February 21, 2014

MSgt. Maria Theresa Ibanez
Kadena Air Force Base
Det 3, USAFSAM
Unit 5213 Box 10
APO AP 96368-5213, Kadena AFB, Japan

Bureau Veritas Work Order No. 14020508

Reference: Kadena AB, Japan / EC14-099

Dear MSgt. Maria Theresa Ibanez:

Bureau Veritas North America, Inc. received 16 samples on February 12, 2014 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Ellen Coffman

Client Services Representative
Electronic signature authorized through password protection

cc: Mike Wantland
SSgt Kyle McGrath

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
22345 Roethel Drive
Novi, MI 48375
Main: (248) 344.1770
Fax: (248) 344.2655
www.us.bureauveritas.com

CASE NARRATIVE

Date: *21-Feb-14*

CLIENT: Kadena Air Force Base

Project: Kadena AB, Japan / EC14-099

Work Order No 14020508

The results of this report relate only to the samples listed in the body of this report and the results meet all the requirements of the NELAC standards. Unless otherwise noted below, 1) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, 2) all samples were received in acceptable condition, and 3) results for all solid matrices are reported "as received", unless the term "-dry" is appended to the concentration units, which then means results were calculated on a dry-weight basis.

The analyses were performed by Gel Laboratories of Charleston, SC, RTI Laboratories in Livonia, MI and Cape Fear Analytical LLC of Wilmington, NC, USA. Copies of their reports are attached.

GEL Laboratories LLC

a member of The GEL Group LLC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 17, 2014

Ms. Ellen Coffman
Bureau Veritas North America, Inc
22345 Roethel Dr
Novi, Michigan 48375

Re: Environmental Analysis - Kadena AB , BV#14020508,
Work Order: 342634
SDG: BV#14020508

Dear Ms. Coffman:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 06, 2014. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4505.

Sincerely,

Heather Shaffer

Heather Shaffer
Project Manager

Purchase Order: PO (NOVI LAB)
Enclosures

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time	2/1/2014 ~~00:00~~ 1204
Sample Number GS140003 (SSL1)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	EPA Method 300.0 (Fluorine)
Nickel	Silica US-696H-82W	EPS Method 1613 (Dioxins)
Selenium	Sulfate EPA 300.0	EPA Method 8015 (Gasoline range organics)
Silver	Total Dissolved Solids EPA 160.1	EPA Method 8015 (Diesel range organics)
Sodium	Total Phosphorus EPA 365.2	EPA Method 8151 (2,4-D 2,4,5-T)
Strontium	Total Suspended Solids EPA 160.2	SW-8082 (PCB)
Thallium	Turbidity EPA 180.1	SW-6010 (Metals)
Vanadium		SW-7471 (Metals-Mercury)
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140004	Sample Number GS140005	Sample Number GS140006
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1204	Date/Time 1Feb14 / 1126	Date/Time 1Feb14/1126
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL1	Notes SSL2	Notes SSL2

Sample Number GS140007	Sample Number GS140008	Sample Number GS140009
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1322	Date/Time 1Feb14/1322	Date/Time 1Feb14/1238
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL3	Notes SSL3	Notes SSL4

Sample Number GS140010	Sample Number GS140011	Sample Number GS140012
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1238	Date/Time 1Feb14/1048	Date/Time 1Feb14/1048
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL4	Notes SSL5	Notes SSL5

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love / 3Feb2014/0908	[illegible] 3feb 14	good
	P. Hilbert 2-6-14 13:40	good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time	2/1/2014 ~~00:00~~ 1229
Sample Number GS140015 (SSL 7)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	EPA Method 300.0 (Fluorine)
Nickel	Silica US-696H-82W	EPS Method 1613 (Dioxins)
Selenium	Sulfate EPA 300.0	EPA Method 8015 (Gasoline range organics)
Silver	Total Dissolved Solids EPA 160.1	EPA Method 8015 (Diesel range organics)
Sodium	Total Phosphorus EPA 365.2	EPA Method 8151 (2,4-D 2,4,5-T)
Strontium	Total Suspended Solids EPA 160.2	SW-8082 (PCB)
Thallium	Turbidity EPA 180.1	SW-6010 (Metals)
Vanadium		SW-7471 (Metals-Mercury)
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140016	Sample Number GS140017	Sample Number GS140018
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1229	Date/Time 01Feb14/1153	Date/Time 01Feb14/1153
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 7	Notes SSL 8	Notes SSL 8

Sample Number GS140019	Sample Number GS140020	Sample Number GS140021
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1132	Date/Time 01Feb14/1132	Date/Time 01Feb14/1113
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 9	Notes SSL 9	Notes SSL 10

Sample Number GS140022	Sample Number GS140023	Sample Number GS140024
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1113	Date/Time 01Feb14/~~1113~~ 1054	Date/Time 01Feb14/1054
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 10	Notes SSL 11	Notes SSL 11

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Beckwith/3Feb14/0907	[illegible] 3Feb14 0908	Good
	P. Ulent 2-6-14 13:40	good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1024	
Sample Number GS140013 (5546)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste	
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0		**Chromium VI**
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0		**Other Tests**
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140014	Sample Number GS140027	Sample Number GS140028
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1024	Date/Time 1Feb14/1418	Date/Time 1Feb14/1418
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 6	Notes SSL 13	Notes SSL 13

Sample Number GS140029	Sample Number GS140030	Sample Number
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by
Date/Time 1Feb14 / 1439	Date/Time 1Feb14 / 1439	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 14	Notes SSL 14	Notes

Sample Number	Sample Number	Sample Number
Collected by	Collected by	Collected by
Date/Time	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love / 3 Feb2014 / 0908	[illegible] 3Feb14	good
	P. Albert 2-6-14 13:40	good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time	2/1/2014 ~~00:00~~ 1015
Sample Number GS140025 (55L 12)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste	
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0		**Chromium VI**
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0		**Other Tests**
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140026	Sample Number GS140031	Sample Number GS140032
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1015	Date/Time 01Feb14/1330	Date/Time 01Feb14/1330
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 12	Notes SSL 15	Notes SSL 15

Sample Number GS140033	Sample Number GS140034	Sample Number
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by
Date/Time 01Feb14/1015	Date/Time 01Feb14/1015	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 16	Notes SSL 16	Notes

Sample Number	Sample Number	Sample Number
Collected by	Collected by	Collected by
Date/Time	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Beckwith/03Feb14/0908	3 Feb 14 0908 [illegible]	Good
	P. Ulent 2-6-14 13:40	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213
TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1229	
Sample Number GS140041 (SSL 7)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	Malathion
Nickel	Silica US-696H-82W	
Selenium	Sulfate EPA 300.0	
Silver	Total Dissolved Solids EPA 160.1	
Sodium	Total Phosphorus EPA 365.2	
Strontium	Total Suspended Solids EPA 160.2	
Thallium	Turbidity EPA 180.1	
Vanadium		
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140042	Sample Number GS140043	Sample Number GS140044
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1153	Date/Time 01Feb14/1132	Date/Time 01Feb14/1113
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 8	Notes SSL 9	Notes SSL 10

Sample Number GS140045	Sample Number GS140046	Sample Number GS140049
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1054	Date/Time 01Feb14/1015	Date/Time 01Feb14/1330
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 11	Notes SSL 12	Notes SSL 15

Sample Number GS140050	Sample Number	Sample Number
Collected by SrA Beckwith	Collected by	Collected by
Date/Time 01Feb14/1358	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 16	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Beckwith/03Feb14/0908	[illegible] 3Feb14 0908	Good
	P. Ulbert 2-6-14 13:40	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time	2/1/2014 ~~00:00~~ 1204
Sample Number GS140035 (SSL1)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	Malathion
Nickel	Silica US-696H-82W	
Selenium	Sulfate EPA 300.0	
Silver	Total Dissolved Solids EPA 160.1	
Sodium	Total Phosphorus EPA 365.2	
Strontium	Total Suspended Solids EPA 160.2	
Thallium	Turbidity EPA 180.1	
Vanadium		
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

342634

Sample Number GS140036	Sample Number GS140037	Sample Number GS140038
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1126	Date/Time 1Feb14/1322	Date/Time 1Feb14/1238
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL2	Notes SSL3	Notes SSL4

Sample Number GS140039	Sample Number GS140040	Sample Number GS140047
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1048	Date/Time 1Feb14/1024	Date/Time 1Feb14/1418
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL5	Notes SSL6	Notes SSL13

Sample Number GS140048	Sample Number	Sample Number
Collected by SrA Kyle Love	Collected by	Collected by
Date/Time 1Feb14/1439	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL14	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love/1Feb2014/0908	[illegible] 3Feb14	good
	T. Ahent 2-6-14 13:40	good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: MIPR	**SDG/AR/COC/Work Order:** 324634
Received By: P. Client	**Date Received:** 2/6/14

Suspected Hazard Information	**Yes**	**No**	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM
Classified Radioactive II or III by RSO?		X	If yes, Were swipes taken of sample contatiners < action levels?
COC/Samples marked containing PCBs?			
Package, COC, and/or Samples marked as beryllium or asbestos containing?		X	If yes, samples are to be segregeated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?	X		

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe) DC
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	X			Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius GEL PACKS
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: Secondary Temperature Device Serial # (If Applicable): 130462966
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?			X	Sample ID's and containers affected: SSLF ID on Sample GS140015 SSL12 ID on Sample GS140025.
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: GS140034 Sample 1358 chain 10:15 GS140033 Sample 13:58 chain 10:15
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?	X			Clients labels
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.				Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other DHL 34 3419 2805

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials SS Date 2.12.14 Page 1 of 1

List of current GEL Certifications as of 17 February 2014

State	Certification
Alaska	UST−110
Arkansas	88−0651
CLIA	42D0904046
California NELAP	01151CA
Colorado	SC00012
Connecticut	PH−0169
Delaware	SC000122013−10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−12−00283, P330−12−00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013−10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA130005
Maryland	270
Massachusetts	M−SC012
Michigan	9976
Mississippi	SC000122013−10
Nebraska	NE−OS−26−13
Nevada	SC000122014−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68−00485
Plant Material Permit	PDEP−12−00260
South Carolina Chemistry	10120001
South Carolina GVL	23611001
South Carolina Radiochemi	10120002
Tennessee	TN 02934
Texas NELAP	T104704235−13−8
Utah NELAP	SC000122013−11
Vermont	VT87156
Virginia NELAP	460202
Washington	C780−12
Wisconsin	999887790

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis Report
for

BVNA002 Bureau Veritas North America

Client SDG: BV#14020508 GEL Work Order: 342634

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

E Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

P Organics—The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, the difference is >70%.

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Heather Shaffer.

Reviewed by Heather Shaffer

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140004	Project:	BVNA00204
Sample ID:	342634001	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 12:04		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	19.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	5760	2680	8240	ug/Kg	1	BYT1	02/11/14	2155	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	1.20	0.401	1.21	mg/kg	1	DM	02/07/14	1519	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		27.7	4.74	14.2	ug/kg	1	NOR1	02/12/14	1440	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		15400000	7360	21600	ug/kg	1	JWJ	02/11/14	1119	1365217	4
Antimony	U	ND	357	1080	ug/kg	1					
Arsenic		19100	541	3250	ug/kg	1					
Barium		25800	108	541	ug/kg	1					
Beryllium	J	519	108	541	ug/kg	1					
Boron	U	ND	1080	5410	ug/kg	1					
Cadmium	J	320	108	541	ug/kg	1					
Calcium		18700000	8660	27100	ug/kg	1					
Chromium		27700	162	541	ug/kg	1					
Cobalt		6180	162	541	ug/kg	1					
Copper		12200	325	1080	ug/kg	1					
Iron		24900000	8660	27100	ug/kg	1					
Lead		21300	357	1080	ug/kg	1					
Magnesium		695000	9200	32500	ug/kg	1					
Manganese		282000	216	1080	ug/kg	1					
Molybdenum	J	811	216	1080	ug/kg	1					
Nickel		7810	162	541	ug/kg	1					
Selenium	U	ND	541	3250	ug/kg	1					
Silver	U	ND	108	541	ug/kg	1					
Sodium		81100	7580	27100	ug/kg	1					
Strontium		95900	108	541	ug/kg	1					
Thallium	U	ND	541	2160	ug/kg	1					
Vanadium		34900	108	541	ug/kg	1					
Zinc		56700	433	1080	ug/kg	1					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID: GS140004 Project: BVNA00204
Sample ID: 342634001 Client ID: BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.05	6.18	ug/kg	1	RXE1	02/11/14	1823	1365642	5
2,4-D	U	ND	2.05	6.18	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.37	4.10	ug/kg	1	YS1	02/12/14	1334	1365651	6
Aroclor-1221	U	ND	1.37	4.10	ug/kg	1					
Aroclor-1232	U	ND	1.37	4.10	ug/kg	1					
Aroclor-1242	U	ND	1.37	4.10	ug/kg	1					
Aroclor-1248	U	ND	1.37	4.10	ug/kg	1					
Aroclor-1254	U	ND	1.37	4.10	ug/kg	1					
Aroclor-1260	P	61.1	1.37	4.10	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.6	61.9	ug/kg	1	ACJ	02/11/14	1637	1366100	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/11/14	1620	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140004	Project:	BVNA00204
Sample ID:	342634001	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 8151A	
6	SW846 3541/8082A	
7	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	561 ug/Kg	824	68.1	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	77.4 ug/kg	124	62.6	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.51 ug/kg	8.20	67.2	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.82 ug/kg	8.20	71.0	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	52.9 ug/kg	50.0	85.4	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140006	Project:	BVNA00204
Sample ID:	342634002	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 11:26		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	16.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	4190	2600	8000	ug/Kg	1	BYT1	02/11/14	2345	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	1.20	0.397	1.20	mg/kg	1	DM	02/07/14	1551	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		24.8	4.55	13.6	ug/kg	1	NOR1	02/12/14	1448	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		8710000	7980	23500	ug/kg	1	JWJ	02/11/14	1143	1365217	4
Antimony	U	ND	387	1170	ug/kg	1					
Arsenic		23100	586	3520	ug/kg	1					
Barium		18100	117	586	ug/kg	1					
Beryllium	J	538	117	586	ug/kg	1					
Boron	J	2370	1170	5860	ug/kg	1					
Cadmium	J	251	117	586	ug/kg	1					
Calcium		8720000	9380	29300	ug/kg	1					
Chromium		25400	176	586	ug/kg	1					
Cobalt		4230	176	586	ug/kg	1					
Copper		14000	352	1170	ug/kg	1					
Iron		25400000	9380	29300	ug/kg	1					
Lead		17400	387	1170	ug/kg	1					
Magnesium		795000	9970	35200	ug/kg	1					
Manganese		134000	235	1170	ug/kg	1					
Molybdenum	J	653	235	1170	ug/kg	1					
Nickel		7440	176	586	ug/kg	1					
Selenium	U	ND	586	3520	ug/kg	1					
Silver	U	ND	117	586	ug/kg	1					
Sodium		99800	8210	29300	ug/kg	1					
Strontium		23200	117	586	ug/kg	1					
Thallium	U	ND	586	2350	ug/kg	1					
Vanadium		34900	117	586	ug/kg	1					
Zinc		102000	469	1170	ug/kg	1					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140006	Project:	BVNA00204
Sample ID:	342634002	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.00	6.01	ug/kg	1	RXE1	02/11/14	1851	1365642	5
2,4-D	U	ND	2.00	6.01	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.33	3.99	ug/kg	1	YS1	02/12/14	0859	1365651	6
Aroclor-1221	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1232	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1242	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1248	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1254	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1260	U	ND	1.33	3.99	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.1	60.2	ug/kg	1	ACJ	02/11/14	1705	1366100	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/11/14	1623	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140006	Project:	BVNA00204
Sample ID:	342634002	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 8151A	
6	SW846 3541/8082A	
7	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	503 ug/Kg	800	63.0	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	69.7 ug/kg	120	58.0	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.89 ug/kg	7.98	61.3	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.89 ug/kg	7.98	73.8	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	53.7 ug/kg	50.0	89.3	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140008	Project:	BVNA00204
Sample ID:	342634003	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 13:22		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	6540	2540	7820	ug/Kg	1	BYT1	02/12/14	0021	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		2.03	0.379	1.15	mg/kg	1	DM	02/07/14	1622	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		33.0	4.53	13.5	ug/kg	1	NOR1	02/12/14	1450	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		8920000	7200	21200	ug/kg	1	JWJ	02/11/14	1146	1365217	4
Arsenic		14800	529	3180	ug/kg	1					
Barium		18500	106	529	ug/kg	1					
Beryllium	U	ND	106	529	ug/kg	1					
Boron		6650	1060	5290	ug/kg	1					
Cadmium	J	331	106	529	ug/kg	1					
Chromium		28900	159	529	ug/kg	1					
Cobalt		4470	159	529	ug/kg	1					
Copper		12300	318	1060	ug/kg	1					
Iron		19600000	8470	26500	ug/kg	1					
Lead		15100	349	1060	ug/kg	1					
Magnesium		4310000	9000	31800	ug/kg	1					
Manganese		196000	212	1060	ug/kg	1					
Molybdenum	U	ND	212	1060	ug/kg	1					
Nickel		5890	159	529	ug/kg	1					
Selenium	J	1470	529	3180	ug/kg	1					
Silver	J	280	106	529	ug/kg	1					
Sodium		611000	7410	26500	ug/kg	1					
Strontium		857000	106	529	ug/kg	1					
Thallium	U	ND	529	2120	ug/kg	1					
Vanadium		33600	106	529	ug/kg	1					
Zinc		94400	423	1060	ug/kg	1					
Antimony	U	ND	3490	10600	ug/kg	10	JWJ	02/11/14	1224	1365217	5
Calcium		140000000	84700	265000	ug/kg	10					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140008	Project:	BVNA00204
Sample ID:	342634003	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	1.95	5.86	ug/kg	1	RXE1	02/11/14	2013	1365642	6
2,4-D	U	ND	1.95	5.86	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.30	3.91	ug/kg	1	YS1	02/12/14	0910	1365651	7
Aroclor-1221	U	ND	1.30	3.91	ug/kg	1					
Aroclor-1232	U	ND	1.30	3.91	ug/kg	1					
Aroclor-1242	U	ND	1.30	3.91	ug/kg	1					
Aroclor-1248	U	ND	1.30	3.91	ug/kg	1					
Aroclor-1254		15.9	1.30	3.91	ug/kg	1					
Aroclor-1260		8.99	1.30	3.91	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	19.6	58.6	ug/kg	1	ACJ	02/11/14	1733	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/11/14	1624	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/13/14	2305	1366394
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140008	Project:	BVNA00204
Sample ID:	342634003	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	545 ug/Kg	782	69.7	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	34.8 ug/kg	117	29.7*	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.55 ug/kg	7.82	71.0	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.26 ug/kg	7.82	80.1	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	46.4 ug/kg	50.0	79.2	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140010	Project:	BVNA00204
Sample ID:	342634004	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 12:38		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		8450	2510	7710	ug/Kg	1	BYT1	02/12/14	0058	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.76	0.380	1.15	mg/kg	1	DM	02/07/14	1654	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		24.5	4.08	12.2	ug/kg	1	NOR1	02/12/14	1451	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		7420000	6930	20400	ug/kg	1	JWJ	02/11/14	1148	1365217	4
Arsenic		11900	509	3060	ug/kg	1					
Barium		172000	102	509	ug/kg	1					
Beryllium	U	ND	102	509	ug/kg	1					
Boron		20900	1020	5090	ug/kg	1					
Cadmium	J	390	102	509	ug/kg	1					
Chromium		21600	153	509	ug/kg	1					
Cobalt		4090	153	509	ug/kg	1					
Copper		14700	306	1020	ug/kg	1					
Iron		14800000	8150	25500	ug/kg	1					
Lead		15400	336	1020	ug/kg	1					
Magnesium		5370000	8660	30600	ug/kg	1					
Manganese		145000	204	1020	ug/kg	1					
Molybdenum	U	ND	204	1020	ug/kg	1					
Nickel		5840	153	509	ug/kg	1					
Selenium	U	ND	509	3060	ug/kg	1					
Silver	J	497	102	509	ug/kg	1					
Sodium		1060000	7130	25500	ug/kg	1					
Thallium	U	ND	509	2040	ug/kg	1					
Vanadium		24200	102	509	ug/kg	1					
Zinc		53500	407	1020	ug/kg	1					
Antimony	U	ND	3360	10200	ug/kg	10	JWJ	02/11/14	1227	1365217	5
Calcium		137000000	81500	255000	ug/kg	10					
Strontium		1550000	1020	5090	ug/kg	10					
Semi-Volatiles-HERB											

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID: GS140010 Project: BVNA00204
Sample ID: 342634004 Client ID: BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	1.93	5.80	ug/kg	1	RXE1	02/11/14	2040	1365642	6
2,4-D	U	ND	1.93	5.80	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.27	3.81	ug/kg	1	YS1	02/12/14	0944	1365651	7
Aroclor-1221	U	ND	1.27	3.81	ug/kg	1					
Aroclor-1232	U	ND	1.27	3.81	ug/kg	1					
Aroclor-1242	U	ND	1.27	3.81	ug/kg	1					
Aroclor-1248	U	ND	1.27	3.81	ug/kg	1					
Aroclor-1254		6.02	1.27	3.81	ug/kg	1					
Aroclor-1260	J	2.50	1.27	3.81	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	19.4	58.1	ug/kg	1	ACJ	02/11/14	1801	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/11/14	1625	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140010	Project:	BVNA00204
Sample ID:	342634004	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	518 ug/Kg	771	67.2	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	45.4 ug/kg	116	39.1	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.65 ug/kg	7.61	74.2	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.04 ug/kg	7.61	79.3	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	43.9 ug/kg	50.0	75.7	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140012	Project:	BVNA00204
Sample ID:	342634005	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 10:48		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	16.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	5870	2600	7990	ug/Kg	1	BYT1	02/12/14	0135	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.60	0.389	1.18	mg/kg	1	DM	02/07/14	1725	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		23.9	4.23	12.6	ug/kg	1	NOR1	02/12/14	1456	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		7190000	7600	22300	ug/kg	1	JWJ	02/11/14	1150	1365217	4
Arsenic		23800	559	3350	ug/kg	1					
Barium		14300	112	559	ug/kg	1					
Beryllium	J	412	112	559	ug/kg	1					
Boron		5900	1120	5590	ug/kg	1					
Cadmium	J	256	112	559	ug/kg	1					
Calcium		47200000	8940	27900	ug/kg	1					
Chromium		23700	168	559	ug/kg	1					
Cobalt		4040	168	559	ug/kg	1					
Copper		10800	335	1120	ug/kg	1					
Iron		20500000	8940	27900	ug/kg	1					
Lead		14600	369	1120	ug/kg	1					
Magnesium		1450000	9500	33500	ug/kg	1					
Manganese		101000	223	1120	ug/kg	1					
Molybdenum	U	ND	223	1120	ug/kg	1					
Nickel		6420	168	559	ug/kg	1					
Selenium	U	ND	559	3350	ug/kg	1					
Silver	U	ND	112	559	ug/kg	1					
Sodium		452000	7820	27900	ug/kg	1					
Strontium		609000	112	559	ug/kg	1					
Thallium	U	ND	559	2230	ug/kg	1					
Vanadium		28900	112	559	ug/kg	1					
Zinc		29900	447	1120	ug/kg	1					
Antimony	U	ND	1840	5590	ug/kg	5	JWJ	02/11/14	1230	1365217	5
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140012	Project:	BVNA00204
Sample ID:	342634005	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	1.99	6.00	ug/kg	1	RXE1	02/11/14	2107	1365642	6
2,4-D	U	ND	1.99	6.00	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.33	3.99	ug/kg	1	YS1	02/12/14	0956	1365651	7
Aroclor-1221	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1232	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1242	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1248	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1254	U	ND	1.33	3.99	ug/kg	1					
Aroclor-1260	U	ND	1.33	3.99	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.0	60.0	ug/kg	1	ACJ	02/11/14	1830	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/11/14	1626	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140012	Project:	BVNA00204
Sample ID:	342634005	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	384 ug/Kg	799	48.1	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	76.6 ug/kg	120	63.8	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.47 ug/kg	7.97	68.6	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.98 ug/kg	7.97	75.0	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	41.5 ug/kg	50.0	69.2	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140015	Project:	BVNA00204
Sample ID:	342634006	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 12:29		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	16.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	7910	2600	7990	ug/Kg	1	BYT1	02/12/14	0212	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.81	0.391	1.19	mg/kg	1	DM	02/07/14	1757	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		29.7	4.35	13.0	ug/kg	1	NOR1	02/12/14	1458	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		8520000	7920	23300	ug/kg	1	JWJ	02/11/14	1153	1365217	4
Arsenic		23200	582	3490	ug/kg	1					
Barium		16500	116	582	ug/kg	1					
Beryllium	J	499	116	582	ug/kg	1					
Boron	J	4150	1160	5820	ug/kg	1					
Cadmium	J	268	116	582	ug/kg	1					
Calcium		15300000	9310	29100	ug/kg	1					
Chromium		22200	175	582	ug/kg	1					
Cobalt		4210	175	582	ug/kg	1					
Copper		14100	349	1160	ug/kg	1					
Iron		22900000	9310	29100	ug/kg	1					
Lead		16300	384	1160	ug/kg	1					
Magnesium		775000	9900	34900	ug/kg	1					
Manganese		107000	233	1160	ug/kg	1					
Molybdenum	J	408	233	1160	ug/kg	1					
Nickel		7400	175	582	ug/kg	1					
Selenium	U	ND	582	3490	ug/kg	1					
Silver	U	ND	116	582	ug/kg	1					
Sodium		158000	8150	29100	ug/kg	1					
Strontium		187000	116	582	ug/kg	1					
Thallium	U	ND	582	2330	ug/kg	1					
Vanadium		33200	116	582	ug/kg	1					
Zinc		34300	466	1160	ug/kg	1					
Antimony	J	2320	1920	5820	ug/kg	5	JWJ	02/11/14	1233	1365217	5
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140015	Project:	BVNA00204
Sample ID:	342634006	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	1.99	6.00	ug/kg	1	RXE1	02/11/14	2135	1365642	6
2,4-D	U	ND	1.99	6.00	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.33	4.00	ug/kg	1	YS1	02/12/14	1010	1365651	7
Aroclor-1221	U	ND	1.33	4.00	ug/kg	1					
Aroclor-1232	U	ND	1.33	4.00	ug/kg	1					
Aroclor-1242	U	ND	1.33	4.00	ug/kg	1					
Aroclor-1248	U	ND	1.33	4.00	ug/kg	1					
Aroclor-1254	U	ND	1.33	4.00	ug/kg	1					
Aroclor-1260	U	ND	1.33	4.00	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.1	60.2	ug/kg	1	ACJ	02/12/14	1341	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1325	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140015	Project:	BVNA00204
Sample ID:	342634006	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	613 ug/Kg	799	76.8	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	62.1 ug/kg	120	51.7	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.59 ug/kg	8.00	69.9	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.28 ug/kg	8.00	78.5	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	49.2 ug/kg	50.0	81.7	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140017	Project:	BVNA00204
Sample ID:	342634007	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 11:53		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	3680	2700	8320	ug/Kg	1	BYT1	02/12/14	0401	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	0.503	0.414	1.25	mg/kg	1	DM	02/07/14	1828	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		29.0	4.55	13.6	ug/kg	1	NOR1	02/12/14	1500	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		7610000	8340	24500	ug/kg	1	JWJ	02/11/14	1155	1365217	4
Arsenic		17900	613	3680	ug/kg	1					
Barium		16500	123	613	ug/kg	1					
Beryllium	J	126	123	613	ug/kg	1					
Boron		10100	1230	6130	ug/kg	1					
Cadmium	J	148	123	613	ug/kg	1					
Chromium		20300	184	613	ug/kg	1					
Cobalt		2850	184	613	ug/kg	1					
Copper		11400	368	1230	ug/kg	1					
Iron		20300000	9820	30700	ug/kg	1					
Lead		11900	405	1230	ug/kg	1					
Magnesium		3270000	10400	36800	ug/kg	1					
Manganese		146000	245	1230	ug/kg	1					
Molybdenum	U	ND	245	1230	ug/kg	1					
Nickel		9900	184	613	ug/kg	1					
Selenium	U	ND	613	3680	ug/kg	1					
Silver	U	ND	123	613	ug/kg	1					
Sodium		618000	8590	30700	ug/kg	1					
Strontium		900000	123	613	ug/kg	1					
Thallium	U	ND	613	2450	ug/kg	1					
Vanadium		26300	123	613	ug/kg	1					
Zinc		34700	491	1230	ug/kg	1					
Antimony	U	ND	4050	12300	ug/kg	10	JWJ	02/11/14	1236	1365217	5
Calcium		70400000	98200	307000	ug/kg	10					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140017	Project:	BVNA00204
Sample ID:	342634007	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.08	6.26	ug/kg	1	RXE1	02/11/14	2246	1365642	6
2,4-D	U	ND	2.08	6.26	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.39	4.16	ug/kg	1	YS1	02/12/14	1048	1365651	7
Aroclor-1221	U	ND	1.39	4.16	ug/kg	1					
Aroclor-1232	U	ND	1.39	4.16	ug/kg	1					
Aroclor-1242	U	ND	1.39	4.16	ug/kg	1					
Aroclor-1248	U	ND	1.39	4.16	ug/kg	1					
Aroclor-1254	U	ND	1.39	4.16	ug/kg	1					
Aroclor-1260	U	ND	1.39	4.16	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.9	62.7	ug/kg	1	ACJ	02/12/14	1409	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1326	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140017	Project:	BVNA00204
Sample ID:	342634007	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	569 ug/Kg	832	68.3	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	115 ug/kg	125	92.3	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.73 ug/kg	8.32	56.9	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.84 ug/kg	8.32	58.1	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	45.8 ug/kg	50.0	73.1	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140019	Project:	BVNA00204
Sample ID:	342634008	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 11:32		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		12400	2730	8400	ug/Kg	1	BYT1	02/12/14	0438	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	0.576	0.413	1.25	mg/kg	1	DM	02/07/14	1859	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		23.6	4.76	14.2	ug/kg	1	NOR1	02/12/14	1501	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		11700000	8490	25000	ug/kg	1	JWJ	02/11/14	1158	1365217	4
Antimony	U	ND	412	1250	ug/kg	1					
Arsenic		19700	624	3750	ug/kg	1					
Barium		21200	125	624	ug/kg	1					
Beryllium	J	512	125	624	ug/kg	1					
Boron	J	2300	1250	6240	ug/kg	1					
Cadmium	J	173	125	624	ug/kg	1					
Calcium		2060000	9990	31200	ug/kg	1					
Chromium		24500	187	624	ug/kg	1					
Cobalt		3650	187	624	ug/kg	1					
Copper		13300	375	1250	ug/kg	1					
Iron		25700000	9990	31200	ug/kg	1					
Lead		17400	412	1250	ug/kg	1					
Magnesium		634000	10600	37500	ug/kg	1					
Manganese		131000	250	1250	ug/kg	1					
Molybdenum	J	756	250	1250	ug/kg	1					
Nickel		9070	187	624	ug/kg	1					
Selenium	U	ND	624	3750	ug/kg	1					
Silver	U	ND	125	624	ug/kg	1					
Sodium		87200	8740	31200	ug/kg	1					
Strontium		25100	125	624	ug/kg	1					
Thallium	U	ND	624	2500	ug/kg	1					
Vanadium		37100	125	624	ug/kg	1					
Zinc		29800	499	1250	ug/kg	1					
Semi-Volatiles-HERB											

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID: GS140019 Project: BVNA00204
Sample ID: 342634008 Client ID: BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.09	6.30	ug/kg	1	RXE1	02/11/14	2313	1365642	5
2,4-D	U	ND	2.09	6.30	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.40	4.19	ug/kg	1	YS1	02/12/14	1102	1365651	6
Aroclor-1221	U	ND	1.40	4.19	ug/kg	1					
Aroclor-1232	U	ND	1.40	4.19	ug/kg	1					
Aroclor-1242	U	ND	1.40	4.19	ug/kg	1					
Aroclor-1248	U	ND	1.40	4.19	ug/kg	1					
Aroclor-1254	U	ND	1.40	4.19	ug/kg	1					
Aroclor-1260	U	ND	1.40	4.19	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	21.0	63.0	ug/kg	1	ACJ	02/12/14	1437	1366100	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1327	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140019	Project:	BVNA00204
Sample ID:	342634008	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 8151A	
6	SW846 3541/8082A	
7	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	626 ug/Kg	840	74.5	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	96.1 ug/kg	126	76.2	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.81 ug/kg	8.39	69.3	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.31 ug/kg	8.39	75.2	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	45.6 ug/kg	50.0	72.3	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140021	Project:	BVNA00204
Sample ID:	342634009	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 11:13		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	6330	2710	8350	ug/Kg	1	BYT1	02/12/14	0514	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	0.741	0.414	1.25	mg/kg	1	DM	02/07/14	2034	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		22.3	4.38	13.1	ug/kg	1	NOR1	02/12/14	1503	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		8340000	8120	23900	ug/kg	1	JWJ	02/11/14	1253	1365217	4
Antimony	U	ND	394	1190	ug/kg	1					
Arsenic		17700	597	3580	ug/kg	1					
Barium		21100	119	597	ug/kg	1					
Beryllium	J	430	119	597	ug/kg	1					
Boron	J	2390	1190	5970	ug/kg	1					
Cadmium	J	266	119	597	ug/kg	1					
Calcium		14100000	9560	29900	ug/kg	1					
Chromium		20200	179	597	ug/kg	1					
Cobalt		4400	179	597	ug/kg	1					
Copper		18100	358	1190	ug/kg	1					
Iron		23100000	9560	29900	ug/kg	1					
Lead		17500	394	1190	ug/kg	1					
Magnesium		1280000	10200	35800	ug/kg	1					
Manganese		164000	239	1190	ug/kg	1					
Molybdenum	J	477	239	1190	ug/kg	1					
Nickel		12100	179	597	ug/kg	1					
Selenium	U	ND	597	3580	ug/kg	1					
Silver	U	ND	119	597	ug/kg	1					
Sodium		80100	8360	29900	ug/kg	1					
Strontium		38300	119	597	ug/kg	1					
Thallium	U	ND	597	2390	ug/kg	1					
Vanadium		29300	119	597	ug/kg	1					
Zinc		371000	478	1190	ug/kg	1					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140021	Project:	BVNA00204
Sample ID:	342634009	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.08	6.27	ug/kg	1	RXE1	02/11/14	2341	1365642	5
2,4-D	U	ND	2.08	6.27	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.38	4.16	ug/kg	1	YS1	02/12/14	1115	1365651	6
Aroclor-1221	U	ND	1.38	4.16	ug/kg	1					
Aroclor-1232	U	ND	1.38	4.16	ug/kg	1					
Aroclor-1242	U	ND	1.38	4.16	ug/kg	1					
Aroclor-1248	U	ND	1.38	4.16	ug/kg	1					
Aroclor-1254	U	ND	1.38	4.16	ug/kg	1					
Aroclor-1260	U	ND	1.38	4.16	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.5	61.5	ug/kg	1	ACJ	02/12/14	1505	1366100	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1328	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140021	Project:	BVNA00204
Sample ID:	342634009	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 8151A	
6	SW846 3541/8082A	
7	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	470 ug/Kg	835	56.3	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	85.0 ug/kg	125	67.7	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.55 ug/kg	8.31	66.8	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.82 ug/kg	8.31	70.0	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	45.3 ug/kg	50.0	73.6	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140023	Project:	BVNA00204
Sample ID:	342634010	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 10:54		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	8120	2740	8420	ug/Kg	1	BYT1	02/12/14	0551	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	0.714	0.408	1.24	mg/kg	1	DM	02/07/14	2105	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		36.1	4.61	13.8	ug/kg	1	NOR1	02/12/14	1505	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5900000	7320	21500	ug/kg	1	JWJ	02/11/14	1256	1365217	4
Arsenic		12500	539	3230	ug/kg	1					
Barium		12500	108	539	ug/kg	1					
Beryllium	U	ND	108	539	ug/kg	1					
Boron	J	2100	1080	5390	ug/kg	1					
Cadmium	J	181	108	539	ug/kg	1					
Chromium		14200	162	539	ug/kg	1					
Cobalt		3030	162	539	ug/kg	1					
Copper		11000	323	1080	ug/kg	1					
Iron		14400000	8620	26900	ug/kg	1					
Lead		8040	355	1080	ug/kg	1					
Magnesium		1610000	9160	32300	ug/kg	1					
Manganese		117000	215	1080	ug/kg	1					
Molybdenum	U	ND	215	1080	ug/kg	1					
Nickel		6790	162	539	ug/kg	1					
Selenium	J	1140	539	3230	ug/kg	1					
Silver	J	483	108	539	ug/kg	1					
Sodium		91700	7540	26900	ug/kg	1					
Strontium		185000	108	539	ug/kg	1					
Thallium	U	ND	539	2150	ug/kg	1					
Vanadium		20200	108	539	ug/kg	1					
Zinc		26700	431	1080	ug/kg	1					
Antimony	U	ND	3550	10800	ug/kg	10	JWJ	02/11/14	1325	1365217	5
Calcium		162000000	86200	269000	ug/kg	10					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140023	Project:	BVNA00204
Sample ID:	342634010	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.10	6.32	ug/kg	1	RXE1	02/12/14	0008	1365642	6
2,4-D	U	ND	2.10	6.32	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.40	4.21	ug/kg	1	YS1	02/12/14	1130	1365651	8
Aroclor-1221	U	ND	1.40	4.21	ug/kg	1					
Aroclor-1232	U	ND	1.40	4.21	ug/kg	1					
Aroclor-1242	U	ND	1.40	4.21	ug/kg	1					
Aroclor-1248	U	ND	1.40	4.21	ug/kg	1					
Aroclor-1254	U	ND	1.40	4.21	ug/kg	1					
Aroclor-1260	U	ND	1.40	4.21	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	21.1	63.2	ug/kg	1	ACJ	02/12/14	1533	1366100	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1329	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140023	Project:	BVNA00204
Sample ID:	342634010	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 8151A	
8	SW846 3541/8082A	
9	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	490 ug/Kg	842	58.3	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	94.7 ug/kg	126	74.9	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.51 ug/kg	8.42	65.4	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.23 ug/kg	8.42	74.0	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	38.2 ug/kg	50.0	60.4	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140025	Project:	BVNA00204
Sample ID:	342634011	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 10:15		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	18.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	5420	2650	8150	ug/Kg	1	BYT1	02/12/14	0627	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.45	0.395	1.20	mg/kg	1	DM	02/07/14	2136	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		24.7	4.92	14.7	ug/kg	1	NOR1	02/12/14	1507	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		9280000	8030	23600	ug/kg	1	JWJ	02/11/14	1259	1365217	4
Antimony	U	ND	390	1180	ug/kg	1					
Arsenic		23600	591	3540	ug/kg	1					
Barium		36100	118	591	ug/kg	1					
Beryllium		675	118	591	ug/kg	1					
Boron	J	3020	1180	5910	ug/kg	1					
Cadmium	J	375	118	591	ug/kg	1					
Calcium		3230000	9450	29500	ug/kg	1					
Chromium		29300	177	591	ug/kg	1					
Cobalt		4030	177	591	ug/kg	1					
Copper		26400	354	1180	ug/kg	1					
Iron		25300000	9450	29500	ug/kg	1					
Lead		19400	390	1180	ug/kg	1					
Magnesium		598000	10000	35400	ug/kg	1					
Manganese		110000	236	1180	ug/kg	1					
Molybdenum	J	856	236	1180	ug/kg	1					
Nickel		9530	177	591	ug/kg	1					
Selenium	U	ND	591	3540	ug/kg	1					
Silver	U	ND	118	591	ug/kg	1					
Sodium		99600	8270	29500	ug/kg	1					
Strontium		41300	118	591	ug/kg	1					
Thallium	U	ND	591	2360	ug/kg	1					
Vanadium		39700	118	591	ug/kg	1					
Zinc		57700	472	1180	ug/kg	1					
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140025	Project:	BVNA00204
Sample ID:	342634011	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.03	6.12	ug/kg	1	RXE1	02/12/14	0035	1365642	5
2,4-D	U	ND	2.03	6.12	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.35	4.06	ug/kg	1	YS1	02/12/14	1144	1365651	6
Aroclor-1221	U	ND	1.35	4.06	ug/kg	1					
Aroclor-1232	U	ND	1.35	4.06	ug/kg	1					
Aroclor-1242	U	ND	1.35	4.06	ug/kg	1					
Aroclor-1248	U	ND	1.35	4.06	ug/kg	1					
Aroclor-1254	U	ND	1.35	4.06	ug/kg	1					
Aroclor-1260	U	ND	1.35	4.06	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.4	61.2	ug/kg	1	ACJ	02/12/14	1601	1366100	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1330	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140025	Project:	BVNA00204
Sample ID:	342634011	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 8151A	
6	SW846 3541/8082A	
7	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	592 ug/Kg	815	72.6	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	72.4 ug/kg	122	59.2	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.60 ug/kg	8.12	68.9	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.27 ug/kg	8.12	77.2	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	44.5 ug/kg	50.0	72.7	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140032	Project:	BVNA00204
Sample ID:	342634012	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 13:30		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	18.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		9940	2650	8170	ug/Kg	1	BYT1	02/12/14	0704	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	0.896	0.396	1.20	mg/kg	1	DM	02/07/14	2208	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		49.8	4.92	14.7	ug/kg	1	NOR1	02/12/14	1508	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		10100000	8270	24300	ug/kg	1	JWJ	02/11/14	1302	1365217	4
Arsenic		20300	608	3650	ug/kg	1					
Barium		17300	122	608	ug/kg	1					
Beryllium	J	508	122	608	ug/kg	1					
Boron	J	4210	1220	6080	ug/kg	1					
Cadmium	J	204	122	608	ug/kg	1					
Calcium		10500000	9730	30400	ug/kg	1					
Chromium		21600	182	608	ug/kg	1					
Cobalt		4590	182	608	ug/kg	1					
Copper		18100	365	1220	ug/kg	1					
Iron		25700000	9730	30400	ug/kg	1					
Lead		17800	401	1220	ug/kg	1					
Magnesium		1210000	10300	36500	ug/kg	1					
Manganese		133000	243	1220	ug/kg	1					
Molybdenum	J	394	243	1220	ug/kg	1					
Nickel		20800	182	608	ug/kg	1					
Selenium	U	ND	608	3650	ug/kg	1					
Silver	U	ND	122	608	ug/kg	1					
Sodium		151000	8510	30400	ug/kg	1					
Strontium		129000	122	608	ug/kg	1					
Thallium	U	ND	608	2430	ug/kg	1					
Vanadium		33900	122	608	ug/kg	1					
Zinc		37500	487	1220	ug/kg	1					
Antimony	U	ND	2010	6080	ug/kg	5	JWJ	02/11/14	1328	1365217	5
Semi-Volatiles-HERB											

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID: GS140032 Project: BVNA00204
Sample ID: 342634012 Client ID: BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.04	6.14	ug/kg	1	RXE1	02/12/14	0102	1365642	6
2,4-D	U	ND	2.04	6.14	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.34	4.03	ug/kg	1	YS1	02/12/14	1159	1365651	7
Aroclor-1221	U	ND	1.34	4.03	ug/kg	1					
Aroclor-1232	U	ND	1.34	4.03	ug/kg	1					
Aroclor-1242	U	ND	1.34	4.03	ug/kg	1					
Aroclor-1248	U	ND	1.34	4.03	ug/kg	1					
Aroclor-1254	P	48.5	1.34	4.03	ug/kg	1					
Aroclor-1260	P	14.3	1.34	4.03	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.5	61.4	ug/kg	1	ACJ	02/12/14	1629	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1331	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140032	Project:	BVNA00204
Sample ID:	342634012	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	573 ug/Kg	817	70.2	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	68.7 ug/kg	123	56.0	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	3.85 ug/kg	8.06	47.8	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.47 ug/kg	8.06	55.5	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	42.2 ug/kg	50.0	68.7	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140034	Project:	BVNA00204
Sample ID:	342634013	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 13:58		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	17.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		10300	2620	8080	ug/Kg	1	BYT1	02/12/14	0740	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride	J	1.10	0.401	1.22	mg/kg	1	DM	02/07/14	2239	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		32.6	4.27	12.7	ug/kg	1	NOR1	02/12/14	1510	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		8500000	7540	22200	ug/kg	1	JWJ	02/11/14	1305	1365217	4
Arsenic		11400	554	3330	ug/kg	1					
Barium		20200	111	554	ug/kg	1					
Beryllium	J	183	111	554	ug/kg	1					
Boron		6860	1110	5540	ug/kg	1					
Cadmium	J	315	111	554	ug/kg	1					
Calcium		48000000	8870	27700	ug/kg	1					
Chromium		21400	166	554	ug/kg	1					
Cobalt		2390	166	554	ug/kg	1					
Copper		12000	333	1110	ug/kg	1					
Iron		24500000	8870	27700	ug/kg	1					
Lead		13200	366	1110	ug/kg	1					
Magnesium		2710000	9420	33300	ug/kg	1					
Manganese		124000	222	1110	ug/kg	1					
Molybdenum	U	ND	222	1110	ug/kg	1					
Nickel		4120	166	554	ug/kg	1					
Selenium	U	ND	554	3330	ug/kg	1					
Silver	U	ND	111	554	ug/kg	1					
Sodium		343000	7760	27700	ug/kg	1					
Strontium		473000	111	554	ug/kg	1					
Thallium	U	ND	554	2220	ug/kg	1					
Vanadium		28500	111	554	ug/kg	1					
Zinc		40700	443	1110	ug/kg	1					
Antimony	U	ND	1830	5540	ug/kg	5	JWJ	02/11/14	1331	1365217	5
Semi-Volatiles-HERB											

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140034	Project:	BVNA00204
Sample ID:	342634013	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.01	6.07	ug/kg	1	RXE1	02/12/14	0130	1365642	6
2,4-D	U	ND	2.01	6.07	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.35	4.04	ug/kg	1	YS1	02/12/14	1213	1365651	7
Aroclor-1221	U	ND	1.35	4.04	ug/kg	1					
Aroclor-1232	U	ND	1.35	4.04	ug/kg	1					
Aroclor-1242	U	ND	1.35	4.04	ug/kg	1					
Aroclor-1248	U	ND	1.35	4.04	ug/kg	1					
Aroclor-1254	U	ND	1.35	4.04	ug/kg	1					
Aroclor-1260		5.19	1.35	4.04	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	20.3	60.8	ug/kg	1	ACJ	02/12/14	1726	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1332	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140034	Project:	BVNA00204
Sample ID:	342634013	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	517 ug/Kg	808	64.0	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	82.3 ug/kg	121	67.8	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.22 ug/kg	8.08	64.6	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.74 ug/kg	8.08	71.1	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	37.2 ug/kg	50.0	61.3	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140014	Project:	BVNA00204
Sample ID:	342634014	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 10:24		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	21.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		9210	2760	8490	ug/Kg	1	BYT1	02/12/14	0817	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.43	0.419	1.27	mg/kg	1	DM	02/07/14	2311	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		32.2	5.12	15.3	ug/kg	1	NOR1	02/12/14	1512	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		15100000	8160	24000	ug/kg	1	JWJ	02/11/14	1308	1365217	4
Arsenic		24400	600	3600	ug/kg	1					
Barium		43800	120	600	ug/kg	1					
Beryllium	J	560	120	600	ug/kg	1					
Boron	J	5750	1200	6000	ug/kg	1					
Cadmium	J	370	120	600	ug/kg	1					
Calcium		22000000	9600	30000	ug/kg	1					
Chromium		39600	180	600	ug/kg	1					
Cobalt		4460	180	600	ug/kg	1					
Copper		13700	360	1200	ug/kg	1					
Iron		37100000	9600	30000	ug/kg	1					
Lead		18800	396	1200	ug/kg	1					
Magnesium		886000	10200	36000	ug/kg	1					
Manganese		224000	240	1200	ug/kg	1					
Molybdenum	J	530	240	1200	ug/kg	1					
Nickel		7660	180	600	ug/kg	1					
Selenium	U	ND	600	3600	ug/kg	1					
Silver	U	ND	120	600	ug/kg	1					
Sodium		160000	8400	30000	ug/kg	1					
Strontium		344000	120	600	ug/kg	1					
Thallium	U	ND	600	2400	ug/kg	1					
Vanadium		55200	120	600	ug/kg	1					
Zinc		31600	480	1200	ug/kg	1					
Antimony	U	ND	1980	6000	ug/kg	5	JWJ	02/11/14	1334	1365217	5
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140014	Project:	BVNA00204
Sample ID:	342634014	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.11	6.37	ug/kg	1	RXE1	02/12/14	0157	1365642	6
2,4-D	U	ND	2.11	6.37	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.39	4.19	ug/kg	1	YS1	02/12/14	1228	1365651	7
Aroclor-1221	U	ND	1.39	4.19	ug/kg	1					
Aroclor-1232	U	ND	1.39	4.19	ug/kg	1					
Aroclor-1242	U	ND	1.39	4.19	ug/kg	1					
Aroclor-1248	U	ND	1.39	4.19	ug/kg	1					
Aroclor-1254	U	ND	1.39	4.19	ug/kg	1					
Aroclor-1260	U	ND	1.39	4.19	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	21.3	63.8	ug/kg	1	ACJ	02/12/14	1754	1366100	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1333	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140014	Project:	BVNA00204
Sample ID:	342634014	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 3541/8082A	
8	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	559 ug/Kg	849	65.9	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	73.0 ug/kg	127	57.3	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.85 ug/kg	8.37	69.9	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	6.34 ug/kg	8.37	75.7	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	38.5 ug/kg	50.0	60.2	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140028	Project:	BVNA00204
Sample ID:	342634015	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 14:18		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	22%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics		9420	2770	8530	ug/Kg	1	BYT1	02/12/14	0854	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		2.09	0.421	1.28	mg/kg	1	DM	02/07/14	2342	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury	J	13.9	4.95	14.8	ug/kg	1	NOR1	02/12/14	1517	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		14000000	8380	24700	ug/kg	1	JWJ	02/11/14	1311	1365217	4
Arsenic		19500	616	3700	ug/kg	1					
Barium		27200	123	616	ug/kg	1					
Beryllium		708	123	616	ug/kg	1					
Boron	J	2920	1230	6160	ug/kg	1					
Cadmium	J	545	123	616	ug/kg	1					
Calcium		13100000	9860	30800	ug/kg	1					
Chromium		47600	185	616	ug/kg	1					
Cobalt		6880	185	616	ug/kg	1					
Copper		15000	370	1230	ug/kg	1					
Iron		30200000	9860	30800	ug/kg	1					
Lead		22200	407	1230	ug/kg	1					
Magnesium		660000	10500	37000	ug/kg	1					
Manganese		252000	247	1230	ug/kg	1					
Molybdenum	J	775	247	1230	ug/kg	1					
Nickel		13700	185	616	ug/kg	1					
Selenium	U	ND	616	3700	ug/kg	1					
Silver	U	ND	123	616	ug/kg	1					
Sodium		91500	8630	30800	ug/kg	1					
Strontium		151000	123	616	ug/kg	1					
Thallium	U	ND	616	2470	ug/kg	1					
Vanadium		46500	123	616	ug/kg	1					
Zinc		33400	493	1230	ug/kg	1					
Antimony	U	ND	2030	6160	ug/kg	5	JWJ	02/11/14	1337	1365217	5
Semi-Volatiles-HERB											

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140028	Project:	BVNA00204
Sample ID:	342634015	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.12	6.39	ug/kg	1	RXE1	02/15/14	1850	1366396	6
2,4-D	U	ND	2.12	6.39	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.42	4.25	ug/kg	1	YS1	02/12/14	1242	1365651	8
Aroclor-1221	U	ND	1.42	4.25	ug/kg	1					
Aroclor-1232	U	ND	1.42	4.25	ug/kg	1					
Aroclor-1242	U	ND	1.42	4.25	ug/kg	1					
Aroclor-1248	U	ND	1.42	4.25	ug/kg	1					
Aroclor-1254	U	ND	1.42	4.25	ug/kg	1					
Aroclor-1260	U	ND	1.42	4.25	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	21.4	64.1	ug/kg	1	ACJ	02/12/14	1822	1366100	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1334	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/13/14	2305	1366394
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140028	Project:	BVNA00204
Sample ID:	342634015	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 8151A	
8	SW846 3541/8082A	
9	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	638 ug/Kg	853	74.9	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	63.8 ug/kg	128	49.9	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.12 ug/kg	8.51	60.1	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.55 ug/kg	8.51	65.3	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	40.0 ug/kg	50.0	62.3	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company : Bureau Veritas North America, Inc
Address : 22345 Roethel Dr

Novi, Michigan 48375
Contact: Ms. Ellen Coffman
Project: Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140030	Project:	BVNA00204
Sample ID:	342634016	Client ID:	BVNA002
Matrix:	Soil		
Collect Date:	01-FEB-14 14:39		
Receive Date:	06-FEB-14		
Collector:	Client		
Moisture:	21.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Diesel Range Organics											
8015C DRO by Soxtherm prep "Dry Weight Corrected"											
Diesel Range Organics	J	5920	2770	8520	ug/Kg	1	BYT1	02/12/14	0930	1365442	1
Ion Chromatography											
SW846-9056 Fluoride in Soil "Dry Weight Corrected"											
Fluoride		1.40	0.415	1.26	mg/kg	1	DM	02/08/14	0219	1365244	2
Mercury Analysis-CVAA											
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"											
Mercury		20.7	4.88	14.6	ug/kg	1	NOR1	02/12/14	1518	1365910	3
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		11700000	7420	21800	ug/kg	1	JWJ	02/11/14	1313	1365217	4
Arsenic		20000	546	3270	ug/kg	1					
Barium		22100	109	546	ug/kg	1					
Beryllium		693	109	546	ug/kg	1					
Boron	J	2940	1090	5460	ug/kg	1					
Cadmium	J	510	109	546	ug/kg	1					
Calcium		4300000	8730	27300	ug/kg	1					
Chromium		45100	164	546	ug/kg	1					
Cobalt		6060	164	546	ug/kg	1					
Copper		13200	327	1090	ug/kg	1					
Iron		28800000	8730	27300	ug/kg	1					
Lead		17400	360	1090	ug/kg	1					
Magnesium		777000	9270	32700	ug/kg	1					
Manganese		231000	218	1090	ug/kg	1					
Molybdenum	J	803	218	1090	ug/kg	1					
Nickel		15000	164	546	ug/kg	1					
Selenium	U	ND	546	3270	ug/kg	1					
Silver	U	ND	109	546	ug/kg	1					
Sodium		83800	7640	27300	ug/kg	1					
Strontium		81200	109	546	ug/kg	1					
Thallium	U	ND	546	2180	ug/kg	1					
Vanadium		43500	109	546	ug/kg	1					
Zinc		28900	436	1090	ug/kg	1					
Antimony	U	ND	1800	5460	ug/kg	5	JWJ	02/11/14	1340	1365217	5
Semi-Volatiles-HERB											

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140030	Project:	BVNA00204
Sample ID:	342634016	Client ID:	BVNA002

Semi-Volatiles-HERB

8151A Herbicides Soil "Dry Weight Corrected"

2,4,5-T	U	ND	2.13	6.40	ug/kg	1	RXE1	02/15/14	1918	1366396	6
2,4-D	U	ND	2.13	6.40	ug/kg	1					

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.41	4.24	ug/kg	1	YS1	02/12/14	1257	1365651	8
Aroclor-1221	U	ND	1.41	4.24	ug/kg	1					
Aroclor-1232	U	ND	1.41	4.24	ug/kg	1					
Aroclor-1242	U	ND	1.41	4.24	ug/kg	1					
Aroclor-1248	U	ND	1.41	4.24	ug/kg	1					
Aroclor-1254	U	ND	1.41	4.24	ug/kg	1					
Aroclor-1260	U	ND	1.41	4.24	ug/kg	1					

Volatiles GRO Organics

SW 5035/8015C GRO Soil "Dry Weight Corrected"

Gasoline Range Organics	U	ND	21.4	64.0	ug/kg	1	ACJ	02/12/14	1850	1366100	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	MTM1	02/07/14	1000	1365216
SW846 3541	3541 DRO by 8015C IN SOIL PREP	CXR2	02/10/14	1050	1365432
SW846 3541	Prep Method 3541 PCB Prep Soil	VSG1	02/11/14	1000	1365649
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	02/11/14	1601	1365908
SW846 8015C	SW846 8015C GRO in Soil	ACJ	02/12/14	1335	1366099
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/10/14	1745	1365641
SW846 8151A	8151A Herbicides Prep in Soil	AXV1	02/13/14	2305	1366394
SW846 9056	SW846-9056 Total Anions in Soil	DM	02/07/14	1200	1365242

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 17, 2014

Company :	Bureau Veritas North America, Inc
Address :	22345 Roethel Dr
	Novi, Michigan 48375
Contact:	Ms. Ellen Coffman
Project:	Environmental Analysis - Kadena AB, BV#14020508,

Client Sample ID:	GS140030	Project:	BVNA00204
Sample ID:	342634016	Client ID:	BVNA002

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8015C	
2	SW846 9056	
3	SW846 7471A	
4	SW846 3050B/6010C	
5	SW846 3050B/6010C	
6	SW846 8151A	
7	SW846 8151A	
8	SW846 3541/8082A	
9	SW846 8015C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
o-Terphenyl	8015C DRO by Soxtherm prep "Dry Weight Corrected"	615 ug/Kg	852	72.2	(30%-130%)
2,4-Dichlorophenylacetic acid	8151A Herbicides Soil "Dry Weight Corrected"	75.6 ug/kg	128	59.0	(38%-142%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.98 ug/kg	8.48	58.7	(44%-106%)
Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.53 ug/kg	8.48	65.2	(35%-119%)
Bromofluorobenzene	SW 5035/8015C GRO Soil "Dry Weight Corrected"	40.8 ug/kg	50.0	63.7	(50%-138%)

Notes:

RL: Practical Quantitation Limit (PQL) or Reporting Limit.

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 17, 2014

Bureau Veritas North America, Inc
22345 Roethel Dr
Novi, Michigan

Contact: **Ms. Ellen Coffman**

Workorder: **342634**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Diesel Range Organics											
Batch 1365442											
QC1203032731 LCS											
Diesel Range Organics	33300				26200	ug/Kg		78.5	(60%-122%)	BYT1	02/11/14 21:19
**o-Terphenyl	666				561	ug/Kg		84.2	(30%-130%)		
QC1203032730 MB											
Diesel Range Organics				U	0.00	ug/Kg					02/11/14 20:42
**o-Terphenyl	666				505	ug/Kg		75.8	(30%-130%)		
QC1203032732 342634001 MS											
Diesel Range Organics	41300	J	5760		33700	ug/Kg		67.8	(26%-138%)		02/11/14 22:32
**o-Terphenyl	825		561		598	ug/Kg		72.4	(30%-130%)		
QC1203032733 342634001 MSD											
Diesel Range Organics	41200	J	5760		37400	ug/Kg	10.4	76.9	(0%-32%)		02/11/14 23:08
**o-Terphenyl	824		561		651	ug/Kg		79	(30%-130%)		
Ion Chromatography											
Batch 1365244											
QC1203032300 342634015 DUP											
Fluoride			2.09		2.09	mg/kg	0.366 ^		(+/-1.28)	DM	02/08/14 00:13
QC1203032301 342634016 DUP											
Fluoride			1.40	J	1.26	mg/kg	10.9 ^		(+/-1.26)		02/08/14 02:50
QC1203032304 LCS											
Fluoride	25.0				24.4	mg/kg		97.8	(90%-110%)		02/07/14 14:48
QC1203032299 MB											
Fluoride				U	0.00	mg/kg					02/07/14 14:17
QC1203032302 342634015 MS											
Fluoride	32.1		2.09		23.9	mg/kg		68.2	(34%-134%)		02/08/14 00:45
QC1203032303 342634016 MS											
Fluoride	31.4		1.40		18.4	mg/kg		54.1	(34%-134%)		02/08/14 03:22
Metals Analysis-ICP											
Batch 1365217											
QC1203032236 342634001 DUP											

QC Summary

Workorder: **342634**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1365217											
Aluminum		15400000		16200000	ug/kg	4.55		(0%-20%)	JWJ	02/11/14	11:22
Antimony	U	-915	U	-1850	ug/kg	N/A ^					
Arsenic		19100		20300	ug/kg	6.17		(0%-20%)			
Barium		25800		27300	ug/kg	5.87		(0%-20%)			
Beryllium	J	519	J	542	ug/kg	4.37 ^		(+/-578)			
Boron	U	1010	J	2440	ug/kg	200 ^					
Cadmium	J	320	J	394	ug/kg	20.6 ^		(+/-578)			
Calcium		18700000		23300000	ug/kg	21.9*		(0%-20%)			
Chromium		27700		26600	ug/kg	4.11		(0%-20%)			
Cobalt		6180		6530	ug/kg	5.51		(0%-20%)			
Copper		12200		13100	ug/kg	7.28		(0%-20%)			
Iron		24900000		25900000	ug/kg	3.74		(0%-20%)			
Lead		21300		22500	ug/kg	5.39		(0%-20%)			
Magnesium		695000		739000	ug/kg	6.11		(0%-20%)			
Manganese		282000		294000	ug/kg	4.05		(0%-20%)			
Molybdenum	J	811	J	645	ug/kg	22.9 ^		(+/-1160)			
Nickel		7810		8260	ug/kg	5.57		(0%-20%)			
Selenium	U	-1240	U	192	ug/kg	N/A ^					
Silver	U	41.5	U	-30.8	ug/kg	N/A ^					
Sodium		81100		89300	ug/kg	9.64 ^		(+/-28900)			
Strontium		95900		101000	ug/kg	5.00		(0%-20%)			
Thallium	U	-25.8	U	-273	ug/kg	N/A ^					

QC Summary

Workorder: **342634**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1365217											
Vanadium		34900		36900	ug/kg	5.35		(0%-20%)			
Zinc		56700		59700	ug/kg	5.16		(0%-20%)	JWJ	02/11/14	11:22
QC1203032235 LCS											
Aluminum	493000			485000	ug/kg		98.4	(80%-120%)		02/11/14	10:35
Antimony	49300			48300	ug/kg		97.9	(80%-120%)			
Arsenic	49300			48800	ug/kg		98.9	(80%-120%)			
Barium	49300			49500	ug/kg		100	(80%-120%)			
Beryllium	49300			50900	ug/kg		103	(80%-120%)			
Boron	49300			49700	ug/kg		101	(80%-120%)			
Cadmium	49300			50400	ug/kg		102	(80%-120%)			
Calcium	493000			481000	ug/kg		97.5	(80%-120%)			
Chromium	49300			49200	ug/kg		99.9	(80%-120%)			
Cobalt	49300			48900	ug/kg		99.3	(80%-120%)			
Copper	49300			50100	ug/kg		102	(80%-120%)			
Iron	493000			490000	ug/kg		99.3	(80%-120%)			
Lead	49300			49400	ug/kg		100	(80%-120%)			
Magnesium	493000			498000	ug/kg		101	(80%-120%)			
Manganese	49300			48900	ug/kg		99.3	(80%-120%)			
Molybdenum	49300			48200	ug/kg		97.8	(80%-120%)			
Nickel	49300			49400	ug/kg		100	(80%-120%)			
Selenium	49300			49900	ug/kg		101	(80%-120%)			
Silver	49300			50000	ug/kg		101	(80%-120%)			
Sodium	493000			481000	ug/kg		97.5	(80%-120%)			

QC Summary

Workorder: **342634**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1365217										
Strontium	49300			50200	ug/kg		102	(80%-120%)	JWJ	02/11/14 10:35
Thallium	49300			50300	ug/kg		102	(80%-120%)		
Vanadium	49300			49600	ug/kg		101	(80%-120%)		
Zinc	49300			50500	ug/kg		102	(80%-120%)		
QC1203032234 MB										
Aluminum			U	2300	ug/kg					02/11/14 10:32
Antimony			U	-236	ug/kg					
Arsenic			J	582	ug/kg					
Barium			U	12.1	ug/kg					
Beryllium			U	13.9	ug/kg					
Boron			U	122	ug/kg					
Cadmium			U	9.09	ug/kg					
Calcium			U	2530	ug/kg					
Chromium			U	79.7	ug/kg					
Cobalt			U	59.0	ug/kg					
Copper			U	-58.3	ug/kg					
Iron			U	2820	ug/kg					
Lead			U	-11.2	ug/kg					
Magnesium			U	1500	ug/kg					
Manganese			U	64.3	ug/kg					
Molybdenum			U	7.12	ug/kg					
Nickel			U	109	ug/kg					

QC Summary

Workorder: **342634**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1365217												
Selenium				U	273	ug/kg				JWJ	02/11/14	10:32
Silver				U	56.8	ug/kg						
Sodium				U	1900	ug/kg						
Strontium				U	-12.5	ug/kg						
Thallium				U	209	ug/kg						
Vanadium				U	-11.7	ug/kg						
Zinc				J	709	ug/kg						
QC1203032237 342634001 MS												
Aluminum	603000		15400000		25100000	ug/kg		N/A	(75%-125%)		02/11/14	11:25
Antimony	60300	U	-915		50800	ug/kg		84.2	(75%-125%)			
Arsenic	60300		19100		78600	ug/kg		98.6	(75%-125%)			
Barium	60300		25800		99300	ug/kg		122	(75%-125%)			
Beryllium	60300	J	519		59000	ug/kg		96.9	(75%-125%)			
Boron	60300	U	1010		50500	ug/kg		82.1	(75%-125%)			
Cadmium	60300	J	320		57200	ug/kg		94.3	(75%-125%)			
Calcium	603000		18700000		8410000	ug/kg		N/A	(75%-125%)			
Chromium	60300		27700		88700	ug/kg		101	(75%-125%)			
Cobalt	60300		6180		65100	ug/kg		97.7	(75%-125%)			
Copper	60300		12200		78700	ug/kg		110	(75%-125%)			
Iron	603000		24900000		34900000	ug/kg		N/A	(75%-125%)			
Lead	60300		21300		83800	ug/kg		104	(75%-125%)			
Magnesium	603000		695000		1470000	ug/kg		128*	(75%-125%)			

QC Summary

Workorder: **342634**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1365217											
Manganese	60300		282000		849000	ug/kg		N/A	(75%-125%)	JWJ	02/11/14 11:25
Molybdenum	60300	J	811		56300	ug/kg		92	(75%-125%)		
Nickel	60300		7810		68000	ug/kg		99.8	(75%-125%)		
Selenium	60300	U	-1240		53600	ug/kg		88.8	(75%-125%)		
Silver	60300	U	41.5		59600	ug/kg		98.6	(75%-125%)		
Sodium	603000		81100		665000	ug/kg		96.8	(75%-125%)		
Strontium	60300		95900		168000	ug/kg		119	(75%-125%)		
Thallium	60300	U	-25.8		37300	ug/kg		61.8 *	(75%-125%)		
Vanadium	60300		34900		102000	ug/kg		111	(75%-125%)		
Zinc	60300		56700		130000	ug/kg		122	(75%-125%)		
QC1203034018 342634001 PS											
Magnesium	5000		6420		11000	ug/L		92.1	(80%-120%)		02/11/14 11:31
Thallium	500	U	-0.238		483	ug/L		96.6	(80%-120%)		
QC1203032238 342634001 SDILT											
Aluminum			143000		29300	ug/L	2.73		(0%-10%)		02/11/14 11:28
Antimony		U	-8.45	U	-0.842	ug/L	N/A		(0%-10%)		
Arsenic			176		32.3	ug/L	8.53		(0%-10%)		
Barium			238		49.6	ug/L	4.11		(0%-10%)		
Beryllium		J	4.79	J	1.07	ug/L	11.3		(0%-10%)		
Boron		U	9.33	U	7.30	ug/L	N/A		(0%-10%)		
Cadmium		J	2.96	U	0.560	ug/L	N/A		(0%-10%)		
Calcium			173000		34500	ug/L	.274		(0%-10%)		
Chromium			256		52.2	ug/L	1.93		(0%-10%)		

QC Summary

Workorder: **342634**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1365217												
Cobalt			57.1		12.1	ug/L	5.86		(0%-10%)	JWJ	02/11/14	11:28
Copper			113		21.8	ug/L	3.33		(0%-10%)			
Iron			230000		47500	ug/L	3.08		(0%-10%)			
Lead			197		40.2	ug/L	2.12		(0%-10%)			
Magnesium			6420		1340	ug/L	4.58		(0%-10%)			
Manganese			2600		550	ug/L	5.69		(0%-10%)			
Molybdenum		J	7.49	U	1.29	ug/L	N/A		(0%-10%)			
Nickel			72.1		15.7	ug/L	8.68		(0%-10%)			
Selenium		U	-11.5	U	1.38	ug/L	N/A		(0%-10%)			
Silver		U	0.384	U	0.738	ug/L	N/A		(0%-10%)			
Sodium			749	J	149	ug/L	.717		(0%-10%)			
Strontium			886		178	ug/L	.22		(0%-10%)			
Thallium		U	-0.238	U	-2.42	ug/L	N/A		(0%-10%)			
Vanadium			323		67.0	ug/L	3.78		(0%-10%)			
Zinc			524		113	ug/L	8.34		(0%-10%)			
Metals Analysis-Mercury												
Batch 1365910												
QC1203033859 342634001 DUP												
Mercury			27.7		28.4	ug/kg	2.73 ^		(+/-14.3)	NOR1	02/12/14	14:41
QC1203033858 LCS												
Mercury	118				119	ug/kg		101	(80%-120%)		02/12/14	14:38
QC1203033857 MB												
Mercury				U	-2.34	ug/kg					02/12/14	14:36
QC1203033860 342634001 MS												
Mercury	148		27.7		170	ug/kg		96.6	(80%-120%)		02/12/14	14:43

QC Summary

Workorder: 342634

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-Mercury											
Batch 1365910											
QC1203033861 342634001 SDILT											
Mercury			0.391	U	-0.011	ug/L	N/A		(0%-10%)	NOR1	02/12/14 14:45
Semi-Volatiles-HERB											
Batch 1365642											
QC1203033185 LCS											
2,4,5-T	40.0				40.3	ug/kg		101	(52%-137%)	RXE1	02/11/14 17:56
2,4-D	40.0				38.9	ug/kg		97.3	(53%-139%)		
**2,4-Dichlorophenylacetic acid	99.9				103	ug/kg		103	(38%-142%)		
QC1203033184 MB											
2,4,5-T				U	0.00	ug/kg					02/11/14 17:28
2,4-D				U	0.00	ug/kg					
**2,4-Dichlorophenylacetic acid	99.8				87.0	ug/kg		87.1	(38%-142%)		
QC1203033186 342634002 MS											
2,4,5-T	48.1	U	0.00		40.7	ug/kg		84.5	(45%-131%)		02/11/14 19:18
2,4-D	48.1	U	0.00		43.3	ug/kg		90	(53%-135%)		
**2,4-Dichlorophenylacetic acid	120		69.7		101	ug/kg		84.3	(38%-142%)		
QC1203033187 342634002 MSD											
2,4,5-T	48.1	U	0.00		40.6	ug/kg	0.238	84.4	(0%-32%)		02/11/14 19:45
2,4-D	48.1	U	0.00		41.1	ug/kg	5.37	85.4	(0%-70%)		
**2,4-Dichlorophenylacetic acid	120		69.7		100	ug/kg		83.2	(38%-142%)		
Batch 1366396											
QC1203035196 LCS											
2,4,5-T	40.0				39.0	ug/kg		97.5	(52%-137%)	RXE1	02/15/14 17:55
2,4-D	40.0				36.1	ug/kg		90.3	(53%-139%)		
**2,4-Dichlorophenylacetic acid	100				92.0	ug/kg		92.1	(38%-142%)		
QC1203035193 MB											
2,4,5-T				U	0.00	ug/kg					02/15/14 17:28

QC Summary

Workorder: 342634

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Semi-Volatiles-HERB											
Batch 1366396											
2,4-D				U	0.00	ug/kg					
**2,4-Dichlorophenylacetic acid	99.9				90.6	ug/kg		90.7	(38%-142%)	RXE1	02/15/14 17:28
QC1203035194 342910001 MS											
2,4,5-T	47.1	U	0.00	U	0.00	ug/kg		0 *	(45%-131%)		02/15/14 20:13
2,4-D	47.1	U	0.00	U	0.00	ug/kg		0 *	(53%-135%)		
**2,4-Dichlorophenylacetic acid	118		669		274	ug/kg		233 *	(38%-142%)		
QC1203035195 342910001 MSD											
2,4,5-T	47.1	U	0.00	U	0.00	ug/kg	N/A	0 *	(0%-32%)		02/15/14 20:41
2,4-D	47.1	U	0.00	U	0.00	ug/kg	N/A	0 *	(0%-70%)		
**2,4-Dichlorophenylacetic acid	118		669		1470	ug/kg		1250 *	(38%-142%)		
Semi-Volatiles-PCB											
Batch 1365651											
QC1203033218 LCS											
Aroclor-1016	33.0				24.2	ug/kg		73.1	(39%-120%)	YS1	02/12/14 08:36
Aroclor-1260	33.0				29.8	ug/kg		90.1	(50%-116%)		
**4cmx	6.61				5.02	ug/kg		76	(44%-106%)		
**Decachlorobiphenyl	6.61				5.88	ug/kg		89	(35%-119%)		
QC1203033217 MB											
Aroclor-1016				U	0.00	ug/kg					02/12/14 08:25
Aroclor-1221				U	0.00	ug/kg					
Aroclor-1232				U	0.00	ug/kg					
Aroclor-1242				U	0.00	ug/kg					
Aroclor-1248				U	0.00	ug/kg					
Aroclor-1254				U	0.00	ug/kg					
Aroclor-1260				U	0.00	ug/kg					
**4cmx	6.65				5.07	ug/kg		76.2	(44%-106%)		

QC Summary

Workorder: 342634

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Semi-Volatiles-PCB											
Batch 1365651											
**Decachlorobiphenyl	6.65				5.97	ug/kg		89.8	(35%-119%)	YS1	02/12/14 08:25
QC1203033219 342634003 MS											
Aroclor-1016	38.6	U	0.00		28.3	ug/kg		73.3	(25%-125%)		02/12/14 09:22
Aroclor-1260	38.6		8.99		51.4	ug/kg		110	(28%-127%)		
**4cmx	7.72		5.55		5.84	ug/kg		75.7	(44%-106%)		
**Decachlorobiphenyl	7.72		6.26		6.60	ug/kg		85.5	(35%-119%)		
QC1203033220 342634003 MSD											
Aroclor-1016	38.8	U	0.00		26.8	ug/kg	5.20	69.1	(0%-30%)		02/12/14 09:33
Aroclor-1260	38.8		8.99		43.2	ug/kg	17.2	88.1	(0%-30%)		
**4cmx	7.77		5.55		5.65	ug/kg		72.7	(44%-106%)		
**Decachlorobiphenyl	7.77		6.26		6.12	ug/kg		78.8	(35%-119%)		
Volatiles GRO Organics											
Batch 1366100											
QC1203034400 LCS											
Gasoline Range Organics	500				450	ug/kg		90	(71%-130%)	ACJ	02/11/14 14:45
**Bromofluorobenzene					53.4	ug/kg		107	(50%-138%)		
QC1203034401 LCS											
Gasoline Range Organics	500				440	ug/kg		88	(71%-130%)		02/12/14 10:57
**Bromofluorobenzene					49.7	ug/kg		99.3	(50%-138%)		
QC1203034396 MB											
Gasoline Range Organics				U	0.00	ug/kg					02/11/14 15:13
**Bromofluorobenzene					47.9	ug/kg		95.7	(50%-138%)		
QC1203034397 MB											
Gasoline Range Organics				U	0.00	ug/kg					02/12/14 11:25
**Bromofluorobenzene					48.0	ug/kg		95.9	(50%-138%)		
QC1203034398 342634001 PS											
Gasoline Range Organics	500	U	0.00		337	ug/L		67.5	(27%-141%)		02/11/14 18:58

QC Summary

Workorder: **342634**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Volatiles GRO Organics												
Batch 1366100												
**Bromofluorobenzene	50.0		42.7		37.4	ug/L		74.9	(50%-138%)	ACJ	02/11/14	18:58
QC1203034399 342634001 PSD												
Gasoline Range Organics	500	U	0.00		317	ug/L	6.15	63.4	(0%-30%)		02/11/14	19:25
**Bromofluorobenzene	50.0		42.7		34.0	ug/L		68	(50%-138%)			

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B The target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Concentration of the target analyte exceeds the instrument calibration range
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- JNX Non Calibrated Compound
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, the difference is >70%.
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.

QC Summary

Workorder: **342634**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time

R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11−FEB−14	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010C	Solid	BVNA
Batch ID:	**Sample Numbers:**		
1365217	See Below		

Potentially affected work order(s)(SDG): 342634(BV#14020508)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1203032237(GS140004)MS 2. Failed RPD for DUP: QC 1203032236(GS140004)DUP	1. The matrix spike recovery failed outside of the control limits for thallium and magnesium. The post spike passed the required control limits for all analytes. This verifies the absence of a matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non−homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jerry Wigfall 11−FEB−14

Data Validator/Group Leader:

Theresa McKelvey 13−FEB−14

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12−FEB−14	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8151A	Solid	BVNA
Batch ID:	**Sample Numbers:**		
1365642	See Below		

Potentially affected work order(s)(SDG): 342634(BV#14020508)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 342634003(GS140008) did not meet surrogate recovery.	1. The sample was re−extracted within holding in batch 1366396. Since the re−extraction displayed similar low surrogate recovery to the original, the failure was attributed to sample matrix interference and the original data results have been reported.

Originator's Name:

Lloyd O Fox 12−FEB−14

Data Validator/Group Leader:

Barbara Bailey 17−FEB−14

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16−FEB−14	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8151A	Solid	BVNA, LANL
Batch ID:	**Sample Numbers:**		
1366396	See Below		

Potentially affected work order(s)(SDG): 342634(BV#14020508),342910(2014−2857)

Application Issues:

Failed Recovery for MS/PS

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 342634003(GS140008) did not meet surrogate recovery acceptance criteria.	1. The sample was originally extracted in batch 1365642. Since the surrogate failure confirmed the original failure, the original data results have been reported.
2. Sample 342910001, the MS(1203035194), and MSD(1203035195) did not meet surrogate recovery acceptance criteria.	2. Since the MS and MSD displayed similar high surrogate recovery to the associated parent sample, the failures were attributed to sample matrix interference and the data results have been reported.
3. The MS(1203035194) and MSD(1203035195) did not meet spike recovery acceptance criteria.	3. Since the MS spike failures were confirmed by the MSD failures, the spike failures were attributed to sample matrix interference and the data results have been reported.

Originator's Name:

Lloyd O Fox 16−FEB−14

Data Validator/Group Leader:

Barbara Bailey 17−FEB−14

Cape Fear Analytical Dioxin Data

CFA | Cape Fear Analytical LLC
an affiliate of The GEL Group INC

3306 Kitty Hawk Road, Suite 120 Wilmington, NC 28405
P 910.795.0421
www.capefearanalytical.com

February 14, 2014

Ms. Heather Shaffer
GEL Laboratories, LLC
2040 Savage Road
Charleston, South Carolina 29407

Re: Bureau Veritas North America
Work Order: 5821 SDG: BV#14020508

Dear Ms. Shaffer:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 05, 2014. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,

Cynthia Larkins
Project Manager

Enclosures

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1204	
Sample Number GS140003 (SSL 1)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste	
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0		**Chromium VI**
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0		**Other Tests**
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Sample Number GS140004	Sample Number GS140005	Sample Number GS140006
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1204	Date/Time 1Feb14 / 1126	Date/Time 1Feb14/1126
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL1	Notes SSL2	Notes SSL2

Sample Number GS140007	Sample Number GS140008	Sample Number GS140009
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1322	Date/Time 1Feb14/1322	Date/Time 1Feb14/1238
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL3	Notes SSL3	Notes SSL4

Sample Number GS140010	Sample Number GS140011	Sample Number GS140012
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1238	Date/Time 1Feb14/1048	Date/Time 1Feb14/1048
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL4	Notes SSL5	Notes SSL5

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love / 3Feb2014/0908	[illegible] 3Feb14	good
	Cynde Larkins 05Feb14 1405	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1024	
Sample Number GS140013 (5546)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste	
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0		**Chromium VI**
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0		**Other Tests**
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Sample Number GS140014	Sample Number GS140027	Sample Number GS140028
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1024	Date/Time 1Feb14/1418	Date/Time 1Feb14/1418
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 6	Notes SSL 13	Notes SSL 13

Sample Number GS140029	Sample Number GS140030	Sample Number
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by
Date/Time 1Feb14 / 1439	Date/Time 1Feb14 / 1439	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 14	Notes SSL 14	Notes

Sample Number	Sample Number	Sample Number
Collected by	Collected by	Collected by
Date/Time	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love / 3Feb2014/0908	[illegible] 3Feb14	good
	Cynde Larkins 05Feb14 1405	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1229	
Sample Number GS140015 (SSL 7)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste	
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0	**Chromium VI**	
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0	**Other Tests**	
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Sample Number GS140016	Sample Number GS140017	Sample Number GS140018
Collected by Sr A Beckwith	Collected by Sr A Beckwith	Collected by Sr A Beckwith
Date/Time 01Feb14/1229	Date/Time 01Feb14/1153	Date/Time 01Feb14/1153
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 7	Notes SSL 8	Notes SSL 8

Sample Number GS140019	Sample Number GS140020	Sample Number GS140021
Collected by Sr A Beckwith	Collected by Sr A Beckwith	Collected by Sr A Beckwith
Date/Time 01Feb14/1132	Date/Time 01Feb14/1132	Date/Time 01Feb14/1113
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 9	Notes SSL 9	Notes SSL 10

Sample Number GS140022	Sample Number GS140023	Sample Number GS140024
Collected by Sr A Beckwith	Collected by Sr A Beckwith	Collected by Sr A Beckwith
Date/Time 01Feb14/1113	Date/Time 01Feb14/~~1113~~1054	Date/Time 01Feb14/1054
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 10	Notes SSL 11	Notes SSL 11

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
Sr A Beckwith/3Feb14/0907	[illegible] 3Feb14 0908	Good
	Cynde Larkins 05Feb14 1405	Good

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time	2/1/2014 ~~00:00~~ 1015
Sample Number GS140025 (55L 12)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010		Waste Water/Drinking Water		Bulk Materials/Oil/Waste
	Aluminum		Acidity EPA 305.1		pH EPA 150.1
	Antimony		Alkalinity EPA 310.1		Lead (Bulk) SW846/7000A/6010
	Arsenic		Ammonia as N US-696D-82X		Lead (Paint) SW846/7000A/6010
	Barium		Bromide EPA 300.0		Lead (Swipe) SW846/7000A/6010
	Beryllium		Calcium Hardness EPA 200.7		TCLP-Metals 200.7
	Boron		Chloride EPA 300.0		TCLP-Mercury SW 6010/7470
	Cadmium		COD EPA 410.4		PCB (Soil) EPA 8082 modified
	Calcium		Color EPA 110.2		PCB (Swipe) EPA 8082 modified
	Chromium		Conductivity EPA 120.1		PCB (Oil) EPA 600/4-81-045
	Cobalt		Fluoride EPA 300.0		**Chromium VI**
	Copper		Hardness EPA 200.7		
	Iron		Langelier Index Modified		Chromium VI (Water) EPA 218.6
	Lead		Nitrate + Nitrite EPA 300.0		Chromium VI (Salt Water) EPA 218.
	Magnesium		Nitrite EPA 300.0		Chromium VI (Air) NIOSH 7605
	Manganese		Nitrate as N EPA 300.0		**Other Tests**
	Mercury EPA 245.2		ortho-Phosphorus EPA 365.3		
	Molybdenum		PCB (Water) EPA 608/8082		EPA Method 300.0 (Fluorine)
	Nickel		Silica US-696H-82W		EPS Method 1613 (Dioxins)
	Selenium		Sulfate EPA 300.0		EPA Method 8015 (Gasoline range organics)
	Silver		Total Dissolved Solids EPA 160.1		EPA Method 8015 (Diesel range organics)
	Sodium		Total Phosphorus EPA 365.2		EPA Method 8151 (2,4-D 2,4,5-T)
	Strontium		Total Suspended Solids EPA 160.2		SW-8082 (PCB)
	Thallium		Turbidity EPA 180.1		SW-6010 (Metals)
	Vanadium				SW-7471 (Metals-Mercury)
	Zinc				

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - **FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.**

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

Sample Number GS140026	Sample Number GS140031	Sample Number GS140032
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1015	Date/Time 01Feb14/1330	Date/Time 01Feb14/1330
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 12	Notes SSL 15	Notes SSL 15

Sample Number GS140033	Sample Number GS140034	Sample Number
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by
Date/Time 01Feb14/1015	Date/Time 01Feb14/1015	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 16	Notes SSL 16	Notes

Sample Number	Sample Number	Sample Number
Collected by	Collected by	Collected by
Date/Time	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Beckwith/03Feb14/0908	3 Feb 14 0908 [illegible]	Good
	Cynde Larkins 05Feb14 1405	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

DHL EXPRESS

Track this shipment: http://www.dhl.com

Shipment Waybill/運送状
(Non-negotiable/譲渡不能)

Expiry 07/13

3434192016

ORIGIN: KIX

DESTINATION CODE: RPU

1 Payer account number and insurance details/顧客番号・保険

Charge to 運送料金請求先: [V] Shipper 荷送人 [ ] Receiver 荷受人 [ ] 3rd party 第三者

Payer Account No. 支払い専用

[ ] Cash/現金
[ ] Cheque/小切手
[ ] Credit Card/クレジットカード

Shipment Insurance/保険 *Insured value in local currency* 申告価額を日本円でご記入ください

[ ] Yes

Not all payment options are available in all countries.

CC reference code

2 From (Shipper/荷送人)

Shipper's account number/顧客番号: 580959374

Contact name/担当者名: Kyle McGrath

Shipper's reference *(up to 35 characters)* 数字・アルファベット35文字まで入力可能です: EC14-095

Company name/会社名: Det 3 USAFSAM

Address/住所: Unit 5213 Bld 853
Kadena AB Okinawa JP

Postcode/ZIP Code *(required)* 郵便番号(必須): 904 0020

Phone, Fax or E-mail *(required)* 電話・ファックス・E-Mailアドレスのいずれか: 098 962 8281

3 To (Receiver/荷受人)

Company name/会社名: Cape Fear Analytical

Delivery address/住所 *DHL cannot deliver to a PO BOX*
3316 KittyHawk Road
Suite 120
Wilmington NC

私書箱への配達はできませんのでご注意ください。

Postcode/ZIP Code *(required)* / 郵便番号: 28405

Country/国名: US

Contact person/担当者名: Heather Shaffer

Phone, Fax or E-mail *(required)* 電話・ファックス・E-Mailアドレスのいずれか: 800 996 2050

4 Shipment details *Billed weight is calculated from total weight and dimensions*

Total number of packages 総個数	Total Weight 総重量	Pieces 個数	Length 長さ	Width 幅	Height 高さ cm
1	kg • gr	@	X		X
		@	X		X
		@	X		X
		@	X		X

5 Full description of contents/貨物明細

Give content and quantity/品名・数量 The shipper confirms that this shipment does not contain any dangerous goods as defined under IATA regulations.

16 Bulk Sample

発送人は、貨物にはIATA規則で定める危険物がいっさい含まれていないことを確認するものとします。

6 Non-Document Shipments only (Customs Requirement)

Attach the original and two copies of a Proforma or Commercial Invoice

Shipper's VAT/GST number

Receiver's VAT/GST or Shipper's EIN/SSN

Declared Value for Customs/税関申告価額 *(as on commercial/proforma invoice)*: $16.00

Harmonised Commodity Code *if applicable* 統一品目番号

TYPE OF EXPORT: [ ] Permanent 通常輸出 [ ] Repair / Return 修理・再輸出 [ ] Temporary 一時輸出

Destination duties/taxes *if left blank receiver pays duties/taxes* /輸入関税等請求先: [ ] Receiver 荷受人 [ ] Shipper 荷送人 [ ] Other 第三者 *specify approved account number*(特約の場合に限る)

SIN 06/12

7 Products & Services

[ ] Domestic [ ] International Document [ ] International Non-Document

Products *(not all are available to and from all locations)* 地域によっては利用できないサービスがあります。

[ ] EXPRESS 9:00
[ ] EXPRESS 10:30
[ ] EXPRESS 12:00
[ ] EXPRESS WORLDWIDE
[ ] EXPRESS ENVELOPE
[ ] ECONOMY SELECT
[ ] OTHER

Optional Services *(extra charges may apply)*
[ ] Saturday Delivery
[ ] Hold for Collection
[ ] Delivery Notification
[ ] Payable Packaging
[ ] Other

Globalmail Business
[ ] Priority [ ] Standard [ ] Other

DIMENSIONAL/CHARGEABLE WEIGHT 容積重量: kg • gr

CHARGES
Services
Other
Insurance
VAT

CURRENCY | TOTAL

Picked up by: MIKISHI

Route No.: KA4B

Time | Date: 03-F-16

Consignee/Parcel copy

For more information see DHL Web Site or call your local DHL office

INVOICE

Cape Fear Analytical (CFA)
3306 Kitty Hawk Road
Suite 120
Wilmington, NC 28405

FROM OKINAWA TO NC USA

DISCRIPTION OF GOODS
ALL ITEMS ARE NON HAZ ITEMS/NON
ANIMAL CONTAINING ITEM

16- BULK SAMPLE FOR TEST ($1.00)

NUMBER OF PACKAGES:1
GROSS WEIGHT (Kg)
CARGO RECEIPT NUMBER*3434192016*
TOTAL VALUE (US$16.00)

DET 3 USAFSAM AD
Unit 5213, Bldg 853
Kadena AB
Okinawa, Japan 904-0020

<SAMPLE CONTROL>
SSGT KYLE MCGRATH

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: GELA	Work Order:
Received By: Cynde Larkins	Date/Time Received: 05 Feb 14 1405

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			✓
Samples identified as Foreign Soil?	✓		

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		✓	
Samples < 2x background?		✓	

* Notify RSO of any responses in this column immediately.

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other(describe)
2	Chain of Custody documents included with shipment?	✓			
3	Samples requiring cold preservation within 0-6°C?	✓			Preservative Method: ice bags (blue ice) dry ice none other (describe) 3.9°C
4	Samples requiring chemical preservation at proper pH?		✓		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
5	Samples requiring preservation have no residual chlorine?		✓		Sample IDs, containers affected: If preservative added, Lot#:
6	Samples received within holding time?	✓			Sample IDs, tests affected:
7	Sample IDs on COC match IDs on containers?	✓			Sample IDs, containers affected:
8	Date & time of COC match date & time on containers?			✓	Sample IDs, containers affected: See below
9	Number of containers received match number indicated on COC?			✓	Sample IDs, containers affected: Number not noted. 1 container per location received.
10	COC form is properly signed in relinquished/received sections?	✓		✓	COC not relinquished to CFA

Comments:

Sample: G5140033 Location: SSL16 has collection time on label as 1358 but COC has 1015

No evidence of sample residual on packing material.

Checklist performed by: Initials: CJ Date: 05 Feb 14

Subject: Fwd: Japan soil sample answers
From: Heather Shaffer <Heather.Shaffer@gel.com>
Date: 2/6/2014 3:03 PM
To: Cynde Larkins <cynde.larkins@cfanalytical.com>, "'Valerie.Davis@CFAnalytical.com'" <Valerie.Davis@CFAnalytical.com>

Cynde,

I am forwarding the client response for the time discrepancies on the BVNA samples received yesterday.

Thank you,
Heather

-------- Original Message --------
Subject: Japan soil sample answers
Date: Thu, 6 Feb 2014 14:01:12 -0600
From:michael.wantland@us.bureauveritas.com
To: Heather Shaffer <Heather.Shaffer@gel.com>

Here is he response from the questions from yesterday

```
Mr. Wantland,

We sent separate samples to GEL for the analytes that GEL will test for, but same CoCs were sent to the labs. Please
test full list of analytes for dioxin.

All samples collected in the location SSL16 should have collection time of 1358. This applies to the sample number
GS140033, GS140034, and GS140050, so please correct the sample collection times on them.
```

Michael J. Wantland REM, RES
Manager, Government Programs
Bureau Veritas North America Inc.
Health, Safety, and Environmental Services
13225 Cepeda, Helotes TX 78023
p: 800-996-2050, f: 210-372-9685 c. 210-394-2993
michael.wantland@us.bureauveritas.com
www.us.bureauveritas.com/labs
ISO 9001:2008 Certified

"This message contains confidential information.
To know more, please click on the following link: http://disclaimer.bureauveritas.com"

High Resolution Dioxins and Furans Analysis

Case Narrative

HDOX Case Narrative
GEL Laboratories (GELA)
SDG 5821

Method/Analysis Information

Product:	**Dioxins/Furans by EPA Method 1613B in Solids**
Analytical Method:	EPA Method 1613B
Extraction Method:	SW846 3540C
Analytical Batch Number:	25323
Clean Up Batch Number:	25322
Extraction Batch Number:	25321

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
5821001	GS140003
5821002	GS140005
5821003	GS140007
5821004	GS140009
5821005	GS140011
5821006	GS140013
5821007	GS140027
5821008	GS140029
5821009	GS140016
5821010	GS140018
5821011	GS140020
5821012	GS140022
5821013	GS140024
5821014	GS140026
5821015	GS140031
5821016	GS140033
12009832	Method Blank (MB)
12009833	Laboratory Control Sample (LCS)
12009834	Laboratory Control Sample Duplicate (LCSD)
12009835	5821001(GS140003) Matrix Spike (MS)
12009836	5821001(GS140003) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 13.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement
The test results presented in this document are certified to meet all requirements of the 2003 NELAC Standard.

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
Sample 5821001 (GS140003)- Batch 25323 was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
One recovery in the MSD was above acceptance limits. This may be attributed to matrix interference. All recoveries in the associated LCS/LCSD met acceptance criteria. Batch 25323.

MS/MSD Relative Percent Difference (RPD) Statement
One RPD was above acceptance limits. This may be attributed to matrix interference. All RPDs in the associated LCS/LCSD met acceptance criteria. Batch 25323.

Technical Information

Holding Time Specifications
CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
The matrix spike standard was prepared at a concentration that varies from that documented in the SOP. This is documented in the prep logbook.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 644395 -Batch 25323.

Manual Integrations
Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample preparation
No difficulties were encountered during sample preparation.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional

packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Certificate of Analysis Report
for

GELA001 GEL Laboratories

Client SDG: 5821 CFA Work Order: 5821

The Qualifiers in this report are defined as follows:

*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
E	Value is estimated - Concentration of the target analyte exceeds the instrument calibration range
K	Estimated Maximum Possible Concentration
U	Analyte was analyzed for, but not detected above the specified detection limit.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: ESuhrie **Name: Erin Suhrie**

Date: 14 FEB 2014 **Title: Data Validator**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821001**	**Date Collected:**	**02/01/2014 12:04**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.8**
Client ID:	**GS140003**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 19:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-6**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.15 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.03	pg/g	1.03
40321-76-4	1,2,3,7,8-PeCDD	U	5.13	pg/g	5.13
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.13	pg/g	5.13
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.13	pg/g	5.13
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.13	pg/g	5.13
35822-46-9	1,2,3,4,6,7,8-HpCDD		44.7	pg/g	5.13
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2080	pg/g	10.3
51207-31-9	2,3,7,8-TCDF	U	1.03	pg/g	1.03
57117-41-6	1,2,3,7,8-PeCDF	U	5.13	pg/g	5.13
57117-31-4	2,3,4,7,8-PeCDF	U	5.13	pg/g	5.13
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.13	pg/g	5.13
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.13	pg/g	5.13
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.13	pg/g	5.13
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.13	pg/g	5.13
67562-39-4	1,2,3,4,6,7,8-HpCDF		9.88	pg/g	5.13
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.13	pg/g	5.13
39001-02-0	1,2,3,4,6,7,8,9-OCDF		16.8	pg/g	10.3
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.03	pg/g	1.03
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.13	pg/g	5.13
34465-46-8	Total Hexachlorodibenzo-p-dioxin		5.44	pg/g	5.13
37871-00-4	Total Heptachlorodibenzo-p-dioxin		87.8	pg/g	5.13
30402-14-3	Total Tetrachlorodibenzofuran	U	1.03	pg/g	1.03
30402-15-4	Total Pentachlorodibenzofuran	U	5.13	pg/g	5.13
55684-94-1	Total Hexachlorodibenzofuran	U	5.13	pg/g	5.13
38998-75-3	Total Heptachlorodibenzofuran		19.3	pg/g	5.13
3333-30-0	TEQ WHO2005 ND=0		1.18	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.97	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		198	205	pg/g	96.4	(25%-164%)
13C-1,2,3,7,8-PeCDD		170	205	pg/g	82.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		179	205	pg/g	87.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		185	205	pg/g	90.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		178	205	pg/g	86.9	(23%-140%)
13C-OCDD		383	410	pg/g	93.2	(17%-157%)
13C-2,3,7,8-TCDF		189	205	pg/g	92.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		187	205	pg/g	91.3	(24%-185%)
13C-2,3,4,7,8-PeCDF		185	205	pg/g	90.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		186	205	pg/g	90.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		184	205	pg/g	89.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		190	205	pg/g	92.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		185	205	pg/g	90.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821001**	**Date Collected:**	**02/01/2014 12:04**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.8**
Client ID:	**GS140003**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 19:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-6**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.15 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		194	205	pg/g	94.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		182	205	pg/g	88.8	(26%-138%)
37Cl-2,3,7,8-TCDD		21.2	20.5	pg/g	103	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821002**	**Date Collected:**	**02/01/2014 11:26**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.3**
Client ID:	**GS140005**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 21:39**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-9**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.13 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	.997	pg/g	0.997
40321-76-4	1,2,3,7,8-PeCDD	U	4.99	pg/g	4.99
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.99	pg/g	4.99
57653-85-7	1,2,3,6,7,8-HxCDD	U	4.99	pg/g	4.99
19408-74-3	1,2,3,7,8,9-HxCDD	U	4.99	pg/g	4.99
35822-46-9	1,2,3,4,6,7,8-HpCDD		35.7	pg/g	4.99
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2300	pg/g	9.97
51207-31-9	2,3,7,8-TCDF	U	.997	pg/g	0.997
57117-41-6	1,2,3,7,8-PeCDF	U	4.99	pg/g	4.99
57117-31-4	2,3,4,7,8-PeCDF	U	4.99	pg/g	4.99
70648-26-9	1,2,3,4,7,8-HxCDF	U	4.99	pg/g	4.99
57117-44-9	1,2,3,6,7,8-HxCDF	U	4.99	pg/g	4.99
60851-34-5	2,3,4,6,7,8-HxCDF	U	4.99	pg/g	4.99
72918-21-9	1,2,3,7,8,9-HxCDF	U	4.99	pg/g	4.99
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	4.99	pg/g	4.99
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.99	pg/g	4.99
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	9.97	pg/g	9.97
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		1.02	pg/g	0.997
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	4.99	pg/g	4.99
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	4.99	pg/g	4.99
37871-00-4	Total Heptachlorodibenzo-p-dioxin		67.8	pg/g	4.99
30402-14-3	Total Tetrachlorodibenzofuran		3.29	pg/g	0.997
30402-15-4	Total Pentachlorodibenzofuran	U	4.99	pg/g	4.99
55684-94-1	Total Hexachlorodibenzofuran	U	4.99	pg/g	4.99
38998-75-3	Total Heptachlorodibenzofuran		5.08	pg/g	4.99
3333-30-0	TEQ WHO2005 ND=0		1.05	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.71	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		177	199	pg/g	88.5	(25%-164%)
13C-1,2,3,7,8-PeCDD		160	199	pg/g	80.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		169	199	pg/g	84.5	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		167	199	pg/g	83.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		172	199	pg/g	86.3	(23%-140%)
13C-OCDD		384	399	pg/g	96.2	(17%-157%)
13C-2,3,7,8-TCDF		176	199	pg/g	88.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		184	199	pg/g	92.3	(24%-185%)
13C-2,3,4,7,8-PeCDF		178	199	pg/g	89.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		174	199	pg/g	87.3	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		168	199	pg/g	84.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		175	199	pg/g	87.6	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		196	199	pg/g	98.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821002**	**Date Collected:**	**02/01/2014 11:26**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.3**
Client ID:	**GS140005**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 21:39**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-9**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.13 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		184	199	pg/g	92.0	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		174	199	pg/g	87.1	(26%-138%)
37Cl-2,3,7,8-TCDD		20.5	19.9	pg/g	103	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821003**	**Date Collected:**	**02/01/2014 13:22**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**15.7**
Client ID:	**GS140007**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 22:28**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-10**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.43 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	.954	pg/g	0.954
40321-76-4	1,2,3,7,8-PeCDD	U	4.77	pg/g	4.77
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.77	pg/g	4.77
57653-85-7	1,2,3,6,7,8-HxCDD	U	4.77	pg/g	4.77
19408-74-3	1,2,3,7,8,9-HxCDD	U	4.77	pg/g	4.77
35822-46-9	1,2,3,4,6,7,8-HpCDD		153	pg/g	4.77
3268-87-9	1,2,3,4,6,7,8,9-OCDD		3090	pg/g	9.54
51207-31-9	2,3,7,8-TCDF	U	.954	pg/g	0.954
57117-41-6	1,2,3,7,8-PeCDF	U	4.77	pg/g	4.77
57117-31-4	2,3,4,7,8-PeCDF	U	4.77	pg/g	4.77
70648-26-9	1,2,3,4,7,8-HxCDF	U	4.77	pg/g	4.77
57117-44-9	1,2,3,6,7,8-HxCDF	U	4.77	pg/g	4.77
60851-34-5	2,3,4,6,7,8-HxCDF	U	4.77	pg/g	4.77
72918-21-9	1,2,3,7,8,9-HxCDF	U	4.77	pg/g	4.77
67562-39-4	1,2,3,4,6,7,8-HpCDF		30.2	pg/g	4.77
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.77	pg/g	4.77
39001-02-0	1,2,3,4,6,7,8,9-OCDF		75.7	pg/g	9.54
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		8.62	pg/g	0.954
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	4.77	pg/g	4.77
34465-46-8	Total Hexachlorodibenzo-p-dioxin		12.8	pg/g	4.77
37871-00-4	Total Heptachlorodibenzo-p-dioxin		272	pg/g	4.77
30402-14-3	Total Tetrachlorodibenzofuran	U	.954	pg/g	0.954
30402-15-4	Total Pentachlorodibenzofuran	U	4.77	pg/g	4.77
55684-94-1	Total Hexachlorodibenzofuran		24.9	pg/g	4.77
38998-75-3	Total Heptachlorodibenzofuran		84.9	pg/g	4.77
3333-30-0	TEQ WHO2005 ND=0		2.79	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		8.18	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		185	191	pg/g	97.0	(25%-164%)
13C-1,2,3,7,8-PeCDD		167	191	pg/g	87.6	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		155	191	pg/g	81.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		157	191	pg/g	82.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		158	191	pg/g	82.8	(23%-140%)
13C-OCDD		352	382	pg/g	92.3	(17%-157%)
13C-2,3,7,8-TCDF		174	191	pg/g	91.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		187	191	pg/g	97.9	(24%-185%)
13C-2,3,4,7,8-PeCDF		182	191	pg/g	95.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		164	191	pg/g	86.1	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		154	191	pg/g	80.5	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		158	191	pg/g	82.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		175	191	pg/g	91.6	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821003**	**Date Collected:**	**02/01/2014 13:22**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**15.7**
Client ID:	**GS140007**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 22:28**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-10**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.43 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		164	191	pg/g	85.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		158	191	pg/g	82.8	(26%-138%)
37Cl-2,3,7,8-TCDD		20.3	19.1	pg/g	106	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821004**	**Date Collected:**	**02/01/2014 12:38**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**13.8**
Client ID:	**GS140009**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 23:16**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-11**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.24 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	.948	pg/g	0.948
40321-76-4	1,2,3,7,8-PeCDD	U	4.74	pg/g	4.74
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.74	pg/g	4.74
57653-85-7	1,2,3,6,7,8-HxCDD	U	4.74	pg/g	4.74
19408-74-3	1,2,3,7,8,9-HxCDD	U	4.74	pg/g	4.74
35822-46-9	1,2,3,4,6,7,8-HpCDD		54.7	pg/g	4.74
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2020	pg/g	9.48
51207-31-9	2,3,7,8-TCDF	U	.948	pg/g	0.948
57117-41-6	1,2,3,7,8-PeCDF	U	4.74	pg/g	4.74
57117-31-4	2,3,4,7,8-PeCDF	U	4.74	pg/g	4.74
70648-26-9	1,2,3,4,7,8-HxCDF	U	4.74	pg/g	4.74
57117-44-9	1,2,3,6,7,8-HxCDF	U	4.74	pg/g	4.74
60851-34-5	2,3,4,6,7,8-HxCDF	U	4.74	pg/g	4.74
72918-21-9	1,2,3,7,8,9-HxCDF	U	4.74	pg/g	4.74
67562-39-4	1,2,3,4,6,7,8-HpCDF		18.9	pg/g	4.74
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.74	pg/g	4.74
39001-02-0	1,2,3,4,6,7,8,9-OCDF		22.4	pg/g	9.48
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		6.78	pg/g	0.948
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	4.74	pg/g	4.74
34465-46-8	Total Hexachlorodibenzo-p-dioxin		6.35	pg/g	4.74
37871-00-4	Total Heptachlorodibenzo-p-dioxin		107	pg/g	4.74
30402-14-3	Total Tetrachlorodibenzofuran	U	.948	pg/g	0.948
30402-15-4	Total Pentachlorodibenzofuran	U	4.74	pg/g	4.74
55684-94-1	Total Hexachlorodibenzofuran		5.43	pg/g	4.74
38998-75-3	Total Heptachlorodibenzofuran		31.5	pg/g	4.74
3333-30-0	TEQ WHO2005 ND=0		1.35	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.70	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		191	190	pg/g	101	(25%-164%)
13C-1,2,3,7,8-PeCDD		158	190	pg/g	83.2	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		143	190	pg/g	75.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		144	190	pg/g	76.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		144	190	pg/g	76.1	(23%-140%)
13C-OCDD		322	379	pg/g	85.0	(17%-157%)
13C-2,3,7,8-TCDF		170	190	pg/g	89.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		178	190	pg/g	94.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		170	190	pg/g	89.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		149	190	pg/g	78.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		141	190	pg/g	74.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		149	190	pg/g	78.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		158	190	pg/g	83.5	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821004**	**Date Collected:**	**02/01/2014 12:38**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**13.8**
Client ID:	**GS140009**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 23:16**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-11**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.24 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		151	190	pg/g	79.5	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		143	190	pg/g	75.4	(26%-138%)
37Cl-2,3,7,8-TCDD		20.4	19.0	pg/g	107	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821005**	**Date Collected:**	**02/01/2014 10:48**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.7**
Client ID:	**GS140011**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 00:05**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-12**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.47 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	.974	pg/g	0.974
40321-76-4	1,2,3,7,8-PeCDD	U	4.87	pg/g	4.87
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.87	pg/g	4.87
57653-85-7	1,2,3,6,7,8-HxCDD	U	4.87	pg/g	4.87
19408-74-3	1,2,3,7,8,9-HxCDD	U	4.87	pg/g	4.87
35822-46-9	1,2,3,4,6,7,8-HpCDD		34.0	pg/g	4.87
3268-87-9	1,2,3,4,6,7,8,9-OCDD		764	pg/g	9.74
51207-31-9	2,3,7,8-TCDF	U	.974	pg/g	0.974
57117-41-6	1,2,3,7,8-PeCDF	U	4.87	pg/g	4.87
57117-31-4	2,3,4,7,8-PeCDF	U	4.87	pg/g	4.87
70648-26-9	1,2,3,4,7,8-HxCDF	U	4.87	pg/g	4.87
57117-44-9	1,2,3,6,7,8-HxCDF	U	4.87	pg/g	4.87
60851-34-5	2,3,4,6,7,8-HxCDF	U	4.87	pg/g	4.87
72918-21-9	1,2,3,7,8,9-HxCDF	U	4.87	pg/g	4.87
67562-39-4	1,2,3,4,6,7,8-HpCDF		6.20	pg/g	4.87
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.87	pg/g	4.87
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	9.74	pg/g	9.74
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	.974	pg/g	0.974
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	4.87	pg/g	4.87
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	4.87	pg/g	4.87
37871-00-4	Total Heptachlorodibenzo-p-dioxin		61.6	pg/g	4.87
30402-14-3	Total Tetrachlorodibenzofuran	U	.974	pg/g	0.974
30402-15-4	Total Pentachlorodibenzofuran	U	4.87	pg/g	4.87
55684-94-1	Total Hexachlorodibenzofuran	U	4.87	pg/g	4.87
38998-75-3	Total Heptachlorodibenzofuran		14.9	pg/g	4.87
3333-30-0	TEQ WHO2005 ND=0		0.632	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.14	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		161	195	pg/g	82.7	(25%-164%)
13C-1,2,3,7,8-PeCDD		153	195	pg/g	78.4	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		152	195	pg/g	77.9	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		145	195	pg/g	74.5	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		149	195	pg/g	76.5	(23%-140%)
13C-OCDD		333	390	pg/g	85.4	(17%-157%)
13C-2,3,7,8-TCDF		162	195	pg/g	83.1	(24%-169%)
13C-1,2,3,7,8-PeCDF		175	195	pg/g	89.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		171	195	pg/g	87.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		158	195	pg/g	81.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		151	195	pg/g	77.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		156	195	pg/g	80.1	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		165	195	pg/g	84.7	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821005**	**Date Collected:**	**02/01/2014 10:48**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.7**
Client ID:	**GS140011**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 00:05**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-12**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.47 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		160	195	pg/g	82.3	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		154	195	pg/g	79.0	(26%-138%)
37Cl-2,3,7,8-TCDD		17.5	19.5	pg/g	89.8	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821006**	**Date Collected:**	**02/01/2014 10:24**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.1**
Client ID:	**GS140013**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 00:53**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-13**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.11 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.05	pg/g	1.05
40321-76-4	1,2,3,7,8-PeCDD	U	5.23	pg/g	5.23
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.23	pg/g	5.23
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.23	pg/g	5.23
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.23	pg/g	5.23
35822-46-9	1,2,3,4,6,7,8-HpCDD		155	pg/g	5.23
3268-87-9	1,2,3,4,6,7,8,9-OCDD		3200	pg/g	10.5
51207-31-9	2,3,7,8-TCDF	U	1.05	pg/g	1.05
57117-41-6	1,2,3,7,8-PeCDF	U	5.23	pg/g	5.23
57117-31-4	2,3,4,7,8-PeCDF	U	5.23	pg/g	5.23
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.23	pg/g	5.23
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.23	pg/g	5.23
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.23	pg/g	5.23
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.23	pg/g	5.23
67562-39-4	1,2,3,4,6,7,8-HpCDF		25.7	pg/g	5.23
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.23	pg/g	5.23
39001-02-0	1,2,3,4,6,7,8,9-OCDF		48.7	pg/g	10.5
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.05	pg/g	1.05
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.23	pg/g	5.23
34465-46-8	Total Hexachlorodibenzo-p-dioxin		17.8	pg/g	5.23
37871-00-4	Total Heptachlorodibenzo-p-dioxin		278	pg/g	5.23
30402-14-3	Total Tetrachlorodibenzofuran	U	1.05	pg/g	1.05
30402-15-4	Total Pentachlorodibenzofuran	U	5.23	pg/g	5.23
55684-94-1	Total Hexachlorodibenzofuran		20.6	pg/g	5.23
38998-75-3	Total Heptachlorodibenzofuran		62.2	pg/g	5.23
3333-30-0	TEQ WHO2005 ND=0		2.78	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		8.69	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		201	209	pg/g	96.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		177	209	pg/g	84.5	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		167	209	pg/g	79.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		164	209	pg/g	78.4	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		169	209	pg/g	80.6	(23%-140%)
13C-OCDD		400	419	pg/g	95.5	(17%-157%)
13C-2,3,7,8-TCDF		190	209	pg/g	90.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		191	209	pg/g	91.5	(24%-185%)
13C-2,3,4,7,8-PeCDF		196	209	pg/g	93.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		177	209	pg/g	84.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		166	209	pg/g	79.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		175	209	pg/g	83.7	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		178	209	pg/g	85.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821006**	**Date Collected:**	**02/01/2014 10:24**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.1**
Client ID:	**GS140013**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 00:53**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-13**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.11 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		182	209	pg/g	86.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		171	209	pg/g	81.6	(26%-138%)
37Cl-2,3,7,8-TCDD		22.3	20.9	pg/g	107	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821007**	**Date Collected:**	**02/01/2014 14:18**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.3**
Client ID:	**GS140027**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 03:26**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-2**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.04 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1	pg/g	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	5.02	pg/g	5.02
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.02	pg/g	5.02
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.02	pg/g	5.02
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.02	pg/g	5.02
35822-46-9	1,2,3,4,6,7,8-HpCDD		18.2	pg/g	5.02
3268-87-9	1,2,3,4,6,7,8,9-OCDD		567	pg/g	10.0
51207-31-9	2,3,7,8-TCDF	U	1	pg/g	1.00
57117-41-6	1,2,3,7,8-PeCDF	U	5.02	pg/g	5.02
57117-31-4	2,3,4,7,8-PeCDF	U	5.02	pg/g	5.02
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.02	pg/g	5.02
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.02	pg/g	5.02
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.02	pg/g	5.02
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.02	pg/g	5.02
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.02	pg/g	5.02
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.02	pg/g	5.02
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10	pg/g	10.0
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1	pg/g	1.00
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.02	pg/g	5.02
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.02	pg/g	5.02
37871-00-4	Total Heptachlorodibenzo-p-dioxin		36.8	pg/g	5.02
30402-14-3	Total Tetrachlorodibenzofuran	U	1	pg/g	1.00
30402-15-4	Total Pentachlorodibenzofuran	U	5.02	pg/g	5.02
55684-94-1	Total Hexachlorodibenzofuran	U	5.02	pg/g	5.02
38998-75-3	Total Heptachlorodibenzofuran	U	5.02	pg/g	5.02
3333-30-0	TEQ WHO2005 ND=0		0.352	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.05	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		192	201	pg/g	95.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		167	201	pg/g	83.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		160	201	pg/g	79.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		165	201	pg/g	82.3	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		164	201	pg/g	81.9	(23%-140%)
13C-OCDD		344	402	pg/g	85.5	(17%-157%)
13C-2,3,7,8-TCDF		183	201	pg/g	91.2	(24%-169%)
13C-1,2,3,7,8-PeCDF		185	201	pg/g	92.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		182	201	pg/g	90.5	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		172	201	pg/g	85.4	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		160	201	pg/g	79.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		173	201	pg/g	86.0	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		191	201	pg/g	95.1	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821007**	**Date Collected:**	**02/01/2014 14:18**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.3**
Client ID:	**GS140027**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 03:26**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-2**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.04 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		175	201	pg/g	87.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		167	201	pg/g	83.2	(26%-138%)
37Cl-2,3,7,8-TCDD		22.2	20.1	pg/g	110	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821008**	**Date Collected:**	**02/01/2014 14:39**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**20.8**
Client ID:	**GS140029**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 04:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**11.61 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.09	pg/g	1.09
40321-76-4	1,2,3,7,8-PeCDD	U	5.44	pg/g	5.44
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.44	pg/g	5.44
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.44	pg/g	5.44
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.44	pg/g	5.44
35822-46-9	1,2,3,4,6,7,8-HpCDD		23.3	pg/g	5.44
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2330	pg/g	10.9
51207-31-9	2,3,7,8-TCDF	U	1.09	pg/g	1.09
57117-41-6	1,2,3,7,8-PeCDF	U	5.44	pg/g	5.44
57117-31-4	2,3,4,7,8-PeCDF	U	5.44	pg/g	5.44
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.44	pg/g	5.44
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.44	pg/g	5.44
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.44	pg/g	5.44
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.44	pg/g	5.44
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.44	pg/g	5.44
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.44	pg/g	5.44
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.9	pg/g	10.9
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.09	pg/g	1.09
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.44	pg/g	5.44
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.44	pg/g	5.44
37871-00-4	Total Heptachlorodibenzo-p-dioxin		50.0	pg/g	5.44
30402-14-3	Total Tetrachlorodibenzofuran	U	1.09	pg/g	1.09
30402-15-4	Total Pentachlorodibenzofuran	U	5.44	pg/g	5.44
55684-94-1	Total Hexachlorodibenzofuran	U	5.44	pg/g	5.44
38998-75-3	Total Heptachlorodibenzofuran	U	5.44	pg/g	5.44
3333-30-0	TEQ WHO2005 ND=0		0.932	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		7.10	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		211	217	pg/g	97.0	(25%-164%)
13C-1,2,3,7,8-PeCDD		192	217	pg/g	88.2	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		180	217	pg/g	82.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		176	217	pg/g	81.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		170	217	pg/g	78.2	(23%-140%)
13C-OCDD		357	435	pg/g	82.1	(17%-157%)
13C-2,3,7,8-TCDF		205	217	pg/g	94.1	(24%-169%)
13C-1,2,3,7,8-PeCDF		210	217	pg/g	96.5	(24%-185%)
13C-2,3,4,7,8-PeCDF		205	217	pg/g	94.1	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		192	217	pg/g	88.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		180	217	pg/g	82.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		186	217	pg/g	85.7	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		202	217	pg/g	92.8	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821008**	**Date Collected:**	**02/01/2014 14:39**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**20.8**
Client ID:	**GS140029**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 04:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**11.61 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		187	217	pg/g	85.8	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		173	217	pg/g	79.4	(26%-138%)
37Cl-2,3,7,8-TCDD		23.6	21.7	pg/g	108	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821009**	**Date Collected:**	**02/01/2014 12:29**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.1**
Client ID:	**GS140016**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 05:03**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.15 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.04	pg/g	1.04
40321-76-4	1,2,3,7,8-PeCDD	U	5.22	pg/g	5.22
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.22	pg/g	5.22
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.22	pg/g	5.22
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.22	pg/g	5.22
35822-46-9	1,2,3,4,6,7,8-HpCDD		37.1	pg/g	5.22
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1080	pg/g	10.4
51207-31-9	2,3,7,8-TCDF	U	1.04	pg/g	1.04
57117-41-6	1,2,3,7,8-PeCDF	U	5.22	pg/g	5.22
57117-31-4	2,3,4,7,8-PeCDF	U	5.22	pg/g	5.22
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.22	pg/g	5.22
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.22	pg/g	5.22
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.22	pg/g	5.22
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.22	pg/g	5.22
67562-39-4	1,2,3,4,6,7,8-HpCDF		7.25	pg/g	5.22
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.22	pg/g	5.22
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.4	pg/g	10.4
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		1.38	pg/g	1.04
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.22	pg/g	5.22
34465-46-8	Total Hexachlorodibenzo-p-dioxin		15.9	pg/g	5.22
37871-00-4	Total Heptachlorodibenzo-p-dioxin		69.3	pg/g	5.22
30402-14-3	Total Tetrachlorodibenzofuran	U	1.04	pg/g	1.04
30402-15-4	Total Pentachlorodibenzofuran	U	5.22	pg/g	5.22
55684-94-1	Total Hexachlorodibenzofuran	U	5.22	pg/g	5.22
38998-75-3	Total Heptachlorodibenzofuran		12.7	pg/g	5.22
3333-30-0	TEQ WHO2005 ND=0		0.766	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.66	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		193	209	pg/g	92.5	(25%-164%)
13C-1,2,3,7,8-PeCDD		174	209	pg/g	83.4	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		163	209	pg/g	78.2	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		173	209	pg/g	82.9	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		162	209	pg/g	77.7	(23%-140%)
13C-OCDD		344	417	pg/g	82.5	(17%-157%)
13C-2,3,7,8-TCDF		185	209	pg/g	88.8	(24%-169%)
13C-1,2,3,7,8-PeCDF		192	209	pg/g	91.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		192	209	pg/g	92.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		176	209	pg/g	84.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		167	209	pg/g	80.1	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		174	209	pg/g	83.4	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		186	209	pg/g	89.0	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821009**	**Date Collected:**	**02/01/2014 12:29**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.1**
Client ID:	**GS140016**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 05:03**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b_2-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.15 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		172	209	pg/g	82.6	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		166	209	pg/g	79.4	(26%-138%)
37Cl-2,3,7,8-TCDD		22.2	20.9	pg/g	106	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821010**	**Date Collected:**	**02/01/2014 11:53**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**20.9**
Client ID:	**GS140018**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 12:32**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.29 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.03	pg/g	1.03
40321-76-4	1,2,3,7,8-PeCDD	U	5.14	pg/g	5.14
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.14	pg/g	5.14
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.14	pg/g	5.14
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.14	pg/g	5.14
35822-46-9	1,2,3,4,6,7,8-HpCDD		114	pg/g	5.14
3268-87-9	1,2,3,4,6,7,8,9-OCDD		3520	pg/g	10.3
51207-31-9	2,3,7,8-TCDF	U	1.03	pg/g	1.03
57117-41-6	1,2,3,7,8-PeCDF	U	5.14	pg/g	5.14
57117-31-4	2,3,4,7,8-PeCDF	U	5.14	pg/g	5.14
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.14	pg/g	5.14
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.14	pg/g	5.14
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.14	pg/g	5.14
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.14	pg/g	5.14
67562-39-4	1,2,3,4,6,7,8-HpCDF		23.9	pg/g	5.14
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.14	pg/g	5.14
39001-02-0	1,2,3,4,6,7,8,9-OCDF		54.8	pg/g	10.3
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.03	pg/g	1.03
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.14	pg/g	5.14
34465-46-8	Total Hexachlorodibenzo-p-dioxin		19.7	pg/g	5.14
37871-00-4	Total Heptachlorodibenzo-p-dioxin		226	pg/g	5.14
30402-14-3	Total Tetrachlorodibenzofuran	U	1.03	pg/g	1.03
30402-15-4	Total Pentachlorodibenzofuran	U	5.14	pg/g	5.14
55684-94-1	Total Hexachlorodibenzofuran		14.2	pg/g	5.14
38998-75-3	Total Heptachlorodibenzofuran		57.7	pg/g	5.14
3333-30-0	TEQ WHO2005 ND=0		2.46	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		8.27	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		170	206	pg/g	82.6	(25%-164%)
13C-1,2,3,7,8-PeCDD		160	206	pg/g	77.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		160	206	pg/g	77.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		161	206	pg/g	78.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		153	206	pg/g	74.1	(23%-140%)
13C-OCDD		376	411	pg/g	91.3	(17%-157%)
13C-2,3,7,8-TCDF		165	206	pg/g	80.2	(24%-169%)
13C-1,2,3,7,8-PeCDF		179	206	pg/g	87.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		173	206	pg/g	83.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		160	206	pg/g	77.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		160	206	pg/g	77.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		160	206	pg/g	77.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		170	206	pg/g	82.8	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821010**	**Date Collected:**	**02/01/2014 11:53**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**20.9**
Client ID:	**GS140018**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 12:32**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.29 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		160	206	pg/g	77.6	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		153	206	pg/g	74.5	(26%-138%)
37Cl-2,3,7,8-TCDD		20.0	20.6	pg/g	97.1	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821011**	**Date Collected:**	**02/01/2014 11:32**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.8**
Client ID:	**GS140020**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 13:20**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.3 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.04	pg/g	1.04
40321-76-4	1,2,3,7,8-PeCDD	U	5.2	pg/g	5.20
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.2	pg/g	5.20
57653-85-7	1,2,3,6,7,8-HxCDD		12.5	pg/g	5.20
19408-74-3	1,2,3,7,8,9-HxCDD		7.68	pg/g	5.20
35822-46-9	1,2,3,4,6,7,8-HpCDD		376	pg/g	5.20
3268-87-9	1,2,3,4,6,7,8,9-OCDD	E	7890	pg/g	10.4
51207-31-9	2,3,7,8-TCDF	U	1.04	pg/g	1.04
57117-41-6	1,2,3,7,8-PeCDF	U	5.2	pg/g	5.20
57117-31-4	2,3,4,7,8-PeCDF	U	5.2	pg/g	5.20
70648-26-9	1,2,3,4,7,8-HxCDF		7.77	pg/g	5.20
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.2	pg/g	5.20
60851-34-5	2,3,4,6,7,8-HxCDF		7.33	pg/g	5.20
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.2	pg/g	5.20
67562-39-4	1,2,3,4,6,7,8-HpCDF		98.5	pg/g	5.20
55673-89-7	1,2,3,4,7,8,9-HpCDF		9.18	pg/g	5.20
39001-02-0	1,2,3,4,6,7,8,9-OCDF		204	pg/g	10.4
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		4.41	pg/g	1.04
36088-22-9	Total Pentachlorodibenzo-p-dioxin		5.51	pg/g	5.20
34465-46-8	Total Hexachlorodibenzo-p-dioxin		76.3	pg/g	5.20
37871-00-4	Total Heptachlorodibenzo-p-dioxin		680	pg/g	5.20
30402-14-3	Total Tetrachlorodibenzofuran	U	1.04	pg/g	1.04
30402-15-4	Total Pentachlorodibenzofuran		5.21	pg/g	5.20
55684-94-1	Total Hexachlorodibenzofuran		91.2	pg/g	5.20
38998-75-3	Total Heptachlorodibenzofuran		257	pg/g	5.20
3333-30-0	TEQ WHO2005 ND=0		10.8	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		15.6	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		182	208	pg/g	87.4	(25%-164%)
13C-1,2,3,7,8-PeCDD		168	208	pg/g	80.8	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		173	208	pg/g	83.2	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		168	208	pg/g	80.8	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		167	208	pg/g	80.4	(23%-140%)
13C-OCDD		410	416	pg/g	98.7	(17%-157%)
13C-2,3,7,8-TCDF		179	208	pg/g	86.2	(24%-169%)
13C-1,2,3,7,8-PeCDF		196	208	pg/g	94.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		189	208	pg/g	91.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		174	208	pg/g	83.8	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		174	208	pg/g	83.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		176	208	pg/g	84.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		184	208	pg/g	88.7	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821011**	**Date Collected:**	**02/01/2014 11:32**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.8**
Client ID:	**GS140020**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 13:20**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.3 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		176	208	pg/g	84.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		166	208	pg/g	79.6	(26%-138%)
37Cl-2,3,7,8-TCDD		20.8	20.8	pg/g	100	(35%-197%)

Comments:

E **Value is estimated - Concentration of the target analyte exceeds the instrument calibration range**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821012**	**Date Collected:**	**02/01/2014 11:13**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.3**
Client ID:	**GS140022**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 14:08**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.07 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.05	pg/g	1.05
40321-76-4	1,2,3,7,8-PeCDD	U	5.26	pg/g	5.26
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.26	pg/g	5.26
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.26	pg/g	5.26
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.26	pg/g	5.26
35822-46-9	1,2,3,4,6,7,8-HpCDD		32.4	pg/g	5.26
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1330	pg/g	10.5
51207-31-9	2,3,7,8-TCDF	U	1.05	pg/g	1.05
57117-41-6	1,2,3,7,8-PeCDF	U	5.26	pg/g	5.26
57117-31-4	2,3,4,7,8-PeCDF	U	5.26	pg/g	5.26
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.26	pg/g	5.26
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.26	pg/g	5.26
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.26	pg/g	5.26
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.26	pg/g	5.26
67562-39-4	1,2,3,4,6,7,8-HpCDF		6.21	pg/g	5.26
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.26	pg/g	5.26
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.5	pg/g	10.5
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		1.56	pg/g	1.05
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.26	pg/g	5.26
34465-46-8	Total Hexachlorodibenzo-p-dioxin		13.0	pg/g	5.26
37871-00-4	Total Heptachlorodibenzo-p-dioxin		64.3	pg/g	5.26
30402-14-3	Total Tetrachlorodibenzofuran	U	1.05	pg/g	1.05
30402-15-4	Total Pentachlorodibenzofuran	U	5.26	pg/g	5.26
55684-94-1	Total Hexachlorodibenzofuran	U	5.26	pg/g	5.26
38998-75-3	Total Heptachlorodibenzofuran		6.21	pg/g	5.26
3333-30-0	TEQ WHO2005 ND=0		0.785	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.73	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		196	211	pg/g	93.2	(25%-164%)
13C-1,2,3,7,8-PeCDD		168	211	pg/g	79.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		157	211	pg/g	74.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		168	211	pg/g	79.7	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		158	211	pg/g	75.2	(23%-140%)
13C-OCDD		344	421	pg/g	81.7	(17%-157%)
13C-2,3,7,8-TCDF		178	211	pg/g	84.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		180	211	pg/g	85.7	(24%-185%)
13C-2,3,4,7,8-PeCDF		183	211	pg/g	86.7	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		163	211	pg/g	77.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		161	211	pg/g	76.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		165	211	pg/g	78.6	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		164	211	pg/g	77.8	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821012**	**Date Collected:**	**02/01/2014 11:13**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**21.3**
Client ID:	**GS140022**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/11/2014 14:08**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b11feb14a-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.07 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		166	211	pg/g	78.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		156	211	pg/g	74.0	(26%-138%)
37Cl-2,3,7,8-TCDD		21.6	21.1	pg/g	103	(35%-197%)

Comments:

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821013**	**Date Collected:**	**02/01/2014 10:54**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**24.6**
Client ID:	**GS140024**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 12:03**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.21 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.09	pg/g	1.09
40321-76-4	1,2,3,7,8-PeCDD	U	5.43	pg/g	5.43
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.43	pg/g	5.43
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.43	pg/g	5.43
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.43	pg/g	5.43
35822-46-9	1,2,3,4,6,7,8-HpCDD		25.6	pg/g	5.43
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1590	pg/g	10.9
51207-31-9	2,3,7,8-TCDF	U	1.09	pg/g	1.09
57117-41-6	1,2,3,7,8-PeCDF	U	5.43	pg/g	5.43
57117-31-4	2,3,4,7,8-PeCDF	U	5.43	pg/g	5.43
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.43	pg/g	5.43
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.43	pg/g	5.43
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.43	pg/g	5.43
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.43	pg/g	5.43
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.43	pg/g	5.43
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.43	pg/g	5.43
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.9	pg/g	10.9
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		3.11	pg/g	1.09
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.43	pg/g	5.43
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.43	pg/g	5.43
37871-00-4	Total Heptachlorodibenzo-p-dioxin		50.4	pg/g	5.43
30402-14-3	Total Tetrachlorodibenzofuran	U	1.09	pg/g	1.09
30402-15-4	Total Pentachlorodibenzofuran	U	5.43	pg/g	5.43
55684-94-1	Total Hexachlorodibenzofuran	U	5.43	pg/g	5.43
38998-75-3	Total Heptachlorodibenzofuran	U	5.43	pg/g	5.43
3333-30-0	TEQ WHO2005 ND=0		0.734	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.90	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		200	217	pg/g	91.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		183	217	pg/g	84.2	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		181	217	pg/g	83.2	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		173	217	pg/g	79.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		185	217	pg/g	85.3	(23%-140%)
13C-OCDD		447	435	pg/g	103	(17%-157%)
13C-2,3,7,8-TCDF		193	217	pg/g	88.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		195	217	pg/g	89.9	(24%-185%)
13C-2,3,4,7,8-PeCDF		191	217	pg/g	87.7	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		172	217	pg/g	79.0	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		166	217	pg/g	76.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		172	217	pg/g	79.0	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		184	217	pg/g	84.6	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821013**	**Date Collected:**	**02/01/2014 10:54**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**24.6**
Client ID:	**GS140024**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 12:03**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.21 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		191	217	pg/g	88.0	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		185	217	pg/g	85.2	(26%-138%)
37Cl-2,3,7,8-TCDD		20.7	21.7	pg/g	95.0	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821014**	**Date Collected:**	**02/01/2014 10:15**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**23.7**
Client ID:	**GS140026**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 12:52**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.59 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.04	pg/g	1.04
40321-76-4	1,2,3,7,8-PeCDD	U	5.21	pg/g	5.21
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.21	pg/g	5.21
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.21	pg/g	5.21
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.21	pg/g	5.21
35822-46-9	1,2,3,4,6,7,8-HpCDD		18.6	pg/g	5.21
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1730	pg/g	10.4
51207-31-9	2,3,7,8-TCDF	U	1.04	pg/g	1.04
57117-41-6	1,2,3,7,8-PeCDF	U	5.21	pg/g	5.21
57117-31-4	2,3,4,7,8-PeCDF	U	5.21	pg/g	5.21
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.21	pg/g	5.21
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.21	pg/g	5.21
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.21	pg/g	5.21
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.21	pg/g	5.21
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.21	pg/g	5.21
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.21	pg/g	5.21
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.4	pg/g	10.4
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.04	pg/g	1.04
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.21	pg/g	5.21
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.21	pg/g	5.21
37871-00-4	Total Heptachlorodibenzo-p-dioxin		47.9	pg/g	5.21
30402-14-3	Total Tetrachlorodibenzofuran	U	1.04	pg/g	1.04
30402-15-4	Total Pentachlorodibenzofuran	U	5.21	pg/g	5.21
55684-94-1	Total Hexachlorodibenzofuran	U	5.21	pg/g	5.21
38998-75-3	Total Heptachlorodibenzofuran	U	5.21	pg/g	5.21
3333-30-0	TEQ WHO2005 ND=0		0.706	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.62	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		140	208	pg/g	67.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		138	208	pg/g	66.2	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		132	208	pg/g	63.3	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		131	208	pg/g	63.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		139	208	pg/g	66.5	(23%-140%)
13C-OCDD		328	416	pg/g	78.7	(17%-157%)
13C-2,3,7,8-TCDF		145	208	pg/g	69.8	(24%-169%)
13C-1,2,3,7,8-PeCDF		150	208	pg/g	72.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		152	208	pg/g	73.1	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		125	208	pg/g	60.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		122	208	pg/g	58.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		128	208	pg/g	61.4	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		125	208	pg/g	60.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821014**	**Date Collected:**	**02/01/2014 10:15**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**23.7**
Client ID:	**GS140026**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 12:52**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.59 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		139	208	pg/g	66.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		134	208	pg/g	64.5	(26%-138%)
37Cl-2,3,7,8-TCDD		15.8	20.8	pg/g	76.0	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821015**	**Date Collected:**	**02/01/2014 13:30**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.6**
Client ID:	**GS140031**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 13:40**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.08 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.01	pg/g	1.01
40321-76-4	1,2,3,7,8-PeCDD	U	5.03	pg/g	5.03
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.03	pg/g	5.03
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.03	pg/g	5.03
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.03	pg/g	5.03
35822-46-9	1,2,3,4,6,7,8-HpCDD		11.6	pg/g	5.03
3268-87-9	1,2,3,4,6,7,8,9-OCDD		587	pg/g	10.1
51207-31-9	2,3,7,8-TCDF	U	1.01	pg/g	1.01
57117-41-6	1,2,3,7,8-PeCDF	U	5.03	pg/g	5.03
57117-31-4	2,3,4,7,8-PeCDF	U	5.03	pg/g	5.03
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.03	pg/g	5.03
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.03	pg/g	5.03
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.03	pg/g	5.03
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.03	pg/g	5.03
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.03	pg/g	5.03
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.03	pg/g	5.03
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.1	pg/g	10.1
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.01	pg/g	1.01
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.03	pg/g	5.03
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.03	pg/g	5.03
37871-00-4	Total Heptachlorodibenzo-p-dioxin		23.2	pg/g	5.03
30402-14-3	Total Tetrachlorodibenzofuran		1.78	pg/g	1.01
30402-15-4	Total Pentachlorodibenzofuran		6.95	pg/g	5.03
55684-94-1	Total Hexachlorodibenzofuran	U	5.03	pg/g	5.03
38998-75-3	Total Heptachlorodibenzofuran	U	5.03	pg/g	5.03
3333-30-0	TEQ WHO2005 ND=0		0.292	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.00	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		181	201	pg/g	89.9	(25%-164%)
13C-1,2,3,7,8-PeCDD		169	201	pg/g	84.0	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		158	201	pg/g	78.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		158	201	pg/g	78.4	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		165	201	pg/g	82.0	(23%-140%)
13C-OCDD		373	402	pg/g	92.8	(17%-157%)
13C-2,3,7,8-TCDF		181	201	pg/g	89.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		177	201	pg/g	88.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		181	201	pg/g	90.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		150	201	pg/g	74.9	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		149	201	pg/g	74.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		156	201	pg/g	77.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		168	201	pg/g	83.6	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821015**	**Date Collected:**	**02/01/2014 13:30**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**17.6**
Client ID:	**GS140031**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 13:40**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.08 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		162	201	pg/g	80.6	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		166	201	pg/g	82.6	(26%-138%)
37Cl-2,3,7,8-TCDD		20.9	20.1	pg/g	104	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821016**	**Date Collected:**	**02/01/2014 13:58**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.5**
Client ID:	**GS140033**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 14:28**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-6**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.27 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1.01	pg/g	1.01
40321-76-4	1,2,3,7,8-PeCDD	U	5.06	pg/g	5.06
39227-28-6	1,2,3,4,7,8-HxCDD	U	5.06	pg/g	5.06
57653-85-7	1,2,3,6,7,8-HxCDD	U	5.06	pg/g	5.06
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.06	pg/g	5.06
35822-46-9	1,2,3,4,6,7,8-HpCDD		10.6	pg/g	5.06
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1130	pg/g	10.1
51207-31-9	2,3,7,8-TCDF	U	1.01	pg/g	1.01
57117-41-6	1,2,3,7,8-PeCDF	U	5.06	pg/g	5.06
57117-31-4	2,3,4,7,8-PeCDF	U	5.06	pg/g	5.06
70648-26-9	1,2,3,4,7,8-HxCDF	U	5.06	pg/g	5.06
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.06	pg/g	5.06
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.06	pg/g	5.06
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.06	pg/g	5.06
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5.06	pg/g	5.06
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.06	pg/g	5.06
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10.1	pg/g	10.1
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1.01	pg/g	1.01
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5.06	pg/g	5.06
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5.06	pg/g	5.06
37871-00-4	Total Heptachlorodibenzo-p-dioxin		21.4	pg/g	5.06
30402-14-3	Total Tetrachlorodibenzofuran	U	1.01	pg/g	1.01
30402-15-4	Total Pentachlorodibenzofuran	U	5.06	pg/g	5.06
55684-94-1	Total Hexachlorodibenzofuran	U	5.06	pg/g	5.06
38998-75-3	Total Heptachlorodibenzofuran	U	5.06	pg/g	5.06
3333-30-0	TEQ WHO2005 ND=0		0.444	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		6.19	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		182	202	pg/g	89.9	(25%-164%)
13C-1,2,3,7,8-PeCDD		172	202	pg/g	85.0	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		165	202	pg/g	81.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		162	202	pg/g	80.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		169	202	pg/g	83.3	(23%-140%)
13C-OCDD		387	405	pg/g	95.5	(17%-157%)
13C-2,3,7,8-TCDF		185	202	pg/g	91.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		193	202	pg/g	95.5	(24%-185%)
13C-2,3,4,7,8-PeCDF		184	202	pg/g	91.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		164	202	pg/g	81.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		158	202	pg/g	78.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		168	202	pg/g	82.9	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		177	202	pg/g	87.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**5821016**	**Date Collected:**	**02/01/2014 13:58**	**Matrix:**	**SOLID**
Client Sample:	**1613B Soil**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.5**
Client ID:	**GS140033**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/13/2014 14:28**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b13feb14a-6**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.27 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		170	202	pg/g	84.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		173	202	pg/g	85.3	(26%-138%)
37Cl-2,3,7,8-TCDD		20.1	20.2	pg/g	99.1	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12009833	LCS for batch 25321	13C-2,3,7,8-TCDD		89.0	(20%-175%)
		13C-1,2,3,7,8-PeCDD		78.1	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		81.8	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		85.4	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		82.2	(22%-166%)
		13C-OCDD		89.3	(13%-199%)
		13C-2,3,7,8-TCDF		87.5	(22%-152%)
		13C-1,2,3,7,8-PeCDF		84.7	(21%-192%)
		13C-2,3,4,7,8-PeCDF		84.9	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		78.5	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		77.7	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		82.6	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		80.9	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		83.4	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		82.5	(20%-186%)
		37Cl-2,3,7,8-TCDD		105	(31%-191%)
12009834	LCSD for batch 25321	13C-2,3,7,8-TCDD		86.9	(20%-175%)
		13C-1,2,3,7,8-PeCDD		75.4	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		79.1	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		79.1	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		78.9	(22%-166%)
		13C-OCDD		82.7	(13%-199%)
		13C-2,3,7,8-TCDF		83.6	(22%-152%)
		13C-1,2,3,7,8-PeCDF		82.6	(21%-192%)
		13C-2,3,4,7,8-PeCDF		81.5	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		78.6	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		75.8	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		79.7	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		77.4	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		78.7	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		79.8	(20%-186%)
		37Cl-2,3,7,8-TCDD		99.8	(31%-191%)
12009832	MB for batch 25321	13C-2,3,7,8-TCDD		88.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		81.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		88.5	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		91.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		82.0	(23%-140%)
		13C-OCDD		80.5	(17%-157%)
		13C-2,3,7,8-TCDF		88.5	(24%-169%)
		13C-1,2,3,7,8-PeCDF		87.4	(24%-185%)
		13C-2,3,4,7,8-PeCDF		88.8	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		87.0	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		85.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		86.6	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		84.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		91.2	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		82.5	(26%-138%)
		37Cl-2,3,7,8-TCDD		94.0	(35%-197%)
5821001	GS140003	13C-2,3,7,8-TCDD		96.4	(25%-164%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821001	GS140003	13C-1,2,3,7,8-PeCDD		82.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		87.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		90.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		86.9	(23%-140%)
		13C-OCDD		93.2	(17%-157%)
		13C-2,3,7,8-TCDF		92.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		91.3	(24%-185%)
		13C-2,3,4,7,8-PeCDF		90.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		90.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		89.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		92.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		90.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		94.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		88.8	(26%-138%)
		37Cl-2,3,7,8-TCDD		103	(35%-197%)
12009835	GS140003(5821001MS)	13C-2,3,7,8-TCDD		104	(25%-164%)
		13C-1,2,3,7,8-PeCDD		83.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		90.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		90.8	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		91.1	(23%-140%)
		13C-OCDD		96.9	(17%-157%)
		13C-2,3,7,8-TCDF		92.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		93.3	(24%-185%)
		13C-2,3,4,7,8-PeCDF		91.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		92.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		92.0	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		93.6	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		88.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		96.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		90.7	(26%-138%)
		37Cl-2,3,7,8-TCDD		110	(35%-197%)
12009836	GS140003(5821001MSD)	13C-2,3,7,8-TCDD		104	(25%-164%)
		13C-1,2,3,7,8-PeCDD		83.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		83.1	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		81.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		83.2	(23%-140%)
		13C-OCDD		101	(17%-157%)
		13C-2,3,7,8-TCDF		93.0	(24%-169%)
		13C-1,2,3,7,8-PeCDF		94.4	(24%-185%)
		13C-2,3,4,7,8-PeCDF		92.7	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		84.7	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		82.8	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		85.2	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		82.3	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		87.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		81.3	(26%-138%)
		37Cl-2,3,7,8-TCDD		112	(35%-197%)
5821002	GS140005	13C-2,3,7,8-TCDD		88.5	(25%-164%)
		13C-1,2,3,7,8-PeCDD		80.3	(25%-181%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821002	GS140005	13C-1,2,3,4,7,8-HxCDD		84.5	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		83.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		86.3	(23%-140%)
		13C-OCDD		96.2	(17%-157%)
		13C-2,3,7,8-TCDF		88.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		92.3	(24%-185%)
		13C-2,3,4,7,8-PeCDF		89.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		87.3	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		84.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		87.6	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		98.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		92.0	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		87.1	(26%-138%)
		37Cl-2,3,7,8-TCDD		103	(35%-197%)
5821003	GS140007	13C-2,3,7,8-TCDD		97.0	(25%-164%)
		13C-1,2,3,7,8-PeCDD		87.6	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		81.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		82.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		82.8	(23%-140%)
		13C-OCDD		92.3	(17%-157%)
		13C-2,3,7,8-TCDF		91.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		97.9	(24%-185%)
		13C-2,3,4,7,8-PeCDF		95.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		86.1	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		80.5	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		82.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		91.6	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		85.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		82.8	(26%-138%)
		37Cl-2,3,7,8-TCDD		106	(35%-197%)
5821004	GS140009	13C-2,3,7,8-TCDD		101	(25%-164%)
		13C-1,2,3,7,8-PeCDD		83.2	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		75.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		76.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		76.1	(23%-140%)
		13C-OCDD		85.0	(17%-157%)
		13C-2,3,7,8-TCDF		89.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		94.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		89.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		78.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		74.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		78.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		83.5	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		79.5	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		75.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		107	(35%-197%)
5821005	GS140011	13C-2,3,7,8-TCDD		82.7	(25%-164%)
		13C-1,2,3,7,8-PeCDD		78.4	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		77.9	(32%-141%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821005	GS140011	13C-1,2,3,6,7,8-HxCDD		74.5	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		76.5	(23%-140%)
		13C-OCDD		85.4	(17%-157%)
		13C-2,3,7,8-TCDF		83.1	(24%-169%)
		13C-1,2,3,7,8-PeCDF		89.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		87.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		81.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		77.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		80.1	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		84.7	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		82.3	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		79.0	(26%-138%)
		37Cl-2,3,7,8-TCDD		89.8	(35%-197%)
5821006	GS140013	13C-2,3,7,8-TCDD		96.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		84.5	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		79.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		78.4	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		80.6	(23%-140%)
		13C-OCDD		95.5	(17%-157%)
		13C-2,3,7,8-TCDF		90.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		91.5	(24%-185%)
		13C-2,3,4,7,8-PeCDF		93.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		84.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		79.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		83.7	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		85.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		86.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		81.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		107	(35%-197%)
5821007	GS140027	13C-2,3,7,8-TCDD		95.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		83.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		79.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		82.3	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		81.9	(23%-140%)
		13C-OCDD		85.5	(17%-157%)
		13C-2,3,7,8-TCDF		91.2	(24%-169%)
		13C-1,2,3,7,8-PeCDF		92.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		90.5	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		85.4	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		79.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		86.0	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		95.1	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		87.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		83.2	(26%-138%)
		37Cl-2,3,7,8-TCDD		110	(35%-197%)
5821008	GS140029	13C-2,3,7,8-TCDD		97.0	(25%-164%)
		13C-1,2,3,7,8-PeCDD		88.2	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		82.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		81.0	(28%-130%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821008	GS140029	13C-1,2,3,4,6,7,8-HpCDD		78.2	(23%-140%)
		13C-OCDD		82.1	(17%-157%)
		13C-2,3,7,8-TCDF		94.1	(24%-169%)
		13C-1,2,3,7,8-PeCDF		96.5	(24%-185%)
		13C-2,3,4,7,8-PeCDF		94.1	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		88.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		82.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		85.7	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		92.8	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		85.8	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		79.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		108	(35%-197%)
5821009	GS140016	13C-2,3,7,8-TCDD		92.5	(25%-164%)
		13C-1,2,3,7,8-PeCDD		83.4	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		78.2	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		82.9	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		77.7	(23%-140%)
		13C-OCDD		82.5	(17%-157%)
		13C-2,3,7,8-TCDF		88.8	(24%-169%)
		13C-1,2,3,7,8-PeCDF		91.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		92.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		84.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		80.1	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		83.4	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		89.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		82.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		79.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		106	(35%-197%)
5821010	GS140018	13C-2,3,7,8-TCDD		82.6	(25%-164%)
		13C-1,2,3,7,8-PeCDD		77.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		77.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		78.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		74.1	(23%-140%)
		13C-OCDD		91.3	(17%-157%)
		13C-2,3,7,8-TCDF		80.2	(24%-169%)
		13C-1,2,3,7,8-PeCDF		87.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		83.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		77.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		77.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		77.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		82.8	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		77.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		74.5	(26%-138%)
		37Cl-2,3,7,8-TCDD		97.1	(35%-197%)
5821011	GS140020	13C-2,3,7,8-TCDD		87.4	(25%-164%)
		13C-1,2,3,7,8-PeCDD		80.8	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		83.2	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		80.8	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		80.4	(23%-140%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821011	GS140020	13C-OCDD		98.7	(17%-157%)
		13C-2,3,7,8-TCDF		86.2	(24%-169%)
		13C-1,2,3,7,8-PeCDF		94.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		91.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		83.8	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		83.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		84.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		88.7	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		84.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		79.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		100	(35%-197%)
5821012	GS140022	13C-2,3,7,8-TCDD		93.2	(25%-164%)
		13C-1,2,3,7,8-PeCDD		79.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		74.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		79.7	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		75.2	(23%-140%)
		13C-OCDD		81.7	(17%-157%)
		13C-2,3,7,8-TCDF		84.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		85.7	(24%-185%)
		13C-2,3,4,7,8-PeCDF		86.7	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		77.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		76.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		78.6	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		77.8	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		78.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		74.0	(26%-138%)
		37Cl-2,3,7,8-TCDD		103	(35%-197%)
5821013	GS140024	13C-2,3,7,8-TCDD		91.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		84.2	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		83.2	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		79.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		85.3	(23%-140%)
		13C-OCDD		103	(17%-157%)
		13C-2,3,7,8-TCDF		88.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		89.9	(24%-185%)
		13C-2,3,4,7,8-PeCDF		87.7	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		79.0	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		76.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		79.0	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		84.6	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		88.0	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		85.2	(26%-138%)
		37Cl-2,3,7,8-TCDD		95.0	(35%-197%)
5821014	GS140026	13C-2,3,7,8-TCDD		67.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		66.2	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		63.3	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		63.0	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		66.5	(23%-140%)
		13C-OCDD		78.7	(17%-157%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 5821

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
5821014	GS140026	13C-2,3,7,8-TCDF		69.8	(24%-169%)
		13C-1,2,3,7,8-PeCDF		72.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		73.1	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		60.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		58.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		61.4	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		60.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		66.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		64.5	(26%-138%)
		37Cl-2,3,7,8-TCDD		76.0	(35%-197%)
5821015	GS140031	13C-2,3,7,8-TCDD		89.9	(25%-164%)
		13C-1,2,3,7,8-PeCDD		84.0	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		78.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		78.4	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		82.0	(23%-140%)
		13C-OCDD		92.8	(17%-157%)
		13C-2,3,7,8-TCDF		89.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		88.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		90.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		74.9	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		74.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		77.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		83.6	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		80.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		82.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		104	(35%-197%)
5821016	GS140033	13C-2,3,7,8-TCDD		89.9	(25%-164%)
		13C-1,2,3,7,8-PeCDD		85.0	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		81.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		80.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		83.3	(23%-140%)
		13C-OCDD		95.5	(17%-157%)
		13C-2,3,7,8-TCDF		91.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		95.5	(24%-185%)
		13C-2,3,4,7,8-PeCDF		91.0	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		81.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		78.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		82.9	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		87.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		84.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		85.3	(26%-138%)
		37Cl-2,3,7,8-TCDD		99.1	(35%-197%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 5821
Client ID: LCS for batch 25321
Lab Sample ID: 12009833
Instrument: HRP763
Analyst: JTF

Sample Type: Laboratory Control Sample
Matrix: SOLID
Analysis Date: 02/10/2014 16:50
Dilution: 1
Prep Batch ID: 25321
Batch ID: 25323

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS	2,3,7,8-TCDD	16.0	16.9	106	67-158
40321-76-4	LCS	1,2,3,7,8-PeCDD	80.0	82.3	103	70-142
39227-28-6	LCS	1,2,3,4,7,8-HxCDD	80.0	75.7	94.6	70-164
57653-85-7	LCS	1,2,3,6,7,8-HxCDD	80.0	79.5	99.3	76-134
19408-74-3	LCS	1,2,3,7,8,9-HxCDD	80.0	81.2	101	64-162
35822-46-9	LCS	1,2,3,4,6,7,8-HpCDD	80.0	80.2	100	70-140
3268-87-9	LCS	1,2,3,4,6,7,8,9-OCDD	160	160	99.9	78-144
51207-31-9	LCS	2,3,7,8-TCDF	16.0	14.7	91.9	75-158
57117-41-6	LCS	1,2,3,7,8-PeCDF	80.0	79.1	98.8	80-134
57117-31-4	LCS	2,3,4,7,8-PeCDF	80.0	79.1	98.9	68-160
70648-26-9	LCS	1,2,3,4,7,8-HxCDF	80.0	81.5	102	72-134
57117-44-9	LCS	1,2,3,6,7,8-HxCDF	80.0	84.3	105	84-130
60851-34-5	LCS	2,3,4,6,7,8-HxCDF	80.0	81.7	102	70-156
72918-21-9	LCS	1,2,3,7,8,9-HxCDF	80.0	82.6	103	78-130
67562-39-4	LCS	1,2,3,4,6,7,8-HpCDF	80.0	80.1	100	82-122
55673-89-7	LCS	1,2,3,4,7,8,9-HpCDF	80.0	79.5	99.4	78-138
39001-02-0	LCS	1,2,3,4,6,7,8,9-OCDF	160	164	102	63-170

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 5821
Client ID: LCSD for batch 25321
Lab Sample ID: 12009834
Instrument: HRP763
Analyst: JTF

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOLID
Analysis Date: 02/10/2014 17:37
Dilution: 1
Prep Batch ID: 25321
Batch ID: 25323

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD	2,3,7,8-TCDD	16.0	16.9	106	67-158	0.0237	0-20
40321-76-4	LCSD	1,2,3,7,8-PeCDD	80.0	84.0	105	70-142	2.05	0-20
39227-28-6	LCSD	1,2,3,4,7,8-HxCDD	80.0	78.4	98	70-164	3.55	0-20
57653-85-7	LCSD	1,2,3,6,7,8-HxCDD	80.0	83.3	104	76-134	4.76	0-20
19408-74-3	LCSD	1,2,3,7,8,9-HxCDD	80.0	80.8	101	64-162	0.422	0-20
35822-46-9	LCSD	1,2,3,4,6,7,8-HpCDD	80.0	82.9	104	70-140	3.41	0-20
3268-87-9	LCSD	1,2,3,4,6,7,8,9-OCDD	160	162	101	78-144	1.50	0-20
51207-31-9	LCSD	2,3,7,8-TCDF	16.0	14.7	92.2	75-158	0.285	0-20
57117-41-6	LCSD	1,2,3,7,8-PeCDF	80.0	79.2	99	80-134	0.164	0-20
57117-31-4	LCSD	2,3,4,7,8-PeCDF	80.0	82.0	103	68-160	3.61	0-20
70648-26-9	LCSD	1,2,3,4,7,8-HxCDF	80.0	79.8	99.8	72-134	2.08	0-20
57117-44-9	LCSD	1,2,3,6,7,8-HxCDF	80.0	85.0	106	84-130	0.817	0-20
60851-34-5	LCSD	2,3,4,6,7,8-HxCDF	80.0	81.0	101	70-156	0.760	0-20
72918-21-9	LCSD	1,2,3,7,8,9-HxCDF	80.0	79.8	99.7	78-130	3.53	0-20
67562-39-4	LCSD	1,2,3,4,6,7,8-HpCDF	80.0	82.9	104	82-122	3.49	0-20
55673-89-7	LCSD	1,2,3,4,7,8,9-HpCDF	80.0	79.8	99.8	78-138	0.404	0-20
39001-02-0	LCSD	1,2,3,4,6,7,8,9-OCDF	160	165	103	63-170	0.606	0-20

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number:	**5821**	**Sample Type:**	**Matrix Spike**	
Client ID:	**GS140003(5821001MS)**	**Matrix:**	**SOLID**	
Lab Sample ID:	**12009835**	**%Moisture:**	**19.8**	
Instrument:	**HRP763**	**Analysis Date:**	**02/10/2014 20:03**	**Dilution: 1**
Analyst:	**JTF**	**Prep Batch ID:**	**25321**	
		Batch ID:	**25323**	

CAS No.		Parmname	Amount Added pg/g		Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	MS	2,3,7,8-TCDD	16.3	U	15.4	94.6	70-130
40321-76-4	MS	1,2,3,7,8-PeCDD	81.3	U	82.0	101	70-130
39227-28-6	MS	1,2,3,4,7,8-HxCDD	81.3	U	79.6	97.9	70-130
57653-85-7	MS	1,2,3,6,7,8-HxCDD	81.3	U	83.7	103	70-130
19408-74-3	MS	1,2,3,7,8,9-HxCDD	81.3	U	82.4	101	70-130
35822-46-9	MS	1,2,3,4,6,7,8-HpCDD	81.3		126	100	70-130
3268-87-9	MS	1,2,3,4,6,7,8,9-OCDD	163		2260	107	70-130
51207-31-9	MS	2,3,7,8-TCDF	16.3	U	15.2	93.4	70-130
57117-41-6	MS	1,2,3,7,8-PeCDF	81.3	U	78.5	96.5	70-130
57117-31-4	MS	2,3,4,7,8-PeCDF	81.3	U	79.7	98.1	70-130
70648-26-9	MS	1,2,3,4,7,8-HxCDF	81.3	U	84.8	104	70-130
57117-44-9	MS	1,2,3,6,7,8-HxCDF	81.3	U	81.5	100	70-130
60851-34-5	MS	2,3,4,6,7,8-HxCDF	81.3	U	84.3	104	70-130
72918-21-9	MS	1,2,3,7,8,9-HxCDF	81.3	U	85.2	105	70-130
67562-39-4	MS	1,2,3,4,6,7,8-HpCDF	81.3		109	122	70-130
55673-89-7	MS	1,2,3,4,7,8,9-HpCDF	81.3	U	80.9	99.5	70-130
39001-02-0	MS	1,2,3,4,6,7,8,9-OCDF	163		186	104	70-130

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 5821
Client ID: GS140003(5821001MSD)
Lab Sample ID: 12009836
Instrument: HRP763
Analyst: JTF

Sample Type: Matrix Spike Duplicate
Matrix: SOLID
%Moisture: 19.8
Analysis Date: 02/10/2014 20:51
Prep Batch ID: 25321
Batch ID: 25323
Dilution: 1

CAS No.		Parmname	Amount Added pg/g		Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	MSD	2,3,7,8-TCDD	16.4	U	16.1	98.1	70-130	4.34	0-20
40321-76-4	MSD	1,2,3,7,8-PeCDD	81.9	U	85.4	104	70-130	4.08	0-20
39227-28-6	MSD	1,2,3,4,7,8-HxCDD	81.9	U	78.1	95.5	70-130	1.83	0-20
57653-85-7	MSD	1,2,3,6,7,8-HxCDD	81.9	U	81.0	99	70-130	3.31	0-20
19408-74-3	MSD	1,2,3,7,8,9-HxCDD	81.9	U	83.5	102	70-130	1.32	0-20
35822-46-9	MSD	1,2,3,4,6,7,8-HpCDD	81.9		124	97.4	70-130	1.49	0-20
3268-87-9	MSD	1,2,3,4,6,7,8,9-OCDD	164		2500	257 *	70-130	10.4	0-20
51207-31-9	MSD	2,3,7,8-TCDF	16.4	U	14.8	90.5	70-130	2.55	0-20
57117-41-6	MSD	1,2,3,7,8-PeCDF	81.9	U	79.9	97.6	70-130	1.80	0-20
57117-31-4	MSD	2,3,4,7,8-PeCDF	81.9	U	81.4	99.5	70-130	2.08	0-20
70648-26-9	MSD	1,2,3,4,7,8-HxCDF	81.9	U	81.8	100	70-130	3.60	0-20
57117-44-9	MSD	1,2,3,6,7,8-HxCDF	81.9	U	84.9	104	70-130	4.03	0-20
60851-34-5	MSD	2,3,4,6,7,8-HxCDF	81.9	U	84.2	103	70-130	0.202	0-20
72918-21-9	MSD	1,2,3,7,8,9-HxCDF	81.9	U	83.0	101	70-130	2.61	0-20
67562-39-4	MSD	1,2,3,4,6,7,8-HpCDF	81.9		88.7	96.3	70-130	20.7 *	0-20
55673-89-7	MSD	1,2,3,4,7,8,9-HpCDF	81.9	U	84.5	103	70-130	4.32	0-20
39001-02-0	MSD	1,2,3,4,6,7,8,9-OCDF	164		173	95.2	70-130	7.32	0-20

Method Blank Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Matrix:**	**SOLID**
Client ID:	**MB for batch 25321**	**Instrument ID:**	**HRP763**	**Data File:**	**b10feb14b-5**
Lab Sample ID:	**12009832**	**Prep Date:**	**06-FEB-14**	**Analyzed:**	**02/10/14 18:26**
Column:					

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 25321	12009833	b10feb14b-3	02/10/14	1650
02	LCSD for batch 25321	12009834	b10feb14b-4	02/10/14	1737
03	GS140003	5821001	b10feb14b-6	02/10/14	1914
04	GS140003(5821001MS)	12009835	b10feb14b-7	02/10/14	2003
05	GS140003(5821001MSD)	12009836	b10feb14b-8	02/10/14	2051
06	GS140005	5821002	b10feb14b-9	02/10/14	2139
07	GS140007	5821003	b10feb14b-10	02/10/14	2228
08	GS140009	5821004	b10feb14b-11	02/10/14	2316
09	GS140011	5821005	b10feb14b-12	02/11/14	0005
10	GS140013	5821006	b10feb14b-13	02/11/14	0053
11	GS140027	5821007	b10feb14b_2-2	02/11/14	0326
12	GS140029	5821008	b10feb14b_2-3	02/11/14	0414
13	GS140016	5821009	b10feb14b_2-4	02/11/14	0503
14	GS140018	5821010	b11feb14a-3	02/11/14	1232
15	GS140020	5821011	b11feb14a-4	02/11/14	1320
16	GS140022	5821012	b11feb14a-5	02/11/14	1408
17	GS140024	5821013	b13feb14a-3	02/13/14	1203
18	GS140026	5821014	b13feb14a-4	02/13/14	1252
19	GS140031	5821015	b13feb14a-5	02/13/14	1340
20	GS140033	5821016	b13feb14a-6	02/13/14	1428

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009832**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**				
Client ID:	**MB for batch 25321**			**Prep Basis:**	**As Received**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 18:26**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD	U	1	pg/g	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	5	pg/g	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	U	5	pg/g	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	U	5	pg/g	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	U	5	pg/g	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	5	pg/g	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	10	pg/g	10.0
51207-31-9	2,3,7,8-TCDF	U	1	pg/g	1.00
57117-41-6	1,2,3,7,8-PeCDF	U	5	pg/g	5.00
57117-31-4	2,3,4,7,8-PeCDF	U	5	pg/g	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	U	5	pg/g	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	U	5	pg/g	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	U	5	pg/g	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	U	5	pg/g	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	5	pg/g	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5	pg/g	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	10	pg/g	10.0
41903-57-5	Total Tetrachlorodibenzo-p-dioxin	U	1	pg/g	1.00
36088-22-9	Total Pentachlorodibenzo-p-dioxin	U	5	pg/g	5.00
34465-46-8	Total Hexachlorodibenzo-p-dioxin	U	5	pg/g	5.00
37871-00-4	Total Heptachlorodibenzo-p-dioxin	U	5	pg/g	5.00
30402-14-3	Total Tetrachlorodibenzofuran	U	1	pg/g	1.00
30402-15-4	Total Pentachlorodibenzofuran	U	5	pg/g	5.00
55684-94-1	Total Hexachlorodibenzofuran	U	5	pg/g	5.00
38998-75-3	Total Heptachlorodibenzofuran	U	5	pg/g	5.00
3333-30-0	TEQ WHO2005 ND=0		0.00	pg/g	
3333-30-1	TEQ WHO2005 ND=0.5		5.70	pg/g	

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		176	200	pg/g	88.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		163	200	pg/g	81.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		177	200	pg/g	88.5	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		182	200	pg/g	91.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		164	200	pg/g	82.0	(23%-140%)
13C-OCDD		322	400	pg/g	80.5	(17%-157%)
13C-2,3,7,8-TCDF		177	200	pg/g	88.5	(24%-169%)
13C-1,2,3,7,8-PeCDF		175	200	pg/g	87.4	(24%-185%)
13C-2,3,4,7,8-PeCDF		178	200	pg/g	88.8	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		174	200	pg/g	87.0	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		171	200	pg/g	85.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		173	200	pg/g	86.6	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		168	200	pg/g	84.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009832**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**				
Client ID:	**MB for batch 25321**			**Prep Basis:**	**As Received**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 18:26**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-5**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	Units	PQL

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF		182	200	pg/g	91.2	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		165	200	pg/g	82.5	(26%-138%)
37Cl-2,3,7,8-TCDD		18.8	20.0	pg/g	94.0	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009833**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**				
Client ID:	**LCS for batch 25321**			**Prep Basis:**	**As Received**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 16:50**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-3**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD		16.9	pg/g	1.00
40321-76-4	1,2,3,7,8-PeCDD		82.3	pg/g	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		75.7	pg/g	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		79.5	pg/g	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		81.2	pg/g	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		80.2	pg/g	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		160	pg/g	10.0
51207-31-9	2,3,7,8-TCDF		14.7	pg/g	1.00
57117-41-6	1,2,3,7,8-PeCDF		79.1	pg/g	5.00
57117-31-4	2,3,4,7,8-PeCDF		79.1	pg/g	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		81.5	pg/g	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		84.3	pg/g	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		81.7	pg/g	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		82.6	pg/g	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		80.1	pg/g	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		79.5	pg/g	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		164	pg/g	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		178	200	pg/g	89.0	(20%-175%)
13C-1,2,3,7,8-PeCDD		156	200	pg/g	78.1	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		164	200	pg/g	81.8	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		171	200	pg/g	85.4	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		164	200	pg/g	82.2	(22%-166%)
13C-OCDD		357	400	pg/g	89.3	(13%-199%)
13C-2,3,7,8-TCDF		175	200	pg/g	87.5	(22%-152%)
13C-1,2,3,7,8-PeCDF		169	200	pg/g	84.7	(21%-192%)
13C-2,3,4,7,8-PeCDF		170	200	pg/g	84.9	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		157	200	pg/g	78.5	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		155	200	pg/g	77.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		165	200	pg/g	82.6	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		162	200	pg/g	80.9	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		167	200	pg/g	83.4	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		165	200	pg/g	82.5	(20%-186%)
37Cl-2,3,7,8-TCDD		21.1	20.0	pg/g	105	(31%-191%)

Comments:

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009834**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**				
Client ID:	**LCSD for batch 25321**			**Prep Basis:**	**As Received**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 17:37**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-4**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD		16.9	pg/g	1.00
40321-76-4	1,2,3,7,8-PeCDD		84.0	pg/g	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		78.4	pg/g	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		83.3	pg/g	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		80.8	pg/g	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		82.9	pg/g	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		162	pg/g	10.0
51207-31-9	2,3,7,8-TCDF		14.7	pg/g	1.00
57117-41-6	1,2,3,7,8-PeCDF		79.2	pg/g	5.00
57117-31-4	2,3,4,7,8-PeCDF		82.0	pg/g	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		79.8	pg/g	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		85.0	pg/g	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		81.0	pg/g	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		79.8	pg/g	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		82.9	pg/g	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		79.8	pg/g	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		165	pg/g	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	200	pg/g	86.9	(20%-175%)
13C-1,2,3,7,8-PeCDD		151	200	pg/g	75.4	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		158	200	pg/g	79.1	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		158	200	pg/g	79.1	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		158	200	pg/g	78.9	(22%-166%)
13C-OCDD		331	400	pg/g	82.7	(13%-199%)
13C-2,3,7,8-TCDF		167	200	pg/g	83.6	(22%-152%)
13C-1,2,3,7,8-PeCDF		165	200	pg/g	82.6	(21%-192%)
13C-2,3,4,7,8-PeCDF		163	200	pg/g	81.5	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		157	200	pg/g	78.6	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		152	200	pg/g	75.8	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		159	200	pg/g	79.7	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		155	200	pg/g	77.4	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		157	200	pg/g	78.7	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		160	200	pg/g	79.8	(20%-186%)
37Cl-2,3,7,8-TCDD		20.0	20.0	pg/g	99.8	(31%-191%)

Comments:

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009835**	**Date Collected:**	**02/01/2014 12:04**	**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.8**
Client ID:	**GS140003(5821001MS)**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 20:03**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-7**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.26 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD		15.4	pg/g	1.02
40321-76-4	1,2,3,7,8-PeCDD		82.0	pg/g	5.08
39227-28-6	1,2,3,4,7,8-HxCDD		79.6	pg/g	5.08
57653-85-7	1,2,3,6,7,8-HxCDD		83.7	pg/g	5.08
19408-74-3	1,2,3,7,8,9-HxCDD		82.4	pg/g	5.08
35822-46-9	1,2,3,4,6,7,8-HpCDD		126	pg/g	5.08
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2260	pg/g	10.2
51207-31-9	2,3,7,8-TCDF		15.2	pg/g	1.02
57117-41-6	1,2,3,7,8-PeCDF		78.5	pg/g	5.08
57117-31-4	2,3,4,7,8-PeCDF		79.7	pg/g	5.08
70648-26-9	1,2,3,4,7,8-HxCDF		84.8	pg/g	5.08
57117-44-9	1,2,3,6,7,8-HxCDF		81.5	pg/g	5.08
60851-34-5	2,3,4,6,7,8-HxCDF		84.3	pg/g	5.08
72918-21-9	1,2,3,7,8,9-HxCDF		85.2	pg/g	5.08
67562-39-4	1,2,3,4,6,7,8-HpCDF		109	pg/g	5.08
55673-89-7	1,2,3,4,7,8,9-HpCDF		80.9	pg/g	5.08
39001-02-0	1,2,3,4,6,7,8,9-OCDF		186	pg/g	10.2

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		211	203	pg/g	104	(25%-164%)
13C-1,2,3,7,8-PeCDD		170	203	pg/g	83.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		184	203	pg/g	90.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		185	203	pg/g	90.8	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		185	203	pg/g	91.1	(23%-140%)
13C-OCDD		394	407	pg/g	96.9	(17%-157%)
13C-2,3,7,8-TCDF		188	203	pg/g	92.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		190	203	pg/g	93.3	(24%-185%)
13C-2,3,4,7,8-PeCDF		185	203	pg/g	91.0	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		188	203	pg/g	92.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		187	203	pg/g	92.0	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		190	203	pg/g	93.6	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		179	203	pg/g	88.2	(29%-147%)
13C-1,2,3,4,6,7,8-HpCDF		197	203	pg/g	96.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		184	203	pg/g	90.7	(26%-138%)
37Cl-2,3,7,8-TCDD		22.4	20.3	pg/g	110	(35%-197%)

Comments:

K Estimated Maximum Possible Concentration

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**5821**	**Client:**	**GELA001**	**Project:**	**GELA00114**
Lab Sample ID:	**12009836**	**Date Collected:**	**02/01/2014 12:04**	**Matrix:**	**SOLID**
Client Sample:	**QC for batch 25321**	**Date Received:**	**02/05/2014 14:05**	**%Moisture:**	**19.8**
Client ID:	**GS140003(5821001MSD)**			**Prep Basis:**	**Dry Weight**
Batch ID:	**25323**	**Method:**	**EPA Method 1613B**		
Run Date:	**02/10/2014 20:51**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b10feb14b-8**			**Dilution:**	**1**
Prep Batch:	**25321**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-14**	**Aliquot:**	**12.18 g**		

CAS No.	Parmname	Qual	Result	Units	PQL
1746-01-6	2,3,7,8-TCDD		16.1	pg/g	1.02
40321-76-4	1,2,3,7,8-PeCDD		85.4	pg/g	5.12
39227-28-6	1,2,3,4,7,8-HxCDD		78.1	pg/g	5.12
57653-85-7	1,2,3,6,7,8-HxCDD		81.0	pg/g	5.12
19408-74-3	1,2,3,7,8,9-HxCDD		83.5	pg/g	5.12
35822-46-9	1,2,3,4,6,7,8-HpCDD		124	pg/g	5.12
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2500	pg/g	10.2
51207-31-9	2,3,7,8-TCDF		14.8	pg/g	1.02
57117-41-6	1,2,3,7,8-PeCDF		79.9	pg/g	5.12
57117-31-4	2,3,4,7,8-PeCDF		81.4	pg/g	5.12
70648-26-9	1,2,3,4,7,8-HxCDF		81.8	pg/g	5.12
57117-44-9	1,2,3,6,7,8-HxCDF		84.9	pg/g	5.12
60851-34-5	2,3,4,6,7,8-HxCDF		84.2	pg/g	5.12
72918-21-9	1,2,3,7,8,9-HxCDF		83.0	pg/g	5.12
67562-39-4	1,2,3,4,6,7,8-HpCDF		88.7	pg/g	5.12
55673-89-7	1,2,3,4,7,8,9-HpCDF		84.5	pg/g	5.12
39001-02-0	1,2,3,4,6,7,8,9-OCDF		173	pg/g	10.2

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		213	205	pg/g	104	(25%-164%)
13C-1,2,3,7,8-PeCDD		172	205	pg/g	83.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		170	205	pg/g	83.1	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		166	205	pg/g	81.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		170	205	pg/g	83.2	(23%-140%)
13C-OCDD		413	409	pg/g	101	(17%-157%)
13C-2,3,7,8-TCDF		190	205	pg/g	93.0	(24%-169%)
13C-1,2,3,7,8-PeCDF		193	205	pg/g	94.4	(24%-185%)
13C-2,3,4,7,8-PeCDF		190	205	pg/g	92.7	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		173	205	pg/g	84.7	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		169	205	pg/g	82.8	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		174	205	pg/g	85.2	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		168	205	pg/g	82.3	(29%-147%)
13C-1,2,3,4,6,7,8-HpCDF		180	205	pg/g	87.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF		166	205	pg/g	81.3	(26%-138%)
37Cl-2,3,7,8-TCDD		23.0	20.5	pg/g	112	(35%-197%)

Comments:

RTI LABORATORIES, INC.

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000
Website: www.rtilab.com

Thursday, February 13, 2014

Mike Wantland
Bureau Veritas North America, Inc.
22345 Roethel Drive
Novi, MI 48375-4710
TEL: (210) 372-9393
FAX:

RE: EC14-099

Work Order #: 1402249

Dear Mike Wantland:

RTI Laboratories received 16 sample(s) on 2/6/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

This report may only be reproduced in its entirety. Individual pages, reproduced without supporting documentation, do not contain related information and may be misinterpreted by other data reviewers.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

David Vesey

Project Manager

RTI Laboratories - Workorder Sample Summary

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1402249-001A	GS140035 - SSL1		2/1/2014 12:04 PM	2/6/2014 10:42 AM	Soil
1402249-002A	GS140036 - SSL2		2/1/2014 11:26 AM	2/6/2014 10:42 AM	Soil
1402249-003A	GS140037 - SSL3		2/1/2014 1:22 PM	2/6/2014 10:42 AM	Soil
1402249-004A	GS140038 - SSL4		2/1/2014 12:38 PM	2/6/2014 10:42 AM	Soil
1402249-005A	GS140039 - SSL5		2/1/2014 10:48 AM	2/6/2014 10:42 AM	Soil
1402249-006A	GS140040 - SSL6		2/1/2014 10:24 AM	2/6/2014 10:42 AM	Soil
1402249-007A	GS140041 - SSL7		2/1/2014 12:29 PM	2/6/2014 10:42 AM	Soil
1402249-008A	GS140042 - SSL8		2/1/2014 11:53 AM	2/6/2014 10:42 AM	Soil
1402249-009A	GS140043 - SSL9		2/1/2014 11:32 AM	2/6/2014 10:42 AM	Soil
1402249-010A	GS140044 - SSL10		2/1/2014 11:13 AM	2/6/2014 10:42 AM	Soil
1402249-011A	GS140045 - SSL11		2/1/2014 10:54 AM	2/6/2014 10:42 AM	Soil
1402249-012A	GS140046 - SSL12		2/1/2014 10:15 AM	2/6/2014 10:42 AM	Soil
1402249-013A	GS140047 - SSL13		2/1/2014 2:18 PM	2/6/2014 10:42 AM	Soil
1402249-014A	GS140048 - SSL14		2/1/2014 2:39 PM	2/6/2014 10:42 AM	Soil
1402249-015A	GS140049 - SSL15		2/1/2014 1:30 PM	2/6/2014 10:42 AM	Soil
1402249-016A	GS140050 - SSL16		2/1/2014 1:58 PM	2/6/2014 10:42 AM	Soil

RTI Laboratories - Case Narrative

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099

Concentrations reported with a J flag in the Qual field are values below the reporting limit (RL) but greater than the established method detection limit (MDL). There is greater uncertainty associated with these results and data should be considered as estimated. These analytes are not routinely reviewed nor narrated below as to their potential for being laboratory artifacts.

Concentrations reported with an E flag in the Qual field are values that exceed the upper quantification range. There is greater uncertainty associated with these results and data should be considered as estimated.

Any comments or problems with the analytical events associated with this report are noted below.

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 12:04:00 PM
Project:	EC14-099		
Lab ID:	1402249-001	**Matrix:**	Soil
Client Sample ID:	GS140035 - SSL1		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.3	U	8.3		8.3	µg/Kg-dry	1	2/11/2014 10:50 PM
Surr: Triphenyl phosphate	122			50-130		%REC	1	2/11/2014 10:50 PM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	21		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 11:26:00 AM
Project:	EC14-099		
Lab ID:	1402249-002	**Matrix:**	Soil
Client Sample ID:	GS140036 - SSL2		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.2	U	8.2		8.2	µg/Kg-dry	1	2/12/2014 12:22 AM
Surr: Triphenyl phosphate	116			50-130		%REC	1	2/12/2014 12:22 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	18		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 1:22:00 PM
Project:	EC14-099		
Lab ID:	1402249-003	**Matrix:**	Soil
Client Sample ID:	GS140037 - SSL3		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	7.8	U	7.8		7.8	µg/Kg-dry	1	2/12/2014 12:53 AM
Surr: Triphenyl phosphate	96.9			50-130		%REC	1	2/12/2014 12:53 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	15		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 12:38:00 PM
Project:	EC14-099		
Lab ID:	1402249-004	**Matrix:**	Soil
Client Sample ID:	GS140038 - SSL4		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	7.7	U	7.7		7.7	µg/Kg-dry	1	2/12/2014 1:24 AM
Surr: Triphenyl phosphate	118			50-130		%REC	1	2/12/2014 1:24 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	15		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 10:48:00 AM
Project:	EC14-099		
Lab ID:	1402249-005	**Matrix:**	Soil
Client Sample ID:	GS140039 - SSL5		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.1	U	8.1		8.1	µg/Kg-dry	1	2/12/2014 1:54 AM
Surr: Triphenyl phosphate	100			50-130		%REC	1	2/12/2014 1:54 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	18		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 10:24:00 AM
Project:	EC14-099		
Lab ID:	1402249-006	**Matrix:**	Soil
Client Sample ID:	GS140040 - SSL6		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.5	U	8.5		8.5	µg/Kg-dry	1	2/12/2014 2:25 AM
Surr: Triphenyl phosphate	118			50-130		%REC	1	2/12/2014 2:25 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	22		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 12:29:00 PM
Project:	EC14-099		
Lab ID:	1402249-007	**Matrix:**	Soil
Client Sample ID:	GS140041 - SSL7		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	7.9	U	7.9		7.9	µg/Kg-dry	1	2/12/2014 2:56 AM
Surr: Triphenyl phosphate	104			50-130		%REC	1	2/12/2014 2:56 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	17		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 11:53:00 AM
Project:	EC14-099		
Lab ID:	1402249-008	**Matrix:**	Soil
Client Sample ID:	GS140042 - SSL8		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.4	U	8.4		8.4	µg/Kg-dry	1	2/12/2014 3:27 AM
Surr: Triphenyl phosphate	99.6			50-130		%REC	1	2/12/2014 3:27 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	21		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 11:32:00 AM
Project:	EC14-099		
Lab ID:	1402249-009	**Matrix:**	Soil
Client Sample ID:	GS140043 - SSL9		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.4	U	8.4		8.4	µg/Kg-dry	1	2/12/2014 3:58 AM
Surr: Triphenyl phosphate	113			50-130		%REC	1	2/12/2014 3:58 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	22		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 11:13:00 AM
Project:	EC14-099		
Lab ID:	1402249-010	**Matrix:**	Soil
Client Sample ID:	GS140044 - SSL10		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.4	U	8.4		8.4	µg/Kg-dry	1	2/12/2014 4:28 AM
Surr: Triphenyl phosphate	101			50-130		%REC	1	2/12/2014 4:28 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	21		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 10:54:00 AM
Project:	EC14-099		
Lab ID:	1402249-011	**Matrix:**	Soil
Client Sample ID:	GS140045 - SSL11		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.4	U	8.4		8.4	µg/Kg-dry	1	2/12/2014 6:01 AM
Surr: Triphenyl phosphate	107			50-130		%REC	1	2/12/2014 6:01 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	22		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 10:15:00 AM
Project:	EC14-099		
Lab ID:	1402249-012	**Matrix:**	Soil
Client Sample ID:	GS140046 - SSL12		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.2	U	8.2		8.2	µg/Kg-dry	1	2/12/2014 6:32 AM
Surr: Triphenyl phosphate	124			50-130		%REC	1	2/12/2014 6:32 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	20		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 2:18:00 PM
Project:	EC14-099		
Lab ID:	1402249-013	**Matrix:**	Soil
Client Sample ID:	GS140047 - SSL13		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.7	U	8.7		8.7	µg/Kg-dry	1	2/12/2014 7:02 AM
Surr: Triphenyl phosphate	102			50-130		%REC	1	2/12/2014 7:02 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	24		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 2:39:00 PM
Project:	EC14-099		
Lab ID:	1402249-014	**Matrix:**	Soil
Client Sample ID:	GS140048 - SSL14		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.6	U	8.6		8.6	µg/Kg-dry	1	2/12/2014 7:33 AM
Surr: Triphenyl phosphate	120			50-130		%REC	1	2/12/2014 7:33 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	23		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 1:30:00 PM
Project:	EC14-099		
Lab ID:	1402249-015	**Matrix:**	Soil
Client Sample ID:	GS140049 - SSL15		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.2	U	8.2		8.2	µg/Kg-dry	1	2/12/2014 8:04 AM
Surr: Triphenyl phosphate	109			50-130		%REC	1	2/12/2014 8:04 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	18		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - Analytical Report

WO#: 1402249

Date Reported: 2/13/2014
Original

Client:	Bureau Veritas North America, Inc.	**Collection Date:**	2/1/2014 1:58:00 PM
Project:	EC14-099		
Lab ID:	1402249-016	**Matrix:**	Soil
Client Sample ID:	GS140050 - SSL16		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Organophosphorus Pesticides			**Method: SW8141A**		**SW3550C**			**Analyst: MB**
Malathion	8.1	U	8.1		8.1	µg/Kg-dry	1	2/12/2014 8:35 AM
Surr: Triphenyl phosphate	108			50-130		%REC	1	2/12/2014 8:35 AM
Percent Moisture			**Method: ASTM D2216**					**Analyst: NK**
Percent Moisture	19		1.0	1.0	1.0	wt%	1	2/10/2014 11:20 AM

RTI Laboratories - DATES REPORT

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1402249-001A	GS140035 - SSL1	2/1/2014 12:04 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/11/2014 10:50 PM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-002A	GS140036 - SSL2	2/1/2014 11:26 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 12:22 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-003A	GS140037 - SSL3	2/1/2014 1:22 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 12:53 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-004A	GS140038 - SSL4	2/1/2014 12:38 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 1:24 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-005A	GS140039 - SSL5	2/1/2014 10:48 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 1:54 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-006A	GS140040 - SSL6	2/1/2014 10:24 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 2:25 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-007A	GS140041 - SSL7	2/1/2014 12:29 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 2:56 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-008A	GS140042 - SSL8	2/1/2014 11:53 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 3:27 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-009A	GS140043 - SSL9	2/1/2014 11:32 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 3:58 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-010A	GS140044 - SSL10	2/1/2014 11:13 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 4:28 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-011A	GS140045 - SSL11	2/1/2014 10:54 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 6:01 AM

RTI Laboratories - DATES REPORT

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1402249-011A	GS140045 - SSL11	2/1/2014 10:54 AM	Soil				
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-012A	GS140046 - SSL12	2/1/2014 10:15 AM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 6:32 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-013A	GS140047 - SSL13	2/1/2014 2:18 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 7:02 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-014A	GS140048 - SSL14	2/1/2014 2:39 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 7:33 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-015A	GS140049 - SSL15	2/1/2014 1:30 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 8:04 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM
1402249-016A	GS140050 - SSL16	2/1/2014 1:58 PM	Soil				
				SW_8141S-Organophosphorus Pesticides		2/8/2014 9:33 AM	2/12/2014 8:35 AM
				PMOIST-Percent Moisture		2/10/2014 11:20 AM	2/10/2014 11:20 AM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099 **Batch ID:** **32116**

Sample ID:	**LCS-32116**	Samp Type:	**LCS**	Test Code:	**SW_8141S**	Units:	**µg/Kg**	Prep Date:	**2/8/2014**	RunNo:	**64924**
Client ID:	**LCSS**	Batch ID:	**32116**	TestNo:	**SW8141A**	**SW3550C**		Analysis Date:	**2/11/2014**	SeqNo:	**1264107**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Malathion	17	6.7	16.63	0	102	46	137				
Surr: Triphenyl phosphate	18		16.63		107	50	130				

Sample ID:	**MB-32116**	Samp Type:	**MBLK**	Test Code:	**SW_8141S**	Units:	**µg/Kg**	Prep Date:	**2/8/2014**	RunNo:	**64924**
Client ID:	**PBS**	Batch ID:	**32116**	TestNo:	**SW8141A**	**SW3550C**		Analysis Date:	**2/11/2014**	SeqNo:	**1264108**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Malathion	ND	6.7									U
Surr: Triphenyl phosphate	18		16.62		109	50	130				

Sample ID:	**1402249-001AMS**	Samp Type:	**MS**	Test Code:	**SW_8141S**	Units:	**µg/Kg-dry**	Prep Date:	**2/8/2014**	RunNo:	**64924**
Client ID:	**GS140035 - SSL1**	Batch ID:	**32116**	TestNo:	**SW8141A**	**SW3550C**		Analysis Date:	**2/11/2014**	SeqNo:	**1264110**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Malathion	23	8.3	20.75	0	111	46	137				
Surr: Triphenyl phosphate	24		20.75		115	50	130				

Sample ID:	**1402249-001AMSD**	Samp Type:	**MSD**	Test Code:	**SW_8141S**	Units:	**µg/Kg-dry**	Prep Date:	**2/8/2014**	RunNo:	**64924**
Client ID:	**GS140035 - SSL1**	Batch ID:	**32116**	TestNo:	**SW8141A**	**SW3550C**		Analysis Date:	**2/11/2014**	SeqNo:	**1264111**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Malathion	24	8.4	20.94	0	113	46	137	23.04	2.82	25	
Surr: Triphenyl phosphate	24		20.94		114	50	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1402249

Date Reported: 2/13/2014
Original

Client: Bureau Veritas North America, Inc.

Project: EC14-099

Batch ID: **R64879**

Sample ID:	**1402249-001ADUP**	Samp Type:	**DUP**	Test Code:	**PMOIST**	Units:	**wt%**	Prep Date:	**2/10/2014**	RunNo:	**64879**
Client ID:	**GS140035 - SSL1**	Batch ID:	**R64879**	TestNo:	**D2216**			Analysis Date:	**2/10/2014**	SeqNo:	**1263518**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Percent Moisture	20	1.0						20.62	1.71	20	

Sample ID:	**1402249-011ADUP**	Samp Type:	**DUP**	Test Code:	**PMOIST**	Units:	**wt%**	Prep Date:	**2/10/2014**	RunNo:	**64879**
Client ID:	**GS140045 - SSL11**	Batch ID:	**R64879**	TestNo:	**D2216**			Analysis Date:	**2/10/2014**	SeqNo:	**1263529**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Percent Moisture	22	1.0						21.69	0.354	20	

SAMPLE LOG-IN SHEET

Lab Name: RTI Laboratories	RCPNo: 1
Received By (Printed Name): Armando Flores	Log-in Date: 2/6/2014 10:42:00 AM
Received By (Signature):	
Case Number:	Sample Delivery Group No: / NRAS Number:

Comments: +++FOREIGN/RESTRICTED SOIL+++

Remarks

1.	Custody Seal (s)	Present ☐	Absent ☒
		Intact ☐	Present ☐
2.	Custody Seal Nos		
3.	Traffic Reports/Chain of Custody Records or Packing Lists	Present ☐	Absent ☒
4.	Airbill	Airbill ☒	Sticker ☐
		Present ☒	Absent ☐
5.	Airbill No.	3434192031	
6.	Sample Tags Sample Tag Numbers	Present ☐	Absent ☒
		Listed ☐	Not Listed ☒
7.	Sample Condition	Intact ☒	Broken ☐
		Leaking ☐	
8.	Cooler Temperature Indicator Bottle	Present ☒	Absent ☐
9.	Cooler Temperature		
10.	Does information on Traffic Reports/Chain of Custody Records and Sample tags agree?	Yes ☐	No ☐
11.	Date and Time Received at Lab	2/6/2014 10:42:00 AM	

Sample Transfer	
Fraction	Fraction
Area #	Area #
By	By
On	On

Contact SMO and attach record of resolution

Reviewed By: David Vesey

Date: 2/7/2014 3:37:39 PM

Corresponding

EPA Sample	Sample Tag	Assigned Lab	Remarks condition of Sample Shipment, etc
GS140035 - SSL1		1402249-001A	++ +FOREIGN/RESTRICTED SOIL+++
GS140036 - SSL2		1402249-002A	++ +FOREIGN/RESTRICTED SOIL+++
GS140037 - SSL3		1402249-003A	++ +FOREIGN/RESTRICTED SOIL+++
GS140038 - SSL4		1402249-004A	++ +FOREIGN/RESTRICTED SOIL+++
GS140039 - SSL5		1402249-005A	++ +FOREIGN/RESTRICTED SOIL+++
GS140040 - SSL6		1402249-006A	++ +FOREIGN/RESTRICTED SOIL+++
GS140041 - SSL7		1402249-007A	++ +FOREIGN/RESTRICTED SOIL+++
GS140042 - SSL8		1402249-008A	++ +FOREIGN/RESTRICTED SOIL+++
GS140043 - SSL9		1402249-009A	++ +FOREIGN/RESTRICTED SOIL+++
GS140044 - SSL10		1402249-010A	++ +FOREIGN/RESTRICTED SOIL+++
GS140045 - SSL11		1402249-011A	++ +FOREIGN/RESTRICTED SOIL+++
GS140046 - SSL12		1402249-012A	++ +FOREIGN/RESTRICTED SOIL+++
GS140047 - SSL13		1402249-013A	++ +FOREIGN/RESTRICTED SOIL+++
GS140048 - SSL14		1402249-014A	++ +FOREIGN/RESTRICTED SOIL+++
GS140049 - SSL15		1402249-015A	++ +FOREIGN/RESTRICTED SOIL+++

Logbook No.

Logbook Page No.

SAMPLE LOG-IN SHEET

EPA Sample	Sample Tag	Assigned Lab	Remarks condition of Sample Shipment, etc
GS140050 - SSL16		1402249-016A	++ +FOREIGN/RESTRICTED SOIL+++

RTI Laboratories - Definitions and Acronyms

WO#: 1402249

Date Reported: 2/13/2014
Original

DEFINITIONS:

DF: Dilution factor; the dilution factor applied to the prepared sample.

DL: Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.

DUP: Duplicate; aliquots of a sample taken from the same container under laboratory conditions and processed and analyzed independently, used to calculate Precision (%RPD).

LCS: Laboratory Control Sample; prepared by adding a known amount of target analytes to a specified amount of clean matrix and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: A duplicate LCS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

LOD: Limit of Detection; a laboratory verified concentration that can be detected at three times greater than the noise level. This concentration is equal to or greater than the DL.

LOQ: Limit of Quantitation; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below the LOQ are reported with a “J” qualifier.

MBLK: Method Blank; a sample of similar matrix that does not contain target analytes or interference that may impact the analytical results and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, used to assess and verify that the analytical process is free of contamination.

Mg/Kg or mg/L: Units of part per million (PPM) – milligram per Kilogram (W/W) or milligram per Liter (W/V).

MS: Matrix Spike; prepared by adding a known amount of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: A duplicate MS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

% REC: Percent Recovery of a known spike (SPK); a measure of accuracy expressed as a percentage of a measured (recovered) concentration compared to the known concentration (SPK) added to the sample. This is compared to the Low Limit and High Limit.

% RPD: Relative Percent Difference; a measure of precision expressed as a percentage of the difference between two duplicates relative to the average concentration. This is compared to the RPD Limit.

Qual: Qualifier that applies to the analyte reported

SPK: Spike; used in the QC section for both SPK Value and SPK Ref Val

Ug/Kg or ug/L: Units of part per billion (PPB) – microgram per Kilogram (W/W) or microgram per Liter (W/V).

QUALIFIERS:

*: Reported value exceeds the maximum allowed concentration by regulation or permit.

B: Analyte detected in the associated Method Blank at a concentration greater than 1/2 the LOQ

G: CCB result is greater than the MDL

H: Holding time for preparation or analysis has been exceeded

J: Estimated result. Greater uncertainty is associated with this result and data reported is estimated.

M: Manual Integration used to determine area response

P: Second column RPD exceeds 40%

Q: % REC exceeded control limits. When applied to sample analytes - denotes an associated LCS recovery that exceeded control limits.

R: % RPD exceeds control limits

T: MBLK result is greater than 1/2 of the LOQ

U: The analyte concentration is less than the DL. The result is reported as less than the LOD

X: Matrix spike recovery for the noted analyte exceeded control limits. Applied to the MS/MSD parent sample.

Y: Percent Difference/Drift in the associated CCV exceeded acceptance criteria.

Z: Percent Difference/Drift in the associated ICV exceeded acceptance criteria.

1402249

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

5

REQUESTER NAME TSgt Bardwell	PHONE 634-4752		
Email nathan.bardwell@kadena.af.mil	Base/Unit 18 AMDS/SGPB	Collection Date/Time 2/1/2014 ~~00:00~~ 1204	
1 Sample Number GS140035 (SSL1)	Sample Matrix	Sample Media	Sample Preservative
EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	Malathion
Nickel	Silica US-696H-82W	
Selenium	Sulfate EPA 300.0	
Silver	Total Dissolved Solids EPA 160.1	
Sodium	Total Phosphorus EPA 365.2	
Strontium	Total Suspended Solids EPA 160.2	
Thallium	Turbidity EPA 180.1	
Vanadium		
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.

*samples should be maintained at 4*C

FORM 2 FOR M
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

1402249

Sample Number (2) GS140036	Sample Number (3) GS140037	Sample Number (4) GS140038
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1126	Date/Time 1Feb14/1322	Date/Time 1Feb14/1238
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 2	Notes SSL 3	Notes SSL 4

Sample Number (5) GS140039	Sample Number (6) GS140040	Sample Number (13) GS140047
Collected by SrA Kyle Love	Collected by SrA Kyle Love	Collected by SrA Kyle Love
Date/Time 1Feb14/1048	Date/Time 1Feb14/1024	Date/Time 1Feb14/1418
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 5	Notes SSL 6	Notes SSL 13

Sample Number (14) GS140048	Sample Number	Sample Number
Collected by SrA Kyle Love	Collected by	Collected by
Date/Time 1Feb14/1439	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 14	Notes	Notes

Chain of Custody

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Kyle Love/1Feb2014/0908	[illegible] 3Feb14	good
DHL	[illegible] 2-6-14 12:05	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

1402249

Detachment 3 USAF School of Aerospace Medicine

Analytical Division Unit 5213 Box 10
APO, AP 96368-5213

TSgt Robinson (DSN 634-3505)/SSgt Kyle Mcgrath (DSN 632-8239)/Mr. Shunji Nakama (DSN 632-8283)

REQUESTER NAME	PHONE
TSgt Bardwell	634-4752

Email	Base/Unit	Collection Date/Time
nathan.bardwell@kadena.af.mil	18 AMDS/SGPB	2/1/2014 ~~00:00~~ 1229

Sample Number	Sample Matrix	Sample Media	Sample Preservative
7 GS140041 (SSL 7)			

EC Number	MIPR Number	FOR LAB USE ONLY LIMS Number	Received

Air NIOSH 7300/ Water EPA 200.7/ Bulk EPA 6010	Waste Water/Drinking Water	Bulk Materials/Oil/Waste
Aluminum	Acidity EPA 305.1	pH EPA 150.1
Antimony	Alkalinity EPA 310.1	Lead (Bulk) SW846/7000A/6010
Arsenic	Ammonia as N US-696D-82X	Lead (Paint) SW846/7000A/6010
Barium	Bromide EPA 300.0	Lead (Swipe) SW846/7000A/6010
Beryllium	Calcium Hardness EPA 200.7	TCLP-Metals 200.7
Boron	Chloride EPA 300.0	TCLP-Mercury SW 6010/7470
Cadmium	COD EPA 410.4	PCB (Soil) EPA 8082 modified
Calcium	Color EPA 110.2	PCB (Swipe) EPA 8082 modified
Chromium	Conductivity EPA 120.1	PCB (Oil) EPA 600/4-81-045
Cobalt	Fluoride EPA 300.0	**Chromium VI**
Copper	Hardness EPA 200.7	
Iron	Langelier Index Modified	Chromium VI (Water) EPA 218.6
Lead	Nitrate + Nitrite EPA 300.0	Chromium VI (Salt Water) EPA 218.
Magnesium	Nitrite EPA 300.0	Chromium VI (Air) NIOSH 7605
Manganese	Nitrate as N EPA 300.0	**Other Tests**
Mercury EPA 245.2	ortho-Phosphorus EPA 365.3	
Molybdenum	PCB (Water) EPA 608/8082	Malathion
Nickel	Silica US-696H-82W	
Selenium	Sulfate EPA 300.0	
Silver	Total Dissolved Solids EPA 160.1	
Sodium	Total Phosphorus EPA 365.2	
Strontium	Total Suspended Solids EPA 160.2	
Thallium	Turbidity EPA 180.1	
Vanadium		
Zinc		

SPECIAL INSTRUCTIONS Please see "Other Tests" above

REMARKS - FOR PRIORITY HANDLING, PLEASE COORDINATE WITH DIVISION CHIEF/NCOIC FOR APPROVAL.

*samples should be maintained at 4*C

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

1402249

Sample Number (8) GS140042	Sample Number (9) GS140043	Sample Number (10) GS140044
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1153	Date/Time 01Feb14 / 1132	Date/Time 01Feb14/1113
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 8	Notes SSL 9	Notes SSL 10

Sample Number (11) GS140045	Sample Number (12) GS140046	Sample Number (15) GS140049
Collected by SrA Beckwith	Collected by SrA Beckwith	Collected by SrA Beckwith
Date/Time 01Feb14/1054	Date/Time 01Feb14/1015	Date/Time 01Feb14/1330
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 11	Notes SSL 12	Notes SSL 15

Sample Number (16) GS140050	Sample Number	Sample Number
Collected by SrA Beckwith	Collected by	Collected by
Date/Time 01Feb14/1358	Date/Time	Date/Time
Sample Matrix	Sample Matrix	Sample Matrix
Sample Media	Sample Media	Sample Media
Sample Preservative	Sample Preservative	Sample Preservative
Notes SSL 16	Notes	Notes

Chain of Custody

For Mike Wantland at Bureau Veritas

Relinquished by/Date/Time	Received by/Date/Time	Condition
SrA Beckwith/03Feb14/0908	[illegible] 3Feb14 0908	Good
DHL	[illegible] 2-6-14 12:05	Good

FORM 2
DET3 USAFSAM, 01 DEC 12

EMAIL RESULTS DIRECTLY TO
det3usafsam.analyticallab@us.af.mil

FROM: US AIRFORCE
DET 3 USAFSAM
UNIT 5213 BLDG 853
KADENA AB

904-0200 OKINAWA
JAPAN

Origin: KIX

TO: RT LABORATORIES
KETHERINE
31628 GLENDALE ST

Contact:
Ph: 734-422-8000

48150 LIVONIA, MICHIGAN
UNITED STATES OF AMERICA

US-DTW

C-DTP

Day Time

Shipment Ref:

Shipment Weight: 0.50kg
Date: 2014-02-03

Piece: 1/1

US GOVERNMENT PROPERTY- DUTY-TAX FREE
>>>SIGNATURE IS REQUIRED<<<
16 BLK SAMPLE

Sender A/C *********
Payer A/C *********
Duties /Taxes Sender

Insurance: USD

WAYBILL 3434192031

(2L)US48150+48000001

(J) JD01 2057 6027 6000 1202

EXPRESS WORLDWIDE WPX DHL

48150 LIVONIA, United States

Origin: KIX

US – DTW – DTW

C

Day Time

Ref code EC14-097

Date: 2014-02-03

Shipment Weight 0.1 KG

Piece 1/1

WAYBILL 34 3419 2031

(2L)US48150+48000001

(J) JD01 2057 6027 6000 1202

CVG Reload Area

05

CVG Reload Chute

CH113

DTW

UL: Unload area 02
USER: sagaple
TIME: 2014-02-05 04:35:16

DHL

Track this shipment: http://www.dhl.com

Shipment Waybill

Expiry 07/13

3434192031

KIX

1 Payer account number and insurance details

Payer Account No.

2 From (Shipper)

Shipper's account number: 580959374

Contact name: Kylem Crath

Shipper's reference(up to 35 characters): EC14-097

Company name: Det 3 USAFSOM

Address: Unit 5213 Bld 853

Kadena AB Okinawa JP

Postcode: 904 0020

Phone: 098 962 8281

3 To (Receiver)

Company name: RTI Laboratories

Delivery address: 31628 Glendale St

Livonia MI

Postcode/ZIP Code required: 48150

Country: US

Contact person: Katherine Griffin

Phone: 734-422-8000 (213)

4 Shipment details

Total number of packages: 1

Total Weight

Pieces: Length x Width x Height

5 Full description of contents

Give contents and quantity

16 BUK Sample

6 Non-Document Shipments only (Customs Requirement)

Shipper's VAT/GST number

Receiver's VAT/GST or Shipper's EIN/SSN

Declared Value for Customs: $16.00

Harmonized Commodity Code, if applicable

TYPE OF EXPORT

Permanent / Repair / Return / Temporary

Destination duties/taxes - if not paid, receiver pays duties/taxes

Receiver / Shipper / Other

SIN 06/13

7

CURRENCY | TOTAL

Insurance

VAT

Other

Signature

Time

Date

MAK1371

KA XB

03F-6