening level = 2,3,7,8-TCDD screening level based on California Department of Toxic Substances Control (DTSC) HERO note 2 (April 2017)
TEQ = Total Toxic Equivalency
J = Indicates that the concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB1

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 6"				
	AB 12"				
	Fine sand, moist, brown		725	SB1-1	
2	Distinct color change to black, fine sand, 2' 6" through 8'				
4					
	Fine sand, black, moist		745	SB1-5	
6					
8					
			800	SB1-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: B. Milton

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB2

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 6"				
	AB 8"				
	Light to medium brown, fine sand				
			825	SB2-1	
2					
4					
	Light to medium brown, fine sand, moist		830	SB2-5	
6					
8					
	Light to medium brown, fine sand, moist		840	SB2-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB3

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Asphalt 4"				
	AB 16"				
	Gray/dark gray, fine sand		855	SB3-1	
2					
4					
	Gray/dark gray, fine sand, moist		905	SB3-5	
6					
	Gravel / fill / fine sand				
	Fine sand, grading to black/dark gray, moist				
			910	SB3-8	
8					

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB4

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 12"				
	AB 14"	14"-20"	920	SB4-1	
2	Medium brown, fine sand				
3					
	Dark gray, fine sand, moist				
4					
		4'	930	SB4-5	
	Dark gray, fine sand, moist				
		5'			
6					
			935	SB4-8	
8	Dark gray, fine sand, petroleum odor, moist				

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

Petroleum odor noted at 8 feet bgs.

DATE: 6/28/19	PAGE:
DRILLING METHOD: Direct Push	
DRILLED BY: Cascade	
LOGGED BY: T. Holz	

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB5

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 10"				
	AB, dark gray fines	12"-18"	945	SB5-1	
2	Dark gray, fine sand, moist				
4			1000	SB5-5	
	Fine sand, color change to black, moist, faint petroleum odor,				
6					
	Dark gray/black fine sand, moist, faint petroleum odor		1010	SB5-8	
8					

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

Faint petroleum odor noted from approx. 5 to 8 feet bgs.

DATE: 6/28/19	PAGE:
DRILLING METHOD: Direct Push	
DRILLED BY: Cascade	
LOGGED BY: T. Holz	

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB6

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 18"	12"-18"	1025	SB6-1	
2	Fine sand, light brown to light gray, moist				
3	Fine sand grades to darker brown at 3' bgs, moist				
4		4'-5'	1035	SB6-5	
6	Grades to light gray at 6' bgs, moist				
8	Fine sand, light gray, moist	7'-8'	1040	SB6-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: B. Milton

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB7

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Concrete 8"				
	Medium brown fine sand	12'-16'	1055	SB7-1	
2					
		2'	1100	SB7-5	
				SB7-5A	
	Medium brown, fine sand, moist				
4					
	Medium brown, fine sand, moist	5'			
6					
8	Medium brown, fine sand, moist		1105	SB7-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19	PAGE:
DRILLING METHOD: Direct Push	
DRILLED BY: Cascade	
LOGGED BY: T. Holz	

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB8

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Asphalt 4"				
	Medium brown, fine sand				
		12"-16"	1120	SB8-1	
2					
4					
	Medium brown, fine sand, moist				
		5'	1125	SB8-5	
6					
	Medium brown, fine sand, moist		1135	SB8-8	
8				MS/MSD	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB9

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	AB 12"				
	Medium brown, fine sand	14"	1410	SB9-1	
2					
4					
	Medium brown, fine sand, moist		1415	SB9-5	
6					
8	Medium brown, fine sand, moist		1420	SB9-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB10

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	AB 1'				
	Medium brown, fine sand, moist	12"-14"	1340	SB10-1	
2					
4					
	Medium brown, fine sand, moist		1350	SB10-5 SB10-5A	
6					
8	Medium brown, fine sand, moist		1355	SB10-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19	PAGE:
DRILLING METHOD: Direct Push	
DRILLED BY: Cascade	
LOGGED BY: T. Holz	

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB11

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
2	Concrete ~30"				
	Medium brown, fine sand, moist	2.5'-3'	1445	SB11-1	
4					
	Medium brown, fine sand, moist		1450	SB11-5	
6					
8	Medium brown, fine sand, moist		1455	SB11-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19
PAGE:
DRILLING METHOD: Direct Push
DRILLED BY: Cascade
LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB12

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Asphalt 3"				
	AB 18" (large gravel)				
2	Medium brown, fine sand, moist		1155	SB12-1	
4					
	Medium brown, fine sand, moist		1200	SB12-5	
6					
8	Medium brown, fine sand, moist		1205	SB12-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19
PAGE:
DRILLING METHOD: Direct Push
DRILLED BY: Cascade
LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB13

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Asphalt 3"				
	AB 9"				
	Medium brown, fine sand, moist		1310	SB13-1	
2					
4					
	Medium brown, fine sand, moist		1315	SB13-5	
6					
8					
	Medium brown, fine sand, moist		1320	SB13-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB14

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Medium brown, fine sand				
		18"	6/26/2019	SB14-1	
2	Medium brown, fine sand, moist		1145		
4	Medium brown, fine sand, moist				
			1615	SB14-5	
6	Medium brown, fine sand, moist				
8	, moistMedium brown, fine sand				
			1625	SB14-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB15

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	Medium brown, fine sand				
		18"	6/26/2019	SB15-1	
2	Medium brown, fine sand, moist		1100		
4					
	Medium brown, fine sand		1550	SB15-5	
				SB15-5A	
6					
8	Medium brown, fine sand				
			1605	SB15-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

LOGGED BY: T. Holz

TDD No. 006/1302-T6-R9-19-04-0001
Project No. 20409.012.006.0223.00

SOIL BORING LOG	CLIENT: U.S. EPA	PROJECT: Samoa 1 TCF Dr. TBA	LOCATION: Samoa, CA	SOIL BORING ID: SB16

DEPTH (FT)	LITHOLOGIC DESCRIPTION	SAMPLE COLLECTED	SAMPLE TIME	SAMPLE ID	REMARKS/FIELD OBSERVATIONS
	AB 18"				
2	Medium brown, fine sand		6/26/2019 1030	SB16-1	
4					
	Medium brown, fine sand, moist		1510	SB16-5	
6					
8	Medium brown, fine sand, moist		1520	SB16-8	

Describe the following: soil type, grain size, color, consistency, odor, presence of debris/biological activity/oil sheen

EXPLANATION

DATE: 6/28/19

PAGE:

DRILLING METHOD: Direct Push

DRILLED BY: Cascade

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SAMOA 1 TCF DR. TBA
DATA VALIDATION REPORT

Date: July 22, 2019
Laboratory: Orange Coast Analytical, Inc., Tustin, CA
Laboratory Job Number: WST 24484
Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)
Data Validation Reviewed By: Tara Johnson, WESTON START
Weston Work Order #: 20409.012.006.0223.00

This data validation report has been prepared by WESTON START under the START IV U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 56 soil and 2 water samples collected for the Samoa 1 TCF Dr. TBA that were analyzed for the following parameters and EPA methods:

- Total Petroleum Hydrocarbons (TPH) as Diesel Range Organics (DRO) and Motor Oil Range Organics (MRO) by SW-846 Method 8015B
- TPH as Gasoline Range Organics (GRO) by SW-846 Method 8015B
- Volatile Organic Compounds (VOCs) by SW-846 Method 8260B
- California Administrative Manual (CAM) 17 Metals by SW-846 Methods 6010B/7470A/7471A
- Dioxins and Furans by SW-846 Method 8290A

A level II data package was received from Orange Coast Analytical, Inc., Tustin, CA. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated January 2017 and the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2017. The Attachment contains the results summary sheets with any hand-written qualifiers applied during data validation.

TPH as DRO and MRO by SW-846 METHOD 8015B

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
WC1	24484-057	6/28/2019	Soil	7/3/2019	7/5/2019

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use" dated January 13, 2009. For the TPH as DRO

and MRO analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The sample was received within the recommended temperature limit of ≤6 ºC and extracted and analyzed within the recommended holding time limits of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

One method blank was analyzed with the sample group and was free of target compound contamination above the reporting limits (RLs).

4. Surrogates

The surrogate recovery for the sample (149%) was outside the laboratory-established quality control (QC) limits (38-148%). The results for TPH as DRO were qualified as estimated (J) in sample WC1. No qualification of data was needed for TPH as MRO as surrogate recovery was high and TPH as MRO was not detected in the sample.

5. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair (with TPH as DRO) was analyzed with the sample, and recoveries and the relative percent difference (RPD) were within laboratory-established QC limits.

6. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

A sample outside the sample set was used for MS/MSD analyses.

7. Field Duplicate Results

The sample set did not include a field duplicate pair.

8. Overall Assessment

In addition to the qualifier discussed above, the data validator applied a “U” qualifier to sample results reported by the laboratory as below the RL.

The TPH as DRO and MRO data are acceptable for use as qualified based on the information received.

TPH as GRO by SW-846 METHOD 8015B

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
WC1	24484-057	6/28/2019	Soil	6/28/2019	7/8/2019

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use" dated January 13, 2009. For the TPH as GRO analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

The laboratory noted that results were quantitated against a gasoline standard.

2. Holding Times

The samples were received within the recommended temperature limit of ≤6 ºC and extracted and analyzed within the recommended holding time limits of 48 hours from sample collection to extraction and 14 days from extraction to analysis.

3. Blanks

One method blank was analyzed with the sample and was free of target compound contamination above the RL.

4. Surrogate Results

The surrogate recovery results were within the laboratory-established QC limits for the sample.

5. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample group and recoveries and the RPD were within laboratory-established QC limits.

6. MS and MSD Results

A sample outside the sample set was used for MS/MSD analyses.

7. Field Duplicate Results

The sample set did not include a field duplicate pair.

8. Overall Assessment

The data validator applied a "U" qualifier to sample results reported by the laboratory as below the RL.

The TPH as GRO data are acceptable for use based as qualified on the information received.

VOCs by SW-846 METHOD 8260B

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
WC1	24484-057	6/28/2019	Soil	6/28/2019	7/2/2019

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use" dated January 13, 2009. For the VOCs analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The sample was received within the recommended temperature limit of ≤6 ºC and extracted and analyzed within the recommended holding time limits of 48 hours from sample collection to extraction and 14 days from extraction to analysis.

3. Blanks

One method blank was analyzed with the sample group and was free of target compound contamination above the RLs.

4. Surrogate Results

The surrogate recovery results were within the laboratory-established QC limits for the sample.

5. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample and recoveries and RPDs were within laboratory-established QC limits.

6. MS and MSD Results

A sample outside the sample set was used for MS/MSD analyses.

7. Field Duplicate Results

The sample set did not include a field duplicate pair.

8. Overall Assessment

The data validator applied "U" qualifiers to sample results reported by the laboratory as below the RL.

The VOCs data are acceptable for use based as qualified on the information received.

CAM 17 METALS by SW-846 METHODS 6010B/7470A/7471A

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Prepared		Date Analyzed	
				Mercury	Metals	Mercury	Metals
SB16-1	24484-001	6/26/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB15-1	24484-002	6/26/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB14-1	24484-003	6/26/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
EB-1	24484-004	6/26/2019	Water	7/2/2019	7/5/2019	7/3/2019	7/8/2019
SB1-1	24484-005	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB1-1A	24484-006	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB1-5	24484-007	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB1-8	24484-008	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB2-1	24484-009	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB2-5	24484-010	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB2-5MS/MSD	24484-011	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB2-8	24484-012	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB3-1	24484-013	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB3-5	24484-014	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB3-8	24484-015	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB4-1	24484-016	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB4-5	24484-017	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB4-8	24484-018	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB4-8A	24484-019	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB5-1	24484-020	6/28/2019	Soil	7/5/2019	7/3/2019	7/5/2019	7/8/2019
SB5-5	24484-021	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB5-8	24484-022	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB6-1	24484-023	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB6-5	24484-024	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019

Sample	Lab ID	Date Collected	Matrix	Date Prepared		Date Analyzed	
				Mercury	Metals	Mercury	Metals
SB6-8	24484-025	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB7-1	24484-026	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB7-5	24484-027	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB7-8	24484-028	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB8-1	24484-029	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB8-5	24484-030	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB8-8	24484-031	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB8-8MS/MSD	24484-032	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB12-1	24484-033	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB12-5	24484-034	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB12-8	24484-035	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB13-1	24484-036	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB13-5	24484-037	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB13-8	24484-038	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB10-1	24484-039	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB10-5	24484-040	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB10-5A	24484-041	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB10-8	24484-042	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB9-1	24484-043	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB9-5	24484-044	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB9-8	24484-045	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB11-1	24484-046	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB11-5	24484-047	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB11-8	24484-048	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB16-5	24484-049	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB16-8	24484-050	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB15-5	24484-051	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB15-5A	24484-052	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB15-8	24484-053	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB14-5	24484-054	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB14-8	24484-055	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
EB2	24484-056	6/28/2019	Water	7/9/2019	7/5/2019	7/10/2019	7/8/2019
WC1	24484-057	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019
SB7-5A	24484-058	6/28/2019	Soil	7/5/2019	7/3/2019	7/8/2019	7/8/2019

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use" dated January 13, 2009. For the metals analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were received within the recommended temperature limit of ≤6 ºC and were extracted and analyzed within the recommended holding time limits of 28 days for mercury and 180 days for all other metals.

3. Blank Results

Method blanks were analyzed with the soil sample group (three blanks each for metals and mercury) and with the water sample group (one blank for metals and two blanks for mercury). All method blanks were free of target compound contamination above the RLs. In addition, the equipment blanks, EB-1 and EB2, were free of target compound contamination above the RLs.

4. LCS and LCSD Results

LCS/LCSD pairs were analyzed with the soil sample group (three pairs each for metals and mercury) and with the water sample group (one pair for metals and two pairs for mercury). The recoveries and RPDs were within QC limits (80-120% and ≤20%, respectively).

5. MS and MSD Results

Samples SB2-5MS/MSD, SB8-8MS/MSD, and SB10-5A were each used for metals and mercury MS/MSD analyses for the soil sample group, and samples EB-1 and EB2 were used for metals and mercury MS/MSD analyses, respectively, for the water sample group. The recoveries of all analytes were within QC limits (75-125% for metals and 80-120% for mercury) with the following exceptions:

- for sample SB2-5MS/MSD, antimony (46%), nickel (71 and 74%), and thallium (72 and 74%)
- for sample SB8-8MS/MSD, antimony (37 and 38%), nickel (70%; MS only), and thallium (72 and 74%)
- for sample SB10-5A, antimony (17 and 18%), chromium (57%; MS only), mercury (69%; MSD only), nickel (58%; MS only), thallium (72 and 74%), and vanadium (70%; MS only)

All RPDs were within QC limits (≤20%), except for mercury for sample SB10-5A (28%).

The results for antimony, nickel, and thallium were qualified as estimated (J for detects and UJ for nondetects) in samples SB2-5, SB2-5MS/MSD, SB8-8, SB8-8MS/MSD, SB10-5 (part of field duplicate pair with SB10-5A), and SB10-5A. In addition, the results for chromium, mercury, and vanadium were qualified as estimated in samples SB10-5 and SB10-5A.

The MS and MSD recoveries were outside the 75-125% criteria for chromium in sample SB8-8MS/MSD. However, the concentration of chromium in the unspiked sample was greater than four times the amount of the spiked concentration; therefore, no action was required.

6. Field Duplicate Results

The sample set included five field duplicate pairs:

- SB1-1 and SB1-1A
- SB4-8 and SB4-8A
- SB7-5 and SB7-5A
- SB10-5 and SB10-5A
- SB15-5 and SB15-5A

The RPDs were within QC limits (≤50%) for all detected analytes, with the exception of chromium (55%) in sample pair SB10-5 and SB10-5A. The results for chromium in samples SB10-5 and SB10-5A were qualified as estimated (J).

RPDs were also evaluated for pair SB2-5 and SB2-5MS/MSD, and for pair SB8-8 and SB8-8MS/MSD. The RPDs for detected analytes were ≤32%.

7. Overall Assessment

In addition to the qualifiers discussed above, the data validator applied "U" qualifiers to sample results reported by the laboratory as below the RL.

Sample SB4-1 was diluted (2x) for the determination of silver due to high concentration of silver.

The metals data are acceptable for use as qualified based on the information received.

DIOXINS AND FURANS by SW-846 METHOD 8290A

The following table summarizes the samples for which this data validation is being conducted. Samples were analyzed by subcontract laboratory CERES Analytical Laboratory, Inc. in El Dorado Hills, CA.

Sample	Lab ID	Subcontract Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
SB16-1	24484-001	12899-001	6/26/2019	Soil	7/3/2019	7/4/2019, 7/16/2019
SB15-1	24484-002	12899-002	6/26/2019	Soil	7/3/2019	7/4/2019
SB14-1	24484-003	12899-003	6/26/2019	Soil	7/3/2019	7/4/2019
EB-1	24484-004	12899-004	6/26/2019	Water	7/14/2019	7/16/2019
SB1-1	24484-005	12899-005	6/28/2019	Soil	7/3/2019	7/4/2019
SB1-1A	24484-006	12899-006	6/28/2019	Soil	7/3/2019	7/4/2019
SB1-5	24484-007	12899-007	6/28/2019	Soil	7/3/2019	7/4/2019
SB1-8	24484-008	12899-008	6/28/2019	Soil	7/3/2019	7/4/2019
SB2-1	24484-009	12899-009	6/28/2019	Soil	7/3/2019	7/5/2019

Sample	Lab ID	Subcontract Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
SB2-5	24484-010	12899-010	6/28/2019	Soil	7/3/2019	7/5/2019
SB2-8	24484-012	12899-012	6/28/2019	Soil	7/4/2019	7/6/2019
SB3-1	24484-013	12899-013	6/28/2019	Soil	7/4/2019	7/6/2019
SB3-5	24484-014	12899-014	6/28/2019	Soil	7/4/2019	7/6/2019
SB3-8	24484-015	12899-015	6/28/2019	Soil	7/4/2019	7/6/2019
SB4-1	24484-016	12899-016	6/28/2019	Soil	7/4/2019	7/6/2019
SB4-5	24484-017	12899-017	6/28/2019	Soil	7/4/2019	7/6/2019
SB4-8	24484-018	12899-018	6/28/2019	Soil	7/4/2019	7/12/2019
SB4-8A	24484-019	12899-019	6/28/2019	Soil	7/4/2019	7/12/2019
SB5-1	24484-020	12899-020	6/28/2019	Soil	7/4/2019	7/12/2019
SB5-5	24484-021	12899-021	6/28/2019	Soil	7/4/2019	7/12/2019
SB5-8	24484-022	12899-022	6/28/2019	Soil	7/5/2019	7/12/2019
SB6-1	24484-023	12899-023	6/28/2019	Soil	7/5/2019	7/12/2019, 7/16/2019
SB6-5	24484-024	12899-024	6/28/2019	Soil	7/5/2019	7/12/2019, 7/16/2019
SB6-8	24484-025	12899-025	6/28/2019	Soil	7/5/2019	7/13/2019, 7/16/2019
SB7-1	24484-026	12899-026	6/28/2019	Soil	7/5/2019	7/13/2019
SB7-5	24484-027	12899-027	6/28/2019	Soil	7/5/2019	7/13/2019
SB7-8	24484-028	12899-028	6/28/2019	Soil	7/5/2019	7/14/2019
SB8-1	24484-029	12899-029	6/28/2019	Soil	7/5/2019	7/14/2019
SB8-5	24484-030	12899-030	6/28/2019	Soil	7/5/2019	7/14/2019
SB8-8	24484-031	12899-031	6/28/2019	Soil	7/5/2019	7/14/2019
SB12-1	24484-033	12899-033	6/28/2019	Soil	7/11/2019	7/14/2019
SB12-5	24484-034	12899-034	6/28/2019	Soil	7/11/2019	7/14/2019
SB12-8	24484-035	12899-035	6/28/2019	Soil	7/11/2019	7/14/2019
SB13-1	24484-036	12899-036	6/28/2019	Soil	7/11/2019	7/14/2019
SB13-5	24484-037	12899-037	6/28/2019	Soil	7/11/2019	7/15/2019
SB13-8	24484-038	12899-038	6/28/2019	Soil	7/11/2019	7/15/2019
SB10-1	24484-039	12899-039	6/28/2019	Soil	7/11/2019	7/15/2019
SB10-5	24484-040	12899-040	6/28/2019	Soil	7/11/2019	7/15/2019
SB10-5A	24484-041	12899-041	6/28/2019	Soil	7/11/2019	7/15/2019
SB10-8	24484-042	12899-042	6/28/2019	Soil	7/11/2019	7/15/2019
SB9-1	24484-043	12899-043	6/28/2019	Soil	7/12/2019	7/15/2019
SB9-5	24484-044	12899-044	6/28/2019	Soil	7/12/2019	7/15/2019
SB9-8	24484-045	12899-045	6/28/2019	Soil	7/12/2019	7/15/2019
SB11-1	24484-046	12899-046	6/28/2019	Soil	7/12/2019	7/15/2019
SB11-5	24484-047	12899-047	6/28/2019	Soil	7/12/2019	7/15/2019
SB11-8	24484-048	12899-048	6/28/2019	Soil	7/12/2019	7/15/2019
SB16-5	24484-049	12899-049	6/28/2019	Soil	7/12/2019	7/15/2019
SB16-8	24484-050	12899-050	6/28/2019	Soil	7/12/2019	7/15/2019
SB15-5	24484-051	12899-051	6/28/2019	Soil	7/12/2019	7/15/2019
SB15-5A	24484-052	12899-052	6/28/2019	Soil	7/12/2019	7/15/2019
SB15-8	24484-053	12899-053	6/28/2019	Soil	7/14/2019	7/15/2019

Sample	Lab ID	Subcontract Lab ID	Date Collected	Matrix	Date Prepared	Date Analyzed
SB14-5	24484-054	12899-054	6/28/2019	Soil	7/14/2019	7/16/2019
SB14-8	24484-055	12899-055	6/28/2019	Soil	7/14/2019	7/16/2019
EB2	24484-056	12899-056	6/28/2019	Water	7/14/2019	7/16/2019
WC1	24484-057	12899-057	6/28/2019	Soil	7/14/2019	7/16/2019
SB7-5A	24484-058	12899-058	6/28/2019	Soil	7/14/2019	7/16/2019

Note that samples SB2-5MS/MSD (Lab ID 24484-011) and SB8-8MS/MSD (Lab ID 24484-032) were only used for MS/MSD analyses; individual results for these samples were not reported.

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use" dated January 13, 2009. For the dioxins and furans analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

The subcontract laboratory noted that sample results are reported on a dry-weight basis.

2. Holding Times

The samples were received within the recommended temperature limit of ≤6 ºC, and extracted and analyzed within the required holding time limits of 30 days from sample collection to extraction and 45 days from extraction to analysis.

3. Blanks

Six method blanks were analyzed with the soil sample group and one method blank was analyzed with the water sample group. All blanks were free of target compound contamination above the sample-specific detection limits (DLs). In addition, the equipment blanks, EB-1 and EB2, were free of target compound contamination above the DLs.

4. Recovery Standards

The recovery standard (labeled standard) results were within the laboratory-established QC limits (40-135%) for all standards in all samples.

5. LCS and LCSD Results

Six LCS/LCSD pairs were analyzed with the soil sample group and one LCS/LCSD pair was analyzed with the water sample group. The subcontract laboratory reported percent recoveries and percent relative standard deviation (RSD) for each analyte in the LCS/LCSD pair but did not

identify QC limits for recoveries or RSDs. The recoveries were within standard QC limits of 70-130% with the following exceptions:

- for the LCS/LCSD pair prepared 7/4/2019, 2,3,7,8-TCDD (132%; LCS only) and OCDF (142%; LCSD only)
- for the LCS/LCSD pair prepared 7/14/19, OCDF (133 and 136%)

The %RSDs were ≤13.65% for the LCS/LCSD pairs analyzed with the soil sample group, and ≤5.14% for the LCS/LCSD pair analyzed with the water sample group.

No qualification of data is necessary as the LCS/LCSD recovery was high and the affected analytes were not detected in the associated samples.

6. MS and MSD Results

Samples SB2-5MS/MSD and SB8-8MS/MSD were used for MS/MSD analyses for the soil sample group. As for LCS/LCSD analyses, the subcontract laboratory reported percent recoveries and %RSD for each analyte in the MS/MSD pair but did not identify QC limits for recoveries or RSDs. The recoveries were within standard QC limits of 70-130% with the following exceptions:

- for sample SB2-5MS/MSD, OCDF (135 and 137%)
- for sample SB8-8MS/MSD, OCDF (133 and 134%)

The %RSDs were ≤9.00%.

No qualification of data is necessary as recovery of OCDF was high and no OCDF was detected in sample SB2-5 or SB8-8.

No MS/MSD analyses were conducted for the water sample group.

7. Field Duplicate Results

The sample set included five field duplicate pairs:

- SB1-1 and SB1-1A
- SB4-8 and SB4-8A
- SB7-5 and SB7-5A
- SB10-5 and SB10-5A
- SB15-5 and SB15-5A

The RPDs were within QC limits (≤50%) for all detected analytes, with the following exceptions:

- for sample pair SB1-1 and SB1-1A, OCDD (68%)
- for sample pair SB7-5 and SB7-5A, 1,2,3,4,6,7,8-HpCDD (61%), OCDD (86%), 1,2,3,4,6,7,8-HpCDF (114%), total HxCDD (123%), total HpCDD (64%), total TCDF (58%), total HxCDF (84%), and total HpCDF (133%)

- for sample pair SB10-5 and SB10-5A, total HpCDD (58%)

The following results were qualified as estimated (J for detects and UJ for nondetects): OCDD in sample pair SB1-1 and SB1-1A; 1,2,3,4,6,7,8-HpCDD, OCDD, 1,2,3,4,6,7,8-HpCDF, total HxCDD, total HpCDD, total TCDF, total HxCDF, and total HpCDF in sample pair SB7-5 and SB7-5A; and total HpCDD in sample pair SB10-5 and SB10-5A.

8. Overall Assessment

The laboratory provided estimated maximum possible concentration (EMPC) values in the following cases; EMPC values are provided when there is an ion abundance ratio failure:

- for total TCDF in sample SB6-1
- for total TCDF in sample SB6-8
- for total TCDF in sample SB7-1
- for total TCDF in sample SB8-8
- for total TCDF in sample SB15-8

In each case, the data validator replaced the reported concentration for total TCDF with the EMPC value and added an “EMPC” qualifier.

CERES Analytical Laboratory flagged sample results with the following laboratory qualifier:

J: Indicates concentration found below the lower quantitation limit but greater than zero. The data validator left these qualifiers in place.

In addition to the qualifiers discussed above, the data validator applied “U” qualifiers to sample results reported by the laboratory as below the DL.

The dioxins and furans data are acceptable for use as qualified based on the information received.

ATTACHMENT

ORANGE COAST ANALYTICAL, INC.
RESULTS SUMMARY WITH QUALIFIERS

Mr. Brian Milton
Weston Solutions, Inc.
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Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Diesel Range Organics - DROs (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
WC1	24484-057	7/2/2019	6/28/2019 17:30	7/3/2019 14:20	7/5/2019 12:15	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
DROs	11 J	Octacosane	149

Dilution Factor: 1
Data Qualifiers: S1,
* Acc Recovery: 38-148 %

WC1	24484-057	7/2/2019	6/28/2019 17:30	7/3/2019 14:20	7/5/2019 12:15	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
MROs	<50 U	Octacosane	149

Dilution Factor: 1
Data Qualifiers: S1,
* Acc Recovery: 38-148 %

KAL 7/22/19

Method Blank	MBTS0703192			7/3/2019 14:20	7/5/2019 9:46	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
DROs	<10	Octacosane	126

Dilution Factor: 1
Data Qualifiers: None
* Acc Recovery: 38-148 %

Method Blank	MBTS0703192			7/3/2019 14:20	7/5/2019 9:46	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
MROs	<50	Octacosane	126

Dilution Factor: 1
Data Qualifiers: None
* Acc Recovery: 38-148 %

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Gasoline Range Organics - GROs (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
WC1	24484-057	7/2/2019	6/28/2019 17:30	6/28/2019 17:30	7/8/2019 13:37	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20 U	α-α-α-Trifluorotoluene	85

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 55-130 %

KAL 7/22/19

Method Blank	MBTS0708192		7/8/2019 12:30	7/8/2019 12:42	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	88

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 55-130 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
WC1	24484-057	7/2/2019	6/28/2019 17:30	6/28/2019 17:30	7/2/2019 15:09	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10 u	trans-1,3-Dichloropropene	10061-02-6	<2.5 u
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	Xylenes, Total	1330-20-7	<2.0
1,2-Dichloroethane	107-06-2	<2.5	GROs	8006-61-9	<250
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

KOL 7/22/19

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	81	49-130 %
Toluene-d8:	85	60-130 %
4-Bromofluorobenzene:	86	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB16-1	24484-001	7/2/2019	6/26/2019 10:30	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Barium	6010B	78	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Cadmium	6010B	1.8	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Chromium	6010B	65	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Copper	6010B	120	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Lead	6010B	14	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 16:51	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Nickel	6010B	120	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Vanadium	6010B	38	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1
Zinc	6010B	120	mg/kg	07/03/19 15:00	07/08/19 10:57	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB15-1	24484-002	7/2/2019	6/26/2019 11:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Chromium	6010B	70	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Cobalt	6010B	8.2	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Copper	6010B	5.2	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Lead	6010B	5.7	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 16:52	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Nickel	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1
Zinc	6010B	37	mg/kg	07/03/19 15:00	07/08/19 11:00	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB14-1	24484-003	7/2/2019	6/26/2019 11:45	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Barium	6010B	25	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Chromium	6010B	55	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Cobalt	6010B	7.8	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Lead	6010B	2.7	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 16:54	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Nickel	6010B	40	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Vanadium	6010B	34	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1
Zinc	6010B	25	mg/kg	07/03/19 15:00	07/08/19 11:08	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB1-1	24484-005	7/2/2019	6/28/2019 7:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Barium	6010B	54	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Chromium	6010B	54	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Cobalt	6010B	9.4	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Copper	6010B	13	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Lead	6010B	6.6	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 16:56	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Nickel	6010B	47	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Vanadium	6010B	39	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1
Zinc	6010B	43	mg/kg	07/03/19 15:00	07/08/19 11:10	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB1-1A	24484-006	7/2/2019	6/28/2019 7:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Barium	6010B	54	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Chromium	6010B	72	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Copper	6010B	14	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Lead	6010B	6.3	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:01	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1
Zinc	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:13	--	1

KDL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB1-5	24484-007	7/2/2019	6/28/2019 7:45	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Barium	6010B	19	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Chromium	6010B	74	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Cobalt	6010B	9.3	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Copper	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Lead	6010B	3.2	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 17:03	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Nickel	6010B	50	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 11:15	--	1

KA 7/22/19

Mr. Brian Milton
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2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB1-8	24484-008	7/2/2019	6/28/2019 8:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Barium	6010B	25	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Chromium	6010B	65	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Cobalt	6010B	9.2	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Copper	6010B	5.0	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Lead	6010B	3.0	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:05	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Nickel	6010B	46	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Vanadium	6010B	35	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 11:17	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB2-1	24484-009	7/2/2019	6/28/2019 8:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Arsenic	6010B	2.2	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Barium	6010B	110	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Chromium	6010B	50	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Cobalt	6010B	13	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Copper	6010B	23	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Lead	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:06	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Nickel	6010B	57	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Vanadium	6010B	48	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1
Zinc	6010B	49	mg/kg	07/03/19 15:00	07/08/19 11:20	--	1

KA 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB2-5	24484-010	7/2/2019	6/28/2019 8:30	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Chromium	6010B	64	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Cobalt	6010B	8.6	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Copper	6010B	5.1	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Lead	6010B	3.0	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 17:08	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Nickel	6010B	45 J	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 11:22	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB2-5MS/MSD	24484-011	7/2/2019	6/28/2019 8:30	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Chromium	6010B	62	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Cobalt	6010B	9.0	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Copper	6010B	5.1	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Lead	6010B	3.2	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 16:45	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Nickel	6010B	47 J	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Vanadium	6010B	39	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 10:31	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB2-8	24484-012	7/2/2019	6/28/2019 8:40	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Chromium	6010B	37	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Cobalt	6010B	6.2	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Lead	6010B	2.1	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:10	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Nickel	6010B	33	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Vanadium	6010B	25	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1
Zinc	6010B	21	mg/kg	07/03/19 15:00	07/08/19 11:24	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB3-1	24484-013	7/2/2019	6/28/2019 8:55	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Barium	6010B	85	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Chromium	6010B	60	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Cobalt	6010B	14	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Copper	6010B	30	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Lead	6010B	6.9	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:12	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Nickel	6010B	54	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Vanadium	6010B	49	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1
Zinc	6010B	47	mg/kg	07/03/19 15:00	07/08/19 11:27	--	1

KAL 7/22/19

Mr. Brian Milton
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Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB3-5	24484-014	7/2/2019	6/28/2019 9:05	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Barium	6010B	33	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Chromium	6010B	74	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Cobalt	6010B	8.9	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Copper	6010B	5.7	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/05/19 17:13	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Nickel	6010B	46	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Vanadium	6010B	38	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 11:29	--	1

KAL 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB3-8	24484-015	7/2/2019	6/28/2019 9:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Barium	6010B	34	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Chromium	6010B	74	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Copper	6010B	8.3	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Lead	6010B	3.7	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:15	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Nickel	6010B	47	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 11:37	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB4-1	24484-016	7/2/2019	6/28/2019 9:15	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Barium	6010B	52	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Chromium	6010B	60	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Cobalt	6010B	12	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Copper	6010B	25	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Lead	6010B	3.9	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:17	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Silver	6010B	37	mg/kg	07/03/19 15:00	07/08/19 13:49	D2,	2
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Vanadium	6010B	43	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1
Zinc	6010B	48	mg/kg	07/03/19 15:00	07/08/19 11:39	--	1

KA 7/22/19

Mr. Brian Milton
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Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB4-5	24484-017	7/2/2019	6/28/2019 9:30	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Barium	6010B	37	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Chromium	6010B	80	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Copper	6010B	8.2	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Lead	6010B	6.1	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:22	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Vanadium	6010B	43	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1
Zinc	6010B	32	mg/kg	07/03/19 15:00	07/08/19 11:42	--	1

KAL 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB4-8	24484-018	7/2/2019	6/28/2019 9:35	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Chromium	6010B	74	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Cobalt	6010B	9.8	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Copper	6010B	5.3	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:24	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Nickel	6010B	50	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Vanadium	6010B	42	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 11:44	--	1

KAL 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB4-8A	24484-019	7/2/2019	6/28/2019 9:35	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Chromium	6010B	68	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Cobalt	6010B	9.6	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Copper	6010B	5.2	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Lead	6010B	3.1	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:25	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Nickel	6010B	48	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 11:46	--	1

KAR 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB5-1	24484-020	7/2/2019	6/28/2019 9:45	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Barium	6010B	77	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Chromium	6010B	53	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Cobalt	6010B	16	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Copper	6010B	28	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Lead	6010B	4.8	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/05/19 17:27	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Nickel	6010B	67	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Vanadium	6010B	47	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1
Zinc	6010B	48	mg/kg	07/03/19 15:00	07/08/19 11:49	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB5-5	24484-021	7/2/2019	6/28/2019 10:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Barium	6010B	21	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Chromium	6010B	55	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Cobalt	6010B	7.0	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Lead	6010B	2.0	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 11:59	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Nickel	6010B	36	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Vanadium	6010B	31	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1
Zinc	6010B	22	mg/kg	07/03/19 15:00	07/08/19 11:51	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB5-8	24484-022	7/2/2019	6/28/2019 10:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Barium	6010B	26	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Chromium	6010B	76	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Cobalt	6010B	9.2	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Lead	6010B	2.7	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:01	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Nickel	6010B	49	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Vanadium	6010B	34	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 11:54	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB6-1	24484-023	7/2/2019	6/28/2019 10:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Barium	6010B	18	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Chromium	6010B	59	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Cobalt	6010B	4.4	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Lead	6010B	<0.80 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:03	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Nickel	6010B	13	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Vanadium	6010B	26	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1
Zinc	6010B	11	mg/kg	07/03/19 15:00	07/08/19 11:56	--	1

KAL 7/22/19

Mr. Brian Milton
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2300 Clayton Rd Ste 900
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB6-5	24484-024	7/2/2019	6/28/2019 10:35	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Barium	6010B	24	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Chromium	6010B	68	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Cobalt	6010B	6.6	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Lead	6010B	2.6	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:05	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Nickel	6010B	34	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1
Zinc	6010B	23	mg/kg	07/03/19 15:00	07/08/19 11:58	--	1

KAL 7/22/19

Mr. Brian Milton
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2300 Clayton Rd Ste 900
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB6-8	24484-025	7/2/2019	6/28/2019 10:40	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Barium	6010B	31	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Chromium	6010B	52	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Cobalt	6010B	4.1	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Lead	6010B	4.4	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:10	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Nickel	6010B	14	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Vanadium	6010B	25	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1
Zinc	6010B	9.8	mg/kg	07/03/19 15:00	07/08/19 12:06	--	1

KM 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB7-1	24484-026	7/2/2019	6/28/2019 10:55	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Chromium	6010B	71	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Copper	6010B	7.6	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:12	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Nickel	6010B	46	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 12:08	--	1

KAL 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB7-5	24484-027	7/2/2019	6/28/2019 11:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Barium	6010B	24	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Chromium	6010B	72	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Cobalt	6010B	9.4	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Copper	6010B	5.7	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:13	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Nickel	6010B	47	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Vanadium	6010B	39	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 12:11	--	1

KR 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB7-8	24484-028	7/2/2019	6/28/2019 11:05	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Chromium	6010B	65	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Cobalt	6010B	9.3	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Copper	6010B	5.0	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Lead	6010B	3.1	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:15	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Nickel	6010B	49	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 12:13	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB8-1	24484-029	7/2/2019	6/28/2019 11:20	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Arsenic	6010B	2.1	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Chromium	6010B	46	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Cobalt	6010B	8.6	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Copper	6010B	5.2	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Lead	6010B	2.9	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:17	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Nickel	6010B	41	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 12:15	--	1

KN 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB8-5	24484-030	7/2/2019	6/28/2019 11:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Chromium	6010B	60	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Cobalt	6010B	7.7	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Lead	6010B	2.3	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:19	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Nickel	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Vanadium	6010B	33	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1
Zinc	6010B	23	mg/kg	07/03/19 15:00	07/08/19 12:18	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB8-8	24484-031	7/2/2019	6/28/2019 11:35	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Arsenic	6010B	2.0	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Barium	6010B	29	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Chromium	6010B	78	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Cobalt	6010B	9.3	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Lead	6010B	3.2	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:21	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Nickel	6010B	49 J	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 12:20	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB8-8MS/MSD	24484-032	7/2/2019	6/28/2019 11:35	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Barium	6010B	21	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Chromium	6010B	84	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Cobalt	6010B	9.2	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Copper	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Lead	6010B	3.1	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 11:54	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Nickel	6010B	47 J	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 10:43	--	1

KR 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB12-1	24484-033	7/2/2019	6/28/2019 11:55	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Chromium	6010B	70	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Cobalt	6010B	9.2	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Lead	6010B	3.2	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:22	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Nickel	6010B	47	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 12:22	--	1

KAC 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB12-5	24484-034	7/2/2019	6/28/2019 12:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Arsenic	6010B	2.0	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Barium	6010B	30	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Chromium	6010B	78	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Cobalt	6010B	9.9	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Copper	6010B	5.3	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Lead	6010B	3.3	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:24	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Nickel	6010B	52	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 12:25	--	1

KR 7/22/19

Mr. Brian Milton
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2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB12-8	24484-035	7/2/2019	6/28/2019 12:05	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Chromium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Cobalt	6010B	7.6	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Lead	6010B	2.8	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:26	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Nickel	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Vanadium	6010B	29	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1
Zinc	6010B	24	mg/kg	07/03/19 15:00	07/08/19 12:27	--	1

KRL 7/22/19

Mr. Brian Milton
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2300 Clayton Rd Ste 900
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB13-1	24484-036	7/2/2019	6/28/2019 13:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Barium	6010B	60	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Chromium	6010B	63	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Cobalt	6010B	13	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Copper	6010B	18	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Lead	6010B	4.2	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:31	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Nickel	6010B	56	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Vanadium	6010B	44	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1
Zinc	6010B	38	mg/kg	07/03/19 15:00	07/08/19 12:35	--	1

KR 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB13-5	24484-037	7/2/2019	6/28/2019 13:15	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Chromium	6010B	60	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Cobalt	6010B	9.1	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Copper	6010B	5.1	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:33	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Nickel	6010B	46	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Vanadium	6010B	39	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 12:37	--	1

KBL 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB13-8	24484-038	7/2/2019	6/28/2019 13:20	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Barium	6010B	19	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Chromium	6010B	55	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Cobalt	6010B	8.1	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Lead	6010B	2.8	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 11:11	07/08/19 12:34	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Nickel	6010B	45	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Vanadium	6010B	32	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1
Zinc	6010B	26	mg/kg	07/03/19 15:00	07/08/19 12:40	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB10-1	24484-039	7/2/2019	6/28/2019 13:40	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Barium	6010B	100	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Chromium	6010B	65	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Cobalt	6010B	9.3	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Copper	6010B	17	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Lead	6010B	21	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 11:11	07/08/19 12:36	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Nickel	6010B	50	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1
Zinc	6010B	61	mg/kg	07/03/19 15:00	07/08/19 12:42	--	1

KA 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB10-5	24484-040	7/2/2019	6/28/2019 13:50	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Chromium	6010B	38 J	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Cobalt	6010B	5.9	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Lead	6010B	2.1	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Mercury	7471A	<0.10 UJ	mg/kg	07/05/19 11:11	07/08/19 12:38	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Nickel	6010B	32 J	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Vanadium	6010B	24 J	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1
Zinc	6010B	21	mg/kg	07/03/19 15:00	07/08/19 12:44	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB10-5A	24484-041	7/2/2019	6/28/2019 13:50	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Chromium	6010B	67 J	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Cobalt	6010B	9.0	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Copper	6010B	5.5	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Lead	6010B	3.3	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Mercury	7471A	<0.10 UJ	mg/kg	07/05/19 10:04	07/08/19 12:45	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Nickel	6010B	46 J	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Thallium	6010B	<2.0 UJ	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Vanadium	6010B	40 J	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 10:50	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB10-8	24484-042	7/2/2019	6/28/2019 13:55	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Barium	6010B	28	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Chromium	6010B	75	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Cobalt	6010B	9.5	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Lead	6010B	3.2	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 12:54	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Nickel	6010B	51	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 12:47	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB9-1	24484-043	7/2/2019	6/28/2019 14:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Barium	6010B	26	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Chromium	6010B	76	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Cobalt	6010B	9.6	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Copper	6010B	5.6	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Lead	6010B	3.6	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 12:55	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Nickel	6010B	51	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 12:49	--	1

KAL 7/22/19

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Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB9-5	24484-044	7/2/2019	6/28/2019 14:15	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Barium	6010B	26	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Chromium	6010B	83	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Copper	6010B	5.2	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Lead	6010B	3.8	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 12:57	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Nickel	6010B	51	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Vanadium	6010B	42	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 12:52	--	1

KM 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB9-8	24484-045	7/2/2019	6/28/2019 14:20	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Barium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Chromium	6010B	63	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Cobalt	6010B	8.1	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Lead	6010B	2.9	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 12:59	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Nickel	6010B	42	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Vanadium	6010B	34	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1
Zinc	6010B	25	mg/kg	07/03/19 15:00	07/08/19 12:54	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB11-1	24484-046	7/2/2019	6/28/2019 14:45	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Barium	6010B	20	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Chromium	6010B	59	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Cobalt	6010B	8.6	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Copper	6010B	7.0	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Lead	6010B	3.0	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:00	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Nickel	6010B	44	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Vanadium	6010B	35	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1
Zinc	6010B	25	mg/kg	07/03/19 15:00	07/08/19 12:56	--	1

KAL 7/02/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB11-5	24484-047	7/2/2019	6/28/2019 14:50	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Barium	6010B	22	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Chromium	6010B	80	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Cobalt	6010B	18	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Copper	6010B	53	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Lead	6010B	4.1	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:02	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Vanadium	6010B	38	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 13:04	--	1

KAC 7/22/19

Mr. Brian Milton
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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB11-8	24484-048	7/2/2019	6/28/2019 14:55	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Barium	6010B	19	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Chromium	6010B	47	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Cobalt	6010B	7.3	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Lead	6010B	2.4	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:04	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Nickel	6010B	39	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Vanadium	6010B	30	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1
Zinc	6010B	23	mg/kg	07/03/19 15:00	07/08/19 13:06	--	1

KA 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB16-5	24484-049	7/2/2019	6/28/2019 15:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Arsenic	6010B	2.3	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Barium	6010B	21	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Chromium	6010B	75	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Cobalt	6010B	9.4	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Copper	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Lead	6010B	3.3	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:06	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Nickel	6010B	49	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Vanadium	6010B	42	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 13:09	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB16-8	24484-050	7/2/2019	6/28/2019 15:20	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Barium	6010B	28	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Chromium	6010B	59	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Cobalt	6010B	8.0	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Copper	6010B	8.3	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Lead	6010B	2.9	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:07	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Nickel	6010B	43	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Vanadium	6010B	35	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1
Zinc	6010B	27	mg/kg	07/03/19 15:00	07/08/19 13:11	--	1

KRL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB15-5	24484-051	7/2/2019	6/28/2019 15:50	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Barium	6010B	21	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Chromium	6010B	94	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Copper	6010B	5.5	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Lead	6010B	3.3	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:13	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Vanadium	6010B	45	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 13:14	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB15-5A	24484-052	7/2/2019	6/28/2019 15:50	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Barium	6010B	30	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Chromium	6010B	100	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Cobalt	6010B	10	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Copper	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Lead	6010B	3.5	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:14	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Nickel	6010B	53	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Vanadium	6010B	44	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 13:16	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB15-8	24484-053	7/2/2019	6/28/2019 16:05	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Barium	6010B	27	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Chromium	6010B	77	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Cobalt	6010B	9.3	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Copper	6010B	5.1	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Lead	6010B	3.5	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:16	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Nickel	6010B	47	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Vanadium	6010B	40	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 13:18	--	1

KAL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB14-5	24484-054	7/2/2019	6/28/2019 16:15	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Chromium	6010B	77	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Cobalt	6010B	9.6	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Copper	6010B	<5.0 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Lead	6010B	3.6	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:18	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Nickel	6010B	49	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Vanadium	6010B	41	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1
Zinc	6010B	29	mg/kg	07/03/19 15:00	07/08/19 13:21	--	1

KBL 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB14-8	24484-055	7/2/2019	6/28/2019 16:25	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Barium	6010B	23	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Chromium	6010B	68	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Cobalt	6010B	8.8	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Copper	6010B	<5.0 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:20	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Nickel	6010B	46	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Vanadium	6010B	38	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 13:23	--	1

KM 7/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
WC1	24484-057	7/2/2019	6/28/2019 17:30	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Arsenic	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Barium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Beryllium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Cadmium	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Chromium	6010B	67	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Cobalt	6010B	9.0	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Copper	6010B	6.6	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Lead	6010B	4.1	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Mercury	7471A	<0.10 u	mg/kg	07/05/19 10:04	07/08/19 13:22	--	1
Molybdenum	6010B	<1.0 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Nickel	6010B	45	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Selenium	6010B	<4.8 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Silver	6010B	<0.50 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Thallium	6010B	<2.0 u	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Vanadium	6010B	36	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1
Zinc	6010B	30	mg/kg	07/03/19 15:00	07/08/19 13:25	--	1

KAL 9/22/19

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Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SB7-5A	24484-058	7/2/2019	6/28/2019 11:00	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Arsenic	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Barium	6010B	21	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Beryllium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Cadmium	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Chromium	6010B	71	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Cobalt	6010B	9.2	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Copper	6010B	5.4	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Lead	6010B	3.4	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Mercury	7471A	<0.10 U	mg/kg	07/05/19 10:04	07/08/19 13:23	--	1
Molybdenum	6010B	<1.0 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Nickel	6010B	49	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Selenium	6010B	<4.8 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Silver	6010B	<0.50 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Thallium	6010B	<2.0 U	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Vanadium	6010B	39	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1
Zinc	6010B	28	mg/kg	07/03/19 15:00	07/08/19 13:33	--	1

KR 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
EB-1	24484-004	7/2/2019	6/26/2019 12:15	Water

ANALYTE	EPA Method	Result		Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<0.10	U	mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Arsenic	6010B	<0.040		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Barium	6010B	<0.020		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Beryllium	6010B	<0.010		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Cadmium	6010B	<0.010		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Chromium	6010B	<0.010		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Cobalt	6010B	<0.050		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Copper	6010B	<0.10		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Lead	6010B	<0.040		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Mercury	7470A	<0.0010		mg/L	07/02/19 12:56	07/03/19 17:27	--	1
Molybdenum	6010B	<0.050		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Nickel	6010B	<0.020		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Selenium	6010B	<0.10		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Silver	6010B	<0.010		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Thallium	6010B	<0.10		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Vanadium	6010B	<0.010		mg/L	07/05/19 17:00	07/08/19 14:58	--	1
Zinc	6010B	<0.10		mg/L	07/05/19 17:00	07/08/19 14:58	--	1

KAL 7/22/19

Mr. Brian Milton
Weston Solutions, Inc.
2300 Clayton Rd Ste 900
Concord, CA, 94520

Lab Reference #: WST 24484
Project Name: Samoa 1 TCF Dr.
Project #: 20409.016.006.0223.00

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
EB2	24484-056	7/2/2019	6/28/2019 17:00	Water

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<0.10 U	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Arsenic	6010B	<0.040	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Barium	6010B	<0.020	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Beryllium	6010B	<0.010	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Cadmium	6010B	<0.010	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Chromium	6010B	<0.010	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Cobalt	6010B	<0.050	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Copper	6010B	<0.10	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Lead	6010B	<0.040	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Mercury	7470A	<0.0010	mg/L	07/09/19 11:00	07/10/19 10:10	--	1
Molybdenum	6010B	<0.050	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Nickel	6010B	<0.020	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Selenium	6010B	<0.10	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Silver	6010B	<0.010	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Thallium	6010B	<0.10	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Vanadium	6010B	<0.010	mg/L	07/05/19 15:00	07/08/19 15:05	--	1
Zinc	6010B	<0.10	mg/L	07/05/19 15:00	07/08/19 15:05	--	1

KDL 7/22/19

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB16-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-001	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 10:30	**Sample Size:** 13.50 g **% Solids:** 76.1	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.311 U	0.172	0.487		13C-2378-TCDD	114	40-135	
12378-PeCDD	DL= 0.344 U	0.327	2.43		13C-12378-PeCDD	95.7	40-135	
123478-HxCDD	DL= 0.933 U	0.327	2.43		13C-123478-HxCDD	89.9	40-135	
123678-HxCDD	27.3	0.655	2.43		13C-123678-HxCDD	95.2	40-135	
123789-HxCDD	13.5	0.315	2.43		13C-1234678-HpCDD	65.5	40-135	
1234678-HpCDD	409	0.409	2.43		13C-OCDD	45.5	40-135	
OCDD	2,600	1.01	4.87		13C-2378-TCDF	134	40-135	
2,3,7,8-TCDF	57.9	0.0886	0.487		13C-12378-PeCDF	93.2	40-135	
12378-PeCDF	15.4	0.412	2.43		13C-23478-PeCDF	106	40-135	
23478-PeCDF	13.8	0.422	2.43		13C-123478-HxCDF	125	40-135	
123478-HxCDF	13.9	0.518	2.43		13C-123678-HxCDF	133	40-135	
123678-HxCDF	5.91	0.533	2.43		13C-234678-HxCDF	129	40-135	
234678-HxCDF	5.69	0.319	2.43		13C-123789-HxCDF	116	40-135	
123789-HxCDF	DL= 0.532 U	0.425	2.43		13C-1234678-HpCDF	91.1	40-135	
1234678-HpCDF	44.3	0.279	2.43		13C-1234789-HpCDF	85.7	40-135	
1234789-HpCDF	DL= 0.827 U	0.378	2.43					
OCDF	113	0.461	4.87					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.311 U	
Total PeCDD	DL= 0.344 U	
Total HxCDD	139	
Total HpCDD	957	
Total TCDF	328	
Total PeCDF	142	
Total HxCDF	110	
Total HpCDF	124	

CRS

37Cl4-2378-TCDD	115	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 22.4 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB15-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-002	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 11:00	**Sample Size:** 12.43 g **% Solids:** 80.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.460 U	0.172	0.501		13C-2378-TCDD	101	40-135	
12378-PeCDD	DL= 0.533	0.327	2.51		13C-12378-PeCDD	81.4	40-135	
123478-HxCDD	DL= 0.924	0.327	2.51		13C-123478-HxCDD	84.0	40-135	
123678-HxCDD	DL= 1.04	0.655	2.51		13C-123678-HxCDD	80.8	40-135	
123789-HxCDD	DL= 0.961	0.315	2.51		13C-1234678-HpCDD	59.5	40-135	
1234678-HpCDD	DL= 1.56	0.409	2.51		13C-OCDD	47.1	40-135	
OCDD	149	1.01	5.01		13C-2378-TCDF	124	40-135	
2,3,7,8-TCDF	DL= 0.331 U	0.0886	0.501		13C-12378-PeCDF	84.7	40-135	
12378-PeCDF	DL= 0.469	0.412	2.51		13C-23478-PeCDF	96.6	40-135	
23478-PeCDF	DL= 0.372	0.422	2.51		13C-123478-HxCDF	112	40-135	
123478-HxCDF	DL= 0.546	0.518	2.51		13C-123678-HxCDF	125	40-135	
123678-HxCDF	DL= 0.438	0.533	2.51		13C-234678-HxCDF	113	40-135	
234678-HxCDF	DL= 0.587	0.319	2.51		13C-123789-HxCDF	102	40-135	
123789-HxCDF	DL= 0.719	0.425	2.51		13C-1234678-HpCDF	82.2	40-135	
1234678-HpCDF	DL= 1.03	0.279	2.51		13C-1234789-HpCDF	81.5	40-135	
1234789-HpCDF	DL= 1.52	0.378	2.51					
OCDF	DL= 2.80	0.461	5.01					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.460 U	
Total PeCDD	DL= 0.533	
Total HxCDD	DL= 1.04	
Total HpCDD	DL= 1.56	
Total TCDF	DL= 0.331	
Total PeCDF	DL= 0.469	
Total HxCDF	DL= 0.719	
Total HpCDF	DL= 1.52	

CRS			
37Cl4-2378-TCDD	105	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0447 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB14-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-003	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 11:45	**Sample Size:** 13.31 g **% Solids:** 76.5	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.444 U	0.172	0.491		13C-2378-TCDD	97.3	40-135	
12378-PeCDD	DL= 0.485	0.327	2.46		13C-12378-PeCDD	93.6	40-135	
123478-HxCDD	DL= 0.607	0.327	2.46		13C-123478-HxCDD	91.7	40-135	
123678-HxCDD	DL= 0.778	0.655	2.46		13C-123678-HxCDD	88.0	40-135	
123789-HxCDD	DL= 0.674	0.315	2.46		13C-1234678-HpCDD	63.0	40-135	
1234678-HpCDD	DL= 0.971	0.409	2.46		13C-OCDD	41.8	40-135	
OCDD	DL= 2.15	1.01	4.91		13C-2378-TCDF	121	40-135	
2,3,7,8-TCDF	DL= 0.363	0.0886	0.491		13C-12378-PeCDF	92.9	40-135	
12378-PeCDF	DL= 0.416	0.412	2.46		13C-23478-PeCDF	109	40-135	
23478-PeCDF	DL= 0.313	0.422	2.46		13C-123478-HxCDF	129	40-135	
123478-HxCDF	DL= 0.380	0.518	2.46		13C-123678-HxCDF	131	40-135	
123678-HxCDF	DL= 0.334	0.533	2.46		13C-234678-HxCDF	127	40-135	
234678-HxCDF	DL= 0.413	0.319	2.46		13C-123789-HxCDF	116	40-135	
123789-HxCDF	DL= 0.484	0.425	2.46		13C-1234678-HpCDF	90.1	40-135	
1234678-HpCDF	DL= 0.517	0.279	2.46		13C-1234789-HpCDF	97.3	40-135	
1234789-HpCDF	DL= 0.756	0.378	2.46					
OCDF	DL= 2.24	0.461	4.91					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.444 U	
Total PeCDD	DL= 0.485	
Total HxCDD	DL= 0.778	
Total HpCDD	DL= 0.971	
Total TCDF	DL= 0.363	
Total PeCDF	DL= 0.416	
Total HxCDF	DL= 0.484	
Total HpCDF	DL= 0.756	

CRS		
37Cl4-2378-TCDD	112	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB1-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-005	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 7:25	**Sample Size:** 11.67 g **% Solids:** 87.5	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.366 U	0.172	0.490	
12378-PeCDD	DL= 0.506	0.327	2.45	
123478-HxCDD	DL= 0.834	0.327	2.45	
123678-HxCDD	DL= 0.939	0.655	2.45	
123789-HxCDD	DL= 0.868	0.315	2.45	
1234678-HpCDD	30.1	0.409	2.45	
OCDD	155 J	1.01	4.90	
2,3,7,8-TCDF	DL= 0.310 U	0.0886	0.490	
12378-PeCDF	DL= 0.424	0.412	2.45	
23478-PeCDF	DL= 0.367	0.422	2.45	
123478-HxCDF	DL= 0.495	0.518	2.45	
123678-HxCDF	DL= 0.433	0.533	2.45	
234678-HxCDF	DL= 0.555	0.319	2.45	
123789-HxCDF	DL= 0.679	0.425	2.45	
1234678-HpCDF	DL= 0.677	0.279	2.45	
1234789-HpCDF	DL= 0.895	0.378	2.45	
OCDF	DL= 3.32	0.461	4.90	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.366 U	
Total PeCDD	DL= 0.506 U	
Total HxCDD	DL= 0.939 U	
Total HpCDD	53.2	
Total TCDF	DL= 0.310 U	
Total PeCDF	DL= 0.424 U	
Total HxCDF	DL= 0.679 U	
Total HpCDF	DL= 0.895 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	113	40-135	
13C-12378-PeCDD	82.1	40-135	
13C-123478-HxCDD	74.7	40-135	
13C-123678-HxCDD	88.9	40-135	
13C-1234678-HpCDD	71.3	40-135	
13C-OCDD	46.0	40-135	
13C-2378-TCDF	124	40-135	
13C-12378-PeCDF	95.9	40-135	
13C-23478-PeCDF	103	40-135	
13C-123478-HxCDF	124	40-135	
13C-123678-HxCDF	131	40-135	
13C-234678-HxCDF	117	40-135	
13C-123789-HxCDF	111	40-135	
13C-1234678-HpCDF	96.7	40-135	
13C-1234789-HpCDF	105	40-135	

CRS		
37Cl4-2378-TCDD	125	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.348 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB1-1A		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-006	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 7:25	**Sample Size:** 12.09 g **% Solids:** 82.9	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.437 U	0.172	0.499		13C-2378-TCDD	108	40-135	
12378-PeCDD	DL= 0.584	0.327	2.50		13C-12378-PeCDD	87.0	40-135	
123478-HxCDD	DL= 0.852	0.327	2.50		13C-123478-HxCDD	85.5	40-135	
123678-HxCDD	DL= 0.904	0.655	2.50		13C-123678-HxCDD	84.7	40-135	
123789-HxCDD	DL= 0.860	0.315	2.50		13C-1234678-HpCDD	61.8	40-135	
1234678-HpCDD	44.0	0.409	2.50		13C-OCDD	41.8	40-135	
OCDD	314 J	1.01	4.99		13C-2378-TCDF	126	40-135	
2,3,7,8-TCDF	DL= 0.295 U	0.0886	0.499		13C-12378-PeCDF	95.8	40-135	
12378-PeCDF	DL= 0.372	0.412	2.50		13C-23478-PeCDF	107	40-135	
23478-PeCDF	DL= 0.294	0.422	2.50		13C-123478-HxCDF	123	40-135	
123478-HxCDF	DL= 0.420	0.518	2.50		13C-123678-HxCDF	131	40-135	
123678-HxCDF	DL= 0.420	0.533	2.50		13C-234678-HxCDF	116	40-135	
234678-HxCDF	DL= 0.481	0.319	2.50		13C-123789-HxCDF	104	40-135	
123789-HxCDF	DL= 0.671	0.425	2.50		13C-1234678-HpCDF	87.5	40-135	
1234678-HpCDF	DL= 0.732	0.279	2.50		13C-1234789-HpCDF	91.3	40-135	
1234789-HpCDF	DL= 1.03	0.378	2.50					
OCDF	DL= 2.81	0.461	4.99					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.437 U	
Total PeCDD	DL= 0.584 U	
Total HxCDD	DL= 0.904 U	
Total HpCDD	84.2	
Total TCDF	DL= 0.295 U	
Total PeCDF	DL= 0.372 U	
Total HxCDF	DL= 0.671 U	
Total HpCDF	DL= 1.03 U	

CRS		
37Cl4-2378-TCDD	127	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.534 pg/g

KAC 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB1-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-007	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 7:45	**Sample Size:** 12.77 g **% Solids:** 78.1	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.493 u	0.172	0.502		13C-2378-TCDD	103	40-135	
12378-PeCDD	DL= 0.584	0.327	2.51		13C-12378-PeCDD	79.8	40-135	
123478-HxCDD	DL= 0.961	0.327	2.51		13C-123478-HxCDD	73.6	40-135	
123678-HxCDD	DL= 0.918	0.655	2.51		13C-123678-HxCDD	75.9	40-135	
123789-HxCDD	DL= 0.921	0.315	2.51		13C-1234678-HpCDD	63.8	40-135	
1234678-HpCDD	DL= 1.21	0.409	2.51		13C-OCDD	47.8	40-135	
OCDD	62.8	1.01	5.02		13C-2378-TCDF	118	40-135	
2,3,7,8-TCDF	DL= 0.296 u	0.0886	0.502		13C-12378-PeCDF	87.9	40-135	
12378-PeCDF	DL= 0.385	0.412	2.51		13C-23478-PeCDF	99.1	40-135	
23478-PeCDF	DL= 0.303	0.422	2.51		13C-123478-HxCDF	107	40-135	
123478-HxCDF	DL= 0.375	0.518	2.51		13C-123678-HxCDF	120	40-135	
123678-HxCDF	DL= 0.365	0.533	2.51		13C-234678-HxCDF	109	40-135	
234678-HxCDF	DL= 0.387	0.319	2.51		13C-123789-HxCDF	99.9	40-135	
123789-HxCDF	DL= 0.591	0.425	2.51		13C-1234678-HpCDF	92.2	40-135	
1234678-HpCDF	DL= 0.442	0.279	2.51		13C-1234789-HpCDF	99.4	40-135	
1234789-HpCDF	DL= 0.576	0.378	2.51					
OCDF	DL= 2.19	0.461	5.02					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.493 u	
Total PeCDD	DL= 0.584	
Total HxCDD	DL= 0.961	
Total HpCDD	DL= 1.21	
Total TCDF	DL= 0.296	
Total PeCDF	DL= 0.385	
Total HxCDF	DL= 0.591	
Total HpCDF	DL= 0.591	

CRS		
37Cl4-2378-TCDD	127	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0188 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB1-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-008	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/4/2019
Time Collected: 8:00	**Sample Size:** 13.25 g **% Solids:** 76.2	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.458 U	0.172	0.495		13C-2378-TCDD	85.9	40-135	
12378-PeCDD	DL= 0.737	0.327	2.48		13C-12378-PeCDD	64.5	40-135	
123478-HxCDD	DL= 1.15	0.327	2.48		13C-123478-HxCDD	66.1	40-135	
123678-HxCDD	DL= 1.18	0.655	2.48		13C-123678-HxCDD	66.4	40-135	
123789-HxCDD	DL= 1.14	0.315	2.48		13C-1234678-HpCDD	59.0	40-135	
1234678-HpCDD	DL= 1.68	0.409	2.48		13C-OCDD	41.5	40-135	
OCDD	DL= 3.51	1.01	4.95		13C-2378-TCDF	95.2	40-135	
2,3,7,8-TCDF	DL= 0.322	0.0886	0.495		13C-12378-PeCDF	74.2	40-135	
12378-PeCDF	DL= 0.391	0.412	2.48		13C-23478-PeCDF	74.9	40-135	
23478-PeCDF	DL= 0.350	0.422	2.48		13C-123478-HxCDF	95.0	40-135	
123478-HxCDF	DL= 0.535	0.518	2.48		13C-123678-HxCDF	101	40-135	
123678-HxCDF	DL= 0.527	0.533	2.48		13C-234678-HxCDF	100	40-135	
234678-HxCDF	DL= 0.556	0.319	2.48		13C-123789-HxCDF	88.2	40-135	
123789-HxCDF	DL= 0.766	0.425	2.48		13C-1234678-HpCDF	80.9	40-135	
1234678-HpCDF	DL= 0.703	0.279	2.48		13C-1234789-HpCDF	87.1	40-135	
1234789-HpCDF	DL= 0.810	0.378	2.48					
OCDF	DL= 3.10	0.461	4.95					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.458 U	
Total PeCDD	DL= 0.737	
Total HxCDD	DL= 1.18	
Total HpCDD	DL= 1.68	
Total TCDF	DL= 0.322	
Total PeCDF	DL= 0.391	
Total HxCDF	DL= 0.766	
Total HpCDF	DL= 0.810	

CRS		
37Cl4-2378-TCDD	121	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB2-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-009	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 8:25	**Sample Size:** 11.39 g **% Solids:** 90.1	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.421 U	0.172	0.487		13C-2378-TCDD	98.5	40-135	
12378-PeCDD	DL= 0.601	0.327	2.44		13C-12378-PeCDD	86.9	40-135	
123478-HxCDD	DL= 0.787	0.327	2.44		13C-123478-HxCDD	80.5	40-135	
123678-HxCDD	DL= 0.796	0.655	2.44		13C-123678-HxCDD	77.9	40-135	
123789-HxCDD	DL= 0.776	0.315	2.44		13C-1234678-HpCDD	69.4	40-135	
1234678-HpCDD	DL= 1.20	0.409	2.44		13C-OCDD	49.2	40-135	
OCDD	DL= 3.27	1.01	4.87		13C-2378-TCDF	107	40-135	
2,3,7,8-TCDF	DL= 0.293	0.0886	0.487		13C-12378-PeCDF	96.7	40-135	
12378-PeCDF	DL= 0.319	0.412	2.44		13C-23478-PeCDF	107	40-135	
23478-PeCDF	DL= 0.265	0.422	2.44		13C-123478-HxCDF	120	40-135	
123478-HxCDF	DL= 0.343	0.518	2.44		13C-123678-HxCDF	128	40-135	
123678-HxCDF	DL= 0.335	0.533	2.44		13C-234678-HxCDF	118	40-135	
234678-HxCDF	DL= 0.356	0.319	2.44		13C-123789-HxCDF	99.2	40-135	
123789-HxCDF	DL= 0.513	0.425	2.44		13C-1234678-HpCDF	96.1	40-135	
1234678-HpCDF	DL= 0.462	0.279	2.44		13C-1234789-HpCDF	107	40-135	
1234789-HpCDF	DL= 0.629	0.378	2.44					
OCDF	DL= 2.79	0.461	4.87					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.421 U	
Total PeCDD	DL= 0.601	
Total HxCDD	DL= 0.796	
Total HpCDD	DL= 1.20	
Total TCDF	DL= 0.293	
Total PeCDF	DL= 0.319	
Total HxCDF	DL= 0.513	
Total HpCDF	DL= 0.629	

CRS		
37Cl4-2378-TCDD	124	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB2-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-010	**Date Received:** 7/3/2019
	QC Batch #: 2015	**Date Extracted:** 7/3/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 8:30	**Sample Size:** 12.84 g **% Solids:** 78.2	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.425	0.172	0.498		13C-2378-TCDD	103	40-135	
12378-PeCDD	DL= 0.428	0.327	2.49		13C-12378-PeCDD	88.2	40-135	
123478-HxCDD	DL= 0.631	0.327	2.49		13C-123478-HxCDD	80.5	40-135	
123678-HxCDD	DL= 0.695	0.655	2.49		13C-123678-HxCDD	83.1	40-135	
123789-HxCDD	DL= 0.649	0.315	2.49		13C-1234678-HpCDD	64.6	40-135	
1234678-HpCDD	DL= 0.970	0.409	2.49		13C-OCDD	42.2	40-135	
OCDD	DL= 1.89	1.01	4.98		13C-2378-TCDF	122	40-135	
2,3,7,8-TCDF	DL= 0.253	0.0886	0.498		13C-12378-PeCDF	107	40-135	
12378-PeCDF	DL= 0.290	0.412	2.49		13C-23478-PeCDF	117	40-135	
23478-PeCDF	DL= 0.245	0.422	2.49		13C-123478-HxCDF	118	40-135	
123478-HxCDF	DL= 0.354	0.518	2.49		13C-123678-HxCDF	129	40-135	
123678-HxCDF	DL= 0.307	0.533	2.49		13C-234678-HxCDF	119	40-135	
234678-HxCDF	DL= 0.354	0.319	2.49		13C-123789-HxCDF	109	40-135	
123789-HxCDF	DL= 0.454	0.425	2.49		13C-1234678-HpCDF	96.1	40-135	
1234678-HpCDF	DL= 0.372	0.279	2.49		13C-1234789-HpCDF	95.0	40-135	
1234789-HpCDF	DL= 0.545	0.378	2.49					
OCDF	DL= 1.61	0.461	4.98					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.425	
Total PeCDD	DL= 0.428	
Total HxCDD	DL= 0.695	
Total HpCDD	DL= 0.970	
Total TCDF	DL= 0.253	
Total PeCDF	DL= 0.290	
Total HxCDF	DL= 0.454	
Total HpCDF	DL= 0.545	

CRS		
37Cl4-2378-TCDD	112	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB2-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-012	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 8:40	**Sample Size:** 13.22 g **% Solids:** 76.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.366 u	0.172	0.493		13C-2378-TCDD	94.1	40-135	
12378-PeCDD	DL= 0.345	0.327	2.46		13C-12378-PeCDD	99.8	40-135	
123478-HxCDD	DL= 0.512	0.327	2.46		13C-123478-HxCDD	85.3	40-135	
123678-HxCDD	DL= 0.564	0.655	2.46		13C-123678-HxCDD	87.6	40-135	
123789-HxCDD	DL= 0.527	0.315	2.46		13C-1234678-HpCDD	75.4	40-135	
1234678-HpCDD	DL= 0.834	0.409	2.46		13C-OCDD	43.0	40-135	
OCDD	DL= 1.76	1.01	4.93		13C-2378-TCDF	126	40-135	
2,3,7,8-TCDF	DL= 0.331	0.0886	0.493		13C-12378-PeCDF	118	40-135	
12378-PeCDF	DL= 0.328	0.412	2.46		13C-23478-PeCDF	130	40-135	
23478-PeCDF	DL= 0.258	0.422	2.46		13C-123478-HxCDF	125	40-135	
123478-HxCDF	DL= 0.395	0.518	2.46		13C-123678-HxCDF	129	40-135	
123678-HxCDF	DL= 0.405	0.533	2.46		13C-234678-HxCDF	122	40-135	
234678-HxCDF	DL= 0.434	0.319	2.46		13C-123789-HxCDF	109	40-135	
123789-HxCDF	DL= 0.551	0.425	2.46		13C-1234678-HpCDF	107	40-135	
1234678-HpCDF	DL= 0.372	0.279	2.46		13C-1234789-HpCDF	112	40-135	
1234789-HpCDF	DL= 0.526	0.378	2.46					
OCDF	DL= 1.64	0.461	4.93					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.366 u	
Total PeCDD	DL= 0.345	
Total HxCDD	DL= 0.564	
Total HpCDD	DL= 0.834	
Total TCDF	DL= 0.331	
Total PeCDF	DL= 0.328	
Total HxCDF	DL= 0.551	
Total HpCDF	DL= 0.526	

CRS		
37Cl4-2378-TCDD	122	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KR 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB3-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-013	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 8:55	**Sample Size:** 11.40 g **% Solids:** 88.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.487 u	0.172	0.494		13C-2378-TCDD	93.4	40-135	
12378-PeCDD	DL= 0.417	0.327	2.47		13C-12378-PeCDD	102	40-135	
123478-HxCDD	DL= 0.770	0.327	2.47		13C-123478-HxCDD	80.5	40-135	
123678-HxCDD	DL= 0.759	0.655	2.47		13C-123678-HxCDD	79.6	40-135	
123789-HxCDD	DL= 0.750	0.315	2.47		13C-1234678-HpCDD	73.4	40-135	
1234678-HpCDD	22.2	0.409	2.47		13C-OCDD	49.3	40-135	
OCDD	189	1.01	4.94		13C-2378-TCDF	126	40-135	
2,3,7,8-TCDF	DL= 0.317 u	0.0886	0.494		13C-12378-PeCDF	119	40-135	
12378-PeCDF	DL= 0.302	0.412	2.47		13C-23478-PeCDF	124	40-135	
23478-PeCDF	DL= 0.249	0.422	2.47		13C-123478-HxCDF	126	40-135	
123478-HxCDF	DL= 0.381	0.518	2.47		13C-123678-HxCDF	128	40-135	
123678-HxCDF	DL= 0.389	0.533	2.47		13C-234678-HxCDF	127	40-135	
234678-HxCDF	DL= 0.390	0.319	2.47		13C-123789-HxCDF	118	40-135	
123789-HxCDF	DL= 0.570	0.425	2.47		13C-1234678-HpCDF	104	40-135	
1234678-HpCDF	DL= 0.439	0.279	2.47		13C-1234789-HpCDF	105	40-135	
1234789-HpCDF	DL= 0.600	0.378	2.47					
OCDF	DL= 2.36	0.461	4.94					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.487 u	
Total PeCDD	DL= 0.417 u	
Total HxCDD	DL= 0.770 u	
Total HpCDD	41.7	
Total TCDF	DL= 0.317 u	
Total PeCDF	DL= 0.302 u	
Total HxCDF	DL= 0.570 u	
Total HpCDF	DL= 0.600 u	

CRS			
37Cl4-2378-TCDD	105	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.279 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB3-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-014	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 9:05	**Sample Size:** 13.07 g **% Solids:** 76.9	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.482 u	0.172	0.498		13C-2378-TCDD	89.8	40-135	
12378-PeCDD	DL= 0.660	0.327	2.49		13C-12378-PeCDD	78.2	40-135	
123478-HxCDD	DL= 1.25	0.327	2.49		13C-123478-HxCDD	78.5	40-135	
123678-HxCDD	DL= 1.36	0.655	2.49		13C-123678-HxCDD	76.6	40-135	
123789-HxCDD	DL= 1.28	0.315	2.49		13C-1234678-HpCDD	67.9	40-135	
1234678-HpCDD	DL= 1.23	0.409	2.49		13C-OCDD	45.0	40-135	
OCDD	40.4	1.01	4.98		13C-2378-TCDF	107	40-135	
2,3,7,8-TCDF	DL= 0.381 u	0.0886	0.498		13C-12378-PeCDF	94.8	40-135	
12378-PeCDF	DL= 0.421	0.412	2.49		13C-23478-PeCDF	105	40-135	
23478-PeCDF	DL= 0.345	0.422	2.49		13C-123478-HxCDF	121	40-135	
123478-HxCDF	DL= 0.564	0.518	2.49		13C-123678-HxCDF	125	40-135	
123678-HxCDF	DL= 0.503	0.533	2.49		13C-234678-HxCDF	121	40-135	
234678-HxCDF	DL= 0.579	0.319	2.49		13C-123789-HxCDF	111	40-135	
123789-HxCDF	DL= 0.734	0.425	2.49		13C-1234678-HpCDF	102	40-135	
1234678-HpCDF	DL= 0.653	0.279	2.49		13C-1234789-HpCDF	103	40-135	
1234789-HpCDF	DL= 1.03	0.378	2.49					
OCDF	DL= 2.01	0.461	4.98					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.482 u	
Total PeCDD	DL= 0.660	
Total HxCDD	DL= 1.36	
Total HpCDD	DL= 1.23	
Total TCDF	DL= 0.381	
Total PeCDF	DL= 0.421	
Total HxCDF	DL= 0.734	
Total HpCDF	DL= 1.03	

CRS			
37Cl4-2378-TCDD	113	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0121 pg/g

KDL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB3-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-015	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 9:10	**Sample Size:** 12.58 g **% Solids:** 79.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.423	0.172	0.499	
12378-PeCDD	DL= 0.592	0.327	2.49	
123478-HxCDD	DL= 1.01	0.327	2.49	
123678-HxCDD	DL= 1.10	0.655	2.49	
123789-HxCDD	DL= 1.03	0.315	2.49	
1234678-HpCDD	DL= 1.00	0.409	2.49	
OCDD	52.5	1.01	4.99	
2,3,7,8-TCDF	DL= 0.345	0.0886	0.499	
12378-PeCDF	DL= 0.364	0.412	2.49	
23478-PeCDF	DL= 0.304	0.422	2.49	
123478-HxCDF	DL= 0.443	0.518	2.49	
123678-HxCDF	DL= 0.416	0.533	2.49	
234678-HxCDF	DL= 0.432	0.319	2.49	
123789-HxCDF	DL= 0.545	0.425	2.49	
1234678-HpCDF	DL= 0.417	0.279	2.49	
1234789-HpCDF	DL= 0.620	0.378	2.49	
OCDF	DL= 2.02	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.423	
Total PeCDD	DL= 0.592	
Total HxCDD	DL= 1.10	
Total HpCDD	DL= 1.00	
Total TCDF	DL= 0.345	
Total PeCDF	DL= 0.364	
Total HxCDF	DL= 0.545	
Total HpCDF	DL= 0.620	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	103	40-135	
13C-12378-PeCDD	93.1	40-135	
13C-123478-HxCDD	78.3	40-135	
13C-123678-HxCDD	77.5	40-135	
13C-1234678-HpCDD	68.7	40-135	
13C-OCDD	41.6	40-135	
13C-2378-TCDF	127	40-135	
13C-12378-PeCDF	110	40-135	
13C-23478-PeCDF	123	40-135	
13C-123478-HxCDF	120	40-135	
13C-123678-HxCDF	127	40-135	
13C-234678-HxCDF	126	40-135	
13C-123789-HxCDF	120	40-135	
13C-1234678-HpCDF	103	40-135	
13C-1234789-HpCDF	102	40-135	

CRS

37Cl4-2378-TCDD	127	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0158 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB4-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-016	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/26/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/5/2019
Time Collected: 9:15	**Sample Size:** 11.64 g **% Solids:** 86.2	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.363 U	0.172	0.499	
12378-PeCDD	DL= 0.492	0.327	2.49	
123478-HxCDD	DL= 0.956	0.327	2.49	
123678-HxCDD	DL= 0.909	0.655	2.49	
123789-HxCDD	DL= 0.914	0.315	2.49	
1234678-HpCDD	14.1	0.409	2.49	
OCDD	114	1.01	4.99	
2,3,7,8-TCDF	DL= 0.235 U	0.0886	0.499	
12378-PeCDF	DL= 0.273	0.412	2.49	
23478-PeCDF	DL= 0.223	0.422	2.49	
123478-HxCDF	DL= 0.325	0.518	2.49	
123678-HxCDF	DL= 0.342	0.533	2.49	
234678-HxCDF	DL= 0.336	0.319	2.49	
123789-HxCDF	DL= 0.487	0.425	2.49	
1234678-HpCDF	DL= 0.423	0.279	2.49	
1234789-HpCDF	DL= 0.618	0.378	2.49	
OCDF	DL= 1.96	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.363 U	
Total PeCDD	DL= 0.492 U	
Total HxCDD	DL= 0.956 U	
Total HpCDD	27.0	
Total TCDF	DL= 0.235 U	
Total PeCDF	DL= 0.273 U	
Total HxCDF	DL= 0.487 U	
Total HpCDF	DL= 0.618 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	97.9	40-135	
13C-12378-PeCDD	89.3	40-135	
13C-123478-HxCDD	73.4	40-135	
13C-123678-HxCDD	77.4	40-135	
13C-1234678-HpCDD	68.3	40-135	
13C-OCDD	42.0	40-135	
13C-2378-TCDF	127	40-135	
13C-12378-PeCDF	108	40-135	
13C-23478-PeCDF	118	40-135	
13C-123478-HxCDF	115	40-135	
13C-123678-HxCDF	124	40-135	
13C-234678-HxCDF	121	40-135	
13C-123789-HxCDF	108	40-135	
13C-1234678-HpCDF	98.3	40-135	
13C-1234789-HpCDF	96.7	40-135	
CRS			
37Cl4-2378-TCDD	118	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.175 pg/g

KAC 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB4-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-017	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/6/2019
Time Collected: 9:30	**Sample Size:** 13.07 g **% Solids:** 78.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.468 U	0.172	0.491	
12378-PeCDD	DL= 0.568	0.327	2.45	
123478-HxCDD	DL= 1.02	0.327	2.45	
123678-HxCDD	DL= 1.12	0.655	2.45	
123789-HxCDD	DL= 1.05	0.315	2.45	
1234678-HpCDD	DL= 1.61	0.409	2.45	
OCDD	117	1.01	4.91	
2,3,7,8-TCDF	DL= 0.363 U	0.0886	0.491	
12378-PeCDF	DL= 0.538	0.412	2.45	
23478-PeCDF	DL= 0.419	0.422	2.45	
123478-HxCDF	DL= 0.559	0.518	2.45	
123678-HxCDF	DL= 0.572	0.533	2.45	
234678-HxCDF	DL= 0.622	0.319	2.45	
123789-HxCDF	DL= 0.760	0.425	2.45	
1234678-HpCDF	DL= 0.587	0.279	2.45	
1234789-HpCDF	DL= 0.919	0.378	2.45	
OCDF	DL= 3.09	0.461	4.91	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.468 U	
Total PeCDD	DL= 0.568	
Total HxCDD	DL= 1.12	
Total HpCDD	DL= 1.61	
Total TCDF	DL= 0.363	
Total PeCDF	DL= 0.538	
Total HxCDF	DL= 0.760	
Total HpCDF	DL= 0.919	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	66.2	40-135	
13C-12378-PeCDD	61.6	40-135	
13C-123478-HxCDD	60.7	40-135	
13C-123678-HxCDD	63.2	40-135	
13C-1234678-HpCDD	54.9	40-135	
13C-OCDD	42.3	40-135	
13C-2378-TCDF	83.1	40-135	
13C-12378-PeCDF	68.9	40-135	
13C-23478-PeCDF	77.5	40-135	
13C-123478-HxCDF	98.0	40-135	
13C-123678-HxCDF	98.3	40-135	
13C-234678-HxCDF	93.0	40-135	
13C-123789-HxCDF	87.5	40-135	
13C-1234678-HpCDF	78.3	40-135	
13C-1234789-HpCDF	80.2	40-135	
CRS			
37Cl4-2378-TCDD	114	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0351 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB4-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-018	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 9:35	**Sample Size:** 11.67 g **% Solids:** 86.4	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.444 u	0.172	0.496		13C-2378-TCDD	93.3	40-135	
12378-PeCDD	DL= 0.594	0.327	2.48		13C-12378-PeCDD	72.0	40-135	
123478-HxCDD	DL= 0.924	0.327	2.48		13C-123478-HxCDD	82.0	40-135	
123678-HxCDD	DL= 0.978	0.655	2.48		13C-123678-HxCDD	83.5	40-135	
123789-HxCDD	DL= 0.931	0.315	2.48		13C-1234678-HpCDD	54.8	40-135	
1234678-HpCDD	9.00	0.409	2.48		13C-OCDD	41.7	40-135	
OCDD	49.4	1.01	4.96		13C-2378-TCDF	101	40-135	
2,3,7,8-TCDF	DL= 0.309 u	0.0886	0.496		13C-12378-PeCDF	83.4	40-135	
12378-PeCDF	DL= 0.382	0.412	2.48		13C-23478-PeCDF	89.5	40-135	
23478-PeCDF	DL= 0.312	0.422	2.48		13C-123478-HxCDF	95.8	40-135	
123478-HxCDF	DL= 0.557	0.518	2.48		13C-123678-HxCDF	107	40-135	
123678-HxCDF	DL= 0.505	0.533	2.48		13C-234678-HxCDF	92.0	40-135	
234678-HxCDF	DL= 0.585	0.319	2.48		13C-123789-HxCDF	84.2	40-135	
123789-HxCDF	DL= 0.825	0.425	2.48		13C-1234678-HpCDF	66.1	40-135	
1234678-HpCDF	DL= 0.790	0.279	2.48		13C-1234789-HpCDF	67.0	40-135	
1234789-HpCDF	DL= 1.11	0.378	2.48					
OCDF	DL= 1.44	0.461	4.96					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.444 u	
Total PeCDD	DL= 0.594 u	
Total HxCDD	6.47	
Total HpCDD	16.4	
Total TCDF	DL= 0.309 u	
Total PeCDF	DL= 0.382 u	
Total HxCDF	DL= 0.825 u	
Total HpCDF	DL= 1.11 u	

CRS		
37Cl4-2378-TCDD	103	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.105 pg/g

KR 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB4-8A		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-019	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 9:35	**Sample Size:** 12.73 g **% Solids:** 79.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.339 u	0.172	0.492		13C-2378-TCDD	89.2	40-135	
12378-PeCDD	DL= 0.577	0.327	2.46		13C-12378-PeCDD	65.5	40-135	
123478-HxCDD	DL= 0.850	0.327	2.46		13C-123478-HxCDD	76.7	40-135	
123678-HxCDD	DL= 0.892	0.655	2.46		13C-123678-HxCDD	76.8	40-135	
123789-HxCDD	DL= 0.853	0.315	2.46		13C-1234678-HpCDD	48.3	40-135	
1234678-HpCDD	7.34	0.409	2.46		13C-OCDD	45.5	40-135	
OCDD	39.4	1.01	4.92		13C-2378-TCDF	90.7	40-135	
2,3,7,8-TCDF	DL= 0.263 u	0.0886	0.492		13C-12378-PeCDF	73.3	40-135	
12378-PeCDF	DL= 0.377	0.412	2.46		13C-23478-PeCDF	77.8	40-135	
23478-PeCDF	DL= 0.327	0.422	2.46		13C-123478-HxCDF	87.8	40-135	
123478-HxCDF	DL= 0.494	0.518	2.46		13C-123678-HxCDF	98.5	40-135	
123678-HxCDF	DL= 0.445	0.533	2.46		13C-234678-HxCDF	85.0	40-135	
234678-HxCDF	DL= 0.518	0.319	2.46		13C-123789-HxCDF	76.1	40-135	
123789-HxCDF	DL= 0.748	0.425	2.46		13C-1234678-HpCDF	59.7	40-135	
1234678-HpCDF	DL= 0.562	0.279	2.46		13C-1234789-HpCDF	55.4	40-135	
1234789-HpCDF	DL= 0.855	0.378	2.46					
OCDF	DL= 2.74	0.461	4.92					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.339 u	
Total PeCDD	DL= 0.577 u	
Total HxCDD	DL= 0.892 u	
Total HpCDD	12.9	
Total TCDF	DL= 0.263 u	
Total PeCDF	DL= 0.377 u	
Total HxCDF	DL= 0.748 u	
Total HpCDF	DL= 0.855 u	

CRS			
37Cl4-2378-TCDD	92.5	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0852 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB5-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-020	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 9:45	**Sample Size:** 10.85 g **% Solids:** 92.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.418 u	0.172	0.500		13C-2378-TCDD	103	40-135	
12378-PeCDD	DL= 0.517 u	0.327	2.50		13C-12378-PeCDD	80.8	40-135	
123478-HxCDD	DL= 0.782 u	0.327	2.50		13C-123478-HxCDD	77.8	40-135	
123678-HxCDD	3.59	0.655	2.50		13C-123678-HxCDD	80.1	40-135	
123789-HxCDD	3.00	0.315	2.50		13C-1234678-HpCDD	51.6	40-135	
1234678-HpCDD	12.7	0.409	2.50		13C-OCDD	46.3	40-135	
OCDD	48.7	1.01	5.00		13C-2378-TCDF	107	40-135	
2,3,7,8-TCDF	DL= 0.342 u	0.0886	0.500		13C-12378-PeCDF	86.1	40-135	
12378-PeCDF	DL= 0.491	0.412	2.50		13C-23478-PeCDF	96.4	40-135	
23478-PeCDF	DL= 0.378	0.422	2.50		13C-123478-HxCDF	90.3	40-135	
123478-HxCDF	DL= 0.520	0.518	2.50		13C-123678-HxCDF	100	40-135	
123678-HxCDF	DL= 0.511	0.533	2.50		13C-234678-HxCDF	87.0	40-135	
234678-HxCDF	DL= 0.561	0.319	2.50		13C-123789-HxCDF	78.0	40-135	
123789-HxCDF	DL= 0.793	0.425	2.50		13C-1234678-HpCDF	61.4	40-135	
1234678-HpCDF	DL= 0.731	0.279	2.50		13C-1234789-HpCDF	60.4	40-135	
1234789-HpCDF	DL= 1.01	0.378	2.50					
OCDF	DL= 2.74	0.461	5.00					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.418 u	
Total PeCDD	DL= 0.517 u	
Total HxCDD	22.2	
Total HpCDD	21.9	
Total TCDF	DL= 0.342 u	
Total PeCDF	DL= 0.491 u	
Total HxCDF	DL= 0.793 u	
Total HpCDF	DL= 1.01 u	

CRS			
37Cl4-2378-TCDD	113	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.801 pg/g

KAE 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB5-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-021	**Date Received:** 7/3/2019
	QC Batch #: 2016	**Date Extracted:** 7/4/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 10:00	**Sample Size:** 11.91 g **% Solids:** 83.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.454 U	0.172	0.501	
12378-PeCDD	DL= 0.628	0.327	2.51	
123478-HxCDD	DL= 0.775	0.327	2.51	
123678-HxCDD	DL= 0.868	0.655	2.51	
123789-HxCDD	DL= 0.804	0.315	2.51	
1234678-HpCDD	10.2	0.409	2.51	
OCDD	43.1	1.01	5.01	
2,3,7,8-TCDF	DL= 0.361 U	0.0886	0.501	
12378-PeCDF	DL= 0.568	0.412	2.51	
23478-PeCDF	DL= 0.450	0.422	2.51	
123478-HxCDF	DL= 0.674	0.518	2.51	
123678-HxCDF	DL= 0.570	0.533	2.51	
234678-HxCDF	DL= 0.700	0.319	2.51	
123789-HxCDF	DL= 0.865	0.425	2.51	
1234678-HpCDF	DL= 0.936	0.279	2.51	
1234789-HpCDF	DL= 1.43	0.378	2.51	
OCDF	DL= 2.70	0.461	5.01	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.454 U	
Total PeCDD	DL= 0.628 U	
Total HxCDD	9.86	
Total HpCDD	17.8	
Total TCDF	DL= 0.361 U	
Total PeCDF	DL= 0.568 U	
Total HxCDF	DL= 0.865 U	
Total HpCDF	DL= 1.43 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	94.1	40-135	
13C-12378-PeCDD	70.5	40-135	
13C-123478-HxCDD	77.1	40-135	
13C-123678-HxCDD	78.3	40-135	
13C-1234678-HpCDD	49.5	40-135	
13C-OCDD	41.5	40-135	
13C-2378-TCDF	94.9	40-135	
13C-12378-PeCDF	75.5	40-135	
13C-23478-PeCDF	82.1	40-135	
13C-123478-HxCDF	85.9	40-135	
13C-123678-HxCDF	98.5	40-135	
13C-234678-HxCDF	84.0	40-135	
13C-123789-HxCDF	77.3	40-135	
13C-1234678-HpCDF	59.2	40-135	
13C-1234789-HpCDF	58.9	40-135	

CRS

37Cl4-2378-TCDD	97.5	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.115 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB5-8		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-022	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 10:10	**Sample Size:** 10.99 g **% Solids:** 91.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.329 u	0.172	0.499		13C-2378-TCDD	111	40-135	
12378-PeCDD	DL= 0.441	0.327	2.49		13C-12378-PeCDD	85.3	40-135	
123478-HxCDD	DL= 0.718	0.327	2.49		13C-123478-HxCDD	86.8	40-135	
123678-HxCDD	DL= 0.748	0.655	2.49		13C-123678-HxCDD	87.7	40-135	
123789-HxCDD	DL= 0.718	0.315	2.49		13C-1234678-HpCDD	59.3	40-135	
1234678-HpCDD	4.28	0.409	2.49		13C-OCDD	42.1	40-135	
OCDD	25.1	1.01	4.99		13C-2378-TCDF	112	40-135	
2,3,7,8-TCDF	DL= 0.307 u	0.0886	0.499		13C-12378-PeCDF	92.5	40-135	
12378-PeCDF	DL= 0.333	0.412	2.49		13C-23478-PeCDF	102	40-135	
23478-PeCDF	DL= 0.272	0.422	2.49		13C-123478-HxCDF	99.7	40-135	
123478-HxCDF	DL= 0.425	0.518	2.49		13C-123678-HxCDF	113	40-135	
123678-HxCDF	DL= 0.401	0.533	2.49		13C-234678-HxCDF	98.6	40-135	
234678-HxCDF	DL= 0.448	0.319	2.49		13C-123789-HxCDF	88.8	40-135	
123789-HxCDF	DL= 0.648	0.425	2.49		13C-1234678-HpCDF	69.1	40-135	
1234678-HpCDF	DL= 0.561	0.279	2.49		13C-1234789-HpCDF	70.5	40-135	
1234789-HpCDF	DL= 0.742	0.378	2.49					
OCDF	DL= 2.20	0.461	4.99					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.329 u	
Total PeCDD	DL= 0.441 u	
Total HxCDD	7.72	
Total HpCDD	4.28	
Total TCDF	DL= 0.307 u	
Total PeCDF	DL= 0.333 u	
Total HxCDF	DL= 0.648 u	
Total HpCDF	DL= 0.742 u	

CRS		
37Cl4-2378-TCDD	107	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0503 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB6-1		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-023	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 10:25	**Sample Size:** 10.83 g **% Solids:** 92.4	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.360 U	0.172	0.500	
12378-PeCDD	DL= 0.577 U	0.327	2.50	
123478-HxCDD	DL= 0.733 U	0.327	2.50	
123678-HxCDD	8.52	0.655	2.50	
123789-HxCDD	5.43	0.315	2.50	
1234678-HpCDD	15.0	0.409	2.50	
OCDD	78.7	1.01	5.00	
2,3,7,8-TCDF	43.3	0.0886	0.500	
12378-PeCDF	2.19 J	0.412	2.50	J
23478-PeCDF	DL= 0.334 U	0.422	2.50	
123478-HxCDF	DL= 0.479	0.518	2.50	
123678-HxCDF	DL= 0.484	0.533	2.50	
234678-HxCDF	DL= 0.567	0.319	2.50	
123789-HxCDF	DL= 0.762	0.425	2.50	
1234678-HpCDF	DL= 0.806	0.279	2.50	
1234789-HpCDF	DL= 1.14	0.378	2.50	
OCDF	DL= 2.98	0.461	5.00	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.360 U	
Total PeCDD	DL= 0.577 U	
Total HxCDD	57.5	
Total HpCDD	29.2	
Total TCDF	88.6 ~~73.3~~ EMPC	88.6
Total PeCDF	2.19	
Total HxCDF	DL= 0.762 U	
Total HpCDF	DL= 1.14 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	112	40-135	
13C-12378-PeCDD	85.9	40-135	
13C-123478-HxCDD	96.8	40-135	
13C-123678-HxCDD	100	40-135	
13C-1234678-HpCDD	60.0	40-135	
13C-OCDD	40.0	40-135	
13C-2378-TCDF	117	40-135	
13C-12378-PeCDF	92.6	40-135	
13C-23478-PeCDF	103	40-135	
13C-123478-HxCDF	114	40-135	
13C-123678-HxCDF	123	40-135	
13C-234678-HxCDF	106	40-135	
13C-123789-HxCDF	95.1	40-135	
13C-1234678-HpCDF	71.7	40-135	
13C-1234789-HpCDF	72.6	40-135	
CRS			
37Cl4-2378-TCDD	113	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 5.96 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB6-5		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-024	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/12/2019
Time Collected: 10:35	**Sample Size:** 10.45 g **% Solids:** 96.1	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.364 U	0.172	0.498		13C-2378-TCDD	117	40-135	
12378-PeCDD	DL= 0.504	0.327	2.49		13C-12378-PeCDD	80.5	40-135	
123478-HxCDD	DL= 0.621	0.327	2.49		13C-123478-HxCDD	93.5	40-135	
123678-HxCDD	DL= 0.753	0.655	2.49		13C-123678-HxCDD	94.9	40-135	
123789-HxCDD	DL= 0.671	0.315	2.49		13C-1234678-HpCDD	58.0	40-135	
1234678-HpCDD	DL= 1.22	0.409	2.49		13C-OCDD	44.1	40-135	
OCDD	11.2	1.01	4.98		13C-2378-TCDF	113	40-135	
2,3,7,8-TCDF	3.50	0.0886	0.498		13C-12378-PeCDF	86.2	40-135	
12378-PeCDF	DL= 0.445 U	0.412	2.49		13C-23478-PeCDF	95.3	40-135	
23478-PeCDF	DL= 0.332	0.422	2.49		13C-123478-HxCDF	102	40-135	
123478-HxCDF	DL= 0.520	0.518	2.49		13C-123678-HxCDF	113	40-135	
123678-HxCDF	DL= 0.477	0.533	2.49		13C-234678-HxCDF	101	40-135	
234678-HxCDF	DL= 0.589	0.319	2.49		13C-123789-HxCDF	91.6	40-135	
123789-HxCDF	DL= 0.675	0.425	2.49		13C-1234678-HpCDF	71.6	40-135	
1234678-HpCDF	DL= 0.694	0.279	2.49		13C-1234789-HpCDF	67.9	40-135	
1234789-HpCDF	DL= 1.08	0.378	2.49					
OCDF	DL= 3.58	0.461	4.98					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.364 U	
Total PeCDD	DL= 0.504 U	
Total HxCDD	4.67	
Total HpCDD	DL= 1.22 U	
Total TCDF	3.50	
Total PeCDF	DL= 0.445 U	
Total HxCDF	DL= 0.675 U	
Total HpCDF	DL= 1.08 U	

CRS		
37Cl4-2378-TCDD	116	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.353 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB6-8		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-025	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/13/2019
Time Collected: 10:40	**Sample Size:** 11.75 g **% Solids:** 85.3	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.465 u	0.172	0.499	
12378-PeCDD	DL= 0.816 u	0.327	2.50	
123478-HxCDD	DL= 0.920 u	0.327	2.50	
123678-HxCDD	9.98	0.655	2.50	
123789-HxCDD	6.78	0.315	2.50	
1234678-HpCDD	12.9	0.409	2.50	
OCDD	55.4	1.01	4.99	
2,3,7,8-TCDF	140	0.0886	0.499	
12378-PeCDF	18.7	0.412	2.50	
23478-PeCDF	5.27	0.422	2.50	
123478-HxCDF	4.63	0.518	2.50	
123678-HxCDF	DL= 0.622 u	0.533	2.50	
234678-HxCDF	DL= 0.760	0.319	2.50	
123789-HxCDF	DL= 0.955	0.425	2.50	
1234678-HpCDF	DL= 0.972	0.279	2.50	
1234789-HpCDF	DL= 1.44	0.378	2.50	
OCDF	DL= 2.97	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.465 u	
Total PeCDD	DL= 0.816 u	
Total HxCDD	62.6	
Total HpCDD	25.8	
Total TCDF	232 ~~216~~ EMPC	232
Total PeCDF	34.4	
Total HxCDF	4.63	
Total HpCDF	DL= 1.44 u	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	111	40-135	
13C-12378-PeCDD	79.7	40-135	
13C-123478-HxCDD	87.1	40-135	
13C-123678-HxCDD	83.6	40-135	
13C-1234678-HpCDD	57.0	40-135	
13C-OCDD	45.2	40-135	
13C-2378-TCDF	110	40-135	
13C-12378-PeCDF	86.2	40-135	
13C-23478-PeCDF	93.6	40-135	
13C-123478-HxCDF	102	40-135	
13C-123678-HxCDF	113	40-135	
13C-234678-HxCDF	95.3	40-135	
13C-123789-HxCDF	86.1	40-135	
13C-1234678-HpCDF	68.4	40-135	
13C-1234789-HpCDF	68.7	40-135	

CRS			
37Cl4-2378-TCDD	113	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 18.4 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB7-1		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-026	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/13/2019
Time Collected: 10:55	**Sample Size:** 11.44 g **% Solids:** 88.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.468 U	0.172	0.497		13C-2378-TCDD	116	40-135	
12378-PeCDD	DL= 0.781	0.327	2.48		13C-12378-PeCDD	79.8	40-135	
123478-HxCDD	DL= 0.876	0.327	2.48		13C-123478-HxCDD	98.6	40-135	
123678-HxCDD	DL= 1.04	0.655	2.48		13C-123678-HxCDD	96.5	40-135	
123789-HxCDD	DL= 0.938	0.315	2.48		13C-1234678-HpCDD	59.8	40-135	
1234678-HpCDD	24.1	0.409	2.48		13C-OCDD	41.3	40-135	
OCDD	330	1.01	4.97		13C-2378-TCDF	114	40-135	
2,3,7,8-TCDF	DL= 0.386 U	0.0886	0.497		13C-12378-PeCDF	97.8	40-135	
12378-PeCDF	DL= 0.550	0.412	2.48		13C-23478-PeCDF	94.5	40-135	
23478-PeCDF	DL= 0.500	0.422	2.48		13C-123478-HxCDF	106	40-135	
123478-HxCDF	DL= 0.685	0.518	2.48		13C-123678-HxCDF	114	40-135	
123678-HxCDF	DL= 0.639	0.533	2.48		13C-234678-HxCDF	99.2	40-135	
234678-HxCDF	DL= 0.796	0.319	2.48		13C-123789-HxCDF	92.8	40-135	
123789-HxCDF	DL= 0.887	0.425	2.48		13C-1234678-HpCDF	75.4	40-135	
1234678-HpCDF	DL= 0.910	0.279	2.48		13C-1234789-HpCDF	69.6	40-135	
1234789-HpCDF	DL= 1.43	0.378	2.48					
OCDF	DL= 3.86	0.461	4.97					

Totals	Conc. (pg/g)	EMPC
Total TCDD	7.50	
Total PeCDD	DL= 0.781 U	
Total HxCDD	DL= 1.04 U	
Total HpCDD	45.8	
Total TCDF	14.6 EMPC	14.6
Total PeCDF	DL= 0.550 U	
Total HxCDF	3.11	
Total HpCDF	DL= 1.43 U	

CRS		
37Cl4-2378-TCDD	119	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.340 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB7-5		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-027	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/13/2019
Time Collected: 11:00	**Sample Size:** 11.08 g **% Solids:** 90.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.467 U	0.172	0.498	
12378-PeCDD	DL= 0.564	0.327	2.49	
123478-HxCDD	DL= 0.673	0.327	2.49	
123678-HxCDD	DL= 0.737	0.655	2.49	
123789-HxCDD	DL= 0.690	0.315	2.49	
1234678-HpCDD	7.55 J	0.409	2.49	
OCDD	92.0 J	1.01	4.98	
2,3,7,8-TCDF	DL= 0.334 U	0.0886	0.498	
12378-PeCDF	DL= 0.412	0.412	2.49	
23478-PeCDF	DL= 0.342	0.422	2.49	
123478-HxCDF	DL= 0.460	0.518	2.49	
123678-HxCDF	DL= 0.432	0.533	2.49	
234678-HxCDF	DL= 0.467	0.319	2.49	
123789-HxCDF	DL= 0.630	0.425	2.49	
1234678-HpCDF	DL= 0.491 UJ	0.279	2.49	
1234789-HpCDF	DL= 0.786 U	0.378	2.49	
OCDF	DL= 2.50 U	0.461	4.98	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.467 U	
Total PeCDD	DL= 0.564 U	
Total HxCDD	DL= 0.737 UJ	
Total HpCDD	14.8 J	
Total TCDF	4.63 J	
Total PeCDF	DL= 0.412 U	
Total HxCDF	DL= 0.630 UJ	
Total HpCDF	DL= 0.786 UJ	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	107	40-135	
13C-12378-PeCDD	91.2	40-135	
13C-123478-HxCDD	92.5	40-135	
13C-123678-HxCDD	89.6	40-135	
13C-1234678-HpCDD	69.4	40-135	
13C-OCDD	41.4	40-135	
13C-2378-TCDF	123	40-135	
13C-12378-PeCDF	114	40-135	
13C-23478-PeCDF	126	40-135	
13C-123478-HxCDF	121	40-135	
13C-123678-HxCDF	129	40-135	
13C-234678-HxCDF	122	40-135	
13C-123789-HxCDF	109	40-135	
13C-1234678-HpCDF	92.9	40-135	
13C-1234789-HpCDF	89.5	40-135	

CRS

37Cl4-2378-TCDD	106	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.103 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB7-8		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-028	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 11:05	**Sample Size:** 11.64 g **% Solids:** 86.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.442 U	0.172	0.498		13C-2378-TCDD	109	40-135	
12378-PeCDD	DL= 0.508	0.327	2.49		13C-12378-PeCDD	85.9	40-135	
123478-HxCDD	DL= 0.659	0.327	2.49		13C-123478-HxCDD	84.3	40-135	
123678-HxCDD	DL= 0.769	0.655	2.49		13C-123678-HxCDD	87.9	40-135	
123789-HxCDD	DL= 0.698	0.315	2.49		13C-1234678-HpCDD	58.0	40-135	
1234678-HpCDD	4.56	0.409	2.49		13C-OCDD	41.5	40-135	
OCDD	15.6	1.01	4.98		13C-2378-TCDF	131	40-135	
2,3,7,8-TCDF	DL= 0.282 U	0.0886	0.498		13C-12378-PeCDF	115	40-135	
12378-PeCDF	DL= 0.358	0.412	2.49		13C-23478-PeCDF	127	40-135	
23478-PeCDF	DL= 0.299	0.422	2.49		13C-123478-HxCDF	125	40-135	
123478-HxCDF	DL= 0.419	0.518	2.49		13C-123678-HxCDF	129	40-135	
123678-HxCDF	DL= 0.386	0.533	2.49		13C-234678-HxCDF	124	40-135	
234678-HxCDF	DL= 0.434	0.319	2.49		13C-123789-HxCDF	110	40-135	
123789-HxCDF	DL= 0.570	0.425	2.49		13C-1234678-HpCDF	92.9	40-135	
1234678-HpCDF	DL= 0.469	0.279	2.49		13C-1234789-HpCDF	84.9	40-135	
1234789-HpCDF	DL= 0.786	0.378	2.49					
OCDF	DL= 2.76	0.461	4.98					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.442 U	
Total PeCDD	DL= 0.508 U	
Total HxCDD	6.63	
Total HpCDD	9.36	
Total TCDF	DL= 0.282 U	
Total PeCDF	DL= 0.358 U	
Total HxCDF	DL= 0.570 U	
Total HpCDF	DL= 0.786 U	

CRS			
37Cl4-2378-TCDD	112	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0503 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB8-1		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-029	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 11:20	**Sample Size:** 10.18 g **% Solids:** 98.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.380 u	0.172	0.501		13C-2378-TCDD	104	40-135	
12378-PeCDD	DL= 0.488	0.327	2.51		13C-12378-PeCDD	92.7	40-135	
123478-HxCDD	DL= 0.680	0.327	2.51		13C-123478-HxCDD	83.3	40-135	
123678-HxCDD	DL= 0.684	0.655	2.51		13C-123678-HxCDD	89.9	40-135	
123789-HxCDD	DL= 0.668	0.315	2.51		13C-1234678-HpCDD	60.1	40-135	
1234678-HpCDD	DL= 1.08	0.409	2.51		13C-OCDD	44.5	40-135	
OCDD	DL= 3.03	1.01	5.01		13C-2378-TCDF	129	40-135	
2,3,7,8-TCDF	DL= 0.251	0.0886	0.501		13C-12378-PeCDF	116	40-135	
12378-PeCDF	DL= 0.294	0.412	2.51		13C-23478-PeCDF	131	40-135	
23478-PeCDF	DL= 0.232	0.422	2.51		13C-123478-HxCDF	124	40-135	
123478-HxCDF	DL= 0.340	0.518	2.51		13C-123678-HxCDF	129	40-135	
123678-HxCDF	DL= 0.358	0.533	2.51		13C-234678-HxCDF	124	40-135	
234678-HxCDF	DL= 0.361	0.319	2.51		13C-123789-HxCDF	109	40-135	
123789-HxCDF	DL= 0.522	0.425	2.51		13C-1234678-HpCDF	87.0	40-135	
1234678-HpCDF	DL= 0.480	0.279	2.51		13C-1234789-HpCDF	85.9	40-135	
1234789-HpCDF	DL= 0.716	0.378	2.51					
OCDF	DL= 2.41	0.461	5.01					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.380 u	
Total PeCDD	DL= 0.488	
Total HxCDD	DL= 0.684	
Total HpCDD	DL= 1.08	
Total TCDF	DL= 0.251	
Total PeCDF	DL= 0.294	
Total HxCDF	DL= 0.522	
Total HpCDF	DL= 0.716	

CRS			
37Cl4-2378-TCDD	112	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB8-5		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-030	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 11:25	**Sample Size:** 10.47 g **% Solids:** 95.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.308	0.172	0.501		13C-2378-TCDD	106	40-135	
12378-PeCDD	DL= 0.366	0.327	2.51		13C-12378-PeCDD	89.7	40-135	
123478-HxCDD	DL= 0.448	0.327	2.51		13C-123478-HxCDD	88.9	40-135	
123678-HxCDD	DL= 0.454	0.655	2.51		13C-123678-HxCDD	92.4	40-135	
123789-HxCDD	DL= 0.442	0.315	2.51		13C-1234678-HpCDD	62.7	40-135	
1234678-HpCDD	DL= 0.993	0.409	2.51		13C-OCDD	41.9	40-135	
OCDD	DL= 2.43	1.01	5.01		13C-2378-TCDF	131	40-135	
2,3,7,8-TCDF	DL= 0.208	0.0886	0.501		13C-12378-PeCDF	118	40-135	
12378-PeCDF	DL= 0.206	0.412	2.51		13C-23478-PeCDF	130	40-135	
23478-PeCDF	DL= 0.166	0.422	2.51		13C-123478-HxCDF	130	40-135	
123478-HxCDF	DL= 0.236	0.518	2.51		13C-123678-HxCDF	125	40-135	
123678-HxCDF	DL= 0.258	0.533	2.51		13C-234678-HxCDF	127	40-135	
234678-HxCDF	DL= 0.268	0.319	2.51		13C-123789-HxCDF	113	40-135	
123789-HxCDF	DL= 0.377	0.425	2.51		13C-1234678-HpCDF	98.3	40-135	
1234678-HpCDF	DL= 0.335	0.279	2.51		13C-1234789-HpCDF	91.0	40-135	
1234789-HpCDF	DL= 0.511	0.378	2.51					
OCDF	DL= 2.04	0.461	5.01					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.308	
Total PeCDD	DL= 0.366	
Total HxCDD	DL= 0.454	
Total HpCDD	DL= 0.993	
Total TCDF	DL= 0.208	
Total PeCDF	DL= 0.206	
Total HxCDF	DL= 0.377	
Total HpCDF	DL= 0.511	

CRS			
37Cl4-2378-TCDD	110	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB8-8		
Project ID: 2049.016.006.0223.00	**Ceres Sample ID:** 12899-031	**Date Received:** 7/3/2019
	QC Batch #: 2017	**Date Extracted:** 7/5/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 11:35	**Sample Size:** 10.62 g **% Solids:** 94.4	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.296 U	0.172	0.499	
12378-PeCDD	DL= 0.398	0.327	2.49	
123478-HxCDD	DL= 0.579	0.327	2.49	
123678-HxCDD	DL= 0.612	0.655	2.49	
123789-HxCDD	DL= 0.583	0.315	2.49	
1234678-HpCDD	DL= 1.02	0.409	2.49	
OCDD	DL= 2.72	1.01	4.99	
2,3,7,8-TCDF	DL= 0.191	0.0886	0.499	
12378-PeCDF	DL= 0.239	0.412	2.49	
23478-PeCDF	DL= 0.192	0.422	2.49	
123478-HxCDF	DL= 0.282	0.518	2.49	
123678-HxCDF	DL= 0.286	0.533	2.49	
234678-HxCDF	DL= 0.316	0.319	2.49	
123789-HxCDF	DL= 0.453	0.425	2.49	
1234678-HpCDF	DL= 0.532	0.279	2.49	
1234789-HpCDF	DL= 0.537	0.378	2.49	
OCDF	DL= 2.36	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.296 U	
Total PeCDD	DL= 0.398 U	
Total HxCDD	DL= 0.612 U	
Total HpCDD	DL= 1.02 U	
Total TCDF	19.8 ~~4.54~~ EMPC	19.8
Total PeCDF	DL= 0.239 U	
Total HxCDF	DL= 0.453 U	
Total HpCDF	DL= 0.537 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	104	40-135	
13C-12378-PeCDD	87.1	40-135	
13C-123478-HxCDD	78.7	40-135	
13C-123678-HxCDD	84.1	40-135	
13C-1234678-HpCDD	60.4	40-135	
13C-OCDD	43.5	40-135	
13C-2378-TCDF	125	40-135	
13C-12378-PeCDF	115	40-135	
13C-23478-PeCDF	128	40-135	
13C-123478-HxCDF	120	40-135	
13C-123678-HxCDF	128	40-135	
13C-234678-HxCDF	115	40-135	
13C-123789-HxCDF	101	40-135	
13C-1234678-HpCDF	91.6	40-135	
13C-1234789-HpCDF	86.7	40-135	
CRS			
37Cl4-2378-TCDD	111	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB12-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-033	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 11:55	**Sample Size:** 12.58 g **% Solids:** 79.5	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.282 U	0.172	0.500	
12378-PeCDD	DL= 0.332	0.327	2.50	
123478-HxCDD	DL= 0.466	0.327	2.50	
123678-HxCDD	DL= 0.519	0.655	2.50	
123789-HxCDD	DL= 0.482	0.315	2.50	
1234678-HpCDD	3.49	0.409	2.50	
OCDD	29.2	1.01	5.00	
2,3,7,8-TCDF	DL= 0.187 U	0.0886	0.500	
12378-PeCDF	DL= 0.220	0.412	2.50	
23478-PeCDF	DL= 0.185	0.422	2.50	
123478-HxCDF	DL= 0.237	0.518	2.50	
123678-HxCDF	DL= 0.219	0.533	2.50	
234678-HxCDF	DL= 0.246	0.319	2.50	
123789-HxCDF	DL= 0.331	0.425	2.50	
1234678-HpCDF	DL= 0.279	0.279	2.50	
1234789-HpCDF	DL= 0.418	0.378	2.50	
OCDF	DL= 1.71	0.461	5.00	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.282 U	
Total PeCDD	DL= 0.332 U	
Total HxCDD	DL= 0.519 U	
Total HpCDD	7.60	
Total TCDF	DL= 0.187 U	
Total PeCDF	DL= 0.220 U	
Total HxCDF	DL= 0.331 U	
Total HpCDF	DL= 0.418 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	109	40-135	
13C-12378-PeCDD	97.9	40-135	
13C-123478-HxCDD	88.4	40-135	
13C-123678-HxCDD	90.1	40-135	
13C-1234678-HpCDD	66.0	40-135	
13C-OCDD	44.2	40-135	
13C-2378-TCDF	134	40-135	
13C-12378-PeCDF	119	40-135	
13C-23478-PeCDF	133	40-135	
13C-123478-HxCDF	125	40-135	
13C-123678-HxCDF	135	40-135	
13C-234678-HxCDF	124	40-135	
13C-123789-HxCDF	111	40-135	
13C-1234678-HpCDF	96.3	40-135	
13C-1234789-HpCDF	96.4	40-135	

CRS

37Cl4-2378-TCDD	112	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0437 pg/g

KR 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB12-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-034	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 12:00	**Sample Size:** 11.47 g **% Solids:** 87.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.345	0.172	0.500	
12378-PeCDD	DL= 0.436	0.327	2.50	
123478-HxCDD	DL= 0.618	0.327	2.50	
123678-HxCDD	DL= 0.689	0.655	2.50	
123789-HxCDD	DL= 0.639	0.315	2.50	
1234678-HpCDD	DL= 0.793	0.409	2.50	
OCDD	DL= 1.82	1.01	5.00	
2,3,7,8-TCDF	DL= 0.216	0.0886	0.500	
12378-PeCDF	DL= 0.274	0.412	2.50	
23478-PeCDF	DL= 0.224	0.422	2.50	
123478-HxCDF	DL= 0.306	0.518	2.50	
123678-HxCDF	DL= 0.274	0.533	2.50	
234678-HxCDF	DL= 0.308	0.319	2.50	
123789-HxCDF	DL= 0.423	0.425	2.50	
1234678-HpCDF	DL= 0.408	0.279	2.50	
1234789-HpCDF	DL= 0.612	0.378	2.50	
OCDF	DL= 2.16	0.461	5.00	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.345	
Total PeCDD	DL= 0.436	
Total HxCDD	DL= 0.689	
Total HpCDD	DL= 0.793	
Total TCDF	DL= 0.216	
Total PeCDF	DL= 0.274	
Total HxCDF	DL= 0.423	
Total HpCDF	DL= 0.612	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	107	40-135	
13C-12378-PeCDD	90.4	40-135	
13C-123478-HxCDD	82.8	40-135	
13C-123678-HxCDD	87.4	40-135	
13C-1234678-HpCDD	65.2	40-135	
13C-OCDD	44.7	40-135	
13C-2378-TCDF	130	40-135	
13C-12378-PeCDF	115	40-135	
13C-23478-PeCDF	128	40-135	
13C-123478-HxCDF	119	40-135	
13C-123678-HxCDF	130	40-135	
13C-234678-HxCDF	120	40-135	
13C-123789-HxCDF	106	40-135	
13C-1234678-HpCDF	93.5	40-135	
13C-1234789-HpCDF	91.5	40-135	

CRS

37Cl4-2378-TCDD	111	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH

Reviewed by: BS

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB12-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-035	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/14/2019
Time Collected: 12:05	**Sample Size:** 11.02 g **% Solids:** 90.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.369 U	0.172	0.500	
12378-PeCDD	DL= 0.473	0.327	2.50	
123478-HxCDD	DL= 0.673	0.327	2.50	
123678-HxCDD	DL= 0.660	0.655	2.50	
123789-HxCDD	DL= 0.653	0.315	2.50	
1234678-HpCDD	DL= 0.892	0.409	2.50	
OCDD	5.50	1.01	5.00	
2,3,7,8-TCDF	DL= 0.308 U	0.0886	0.500	
12378-PeCDF	DL= 0.357	0.412	2.50	
23478-PeCDF	DL= 0.281	0.422	2.50	
123478-HxCDF	DL= 0.390	0.518	2.50	
123678-HxCDF	DL= 0.413	0.533	2.50	
234678-HxCDF	DL= 0.421	0.319	2.50	
123789-HxCDF	DL= 0.654	0.425	2.50	
1234678-HpCDF	DL= 0.582	0.279	2.50	
1234789-HpCDF	DL= 0.766	0.378	2.50	
OCDF	DL= 2.49	0.461	5.00	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.369 U	
Total PeCDD	DL= 0.473	
Total HxCDD	DL= 0.673	
Total HpCDD	DL= 0.892	
Total TCDF	DL= 0.308	
Total PeCDF	DL= 0.357	
Total HxCDF	DL= 0.654	
Total HpCDF	DL= 0.766	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	104	40-135	
13C-12378-PeCDD	86.1	40-135	
13C-123478-HxCDD	85.3	40-135	
13C-123678-HxCDD	89.7	40-135	
13C-1234678-HpCDD	71.7	40-135	
13C-OCDD	46.2	40-135	
13C-2378-TCDF	125	40-135	
13C-12378-PeCDF	109	40-135	
13C-23478-PeCDF	122	40-135	
13C-123478-HxCDF	124	40-135	
13C-123678-HxCDF	134	40-135	
13C-234678-HxCDF	122	40-135	
13C-123789-HxCDF	106	40-135	
13C-1234678-HpCDF	91.8	40-135	
13C-1234789-HpCDF	98.6	40-135	

CRS

37Cl4-2378-TCDD	106	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.00165 pg/g

KAL 7/22/19

Analyst: JMH

Reviewed by: BS

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB13-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-036	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
	Matrix: Soil	**ZB-5MS Analysis:** 7/14/2019
Date Collected: 6/28/2019	**Sample Size:** 12.40 g **% Solids:** 81.0	**Q-225 Analysis:** NA
Time Collected: 13:10		

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.356	0.172	0.498	
12378-PeCDD	DL= 0.416	0.327	2.49	
123478-HxCDD	DL= 0.672	0.327	2.49	
123678-HxCDD	DL= 0.675	0.655	2.49	
123789-HxCDD	DL= 0.660	0.315	2.49	
1234678-HpCDD	DL= 0.850	0.409	2.49	
OCDD	10.5	1.01	4.98	
2,3,7,8-TCDF	DL= 0.322	0.0886	0.498	
12378-PeCDF	DL= 0.390	0.412	2.49	
23478-PeCDF	DL= 0.321	0.422	2.49	
123478-HxCDF	DL= 0.494	0.518	2.49	
123678-HxCDF	DL= 0.514	0.533	2.49	
234678-HxCDF	DL= 0.515	0.319	2.49	
123789-HxCDF	DL= 0.759	0.425	2.49	
1234678-HpCDF	DL= 0.510	0.279	2.49	
1234789-HpCDF	DL= 0.683	0.378	2.49	
OCDF	DL= 2.43	0.461	4.98	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.356	
Total PeCDD	DL= 0.416	
Total HxCDD	DL= 0.675	
Total HpCDD	DL= 0.850	
Total TCDF	DL= 0.322	
Total PeCDF	DL= 0.390	
Total HxCDF	DL= 0.759	
Total HpCDF	DL= 0.683	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	106	40-135	
13C-12378-PeCDD	94.5	40-135	
13C-123478-HxCDD	87.6	40-135	
13C-123678-HxCDD	92.9	40-135	
13C-1234678-HpCDD	74.2	40-135	
13C-OCDD	49.3	40-135	
13C-2378-TCDF	124	40-135	
13C-12378-PeCDF	115	40-135	
13C-23478-PeCDF	126	40-135	
13C-123478-HxCDF	120	40-135	
13C-123678-HxCDF	134	40-135	
13C-234678-HxCDF	121	40-135	
13C-123789-HxCDF	112	40-135	
13C-1234678-HpCDF	97.5	40-135	
13C-1234789-HpCDF	103	40-135	
CRS			
37Cl4-2378-TCDD	115	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.00315 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB13-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-037	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:15	**Sample Size:** 10.55 g **% Solids:** 95.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.343	0.172	0.499	
12378-PeCDD	DL= 0.475	0.327	2.50	
123478-HxCDD	DL= 0.741	0.327	2.50	
123678-HxCDD	DL= 0.819	0.655	2.50	
123789-HxCDD	DL= 0.763	0.315	2.50	
1234678-HpCDD	DL= 1.25	0.409	2.50	
OCDD	DL= 3.21	1.01	4.99	
2,3,7,8-TCDF	DL= 0.305	0.0886	0.499	
12378-PeCDF	DL= 0.369	0.412	2.50	
23478-PeCDF	DL= 0.320	0.422	2.50	
123478-HxCDF	DL= 0.506	0.518	2.50	
123678-HxCDF	DL= 0.468	0.533	2.50	
234678-HxCDF	DL= 0.512	0.319	2.50	
123789-HxCDF	DL= 0.684	0.425	2.50	
1234678-HpCDF	DL= 0.491	0.279	2.50	
1234789-HpCDF	DL= 0.781	0.378	2.50	
OCDF	DL= 3.06	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.343	
Total PeCDD	DL= 0.475	
Total HxCDD	DL= 0.819	
Total HpCDD	DL= 1.25	
Total TCDF	DL= 0.305	
Total PeCDF	DL= 0.369	
Total HxCDF	DL= 0.684	
Total HpCDF	DL= 0.781	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	105	40-135	
13C-12378-PeCDD	89.7	40-135	
13C-123478-HxCDD	87.8	40-135	
13C-123678-HxCDD	89.1	40-135	
13C-1234678-HpCDD	66.7	40-135	
13C-OCDD	43.1	40-135	
13C-2378-TCDF	124	40-135	
13C-12378-PeCDF	110	40-135	
13C-23478-PeCDF	120	40-135	
13C-123478-HxCDF	119	40-135	
13C-123678-HxCDF	127	40-135	
13C-234678-HxCDF	117	40-135	
13C-123789-HxCDF	106	40-135	
13C-1234678-HpCDF	92.3	40-135	
13C-1234789-HpCDF	90.1	40-135	
CRS			
37Cl4-2378-TCDD	117	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB13-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-038	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:20	**Sample Size:** 10.84 g **% Solids:** 92.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.370	0.172	0.497	
12378-PeCDD	DL= 0.459	0.327	2.49	
123478-HxCDD	DL= 0.761	0.327	2.49	
123678-HxCDD	DL= 0.783	0.655	2.49	
123789-HxCDD	DL= 0.756	0.315	2.49	
1234678-HpCDD	DL= 1.06	0.409	2.49	
OCDD	DL= 3.00	1.01	4.97	
2,3,7,8-TCDF	DL= 0.319	0.0886	0.497	
12378-PeCDF	DL= 0.370	0.412	2.49	
23478-PeCDF	DL= 0.293	0.422	2.49	
123478-HxCDF	DL= 0.454	0.518	2.49	
123678-HxCDF	DL= 0.506	0.533	2.49	
234678-HxCDF	DL= 0.518	0.319	2.49	
123789-HxCDF	DL= 0.859	0.425	2.49	
1234678-HpCDF	DL= 0.516	0.279	2.49	
1234789-HpCDF	DL= 0.799	0.378	2.49	
OCDF	DL= 3.11	0.461	4.97	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.370	
Total PeCDD	DL= 0.459	
Total HxCDD	DL= 0.783	
Total HpCDD	DL= 1.06	
Total TCDF	DL= 0.319	
Total PeCDF	DL= 0.370	
Total HxCDF	DL= 0.859	
Total HpCDF	DL= 0.799	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	106	40-135	
13C-12378-PeCDD	86.7	40-135	
13C-123478-HxCDD	92.9	40-135	
13C-123678-HxCDD	96.9	40-135	
13C-1234678-HpCDD	72.9	40-135	
13C-OCDD	45.3	40-135	
13C-2378-TCDF	123	40-135	
13C-12378-PeCDF	107	40-135	
13C-23478-PeCDF	118	40-135	
13C-123478-HxCDF	130	40-135	
13C-123678-HxCDF	127	40-135	
13C-234678-HxCDF	121	40-135	
13C-123789-HxCDF	102	40-135	
13C-1234678-HpCDF	102	40-135	
13C-1234789-HpCDF	93.9	40-135	
CRS			
37Cl4-2378-TCDD	118	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB10-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-039	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:40	**Sample Size:** 10.63 g 94.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.356 U	0.172	0.499	
12378-PeCDD	DL= 0.467	0.327	2.50	
123478-HxCDD	DL= 0.601	0.327	2.50	
123678-HxCDD	DL= 0.676	0.655	2.50	
123789-HxCDD	DL= 0.625	0.315	2.50	
1234678-HpCDD	19.6	0.409	2.50	
OCDD	79.7	1.01	4.99	
2,3,7,8-TCDF	DL= 0.307 U	0.0886	0.499	
12378-PeCDF	DL= 0.346	0.412	2.50	
23478-PeCDF	DL= 0.273	0.422	2.50	
123478-HxCDF	DL= 0.471	0.518	2.50	
123678-HxCDF	DL= 0.454	0.533	2.50	
234678-HxCDF	DL= 0.502	0.319	2.50	
123789-HxCDF	DL= 0.627	0.425	2.50	
1234678-HpCDF	1.57 J	0.279	2.50	J
1234789-HpCDF	DL= 0.707 U	0.378	2.50	
OCDF	DL= 1.13 U	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.356 U	
Total PeCDD	DL= 0.467 U	
Total HxCDD	5.93	
Total HpCDD	35.1	
Total TCDF	DL= 0.307 U	
Total PeCDF	DL= 0.346 U	
Total HxCDF	2.37	
Total HpCDF	3.94	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	100	40-135	
13C-12378-PeCDD	82.5	40-135	
13C-123478-HxCDD	86.6	40-135	
13C-123678-HxCDD	89.6	40-135	
13C-1234678-HpCDD	84.0	40-135	
13C-OCDD	112	40-135	
13C-2378-TCDF	112	40-135	
13C-12378-PeCDF	99.8	40-135	
13C-23478-PeCDF	111	40-135	
13C-123478-HxCDF	117	40-135	
13C-123678-HxCDF	127	40-135	
13C-234678-HxCDF	118	40-135	
13C-123789-HxCDF	109	40-135	
13C-1234678-HpCDF	96.8	40-135	
13C-1234789-HpCDF	98.9	40-135	
CRS			
37Cl4-2378-TCDD	106	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.236 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB10-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-040	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:50	**Sample Size:** 10.94 g **% Solids:** 91.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.278 U	0.172	0.499	
12378-PeCDD	DL= 0.349	0.327	2.49	
123478-HxCDD	DL= 0.552	0.327	2.49	
123678-HxCDD	DL= 0.594	0.655	2.49	
123789-HxCDD	DL= 0.561	0.315	2.49	
1234678-HpCDD	2.83	0.409	2.49	
OCDD	12.7	1.01	4.99	
2,3,7,8-TCDF	DL= 0.278 U	0.0886	0.499	
12378-PeCDF	DL= 0.315	0.412	2.49	
23478-PeCDF	DL= 0.263	0.422	2.49	
123478-HxCDF	DL= 0.342	0.518	2.49	
123678-HxCDF	DL= 0.344	0.533	2.49	
234678-HxCDF	DL= 0.348	0.319	2.49	
123789-HxCDF	DL= 0.514	0.425	2.49	
1234678-HpCDF	DL= 0.460	0.279	2.49	
1234789-HpCDF	DL= 0.675	0.378	2.49	
OCDF	DL= 1.95	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.278 U	
Total PeCDD	DL= 0.349 U	
Total HxCDD	DL= 0.594 U	
Total HpCDD	5.17 J	
Total TCDF	DL= 0.278 U	
Total PeCDF	DL= 0.315 U	
Total HxCDF	DL= 0.514 U	
Total HpCDF	DL= 0.675 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	106	40-135	
13C-12378-PeCDD	87.9	40-135	
13C-123478-HxCDD	88.9	40-135	
13C-123678-HxCDD	93.5	40-135	
13C-1234678-HpCDD	71.7	40-135	
13C-OCDD	46.3	40-135	
13C-2378-TCDF	121	40-135	
13C-12378-PeCDF	109	40-135	
13C-23478-PeCDF	118	40-135	
13C-123478-HxCDF	117	40-135	
13C-123678-HxCDF	128	40-135	
13C-234678-HxCDF	118	40-135	
13C-123789-HxCDF	108	40-135	
13C-1234678-HpCDF	96.4	40-135	
13C-1234789-HpCDF	102	40-135	
CRS			
37Cl4-2378-TCDD	129	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0321 pg/g

KDL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB10-5A		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-041	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:50	**Sample Size:** 11.43 g **% Solids:** 89.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.308 U	0.172	0.492	
12378-PeCDD	DL= 0.394	0.327	2.45	
123478-HxCDD	DL= 0.659	0.327	2.45	
123678-HxCDD	DL= 0.644	0.655	2.45	
123789-HxCDD	DL= 0.637	0.315	2.45	
1234678-HpCDD	2.85	0.409	2.45	
OCDD	16.0	1.01	4.92	
2,3,7,8-TCDF	DL= 0.268 U	0.0886	0.492	
12378-PeCDF	DL= 0.290	0.412	2.45	
23478-PeCDF	DL= 0.233	0.422	2.45	
123478-HxCDF	DL= 0.317	0.518	2.45	
123678-HxCDF	DL= 0.348	0.533	2.45	
234678-HxCDF	DL= 0.333	0.319	2.45	
123789-HxCDF	DL= 0.493	0.425	2.45	
1234678-HpCDF	DL= 0.478	0.279	2.45	
1234789-HpCDF	DL= 0.673	0.378	2.45	
OCDF	DL= 2.00	0.461	4.92	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.308 U	
Total PeCDD	DL= 0.394 U	
Total HxCDD	DL= 0.659 U	
Total HpCDD	2.85 J	
Total TCDF	DL= 0.268 U	
Total PeCDF	DL= 0.290 U	
Total HxCDF	DL= 0.493 U	
Total HpCDF	DL= 0.673 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	110	40-135	
13C-12378-PeCDD	94.1	40-135	
13C-123478-HxCDD	81.0	40-135	
13C-123678-HxCDD	90.4	40-135	
13C-1234678-HpCDD	73.6	40-135	
13C-OCDD	50.8	40-135	
13C-2378-TCDF	126	40-135	
13C-12378-PeCDF	112	40-135	
13C-23478-PeCDF	124	40-135	
13C-123478-HxCDF	118	40-135	
13C-123678-HxCDF	129	40-135	
13C-234678-HxCDF	120	40-135	
13C-123789-HxCDF	110	40-135	
13C-1234678-HpCDF	96.1	40-135	
13C-1234789-HpCDF	97.7	40-135	

CRS

37Cl4-2378-TCDD	120	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0333 pg/g

KA 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB10-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-042	**Date Received:** 7/3/2019
	QC Batch #: 2018	**Date Extracted:** 7/11/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 13:55	**Sample Size:** 10.61 g **% Solids:** 95.3	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.317	0.172	0.495	
12378-PeCDD	DL= 0.378	0.327	2.47	
123478-HxCDD	DL= 0.650	0.327	2.47	
123678-HxCDD	DL= 0.623	0.655	2.47	
123789-HxCDD	DL= 0.623	0.315	2.47	
1234678-HpCDD	DL= 0.947	0.409	2.47	
OCDD	DL= 2.31	1.01	4.95	
2,3,7,8-TCDF	DL= 0.272	0.0886	0.495	
12378-PeCDF	DL= 0.297	0.412	2.47	
23478-PeCDF	DL= 0.245	0.422	2.47	
123478-HxCDF	DL= 0.311	0.518	2.47	
123678-HxCDF	DL= 0.336	0.533	2.47	
234678-HxCDF	DL= 0.342	0.319	2.47	
123789-HxCDF	DL= 0.510	0.425	2.47	
1234678-HpCDF	DL= 0.376	0.279	2.47	
1234789-HpCDF	DL= 0.522	0.378	2.47	
OCDF	DL= 1.80	0.461	4.95	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.317	
Total PeCDD	DL= 0.378	
Total HxCDD	DL= 0.650	
Total HpCDD	DL= 0.947	
Total TCDF	DL= 0.272	
Total PeCDF	DL= 0.297	
Total HxCDF	DL= 0.510	
Total HpCDF	DL= 0.522	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	107	40-135	
13C-12378-PeCDD	91.2	40-135	
13C-123478-HxCDD	81.4	40-135	
13C-123678-HxCDD	87.5	40-135	
13C-1234678-HpCDD	73.6	40-135	
13C-OCDD	48.5	40-135	
13C-2378-TCDF	127	40-135	
13C-12378-PeCDF	114	40-135	
13C-23478-PeCDF	125	40-135	
13C-123478-HxCDF	118	40-135	
13C-123678-HxCDF	128	40-135	
13C-234678-HxCDF	114	40-135	
13C-123789-HxCDF	107	40-135	
13C-1234678-HpCDF	97.8	40-135	
13C-1234789-HpCDF	97.4	40-135	

CRS

37Cl4-2378-TCDD	119	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB9-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-043	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:10	**Sample Size:** 10.78 g **% Solids:** 92.9	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.390 U	0.172	0.500		13C-2378-TCDD	110	40-135	
12378-PeCDD	DL= 0.474	0.327	2.50		13C-12378-PeCDD	93.6	40-135	
123478-HxCDD	DL= 0.663	0.327	2.50		13C-123478-HxCDD	90.7	40-135	
123678-HxCDD	DL= 0.756	0.655	2.50		13C-123678-HxCDD	95.9	40-135	
123789-HxCDD	DL= 0.694	0.315	2.50		13C-1234678-HpCDD	70.8	40-135	
1234678-HpCDD	4.22	0.409	2.50		13C-OCDD	46.4	40-135	
OCDD	24.2	1.01	5.00		13C-2378-TCDF	127	40-135	
2,3,7,8-TCDF	DL= 0.293 U	0.0886	0.500		13C-12378-PeCDF	110	40-135	
12378-PeCDF	DL= 0.344	0.412	2.50		13C-23478-PeCDF	125	40-135	
23478-PeCDF	DL= 0.271	0.422	2.50		13C-123478-HxCDF	124	40-135	
123478-HxCDF	DL= 0.450	0.518	2.50		13C-123678-HxCDF	131	40-135	
123678-HxCDF	DL= 0.489	0.533	2.50		13C-234678-HxCDF	129	40-135	
234678-HxCDF	DL= 0.498	0.319	2.50		13C-123789-HxCDF	114	40-135	
123789-HxCDF	DL= 0.598	0.425	2.50		13C-1234678-HpCDF	97.8	40-135	
1234678-HpCDF	DL= 0.491	0.279	2.50		13C-1234789-HpCDF	94.1	40-135	
1234789-HpCDF	DL= 0.735	0.378	2.50					
OCDF	DL= 2.59	0.461	5.00					

Totals	Conc. (pg/g)	EMPC
Total TCDD	10.3	
Total PeCDD	4.34	
Total HxCDD	DL= 0.756 U	
Total HpCDD	8.55	
Total TCDF	DL= 0.293 U	
Total PeCDF	DL= 0.344 U	
Total HxCDF	DL= 0.598 U	
Total HpCDF	DL= 0.735 U	

CRS		
37Cl4-2378-TCDD	116	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0495 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB9-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-044	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:15	**Sample Size:** 12.73 g **% Solids:** 79.5	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.419 U	0.172	0.494	
12378-PeCDD	DL= 0.486	0.327	2.47	
123478-HxCDD	DL= 0.634	0.327	2.47	
123678-HxCDD	DL= 0.681	0.655	2.47	
123789-HxCDD	DL= 0.643	0.315	2.47	
1234678-HpCDD	7.45	0.409	2.47	
OCDD	40.7	1.01	4.94	
2,3,7,8-TCDF	DL= 0.312 U	0.0886	0.494	
12378-PeCDF	DL= 0.340	0.412	2.47	
23478-PeCDF	DL= 0.259	0.422	2.47	
123478-HxCDF	DL= 0.347	0.518	2.47	
123678-HxCDF	DL= 0.361	0.533	2.47	
234678-HxCDF	DL= 0.395	0.319	2.47	
123789-HxCDF	DL= 0.510	0.425	2.47	
1234678-HpCDF	DL= 0.458	0.279	2.47	
1234789-HpCDF	DL= 0.665	0.378	2.47	
OCDF	DL= 2.22	0.461	4.94	

Totals	Conc. (pg/g)	EMPC
Total TCDD	9.23	
Total PeCDD	6.82	
Total HxCDD	DL= 0.681 U	
Total HpCDD	14.3	
Total TCDF	DL= 0.312 U	
Total PeCDF	DL= 0.340 U	
Total HxCDF	DL= 0.510 U	
Total HpCDF	DL= 0.665 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	104	40-135	
13C-12378-PeCDD	96.0	40-135	
13C-123478-HxCDD	88.0	40-135	
13C-123678-HxCDD	93.6	40-135	
13C-1234678-HpCDD	73.3	40-135	
13C-OCDD	51.7	40-135	
13C-2378-TCDF	125	40-135	
13C-12378-PeCDF	116	40-135	
13C-23478-PeCDF	131	40-135	
13C-123478-HxCDF	123	40-135	
13C-123678-HxCDF	132	40-135	
13C-234678-HxCDF	121	40-135	
13C-123789-HxCDF	110	40-135	
13C-1234678-HpCDF	96.0	40-135	
13C-1234789-HpCDF	97.0	40-135	

CRS		
37Cl4-2378-TCDD	118	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.867 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB9-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-045	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:20	**Sample Size:** 12.51 g **% Solids:** 80.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.357 U	0.172	0.495		13C-2378-TCDD	113	40-135	
12378-PeCDD	DL= 0.499	0.327	2.47		13C-12378-PeCDD	93.1	40-135	
123478-HxCDD	DL= 0.641	0.327	2.47		13C-123478-HxCDD	89.1	40-135	
123678-HxCDD	DL= 0.693	0.655	2.47		13C-123678-HxCDD	96.5	40-135	
123789-HxCDD	DL= 0.653	0.315	2.47		13C-1234678-HpCDD	78.9	40-135	
1234678-HpCDD	3.87	0.409	2.47		13C-OCDD	53.9	40-135	
OCDD	24.4	1.01	4.95		13C-2378-TCDF	124	40-135	
2,3,7,8-TCDF	DL= 0.305 U	0.0886	0.495		13C-12378-PeCDF	115	40-135	
12378-PeCDF	DL= 0.336	0.412	2.47		13C-23478-PeCDF	128	40-135	
23478-PeCDF	DL= 0.267	0.422	2.47		13C-123478-HxCDF	124	40-135	
123478-HxCDF	DL= 0.376	0.518	2.47		13C-123678-HxCDF	134	40-135	
123678-HxCDF	DL= 0.367	0.533	2.47		13C-234678-HxCDF	124	40-135	
234678-HxCDF	DL= 0.423	0.319	2.47		13C-123789-HxCDF	109	40-135	
123789-HxCDF	DL= 0.547	0.425	2.47		13C-1234678-HpCDF	103	40-135	
1234678-HpCDF	DL= 0.452	0.279	2.47		13C-1234789-HpCDF	100	40-135	
1234789-HpCDF	DL= 0.753	0.378	2.47					
OCDF	DL= 1.94	0.461	4.95					

Totals	Conc. (pg/g)	EMPC
Total TCDD	3.34	
Total PeCDD	DL= 0.499 U	
Total HxCDD	DL= 0.693 U	
Total HpCDD	6.92	
Total TCDF	DL= 0.305 U	
Total PeCDF	DL= 0.336 U	
Total HxCDF	DL= 0.547 U	
Total HpCDF	DL= 0.753 U	

CRS		
37Cl4-2378-TCDD	128	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0460 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB11-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-046	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:45	**Sample Size:** 12.85 g **% Solids:** 78.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.457 U	0.172	0.499		13C-2378-TCDD	111	40-135	
12378-PeCDD	DL= 0.541	0.327	2.50		13C-12378-PeCDD	95.5	40-135	
123478-HxCDD	DL= 0.698	0.327	2.50		13C-123478-HxCDD	88.9	40-135	
123678-HxCDD	DL= 0.763	0.655	2.50		13C-123678-HxCDD	94.5	40-135	
123789-HxCDD	DL= 0.715	0.315	2.50		13C-1234678-HpCDD	75.9	40-135	
1234678-HpCDD	51.4	0.409	2.50		13C-OCDD	50.4	40-135	
OCDD	887	1.01	4.99		13C-2378-TCDF	127	40-135	
2,3,7,8-TCDF	DL= 0.298 U	0.0886	0.499		13C-12378-PeCDF	117	40-135	
12378-PeCDF	DL= 0.335	0.412	2.50		13C-23478-PeCDF	130	40-135	
23478-PeCDF	DL= 0.277	0.422	2.50		13C-123478-HxCDF	126	40-135	
123478-HxCDF	DL= 0.351	0.518	2.50		13C-123678-HxCDF	133	40-135	
123678-HxCDF	DL= 0.329	0.533	2.50		13C-234678-HxCDF	124	40-135	
234678-HxCDF	DL= 0.353	0.319	2.50		13C-123789-HxCDF	112	40-135	
123789-HxCDF	DL= 0.518	0.425	2.50		13C-1234678-HpCDF	95.2	40-135	
1234678-HpCDF	3.87	0.279	2.50		13C-1234789-HpCDF	97.8	40-135	
1234789-HpCDF	DL= 0.621 U	0.378	2.50					
OCDF	DL= 2.22 U	0.461	4.99					

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.457 U	
Total PeCDD	DL= 0.541 U	
Total HxCDD	9.86	
Total HpCDD	104	
Total TCDF	DL= 0.298 U	
Total PeCDF	DL= 0.353 U	
Total HxCDF	7.74	
Total HpCDF	9.65	

CRS			
37Cl4-2378-TCDD	125	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.819 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB11-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-047	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:50	**Sample Size:** 10.95 g **% Solids:** 92.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.342 U	0.172	0.493	
12378-PeCDD	DL= 0.421	0.327	2.46	
123478-HxCDD	DL= 0.589	0.327	2.46	
123678-HxCDD	DL= 0.599	0.655	2.46	
123789-HxCDD	DL= 0.582	0.315	2.46	
1234678-HpCDD	32.5	0.409	2.46	
OCDD	551	1.01	4.93	
2,3,7,8-TCDF	DL= 0.316 U	0.0886	0.493	
12378-PeCDF	DL= 0.314	0.412	2.46	
23478-PeCDF	DL= 0.252	0.422	2.46	
123478-HxCDF	DL= 0.267	0.518	2.46	
123678-HxCDF	DL= 0.290	0.533	2.46	
234678-HxCDF	DL= 0.302	0.319	2.46	
123789-HxCDF	DL= 0.418	0.425	2.46	
1234678-HpCDF	2.65	0.279	2.46	
1234789-HpCDF	DL= 0.488 U	0.378	2.46	
OCDF	DL= 1.92 U	0.461	4.93	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.342 U	
Total PeCDD	DL= 0.421 U	
Total HxCDD	4.70	
Total HpCDD	65.6	
Total TCDF	DL= 0.316 U	
Total PeCDF	DL= 0.314 U	
Total HxCDF	4.95	
Total HpCDF	6.10	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	107	40-135	
13C-12378-PeCDD	92.1	40-135	
13C-123478-HxCDD	90.3	40-135	
13C-123678-HxCDD	93.9	40-135	
13C-1234678-HpCDD	76.8	40-135	
13C-OCDD	49.5	40-135	
13C-2378-TCDF	119	40-135	
13C-12378-PeCDF	114	40-135	
13C-23478-PeCDF	125	40-135	
13C-123478-HxCDF	125	40-135	
13C-123678-HxCDF	130	40-135	
13C-234678-HxCDF	124	40-135	
13C-123789-HxCDF	109	40-135	
13C-1234678-HpCDF	99.4	40-135	
13C-1234789-HpCDF	97.2	40-135	
CRS			
37Cl4-2378-TCDD	122	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.368 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB11-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-048	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 14:55	**Sample Size:** 12.33 g **% Solids:** 83.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.308 U	0.172	0.489	
12378-PeCDD	DL= 0.418	0.327	2.44	
123478-HxCDD	DL= 0.543	0.327	2.44	
123678-HxCDD	DL= 0.592	0.655	2.44	
123789-HxCDD	DL= 0.556	0.315	2.44	
1234678-HpCDD	DL= 0.886	0.409	2.44	
OCDD	DL= 2.47	1.01	4.89	
2,3,7,8-TCDF	DL= 0.307	0.0886	0.489	
12378-PeCDF	DL= 0.357	0.412	2.44	
23478-PeCDF	DL= 0.278	0.422	2.44	
123478-HxCDF	DL= 0.355	0.518	2.44	
123678-HxCDF	DL= 0.371	0.533	2.44	
234678-HxCDF	DL= 0.407	0.319	2.44	
123789-HxCDF	DL= 0.520	0.425	2.44	
1234678-HpCDF	DL= 0.445	0.279	2.44	
1234789-HpCDF	DL= 0.683	0.378	2.44	
OCDF	DL= 2.44	0.461	4.89	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.308 U	
Total PeCDD	DL= 0.418	
Total HxCDD	DL= 0.592	
Total HpCDD	DL= 0.886	
Total TCDF	DL= 0.307	
Total PeCDF	DL= 0.357	
Total HxCDF	DL= 0.520	
Total HpCDF	DL= 0.683	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	108	40-135	
13C-12378-PeCDD	100	40-135	
13C-123478-HxCDD	89.1	40-135	
13C-123678-HxCDD	92.2	40-135	
13C-1234678-HpCDD	73.7	40-135	
13C-OCDD	44.8	40-135	
13C-2378-TCDF	126	40-135	
13C-12378-PeCDF	119	40-135	
13C-23478-PeCDF	133	40-135	
13C-123478-HxCDF	123	40-135	
13C-123678-HxCDF	130	40-135	
13C-234678-HxCDF	118	40-135	
13C-123789-HxCDF	108	40-135	
13C-1234678-HpCDF	95.3	40-135	
13C-1234789-HpCDF	93.6	40-135	
CRS			
37Cl4-2378-TCDD	125	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB16-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-049	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 15:10	**Sample Size:** 10.46 g **% Solids:** 95.8	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.272	0.172	0.499	
12378-PeCDD	DL= 0.328	0.327	2.50	
123478-HxCDD	DL= 0.485	0.327	2.50	
123678-HxCDD	DL= 0.534	0.655	2.50	
123789-HxCDD	DL= 0.499	0.315	2.50	
1234678-HpCDD	17.3	0.409	2.50	
OCDD	132	1.01	4.99	
2,3,7,8-TCDF	DL= 0.238	0.0886	0.499	
12378-PeCDF	DL= 0.264	0.412	2.50	
23478-PeCDF	DL= 0.224	0.422	2.50	
123478-HxCDF	DL= 0.318	0.518	2.50	
123678-HxCDF	DL= 0.295	0.533	2.50	
234678-HxCDF	DL= 0.331	0.319	2.50	
123789-HxCDF	DL= 0.451	0.425	2.50	
1234678-HpCDF	DL= 0.422	0.279	2.50	
1234789-HpCDF	DL= 0.639	0.378	2.50	
OCDF	DL= 2.24	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	3.83	
Total PeCDD	2.14	
Total HxCDD	3.04	
Total HpCDD	30.6	
Total TCDF	DL= 0.238	
Total PeCDF	DL= 0.264	
Total HxCDF	DL= 0.451	
Total HpCDF	DL= 0.639	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	107	40-135	
13C-12378-PeCDD	93.5	40-135	
13C-123478-HxCDD	88.8	40-135	
13C-123678-HxCDD	91.4	40-135	
13C-1234678-HpCDD	74.2	40-135	
13C-OCDD	46.5	40-135	
13C-2378-TCDF	122	40-135	
13C-12378-PeCDF	117	40-135	
13C-23478-PeCDF	127	40-135	
13C-123478-HxCDF	124	40-135	
13C-123678-HxCDF	132	40-135	
13C-234678-HxCDF	121	40-135	
13C-123789-HxCDF	110	40-135	
13C-1234678-HpCDF	94.7	40-135	
13C-1234789-HpCDF	94.8	40-135	
CRS			
37Cl4-2378-TCDD	119	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.213 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB16.8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-050	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 15:20	**Sample Size:** 11.31 g **% Solids:** 88.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.473	0.172	0.499	
12378-PeCDD	DL= 0.524	0.327	2.49	
123478-HxCDD	DL= 0.733	0.327	2.49	
123678-HxCDD	DL= 0.726	0.655	2.49	
123789-HxCDD	DL= 0.715	0.315	2.49	
1234678-HpCDD	5.66	0.409	2.49	
OCDD	32.4	1.01	4.99	
2,3,7,8-TCDF	DL= 0.355	0.0886	0.499	
12378-PeCDF	DL= 0.377	0.412	2.49	
23478-PeCDF	DL= 0.301	0.422	2.49	
123478-HxCDF	DL= 0.374	0.518	2.49	
123678-HxCDF	DL= 0.394	0.533	2.49	
234678-HxCDF	DL= 0.405	0.319	2.49	
123789-HxCDF	DL= 0.604	0.425	2.49	
1234678-HpCDF	DL= 0.493	0.279	2.49	
1234789-HpCDF	DL= 0.740	0.378	2.49	
OCDF	DL= 2.34	0.461	4.99	

Totals	Conc. (pg/g)	EMPC
Total TCDD	14.9	
Total PeCDD	8.09	
Total HxCDD	DL= 0.733	
Total HpCDD	11.2	
Total TCDF	DL= 0.355	
Total PeCDF	DL= 0.377	
Total HxCDF	DL= 0.604	
Total HpCDF	DL= 0.740	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	109	40-135	
13C-12378-PeCDD	95.3	40-135	
13C-123478-HxCDD	86.3	40-135	
13C-123678-HxCDD	87.2	40-135	
13C-1234678-HpCDD	69.3	40-135	
13C-OCDD	44.6	40-135	
13C-2378-TCDF	125	40-135	
13C-12378-PeCDF	117	40-135	
13C-23478-PeCDF	131	40-135	
13C-123478-HxCDF	121	40-135	
13C-123678-HxCDF	128	40-135	
13C-234678-HxCDF	119	40-135	
13C-123789-HxCDF	108	40-135	
13C-1234678-HpCDF	92.4	40-135	
13C-1234789-HpCDF	86.9	40-135	

CRS

37Cl4-2378-TCDD	117	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0663 pg/g

KM 7/22/19

Analyst: JMH

Reviewed by: BS

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB15-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-051	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 15:50	**Sample Size:** 10.89 g **% Solids:** 93.1	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.350 U	0.172	0.493	
12378-PeCDD	DL= 0.354	0.327	2.47	
123478-HxCDD	DL= 0.538	0.327	2.47	
123678-HxCDD	DL= 0.515	0.655	2.47	
123789-HxCDD	DL= 0.515	0.315	2.47	
1234678-HpCDD	35.9	0.409	2.47	
OCDD	228	1.01	4.93	
2,3,7,8-TCDF	DL= 0.326 U	0.0886	0.493	
12378-PeCDF	DL= 0.308	0.412	2.47	
23478-PeCDF	DL= 0.247	0.422	2.47	
123478-HxCDF	DL= 0.314	0.518	2.47	
123678-HxCDF	DL= 0.344	0.533	2.47	
234678-HxCDF	DL= 0.341	0.319	2.47	
123789-HxCDF	DL= 0.542	0.425	2.47	
1234678-HpCDF	DL= 0.445	0.279	2.47	
1234789-HpCDF	DL= 0.644	0.378	2.47	
OCDF	DL= 2.07	0.461	4.93	

Totals	Conc. (pg/g)	EMPC
Total TCDD	3.28	
Total PeCDD	DL= 0.354 U	
Total HxCDD	4.81	
Total HpCDD	63.2	
Total TCDF	DL= 0.326 U	
Total PeCDF	DL= 0.308 U	
Total HxCDF	DL= 0.542 U	
Total HpCDF	DL= 0.644 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	106	40-135	
13C-12378-PeCDD	98.2	40-135	
13C-123478-HxCDD	81.2	40-135	
13C-123678-HxCDD	90.2	40-135	
13C-1234678-HpCDD	71.6	40-135	
13C-OCDD	45.5	40-135	
13C-2378-TCDF	127	40-135	
13C-12378-PeCDF	122	40-135	
13C-23478-PeCDF	135	40-135	
13C-123478-HxCDF	117	40-135	
13C-123678-HxCDF	127	40-135	
13C-234678-HxCDF	119	40-135	
13C-123789-HxCDF	102	40-135	
13C-1234678-HpCDF	89.4	40-135	
13C-1234789-HpCDF	89.2	40-135	

CRS

37Cl4-2378-TCDD	122	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.
EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.
(a) - Lower control limit - Upper control limit
(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.427 pg/g

KAL
7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB15-5A		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-052	**Date Received:** 7/3/2019
	QC Batch #: 2019	**Date Extracted:** 7/12/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 15:50	**Sample Size:** 10.71 g **% Solids:** 95.0	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.410	0.172	0.492	U
12378-PeCDD	DL= 0.399	0.327	2.46	
123478-HxCDD	DL= 0.643	0.327	2.46	
123678-HxCDD	DL= 0.695	0.655	2.46	
123789-HxCDD	DL= 0.655	0.315	2.46	
1234678-HpCDD	24.3	0.409	2.46	
OCDD	165	1.01	4.92	
2,3,7,8-TCDF	DL= 0.281	0.0886	0.492	U
12378-PeCDF	DL= 0.320	0.412	2.46	
23478-PeCDF	DL= 0.268	0.422	2.46	
123478-HxCDF	DL= 0.363	0.518	2.46	
123678-HxCDF	DL= 0.341	0.533	2.46	
234678-HxCDF	DL= 0.366	0.319	2.46	
123789-HxCDF	DL= 0.523	0.425	2.46	
1234678-HpCDF	DL= 0.461	0.279	2.46	
1234789-HpCDF	DL= 0.710	0.378	2.46	
OCDF	DL= 2.44	0.461	4.92	

Totals	Conc. (pg/g)	EMPC
Total TCDD	3.26	
Total PeCDD	DL= 0.399	U
Total HxCDD	5.84	
Total HpCDD	44.3	
Total TCDF	DL= 0.281	U
Total PeCDF	DL= 0.320	U
Total HxCDF	DL= 0.523	U
Total HpCDF	DL= 0.710	U

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	99.2	40-135	
13C-12378-PeCDD	94.1	40-135	
13C-123478-HxCDD	85.3	40-135	
13C-123678-HxCDD	93.4	40-135	
13C-1234678-HpCDD	75.2	40-135	
13C-OCDD	46.8	40-135	
13C-2378-TCDF	116	40-135	
13C-12378-PeCDF	113	40-135	
13C-23478-PeCDF	124	40-135	
13C-123478-HxCDF	121	40-135	
13C-123678-HxCDF	131	40-135	
13C-234678-HxCDF	120	40-135	
13C-123789-HxCDF	110	40-135	
13C-1234678-HpCDF	96.7	40-135	
13C-1234789-HpCDF	93.9	40-135	
CRS			
37Cl4-2378-TCDD	114	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.293 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB15-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-053	**Date Received:** 7/3/2019
	QC Batch #: 2020	**Date Extracted:** 7/14/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/15/2019
Time Collected: 16:05	**Sample Size:** 10.48 g **% Solids:** 95.1	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.175 U	0.172	0.502		13C-2378-TCDD	109	40-135	
12378-PeCDD	DL= 0.256 U	0.327	2.51		13C-12378-PeCDD	86.6	40-135	
123478-HxCDD	DL= 0.357 U	0.327	2.51		13C-123478-HxCDD	87.4	40-135	
123678-HxCDD	DL= 0.365 U	0.655	2.51		13C-123678-HxCDD	97.1	40-135	
123789-HxCDD	2.17 J	0.315	2.51	J	13C-1234678-HpCDD	72.0	40-135	
1234678-HpCDD	32.2	0.409	2.51		13C-OCDD	45.9	40-135	
OCDD	186	1.01	5.02		13C-2378-TCDF	118	40-135	
2,3,7,8-TCDF	0.358 J	0.0886	0.502	J	13C-12378-PeCDF	105	40-135	
12378-PeCDF	DL= 0.168 U	0.412	2.51		13C-23478-PeCDF	116	40-135	
23478-PeCDF	DL= 0.144	0.422	2.51		13C-123478-HxCDF	112	40-135	
123478-HxCDF	DL= 0.185	0.518	2.51		13C-123678-HxCDF	121	40-135	
123678-HxCDF	DL= 0.185	0.533	2.51		13C-234678-HxCDF	113	40-135	
234678-HxCDF	DL= 0.191	0.319	2.51		13C-123789-HxCDF	102	40-135	
123789-HxCDF	DL= 0.287	0.425	2.51		13C-1234678-HpCDF	85.8	40-135	
1234678-HpCDF	1.20 J	0.279	2.51	J	13C-1234789-HpCDF	86.2	40-135	
1234789-HpCDF	DL= 0.396 U	0.378	2.51					
OCDF	DL= 1.23 U	0.461	5.02					

Totals	Conc. (pg/g)	EMPC
Total TCDD	4.25	
Total PeCDD	2.02	
Total HxCDD	8.43	
Total HpCDD	57.2	
Total TCDF	4.55 ~~2.94~~ EMPC	4.55
Total PeCDF	DL= 0.168 U	
Total HxCDF	1.81	
Total HpCDF	3.31	

CRS

37Cl4-2378-TCDD	129	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.643 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB14-5		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-054	**Date Received:** 7/3/2019
	QC Batch #: 2020	**Date Extracted:** 7/14/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 16:15	**Sample Size:** 10.48 g **% Solids:** 94.8	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.199 u	0.172	0.503	
12378-PeCDD	DL= 0.319	0.327	2.52	
123478-HxCDD	DL= 0.413	0.327	2.52	
123678-HxCDD	DL= 0.393	0.655	2.52	
123789-HxCDD	DL= 0.395	0.315	2.52	
1234678-HpCDD	10.1	0.409	2.52	
OCDD	51.1	1.01	5.03	
2,3,7,8-TCDF	DL= 0.248 u	0.0886	0.503	
12378-PeCDF	DL= 0.196	0.412	2.52	
23478-PeCDF	DL= 0.159	0.422	2.52	
123478-HxCDF	DL= 0.232	0.518	2.52	
123678-HxCDF	DL= 0.252	0.533	2.52	
234678-HxCDF	DL= 0.250	0.319	2.52	
123789-HxCDF	DL= 0.383	0.425	2.52	
1234678-HpCDF	DL= 0.353	0.279	2.52	
1234789-HpCDF	DL= 0.501	0.378	2.52	
OCDF	DL= 1.72	0.461	5.03	

Totals	Conc. (pg/g)	EMPC
Total TCDD	18.4	
Total PeCDD	14.6	
Total HxCDD	5.13	
Total HpCDD	18.4	
Total TCDF	5.97	
Total PeCDF	DL= 0.196 u	
Total HxCDF	DL= 0.383 u	
Total HpCDF	DL= 0.501 u	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	108	40-135	
13C-12378-PeCDD	84.1	40-135	
13C-123478-HxCDD	87.8	40-135	
13C-123678-HxCDD	94.3	40-135	
13C-1234678-HpCDD	70.4	40-135	
13C-OCDD	44.5	40-135	
13C-2378-TCDF	116	40-135	
13C-12378-PeCDF	105	40-135	
13C-23478-PeCDF	114	40-135	
13C-123478-HxCDF	109	40-135	
13C-123678-HxCDF	120	40-135	
13C-234678-HxCDF	110	40-135	
13C-123789-HxCDF	100	40-135	
13C-1234678-HpCDF	83.3	40-135	
13C-1234789-HpCDF	84.7	40-135	

CRS			
37Cl4-2378-TCDD	127	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.116 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB14-8		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-055	**Date Received:** 7/3/2019
	QC Batch #: 2020	**Date Extracted:** 7/14/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 16:25	**Sample Size:** 10.75 g **% Solids:** 92.7	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.179 U	0.172	0.502	
12378-PeCDD	DL= 0.275	0.327	2.51	
123478-HxCDD	DL= 0.360	0.327	2.51	
123678-HxCDD	DL= 0.411	0.655	2.51	
123789-HxCDD	DL= 0.377	0.315	2.51	
1234678-HpCDD	19.3	0.409	2.51	
OCDD	159	1.01	5.02	
2,3,7,8-TCDF	DL= 0.182 U	0.0886	0.502	
12378-PeCDF	DL= 0.218	0.412	2.51	
23478-PeCDF	DL= 0.179	0.422	2.51	
123478-HxCDF	DL= 0.271	0.518	2.51	
123678-HxCDF	DL= 0.246	0.533	2.51	
234678-HxCDF	DL= 0.271	0.319	2.51	
123789-HxCDF	DL= 0.367	0.425	2.51	
1234678-HpCDF	DL= 0.477	0.279	2.51	
1234789-HpCDF	DL= 0.744	0.378	2.51	
OCDF	DL= 1.91	0.461	5.02	

Totals	Conc. (pg/g)	EMPC
Total TCDD	5.76	
Total PeCDD	2.14	
Total HxCDD	3.45	
Total HpCDD	34.6	
Total TCDF	DL= 0.182 U	
Total PeCDF	DL= 0.218 U	
Total HxCDF	1.24	
Total HpCDF	3.90	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	105	40-135	
13C-12378-PeCDD	90.2	40-135	
13C-123478-HxCDD	87.6	40-135	
13C-123678-HxCDD	98.2	40-135	
13C-1234678-HpCDD	71.1	40-135	
13C-OCDD	44.7	40-135	
13C-2378-TCDF	113	40-135	
13C-12378-PeCDF	106	40-135	
13C-23478-PeCDF	115	40-135	
13C-123478-HxCDF	112	40-135	
13C-123678-HxCDF	122	40-135	
13C-234678-HxCDF	113	40-135	
13C-123789-HxCDF	103	40-135	
13C-1234678-HpCDF	85.0	40-135	
13C-1234789-HpCDF	84.5	40-135	
CRS			
37Cl4-2378-TCDD	121	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.241 pg/g

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: WC1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-057	**Date Received:** 7/3/2019
	QC Batch #: 2020	**Date Extracted:** 7/14/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 17:30	**Sample Size:** 10.61 g **% Solids:** 94.1	**Q-225 Analysis:** 7/16/2019

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.265 U	0.172	0.501	
12378-PeCDD	DL= 0.351	0.327	2.51	
123478-HxCDD	DL= 0.454	0.327	2.51	
123678-HxCDD	DL= 0.502	0.655	2.51	
123789-HxCDD	DL= 0.468	0.315	2.51	
1234678-HpCDD	7.88	0.409	2.51	
OCDD	72.4	1.01	5.01	
2,3,7,8-TCDF	5.23	0.0886	0.501	
12378-PeCDF	DL= 0.238 U	0.412	2.51	
23478-PeCDF	DL= 0.182	0.422	2.51	
123478-HxCDF	DL= 0.273	0.518	2.51	
123678-HxCDF	DL= 0.271	0.533	2.51	
234678-HxCDF	DL= 0.287	0.319	2.51	
123789-HxCDF	DL= 0.387	0.425	2.51	
1234678-HpCDF	DL= 0.352	0.279	2.51	
1234789-HpCDF	DL= 0.543	0.378	2.51	
OCDF	DL= 1.77	0.461	5.01	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.265 U	
Total PeCDD	DL= 0.351 U	
Total HxCDD	5.98	
Total HpCDD	16.2	
Total TCDF	9.79	
Total PeCDF	DL= 0.238 U	
Total HxCDF	DL= 0.387 U	
Total HpCDF	DL= 0.543 U	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	108	40-135	
13C-12378-PeCDD	85.0	40-135	
13C-123478-HxCDD	84.8	40-135	
13C-123678-HxCDD	93.2	40-135	
13C-1234678-HpCDD	65.0	40-135	
13C-OCDD	41.9	40-135	
13C-2378-TCDF	114	40-135	
13C-12378-PeCDF	101	40-135	
13C-23478-PeCDF	114	40-135	
13C-123478-HxCDF	105	40-135	
13C-123678-HxCDF	111	40-135	
13C-234678-HxCDF	103	40-135	
13C-123789-HxCDF	94.7	40-135	
13C-1234678-HpCDF	79.9	40-135	
13C-1234789-HpCDF	77.7	40-135	

CRS

37Cl4-2378-TCDD	130	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.596 pg/g

KR 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: SB7-5A		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-058	**Date Received:** 7/3/2019
	QC Batch #: 2020	**Date Extracted:** 7/14/2019
Date Collected: 6/28/2019	**Matrix:** Soil	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 11:00	**Sample Size:** 10.59 g **% Solids:** 95.1	**Q-225 Analysis:** NA

Analyte	Conc. (pg/g)	MDL	RL	Qual.
2,3,7,8-TCDD	DL= 0.263 U	0.172	0.497	
12378-PeCDD	DL= 0.354	0.327	2.48	
123478-HxCDD	DL= 0.517	0.327	2.48	
123678-HxCDD	DL= 0.578	0.655	2.48	
123789-HxCDD	DL= 0.536	0.315	2.48	
1234678-HpCDD	14.2 J	0.409	2.48	
OCDD	232 J	1.01	4.97	
2,3,7,8-TCDF	DL= 0.229 U	0.0886	0.497	
12378-PeCDF	DL= 0.255	0.412	2.48	
23478-PeCDF	DL= 0.224	0.422	2.48	
123478-HxCDF	DL= 0.362	0.518	2.48	
123678-HxCDF	DL= 0.340	0.533	2.48	
234678-HxCDF	DL= 0.357	0.319	2.48	
123789-HxCDF	DL= 0.500	0.425	2.48	
1234678-HpCDF	1.80 J	0.279	2.48	J
1234789-HpCDF	DL= 0.664 U	0.378	2.48	
OCDF	DL= 2.02 U	0.461	4.97	

Totals	Conc. (pg/g)	EMPC
Total TCDD	DL= 0.263 U	
Total PeCDD	DL= 0.354 U	
Total HxCDD	3.08 J	
Total HpCDD	28.8 J	
Total TCDF	2.54 J	
Total PeCDF	DL= 0.255 U	
Total HxCDF	1.55 J	
Total HpCDF	3.94 J	

Labeled Standards	% R	LCL-UCL (a)	Qualifiers
13C-2378-TCDD	106	40-135	
13C-12378-PeCDD	82.2	40-135	
13C-123478-HxCDD	86.4	40-135	
13C-123678-HxCDD	97.5	40-135	
13C-1234678-HpCDD	72.5	40-135	
13C-OCDD	44.7	40-135	
13C-2378-TCDF	114	40-135	
13C-12378-PeCDF	105	40-135	
13C-23478-PeCDF	113	40-135	
13C-123478-HxCDF	111	40-135	
13C-123678-HxCDF	119	40-135	
13C-234678-HxCDF	112	40-135	
13C-123789-HxCDF	101	40-135	
13C-1234678-HpCDF	85.4	40-135	
13C-1234789-HpCDF	86.5	40-135	
CRS			
37Cl4-2378-TCDD	124	40-135	

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.230 pg/g

KM 7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: EB-1		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-004	**Date Received:** 7/3/2019
	QC Batch #: 2014	**Date Extracted:** 7/14/2019
Date Collected: 6/26/2019	**Matrix:** Aqueous	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 12:15	**Sample Size:** 1.008 L	**Q-225 Analysis:** NA

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 1.84 U	0.887	4.96		13C-2378-TCDD	77.6	40-135	
12378-PeCDD	DL= 3.20	2.56	24.8		13C-12378-PeCDD	59.8	40-135	
123478-HxCDD	DL= 4.71	3.08	24.8		13C-123478-HxCDD	67.4	40-135	
123678-HxCDD	DL= 4.51	5.29	24.8		13C-123678-HxCDD	80.7	40-135	
123789-HxCDD	DL= 4.50	13.1	24.8		13C-1234678-HpCDD	54.1	40-135	
1234678-HpCDD	DL= 7.50	5.15	24.8		13C-OCDD	43.2	40-135	
OCDD	DL= 18.9	8.50	49.6		13C-2378-TCDF	80.2	40-135	
2,3,7,8-TCDF	DL= 1.75	0.733	4.96		13C-12378-PeCDF	67.7	40-135	
12378-PeCDF	DL= 2.26	2.96	24.8		13C-23478-PeCDF	74.4	40-135	
23478-PeCDF	DL= 1.78	5.40	24.8		13C-123478-HxCDF	93.4	40-135	
123478-HxCDF	DL= 2.73	3.93	24.8		13C-123678-HxCDF	102	40-135	
123678-HxCDF	DL= 2.95	2.94	24.8		13C-234678-HxCDF	90.6	40-135	
234678-HxCDF	DL= 3.01	4.32	24.8		13C-123789-HxCDF	80.4	40-135	
123789-HxCDF	DL= 4.54	4.70	24.8		13C-1234678-HpCDF	66.2	40-135	
1234678-HpCDF	DL= 4.75	4.24	24.8		13C-1234789-HpCDF	63.2	40-135	
1234789-HpCDF	DL= 7.09	5.74	24.8					
OCDF	DL= 19.1	11.7	49.6					

Totals	Conc. (pg/L)	EMPC
Total TCDD	DL= 1.84 U	
Total PeCDD	DL= 3.20	
Total HxCDD	DL= 4.71	
Total HpCDD	DL= 7.50	
Total TCDF	DL= 1.75	
Total PeCDF	DL= 2.26	
Total HxCDF	DL= 4.54	
Total HpCDF	DL= 7.09	

CRS

37Cl4-2378-TCDD	127	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/L

KAL
7/22/19

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.

EPA Method 8290A

Client Sample ID: EB2		
Project ID: 20409.016.006.0223.00	**Ceres Sample ID:** 12899-056	**Date Received:** 7/3/2019
	QC Batch #: 2014	**Date Extracted:** 7/14/2019
Date Collected: 6/26/2019	**Matrix:** Aqueous	**ZB-5MS Analysis:** 7/16/2019
Time Collected: 17:00	**Sample Size:** 1.004 L	**Q-225 Analysis:** NA

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 2.44 U	0.887	4.98		13C-2378-TCDD	76.1	40-135	
12378-PeCDD	DL= 4.24	2.56	24.9		13C-12378-PeCDD	54.6	40-135	
123478-HxCDD	DL= 6.79	3.08	24.9		13C-123478-HxCDD	65.5	40-135	
123678-HxCDD	DL= 7.14	5.29	24.9		13C-123678-HxCDD	71.5	40-135	
123789-HxCDD	DL= 6.82	13.1	24.9		13C-1234678-HpCDD	48.7	40-135	
1234678-HpCDD	DL= 12.0	5.15	24.9		13C-OCDD	40.2	40-135	
OCDD	DL= 23.0	8.50	49.8		13C-2378-TCDF	80.7	40-135	
2,3,7,8-TCDF	DL= 2.13	0.733	4.98		13C-12378-PeCDF	61.3	40-135	
12378-PeCDF	DL= 3.30	2.96	24.9		13C-23478-PeCDF	71.6	40-135	
23478-PeCDF	DL= 2.61	5.40	24.9		13C-123478-HxCDF	83.4	40-135	
123478-HxCDF	DL= 3.76	3.93	24.9		13C-123678-HxCDF	91.6	40-135	
123678-HxCDF	DL= 3.74	2.94	24.9		13C-234678-HxCDF	84.9	40-135	
234678-HxCDF	DL= 3.73	4.32	24.9		13C-123789-HxCDF	74.8	40-135	
123789-HxCDF	DL= 5.96	4.70	24.9		13C-1234678-HpCDF	59.5	40-135	
1234678-HpCDF	DL= 5.62	4.24	24.9		13C-1234789-HpCDF	57.0	40-135	
1234789-HpCDF	DL= 8.55	5.74	24.9					
OCDF	DL= 20.7	11.7	49.8					

Totals	Conc. (pg/L)	EMPC
Total TCDD	DL= 2.44 U	
Total PeCDD	DL= 4.24	
Total HxCDD	DL= 7.14	
Total HpCDD	DL= 12.0	
Total TCDF	DL= 2.13	
Total PeCDF	DL= 3.30	
Total HxCDF	DL= 5.96	
Total HpCDF	DL= 8.55	

CRS		
37Cl4-2378-TCDD	130	40-135

DL - Signifies Non-Detect (ND) at sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/L

KAL 7/22/19

Analyst: JMH **Reviewed by: BS**