March 12, 2013

Barbara Jakub, PG
Hazardous Materials Specialist
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Alameda, CA 94502

(510) 639-1287 barbara.jakub@acgov.org FAX (510) 337-9335

SUBJECT:

RESPONSIBLE PARTY PERJURY STATEMENT FOR ALAMEDA COUNTY FTP WEBSITE TECHNICAL REPORT SUBMITTAL REQUIREMENT FOR REPORTING OF Soil Gas and Down Gradient Groundwater Grab Sampling Investigation for Kawahara Nursery, 16550 Ashland Ave., San Lorenzo, CA

To Alameda County Environmental Health,

"I declare under penalty of perjury that the information and/or recommendations contained in the technical document designated above is true and correct to the best of my knowledge."

Jo⁄hn Kawahara

Kawahara Nursery, Inc.

689 Burnett Ave.

Morgan Hill, CA 95037

PHONE: (408) 640-4289 JKawahara@KawaharaNurseries.com

RECEIVED

By Alameda County Environmental Health at 9:00 am, Apr 18, 2013

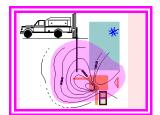
03-12-13 Soil Gas & Groundwater Grab Sample Investigation for Kawahara Nursery Page 1 of 6

### Franklin J. Goldman

**Environmental Forensics & Hydrogeological Consulting** 

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SUBJECT: Soil Gas and Down Gradient Groundwater Grab Sampling Investigation for Kawahara Nursery, 16550 Ashland Ave., San Lorenzo, CA

Ms. Jakub,

The following technical report has been submitted in accordance with your May 09, 2012 letter, Technical Comments and our discussions regarding the recently submitted workplan. The purpose of this subsurface investigation was to determine if residual gasoline related contaminants pose a potential health threat to residents in the house located within the investigation area. The laboratory results along with the strategic placement of recent conformation soil borings has identified very low concentrations of hydrocarbons that are not a significant threat to health.

As agreed, two of soil borings were drilled to groundwater which were placed down gradient of contamination identified in the past and one soil boring was place at the down gradient end of the investigation area. Also, soil gas samples were collected between the house and contamination identified in the past.

Base on the results of this investigation, UST site closure is recommended.

The Responsible Party, Kawahara Nursery, would like to expedite this process so that they can move ahead with changing their business operations as planned.

CERTIFIED OROGEOLOGIST

Kindest Regards,

Franklin J. Goldman Principal Hydrogeologist

#### SUBSURFACE INVESTIGATION ACTIVITIES COMPLETED

#### RATIONALE FOR SOIL BORING DEPTHS AND LOCATIONS AND CHANGES TO THE WORKPLAN

Soil gas borings Sgas1, Sgas2, and Sgas3 were located between the house and Z5, SB-4 and SB-5, respectively (SEE FIGURE 1 FOR SOIL GAS AND SOIL BOREHOLE LOCATION MAP), to a depth of five (5) feet bgs, where concentrations of gasoline related constituents were identified in 1999 and 2012.

Soil gas boring Sgas2 was moved closer to SB-4 as suggested by Ben Heningburg of the SWRCB. Soil gas borings Sgas2 and Sgas3 did not require companion soil borings because soil samples could be collected at five feet bgs from the soil gas soil borings. Soil gas boring Sgas1 did require an additional companion soil boring placed immediately adjacent to the five foot deep soil gas boring to obtain a relatively undisturbed soil sample from a depth of five feet bgs.

GW-grab1, GW-grab2, and GW-grab3 are soil borings that were drilled to approximately 20 feet bgs instead of 15 feet bgs to provide enough well volume in order to obtain a groundwater "grab" sample, with the least amount of silt.

GW-grab2 was located immediately down gradient of Z5 and SB-4 where gasoline constituents were identified in the past.

Soil boring GW-grab1 had to be located further to the north than originally planned due to the original location being inaccessible to the drill rig after making several attempts at moving the drill rig across the front lawn which was underlain by very soft soils. Fortunately, the new location is located directly down gradient of GW-grab3 which identified gasoline related constituents in groundwater (SEE FIGURE 1 SOIL GAS AND SOIL BOREHOLE LOCATION MAP WITH LAB DATA).

#### PROPOSED SOIL AND SOIL GAS DRILLING AND SAMPLING PROCEDURES

A soil boring permit was obtained from the Alameda County Public Works Agency prior to the drilling of six (6) investigative soil borings. Three were drilled to 20 feet bgs to groundwater and three soil gas probes to five feet bgs. Soil descriptions were made by a licensed professional during drilling (See Appendix A for Soil Boring Logs).

A site health and safety plan to protect site workers was prepared and kept on site during field activities. A health and safety meeting was held with drilling staff and the client's representative on site prior to the commencement of field activities.

Alameda County Environmental Health staff was given a 72 hour notice prior to the initiation of field work. County staff did not show up in the field on the day of drilling, however, Ms. Jakub was intimately involved with the planning and execution of this latest field work completed.

The borehole locations were marked at the site in white paint prior to the commencement of drilling excavation activities for Underground Service Alert.

A Geoprobe drilling machine, operated by TEG, a State of California C-57 licensed

03-12-13 Soil Gas & Groundwater Grab Sample Investigation for Kawahara Nursery Page 3 of 6 drilling contractor was used for drilling. TEG is also a state certified mobile laboratory qualified to collect soil gas samples. TEG staff constructed three semi-permanent vapor wells which were installed by driving a probe to approximately 5 ½ feet bgs to collect a vapor samples. Groundwater was not encountered and the upper five feet of soil was dry to slightly moist.

Each soil gas probe location was drilled to approximately 5 ½ feet bgs where a soil sample was collected at 4 ½ to 5 feet bgs prior to installation of the temporary soil gas well. The Sgas1 location was drilled as two adjacent soil borings because of concerns raised regarding recovery of an undisturbed soil sample. The first boring was used to construct a soil gas well. After the soil gas well was constructed, a second, adjacent soil boring was drilled to obtain the soil sample.

#### Soil Sampling Procedures

The direct push method of drilling was performed with a Stratoprobe. The soil samples were collected at depths of approximate five foot vertical intervals that were cored with a core barrel with sampling runs of 1 ½ feet in length using four foot long acetate liners to contain the samples.

The large bore soil sampler, 2 inch O.D, was used to for continuous coring.

The sampler was advanced to the target depth by connecting the sampler to three foot long sections of steel rod that are 1.25 inch O.D.

Relatively undisturbed soil was continuously extruded, at a rate of approximately one foot per minute, inside the acetate liners by the continuous compressive force of the Geoprobe drill rig. The soil filled acetate liners were cut with a hack saw into six inch long sections to be physically examined for soil description purposes and to identify obvious olfactory and visual evidence of hydrocarbon contamination. One half (1/2) foot long samples were selected from the 1 & ½ foot long sample runs of acetate filled liners which were the most representative of soil conditions and demonstrated the presence of hydrocarbon contamination. Each ½ foot long soil filled acetate liner was cut flush with the end of the liner and capped with plastic end caps at each end. The soil samples were labeled with a non-toxic ink field marker as to the depth and location the sample was collected, the sample number, and the project name, and will be inserted into a plastic Zip-Lock bag and placed into an ice chest. The soil samples were then placed in an ice chest and kept at 4 degrees centigrade. The ice chest with the samples was then transported to Kiff Analytical, Inc. of Davis, California, a State-certified analytical laboratory, under a proper chain-of-custody, to be analyzed by EPA Method 8260b for TPHg, naphthalene and BTEX constituents.

#### Soil Gas Sampling Procedures

#### Soil Vapor Probe Installation

Three shallow vapor probes, SG1, SG2 and SG3, were installed on site to a depth of 5 ½ feet bgs with a Stratoprobe. After the borings reached five feet bgs, fixed sampling poins were installed using 0.25 inch diameter Teflon tubing attached to a 1 inch screen. Fine silica sand filter pack was installed six inches above and 6 inches below the five foot deep sampling point. A PVC guide pipe was lifted up gradually as the sand pack

03-12-13 Soil Gas & Groundwater Grab Sample Investigation for Kawahara Nursery Page 4 of 6 was installed to make sure the pack was stabilized by the tubing. The annulus was then sealed to six inches from the surface with hydrated granular bentonite, set on top of a base of dry granular bentonite completed to the surface.

Soil gas samples were collected in SUMMA canisters, after allowing the installed soil gas probes to sit in the ground for a minimum of 2 hours, by TEG's field staff. Soil gas samples were collected in SUMMA canisters according to the Standard Operating Procedures outlined in Appendix B (See Appendix B for General Soil Gas Sampling Procedures).

The three, six (6) liter SUMMA canisters, were pre-calibrated at Test America, a State Certified laboratory, so that the flow rate was set at 200 ml/minute according to DTSC guidelines.

A tracer compound, 1,1 difluoroethane, was used to test for leaks around the probe rod and tubing where it exited the ground and in the sampling system. The tracer was placed under the shroud during sample collection. No tracer was detected per DTSC advisory specifications, so no leak was identified.

Prior to purging the sampling train and sampling of soil gas, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test consisted of assembling the above ground section of the sampling train (e.g. valves lines fittings flow controllers and summa downflow of the top of the probe), and evacuating the lines to a measured vacuum of about 100 inches of water, then shutting the valves at either end of the above ground section of the sampling train and observing the vacuum for at least one minute. There was no observable loss of vacuum.

After the shut-in test was completed, hydrated bentonite was placed around the probe rod and tubing where it exited the ground. A five gallon bucket shroud was placed over the sampling point covering the sample tubing and the valve at the shroud end of the above ground sampling train section. The sampling train ran under the shroud to the SUMMA.

The three soil gas sample SUMMA canisters were delivered by Fedex to Test America, Inc. of Costa Mesa, CA, a state certified laboratory, and analyzed for gasoline range organics, naphthalene, BTEX, and percentage of oxygen in soil gas according to the following lab analyses:

- 1. Volatile Organic Compounds in Soil Gas by GC/MS: EPA method TO-15
- 2. Gasoline Range Organics (GRO) in Soil Gas by GC/MS: EPA method TO-3
- 3. Oxygen Concentration in Soil Gas: Gas Chromatography with Thermal Conductivity Detection GC/TCD.

Three, six one liter canisters were used to accommodate all the laboratory analyses completed.

The open boreholes were sealed according to the permit obtained by the Alameda County Public Works Agency under the field supervision of Vickie, the County grout inspector. The holes were sealed with a cement/bentonite slurry which was be poured down the five foot deep holes.

All equipment was triple rinsed with an Alconox water solution. Investigation derived waste, was placed in DOT approved 55 gallon drums to be disposed of at a legal point of disposal.

#### Groundwater "Grab" Sampling Procedures

The down-gradient borehole GW-grab1 GW-grab2, and GW-grab3 were logged by a State of California licensed professional geologist who identified the depth to the groundwater first encountered. Soil samples were collected for analysis from 5, 10, and 15 feet bgs in all three of the 20 foot deep soil borings.

Drilling was applied by the continuous compressive force of the Geoprobe drill rig at a rate of approximately one foot per minute until the depth of 20 feet bgs was reached so that the open borehole yielded enough groundwater to obtain a groundwater "grab" sample. The groundwater that flowed into the first borehole drilled to 15 feet bgs was too silty to be a representative sample. The TEG drilling technical staff collected the water samples.

A 1½ inch temporary PVC casing (10 foot blank and 10 feet of 0.01inch slotted screen) was placed down the open borehole, with a plastic end cap at the bottom, and allowed to fill with groundwater. A weighted plastic disposable check valve bailer was lowered down to the bottom of the screen to capture a groundwater "grab" sample. The groundwater was decanted from the bottom of the bailer using a valve release tube to unplug the bailer. The groundwater was drained from the bottom of the bailer into a 40 ml VOA glass vial with HCL preservative provided by a state certified laboratory. The VOAs were filled with water so that there was no escape of volatiles. The three VOA vials were inverted to make sure there were no bubbles present. The VOAs were then be placed in an ice chest and kept at 4 degrees centigrade. The ice chest with the samples was then transported to Kiff Analytical, Inc. of Davis, California, a Statecertified analytical laboratory, under a proper chain-of-custody, to be analyzed for TPHg naphthalene, and BTEX constituents.

Prior to closing up the temporary well, the PVC casing was removed and the Stratoprobe soil boring excavation was properly abandoned with a cement bentonite grout to the surface after tagging the bottom with a measuring tape to make sure there were no obstructions.

The holes were sealed according to the permit obtained by the Alameda County Public Works Agency under the field supervision of Vickie, the County grout inspector. The holes were sealed with a cement/bentonite slurry which was be poured down the 20 foot deep holes.

#### INTERPRETATION OF LABORATORY RESULTS

No gasoline related constituents were identified in soil.

Dissolved gasoline related constituents were identified in the groundwater sample collected from GWG3 at approximately 15 to 20 feet bgs drilling (See Appendix C for Lab Analytical for Soil and Groundwater Samples). These residual dissolved

03-12-13 Soil Gas & Groundwater Grab Sample Investigation for Kawahara Nursery Page 6 of 6 contaminants are located too deep to cause a significant threat of vapor intrusion to indoor air.

The down gradient extent of the dissolved gasoline plume has been defined by the groundwater grab sample collected at GWG1.

The benzene and naphthalene identified in soil gas in the temporary vapor wells was measured at concentrations below Environmental Screening Levels (ESLs) for a residential scenario with a bioattenuation zone (See Appendix D for Lab Analytical for Soil Gas Samples). Also, see Tables 1A, 1B, and 1C for lab results.

Also, there is abundant oxygen available in the bioattenuation zone for further reductions in hydrocarbon soil vapor.

#### FIELD CLEANUP

Soil waste and rinseate water was stored in properly labeled 55 gallon Department of Transportation (DOT) approved drums which were left on-site for transport to a legal point of disposal.

#### CONCLUSION AND RECOMMENDATIONS

Properly abandon the groundwater monitor wells onsite and close this UST case.

#### LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change. The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. All users of this technical report, recognize that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein, is done so at the sole risk of the said user.

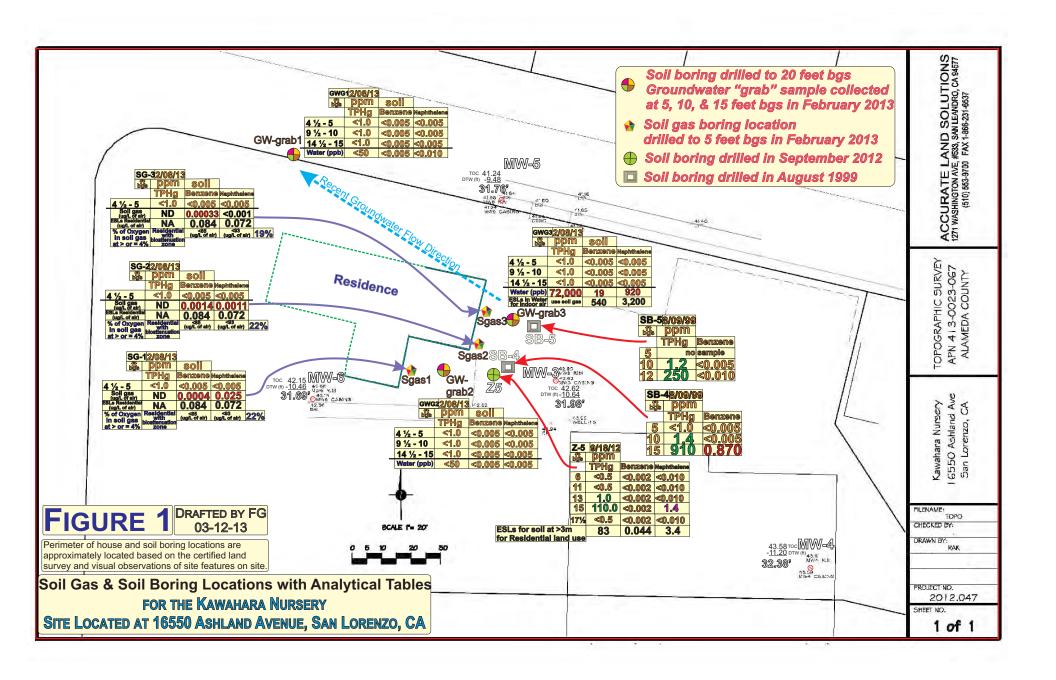


Table 1A - Concentrations of Hydrocarbons in Soil (ppm)
FOR THE KAWAHARA NURSERY
SITE LOCATED AT 16550 ASHLAND AVENUE, SAN LORENZO, CA

		12/08/13						
	ft bgs	ppm	soil					
		TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
4 1/2 -	5	≪1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9 1/2 -	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
14 1/2	- 15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
		<mark>2/08/13</mark>						
	ft bgs	ppm	soil					
		TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
4 1/2 -	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9 1/2 -	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
14 1/2	- 15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
		32/08/13		,				
	ft bgs	ppm	soil					
		TPHg	Benzene	Naphthalene	<b>Toluene</b>	Ethyl- Benzene	Xylene	MTBE
4 1/2 -	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9 1/2 -	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
14 1/2	- 15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
		12/08/13						
	fft bgs	ppm	soil					
		TPHg	Benzene	Naphthalene		Ethyl- Benzene	Xylene	MTBE
4 1/2 -		<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	SG-	2 <mark>2/08/13</mark>	0.0	1				
	fft bgs	ppm	soil			CAllen all	24 0	
		TPHg				Ethyl- Benzene	Xylene	MTBE
4 1/2 -		<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	SG-	32/08/13		1				
	fft bgs	ppm	soil		Se . 1	Ethyl.	Wa all o so -	
	_	TPHg	Benzene			Ethyl- Benzene	Xylene	MTBE
4 1/2 -	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1B - Concentrations of Hydrocarbons in Soil Gas (ug/L of air)

SG-	12/08/13	3					
	TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
Soil gas (ug/L of air)	ND	0.0004	0.025	0.0012		0.00238	<0.0014
ESLs Residential (ug/L of air)	NA	0.084	0.072				
% of Oxygen	Residential with	<85 (ug/L of air)	<93 (ug/L of air)	22%			
in soil gas at > or = 4%	bioattenuation zone	(-0					
	22/08/13						
	TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	<b>Xylene</b>	MTBE
Soil gas (ug/L of air)	ND	0.0014	0.0011	0.0071	0.0016	0.0093	<0.0014
ESLs Residentia (ug/L of air)	NA	0.084	0.072				
(ug/L of air) % of Oxygen	NA	0.084 (ug/L of air)	0.072 <93 (ug/L of air)	22%			
ESLs Residentia (ug/L of air)	NA Residential with bloattenuation zone	0.084 (ug/L of air)	<93	22%			
(ug/L of air) % of Oxygen in soil gas at > or = 4%	Residential with bloattenuation zone 32/08/13	(ug/L of air)	<93	<b>22%</b>			
ESLs Residentia (ug/L of air) % of Oxygen in soil gas at > or = 4% SG-	Residential with bloattenuation zone	(ug/L of air)	<93 (ug/L of air)		Ethyl- Benzana	Xylene	MTBE
ESLs Residentia (ug/L of air) % of Oxygen in soil gas at > or = 4%  SG-	Residential with bloattenuation zone 32/08/13	<85 (ug/L of air)	<93 (ug/L of air)		Ethyl- Benzens 0.00036	Xylene	MTBE <0.0014
ESLs Residentia (ug/L of air) % of Oxygen in soil gas at > or = 4%  SG-  Soil gas (ug/L of air) ESLs Residential (ug/L of air)	Residential with bloattenuation zone 32/08/13 TPHg ND	(ug/L of air)  Benzene 0.00033 0.084	(ug/L of air)	Toluene		Xylene	
ESLs Residentia (ug/L of air) % of Oxygen in soil gas at > or = 4%  SG-  Soil gas (ug/L of air) ESLs Residential (ug/L of air)	Residential with bloattenuation zone 32/08/13 TPHg ND	(ug/L of air)  Benzene 0.00033 0.084	(ug/L of air)  Naphthalene	Toluene 0.0012		Xylene	
ESLs Residentia (ug/L of air) % of Oxygen in soil gas at > or = 4%  SG-  Soil gas (ug/L of air) ESLs Residential (ug/L of air)	Residential with bloattenuation zone 32/08/13 TPHg	(ug/L of air)  Benzene 0.00033 0.084	(ug/L of air)  Naphthalens  <0.0010  0.072  -93	Toluene		Xylene	

Table 1C - Concentrations of Hydrocarbons in Groundwater (ug/L)

GWG	12/08/13						
	TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
Water (ppb)	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
GWG	2/08/13						
	TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
Water (ppb)	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
GWG	3 <mark>2/08/13</mark>						
	TPHg	Benzene	Naphthalene	Toluene	Ethyl- Benzene	Xylene	MTBE
Water (ppb)		19	920	14	1,100	7,700	<9
ESLs in Water for indoor air	use soll gas	540	3,200				

# Appendix A Soil Boring Logs

DRILL COMPANY: TEG	SURFACE ELEVATION: LOGGED BY: Frank Goldman							
DEPTH TO GROUNDWATER:	ВС	ORING DIA	METER	: 2"		INIC METHO	on Geonr	ohe
LITHOLOGIC DES	CRIPTION		SAMPLE	TIME	DEPTH in feet bgs	WEIFE	WERLICTON CONSTRETAL	USCS
Silty clay, dark brown, rootlets, no odor. San		5 ½′	×	0 ppm 2:10 pm 2:15 pm	- 1 1 1			CL
Silty clay with sand, ol to stiff, moist; faint hy No hydroca Sam				0 ppm 2:30 pm	-12 -13 - -14 -			CL/SM
Sam			×	2:30 pm	-15- -16- -17- -18- -19-			
BORING NO. <b>GW-grab1</b> DATE: 02 08 13	End at 2			AWAHARA I 50 ASHLANI	21- Nurse		LORENZO, CA	<u> </u>

DRILL COMPANY: TEG	LXI	SURFACE ELEVATION: LOGGED BY: Frank Goldman						
DEPTH TO GROUNDWATER:		BORING DIA	METER	: 2"			od: Geopr	
LITHOLOGIC DES	CRIPTIO	N	SAMPLE	TIME	DEPTH in feet bgs	WATER	WELL CTON	USCS
Silty clay, dark brown, rootlets, no odor.		noist; run 4-5 ½'	×	0 ppm 10:45 am	- 1 - - 2 - - 3 - - 4 - - 5 - - 6 - - 7 - - 8 -			CL
S	ample ru	un 9-10 ½′	×	0 ppm 10:50 am	- 9 -			
Silty clay with sand, o to stiff, moist; no hydro No hydro San	rocarbo ocarbo	on odor.		0 ppm 10:55 am	-11- -12- -13- -14-			CL/SM
BORING NO. <b>GW-grab2</b>	End a	t 20' bgs			20			
DATE: 02 08 13		LOCATED AT		AWAHARA N 10 ASHLAND	URSEI		LORENZO, CA	A

DRILL COMPANY: TEG	SURFACE ELEVATION: LOGGED BY: Frank Goldman							
DEPTH TO GROUNDWATER:		BORING DIA	METER	: 2"			od: Geopr	
LITHOLOGIC DES	CRIPTIO	N	SAMPLE	TIME	DEPTH in feet bgs	WATER	WELL CTON CONSTRUCTION	USCS
Silty clay, dark brown, rootlets, no odor.		noist; un 4-5 ½'	×	0 ppm 12:25 pm	- 1 - - 2 - - 3 - - 4 - - 5 - - 6 -			CL
S	ample ru	ın 9-10 ½'	×	0 ppm  12:30 pm	-10-			
Silty clay with sand, o to stiff, moist; no hydi					-11- -12- -13-			CL/SM
No hydro San	ocarboi nple run	n odor. 14-15 ½'	×	0 ppm 12:35 pm	-14- -15-			
					-16- -17- -18- -19-			
BORING NO. <b>GW-grab3</b> DATE: 02 08 13		t 20' bgs  LOCATED AT		AWAHARA N	21 JURSEI		LORENZO, CA	<b>A</b>

# Appendix C Soil and Water Lab Data Sheets



Date: 02/20/2013

## Laboratory Results

Frank Goldman Goldman & Associates P.O. Box 1193 Meadow Vista, CA 95713

Subject: 12 Soil Samples and 3 Water Samples

Project Name: Kawahara Nursery

Project Number:

Dear Mr. Goldman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy Turpen

Troy D. Turpen



Date: 02/20/2013

Subject: 12 Soil Samples and 3 Water Samples

Project Name: Kawahara Nursery

Project Number:

# **Case Narrative**

All soil samples were reported on a total weight (wet weight) basis.

Repeat analysis by Method EPA 8260B for sample GWG3-W yielded inconsistent results, possibly due to the presence of undissolved product in the sample. The sample bottles have a noticable petroleum odor. The highest valid results have been reported.

Matrix Spike/Matrix Spike Duplicate results associated with samples SG3 @ 4 1/2 -5, SG2 @ 4 1/2 -5, GWG2 9 1/2 -10, and GWG2 14 1/2 -15 for the analyte Naphthalene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **SG3** @ **4 1/2 -5** Matrix : Soil Lab Number : 84007-01

Ga,p.10	Magazirad	Method		Amalysis	Data/Time
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/14/13 23:09
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 23:09
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	02/14/13 23:09
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	02/14/13 23:09
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	02/14/13 23:09



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **SG2** @ **4 1/2 -5** Matrix : Soil Lab Number : 84007-02

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 14:54
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:54
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	02/15/13 14:54
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	02/15/13 14:54
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	02/15/13 14:54



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **SG1** @ **4 1/2 -5** Matrix : Soil Lab Number : 84007-03

, , , , , , , , , , , , , , , , , , , ,	Measured	Method Reporting		Analysis	Date/Time
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 22:25
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 22:25
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	02/15/13 22:25
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	02/15/13 22:25
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	02/15/13 22:25



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG2 4 1/2 -5** Matrix : Soil Lab Number : 84007-04

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/16/13 00:46
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/16/13 00:46
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	02/16/13 00:46
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	02/16/13 00:46
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	02/16/13 00:46



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG2 9 1/2 -10** Matrix : Soil Lab Number : 84007-05

Cap. o 2 a o 102, 00, 20 . o		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 13:42
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 13:42
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	02/15/13 13:42
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	02/15/13 13:42
4-Bromofluorobenzene (Surr)	96.4		% Recovery	EPA 8260B	02/15/13 13:42



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG2** 14 1/2 -15 Matrix : Soil Lab Number : 84007-06

, , , , , , , , , , , , , , , , , , , ,	Measured	Method Reporting		Analysis	Date/Time
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 14:16
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 14:16
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	02/15/13 14:16
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	02/15/13 14:16
4-Bromofluorobenzene (Surr)	98.7		% Recovery	EPA 8260B	02/15/13 14:16



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample: **GWG2-W** Matrix: Water Lab Number: 84007-07

	Measured	Method		Analysis	Date/Time
Parameter	Value	Reporting Limit	Units	Method	Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
Toluene	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	02/19/13 13:30
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	02/19/13 13:30
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	02/19/13 13:30
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	02/19/13 13:30
4-Bromofluorobenzene (Surr)	94.4		% Recovery	EPA 8260B	02/19/13 13:30



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG3 4 1/2 -5** Matrix : Soil Lab Number : 84007-08

, , , , , , , , , , , , , , , , , , , ,	Measured	Method Reporting		Analysis	Date/Time
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/14/13 15:41
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 15:41
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	02/14/13 15:41
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	02/14/13 15:41
4-Bromofluorobenzene (Surr)	98.9		% Recovery	EPA 8260B	02/14/13 15:41



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG3 9 1/2 -10** Matrix : Soil Lab Number : 84007-09

	Measured	Method Reporting		Analysis	Date/Time
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/14/13 16:19
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:19
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	02/14/13 16:19
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	02/14/13 16:19
4-Bromofluorobenzene (Surr)	99.9		% Recovery	EPA 8260B	02/14/13 16:19



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG3 14 1/2 -15** Matrix : Soil Lab Number : 84007-10

Campio Bato :02/00/2010	Manageral	Method		A1 -'-	D	
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed	
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/14/13 16:54	
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 16:54	
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	02/14/13 16:54	
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	02/14/13 16:54	
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	02/14/13 16:54	



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample: **GWG3-W** Matrix: Water Lab Number: 84007-11

,	Measured	Method		Amaluaia	Data/Time
Parameter	Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	19	9.0	ug/L	EPA 8260B	02/16/13 06:54
Toluene	14	9.0	ug/L	EPA 8260B	02/16/13 06:54
Ethylbenzene	1100	9.0	ug/L	EPA 8260B	02/16/13 06:54
Total Xylenes	7700	9.0	ug/L	EPA 8260B	02/16/13 06:54
Methyl-t-butyl ether (MTBE)	< 9.0	9.0	ug/L	EPA 8260B	02/16/13 06:54
TPH as Gasoline	72000	1500	ug/L	EPA 8260B	02/19/13 14:52
Naphthalene	920	9.0	ug/L	EPA 8260B	02/16/13 06:54
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	02/16/13 06:54
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	02/16/13 06:54
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	02/16/13 06:54



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG1 4 1/2 -5** Matrix : Soil Lab Number : 84007-12

, , , , , , , , , , , , , , , , , , ,	Measured	Method Reporting		Analysis	Date/Time
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/14/13 17:33
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/14/13 17:33
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	02/14/13 17:33
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	02/14/13 17:33
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	02/14/13 17:33



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG1 9 1/2 -10** Matrix : Soil Lab Number : 84007-13

Cap. o 2 a o 102, 00, 20 . o		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 05:55
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 05:55
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	02/15/13 05:55
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	02/15/13 05:55
4-Bromofluorobenzene (Surr)	99.6		% Recovery	EPA 8260B	02/15/13 05:55



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample : **GWG1 14 1/2 -15** Matrix : Soil Lab Number : 84007-14

Ga,p.10	Magazzrad	Method		Amalysis	Data/Time
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/13 06:29
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/13 06:29
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	02/15/13 06:29
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	02/15/13 06:29
4-Bromofluorobenzene (Surr)	99.8		% Recovery	EPA 8260B	02/15/13 06:29



Date: 02/20/2013

Project Name : Kawahara Nursery

Project Number:

Sample: **GWG1-W** Matrix: Water Lab Number: 84007-15

Gampio Bato 102/00/2010	Manageral	Method		A1'-	D = ( = /T'
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	02/16/13 03:12
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	02/16/13 03:12
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	02/16/13 03:12
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	02/16/13 03:12
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	02/16/13 03:12

Date: 02/20/2013

**QC Report : Method Blank Data** 

Project Name : Kawahara Nursery

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene Ethylbenzene Toluene Total Xylenes Methyl-t-butyl ether (MTBE)	< 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050	0.0050 0.0050 0.0050 0.0050 0.0050	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	02/14/2013 02/14/2013 02/14/2013 02/14/2013 02/14/2013
TPH as Gasoline Naphthalene 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Toluene - d8 (Surr)	< 1.0 < 0.0050 105 98.3 99.7	1.0 0.0050	mg/Kg mg/Kg % %	EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	02/14/2013 02/14/2013 02/14/2013 02/14/2013 02/14/2013
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	02/19/2013
Benzene Ethylbenzene Toluene Total Xylenes Methyl-t-butyl ether (MTBE) TPH as Gasoline Naphthalene	< 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 1.0 < 0.0050	0.0050 0.0050 0.0050 0.0050 0.0050 1.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	02/14/2013 02/14/2013 02/14/2013 02/14/2013 02/14/2013 02/14/2013
1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Toluene - d8 (Surr)	107 99.4 99.4		% % %	EPA 8260B EPA 8260B EPA 8260B	02/14/2013 02/14/2013 02/14/2013

		Method			
_	Measured	Reporting		Analysis	Date
<u>Parameter</u>	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/15/2013
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/15/2013
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	02/15/2013
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	02/15/2013
Toluene - d8 (Surr)	97.9		%	EPA 8260B	02/15/2013
Benzene	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
Toluene	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	02/15/2013
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	02/15/2013
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	02/15/2013
4-Bromofluorobenzene (Surr)	98.6		%	EPA 8260B	02/15/2013
Toluene - d8 (Surr)	99.8		%	EPA 8260B	02/15/2013

Date: 02/20/2013

**QC Report : Method Blank Data** 

Project Name : Kawahara Nursery

<u>Parameter</u>	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
Toluene	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	02/19/2013
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	02/19/2013
1,2-Dichloroethane-d4 (Surr)	98.4		%	EPA 8260B	02/19/2013
4-Bromofluorobenzene (Surr)	96.1		%	EPA 8260B	02/19/2013
Toluene - d8 (Surr)	98.7		%	EPA 8260B	02/19/2013

		Method				
	Measured	Reporti	ng	Analysis	Date	
<u>Parameter</u>	Value	Limit	Units	Method	Analyzed	

Date: 02/20/2013

Project Name : Kawahara Nursery

**QC Report : Matrix Spike/ Matrix Spike Duplicate** 

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spike Sample Value	e d Units	Analysis Method	Date Analyzed		Duplicat Spiked Sample Percent Recov.		Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene									-					
	84007-08	<0.0050	0.0393	0.0397	0.0338	0.0349	mg/Kg	EPA 8260B	2/14/13	86.0	88.0	2.35	67.9-120	25
Ethylbenzene														
	84007-08	<0.0050	0.0393	0.0397	0.0345	0.0350	mg/Kg	EPA 8260B	2/14/13	87.9	88.1	0.263	65.5-127	25
Methyl-t-butyl e														
Nanhthalana	84007-08	<0.0050	0.0394	0.0397	0.0348	0.0328	mg/Kg	EPA 8260B	2/14/13	88.5	82.4	7.09	57.0-122	25
Naphthalene	04007.00	-0.00E0	0.0393	0.0397	0.0326	0.0305	m a/l/a	EDA 9260D	2/14/13	82.8	76.8	7.50	70.0-130	25
P + M Xylene	84007-08	<0.0050	0.0393	0.0397	0.0326	0.0303	ilig/Kg	EPA 8260B	2/14/13	02.0	70.0	7.50	70.0-130	25
	84007-08	<0.0050	0.0393	0.0397	0.0338	0.0347	ma/Ka	EPA 8260B	2/14/13	86.1	87.4	1.42	62.5-124	25
Toluene							0 0							
	84007-08	<0.0050	0.0393	0.0397	0.0342	0.0352	mg/Kg	EPA 8260B	2/14/13	87.0	88.6	1.86	65.7-120	25
Toluene	0.40.40.40	0.70					,,	<b>554 00005</b>	0/10/10				00.400	
	84012-12	<0.50	38.9	39.9	36.7	37.7	ug/L	EPA 8260B	2/19/13	94.4	94.4	0.0650	80-120	25
Benzene														
	84007-01	<0.0050	0.0368	0.0368	0.0299	0.0300	mg/Kg	EPA 8260B	2/14/13	81.2	81.5	0.371	67.9-120	25
Ethylbenzene	-	-					5 5		-					
	84007-01	<0.0050	0.0368	0.0368	0.0304	0.0301	mg/Kg	EPA 8260B	2/14/13	82.6	81.8	0.971	65.5-127	25

Date: 02/20/2013

Project Name : Kawahara Nursery

**QC Report : Matrix Spike/ Matrix Spike Duplicate** 

	Spilead	Comple	Cnika	Spike	Spiked	Duplicate Spike		Anglygia	Doto	Spiked Sample	Duplicate Spiked Sample	Relative		Relative Percent
Parameter	Spiked Sample	Sample Value	Spike Level	Dup. Level	Sample Value	Sample Value	Units	Analysis Method	Date Analyzed	Recov.	Percent Recov.	Percent Diff.	Limit	Diff. Limit
Methyl-t-butyl e	ther													
	84007-01	<0.0050	0.0369	0.0369	0.0265	0.0263	mg/Kg	EPA 8260B	2/14/13	71.9	71.4	0.769	57.0-122	25
Naphthalene														
	84007-01	<0.0050	0.0368	0.0368	0.0231	0.0218	mg/Kg	EPA 8260B	2/14/13	62.6	59.3	5.54	70.0-130	25
P + M Xylene														
	84007-01	<0.0050	0.0368	0.0368	0.0303	0.0296	mg/Kg	EPA 8260B	2/14/13	82.2	80.4	2.25	62.5-124	25
Toluene														
	84007-01	<0.0050	0.0368	0.0368	0.0304	0.0304	mg/Kg	EPA 8260B	2/14/13	82.7	82.4	0.328	65.7-120	25
Benzene														
Delizerie	84007-03	<0.0050	0.0389	0.0382	0.0371	0.0365	ma/Ka	EPA 8260B	2/15/13	95.4	95.6	0.155	67.9-120	25
Ethylbenzene	04007 03	<b>\0.0000</b>	0.0000	0.0002	0.007	0.0000	mg/rtg	LI A 0200D	2/10/10	33.4	55.0	0.100	07.5 120	20
, , , , , , , , , , , , , , , , , , , ,	84007-03	<0.0050	0.0389	0.0382	0.0357	0.0348	ma/Ka	EPA 8260B	2/15/13	91.8	91.1	0.730	65.5-127	25
Methyl-t-butyl e														
	84007-03	<0.0050	0.0390	0.0383	0.0403	0.0374	mg/Kg	EPA 8260B	2/15/13	104	97.5	5.92	57.0-122	25
Naphthalene							0 0							
	84007-03	<0.0050	0.0389	0.0382	0.0330	0.0312	mg/Kg	EPA 8260B	2/15/13	84.8	81.6	3.83	70.0-130	25
P + M Xylene														
	84007-03	<0.0050	0.0389	0.0382	0.0359	0.0347	mg/Kg	EPA 8260B	2/15/13	92.2	90.7	1.67	62.5-124	25

Date: 02/20/2013

Project Name : Kawahara Nursery

**QC Report : Matrix Spike/ Matrix Spike Duplicate** 

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spike Sample Value	ed Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.		Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene														
	84007-03	<0.0050	0.0389	0.0382	0.0365	0.0360	mg/Kg	EPA 8260B	2/15/13	93.7	94.2	0.544	65.7-120	25
Benzene														
	84007-07	<0.50	39.1	39.8	39.2	40.4	ug/L	EPA 8260B	2/16/13	100	102	1.21	80-120	25
Ethylbenzene	84007-07	<0.50	39.1	39.8	40.0	41.0	ug/L	EPA 8260B	2/16/13	102	103	0.676	80-120	25
Methyl-t-butyl e		10.00		33.3			<i></i> 9, –		_,			0.0.0		
Nanhthalana	84007-07	<0.50	39.1	39.8	34.1	35.1	ug/L	EPA 8260B	2/16/13	87.3	88.1	0.976	69.7-121	25
Naphthalene	84007-07	1.0	39.1	39.8	41.2	40.0	ug/L	EPA 8260B	2/16/13	103	97.9	5.00	70.0-130	25
P + M Xylene							-							
Toluene	84007-07	<0.50	39.1	39.8	39.4	40.4	ug/L	EPA 8260B	2/16/13	101	102	0.955	76.8-120	25
roldono	84007-07	<0.50	39.1	39.8	39.5	40.3	ug/L	EPA 8260B	2/16/13	101	101	0.370	80-120	25
Benzene														
	84067-01	<0.50	40.0	40.0	39.1	38.0	ug/L	EPA 8260B	2/19/13	97.8	94.9	2.96	80-120	25
Ethylbenzene	84067-01	-0.50	40.0	40.0	41.8	40.2	ua/l	EPA 8260B	2/19/13	105	100	3.97	80-120	25
	04007-01	₹0.50	40.0	40.0	41.0	40.2	ug/L	EFA 0200D	2/19/13	105	100	5.91	00-120	20

Report Number: 84007

Date: 02/20/2013

Project Name : Kawahara Nursery

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Number:

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spike Sample Value		Analysis Method	Date Analyzed	Percent	Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-butyl e	ether													
	84067-01	< 0.50	40.1	40.1	41.4	42.2	ug/L	EPA 8260B	2/19/13	103	105	1.82	69.7-121	25
Naphthalene														
	84067-01	< 0.50	40.0	40.0	42.4	43.3	ug/L	EPA 8260B	2/19/13	106	108	2.20	70.0-130	25
P + M Xylene														
	84067-01	< 0.50	40.0	40.0	41.8	40.3	ug/L	EPA 8260B	2/19/13	104	101	3.64	76.8-120	25
Toluene														
	84067-01	<0.50	40.0	40.0	39.7	38.2	ug/L	EPA 8260B	2/19/13	99.3	95.4	3.96	80-120	25

Report Number: 84007

Date: 02/20/2013

Project Name : Kawahara Nursery

**QC Report : Laboratory Control Sample (LCS)** 

Project Number:

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0365	mg/Kg	EPA 8260B	2/14/13	92.4	67.9-120
Ethylbenzene	0.0365	mg/Kg	EPA 8260B	2/14/13	94.8	65.5-127
Methyl-t-butyl ether	0.0366	mg/Kg	EPA 8260B	2/14/13	87.6	57.0-122
Naphthalene	0.0365	mg/Kg	EPA 8260B	2/14/13	96.4	70.0-130
P + M Xylene	0.0365	mg/Kg	EPA 8260B	2/14/13	93.9	62.5-124
Toluene	0.0365	mg/Kg	EPA 8260B	2/14/13	93.3	65.7-120
Toluene	40.0	ug/L	EPA 8260B	2/19/13	95.0	80-120
Benzene	0.0386	mg/Kg	EPA 8260B	2/14/13	85.5	67.9-120
Ethylbenzene	0.0386	mg/Kg	EPA 8260B	2/14/13	88.0	65.5-127
Methyl-t-butyl ether	0.0387	mg/Kg	EPA 8260B	2/14/13	79.2	57.0-122
Naphthalene	0.0386	mg/Kg	EPA 8260B	2/14/13	96.6	70.0-130
P + M Xylene	0.0386	mg/Kg	EPA 8260B	2/14/13	87.0	62.5-124
Toluene	0.0386	mg/Kg	EPA 8260B	2/14/13	85.9	65.7-120
Benzene	0.0381	mg/Kg	EPA 8260B	2/15/13	98.5	67.9-120
Ethylbenzene	0.0381	mg/Kg	EPA 8260B	2/15/13	96.0	65.5-127
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	2/15/13	100	57.0-122
Naphthalene	0.0381	mg/Kg	EPA 8260B	2/15/13	101	70.0-130
P + M Xylene	0.0381	mg/Kg	EPA 8260B	2/15/13	95.1	62.5-124
Toluene	0.0381	mg/Kg	EPA 8260B	2/15/13	94.3	65.7-120

Report Number: 84007

Date: 02/20/2013

Project Name : Kawahara Nursery

**QC Report : Laboratory Control Sample (LCS)** 

Project Number:

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	2/16/13	100	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	2/16/13	107	80-120
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	2/16/13	88.4	69.7-121
Naphthalene	40.0	ug/L	EPA 8260B	2/16/13	97.5	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	2/16/13	105	76.8-120
Toluene	40.0	ug/L	EPA 8260B	2/16/13	102	80-120
Benzene	40.0	ug/L	EPA 8260B	2/19/13	98.2	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	2/19/13	104	80-120
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	2/19/13	106	69.7-121
Naphthalene	40.0	ug/L	EPA 8260B	2/19/13	109	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	2/19/13	105	76.8-120
TPH as Gasoline	510	ug/L	EPA 8260B	2/19/13	101	70.0-130
Toluene	40.0	ug/L	EPA 8260B	2/19/13	99.6	80-120

Page 26 of 28

for \$2,45.00 and

\$2,45.00, 200 021113 1520

Frank Goldman PO BOX 224, Roseville, CA 95678 FJGoldmanCHG@yahoo.com										Cŀ	IAI	N	L	abo	orato	ory A	Anal	Y RECC ysis P.O. No.		
Phone: (916) 676-2677													Lo	aboro	itory l			Accounts Payable	e for P.O. No. eet 20f 2	
Busin additional Kowol	hara Nu	reary	<u> </u>						Pa	rame	eters	;					210.3	7 7		
1	Project Name Kawahara Nursery												-L		Sity			Kiff Analytica 2795 2nd Stre	et, Suite 300	
Project Number16550		5		& MTBE			(0		3)	anic		xygers		por		J.E	Davis, CA 95 Phone: (818)	618	İ	
San Lo	San Lorenzo, CA				8020		5520	(80		als (1	O O	141	r 5 o Iven		ture, c co	APLE	AME			
Sampler's Name: Frank Goldman	,		line 801	Diesel 8015	PH-g/BTEX 8015/8020	BTEX & EPA 8020	Oil and Grease 5520	Volitile Organics (8010)	(17)	Pr. Pollutant Metals (13)	Base/Neu/Acids (Organic)	Pesticides 8140/8141	Method 8260b for 5 oxygen- ates & 2 lead scavengers		3ulk density, moisture, porosity raction of organic carbon	SOIL SAMPLE	WATER SAMPLE	<sup>Phone</sup> Turnard	ound Time	
Sampler's Signature;			Gasoline	Siese	EX 8	EPA	Gre	Orgc	CAM Metals (17)	tant	∀/∩e	es 81	826 ! lea	90978	sity, I of or	SOII	WA	Rush 24 Hour	r 48 Hour 5-Day	
Frank Holding	an		8	S	g/Bl	& ×	and	litile	M	Pollu	ě/Š	ticid	thod s & 2	76	den tion			Repeat to:	•	
Sample Number Location	Date	Time	TPH	TPH	TPH	BTE	Ö	^	Ϋ́	<u>q.</u>	Bas	Pes	Me ate	30	Bulk fract			Con	nments	١.
GWG3-W	2/8/13	102 PM															X	Report	TPHO BTEX	tl
GWG1 42-5		210 2 PM														$\geq$		MIBE	& Naph tha	12
GWG1 92-10		2 15 pm												Ц		X		^		13
GWG1-W		230												1	4	X				14
GWG1-W	V	305												Y			$\geq$	V	,	IS
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Relinguished By	Date	Time 320	-	Ke	ceive	ed By			DC	ate	Tim	1 <u>e</u>	-		umbe ners t		neet:	:		
MANA	- 77											L		d of S						
Dispostols ad Bu	Date	Time	9.	17-	Celv	hij ed in	The	Experie		<i>11(3</i> ate	(S Tim	20			Ship ige R					
Dispatched By	Time	$\vdash$	KU	CEIVE	30 III	LUD	υy	טט	11G	HIT	ie	1		_	•			on Ice	l	



SAMPLE RECEIPT CHECKLIST

RECEIVER	
Eus	
Initials	

SRG#:	87007	Date:	02(11)	
Project ID:	Kawa hava	Vursery		
Method of Receip	ot: Courier Over	r-the-counter Sh	ipper	
Shipping Only: F	edEx * OnTrac * Greyhound	Other *Service level if not	Priority or Sunrise (M-F):	
COC Inspection Is COC present? Custody seals on shipping Is COC Signed by Relinqu Is sampler name legibly in Is analysis or hold requeste Is the turnaround time indi Is COC free of whiteout ar	isher?	Yes   Intact   Yes   Yes	No         Broken       Not pre         No         Whiteout	•
Are there custody seals on Do containers match COC Are there samples matrices Are any sample containers Are preservatives indicated Are preservatives correct f Are samples within holdin Are the correct sample con Is there sufficient sample to Does any sample contain preceipt Details Matrix Matrix Matrix Matrix Matrix Matrix	sample containers?  Yes No No, so other than soil, water, air or cabroken, leaking or damaged?  Yes, on sample corfor analyses requested? g time for analyses requested? tainers used for the analyses records.	Initial Date/I Intact  COC lists absent sample arbon? Yes Yes Intainers Yes, or Yes Yes Yes Yes Yes Yes Otherwise suspected to  # of containers rece	Broken   No. Extra sample(s   No. Extra sample(s	S □ N/A  Iot present
Is the Project ID indicated: If project ID is listed on bo Are the sample collection of If collection dates are listed Are the sample collection to	n both COC and containers, do	On sample containy all match? On sample containg they all match? On sample containg they all match? On sample containg they all match?	Yes         No         No           iner(s)         On Both         No           Yes         No         No           ner(s)         On Both         No           Yes         No         No	fot indicated I/A
	9.00		!	
			į.	-

# Appendix D Soil Gas Lab Data Sheets

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Costa Mesa 3585 Cadillac Ave Suite A Costa Mesa, CA 92626 Tel: (714)258-8610

TestAmerica Job ID: 340-6190-1

Client Project/Site: Kawahara / Soil Gas Sampling

For:

Kawahara Nursery, Inc 689 Burnett Ave Morgan Hill, California 95037

Attn: Frank Goldman

Alarisal Takina

Authorized for release by: 2/21/2013 2:45:51 PM

Marisol (Sonia) Tabirara Project Manager I

sonia.tabirara@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# **Table of Contents**

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
QC Sample Results	8
QC Association Summary	10
Lab Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Subcontract Data	15
Chain of Custody	29
Receipt Checklists	30
Field Data Sheets	31
Clean Canister Certification	34
Pre-Ship Certification	34
Clean Canister Data	37

11

13

# **Definitions/Glossary**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 340-6190-1

#### Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\tilde{\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

#### **Case Narrative**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

Job ID: 340-6190-1

Laboratory: TestAmerica Costa Mesa

Narrative

Job Narrative 340-6190-1

Comments

Method TO15 was sub to TestAmerica Knoxville. See Subcontract Data.

Air - GC VOA

No analytical or quality issues were noted.

**Organic Prep** 

No analytical or quality issues were noted.

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# **Client Sample Results**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

Lab Sample ID: 340-6190-1

TestAmerica Job ID: 340-6190-1

ab cample ib. 040-0130-1

Matrix: Air

Date Collected: 02/08/13 08:42 Date Received: 02/13/13 12:00

**Client Sample ID: SG3** 

Sample Container: Summa Canister 6L

Method: D1946 - Fixed Gases in Ai	r (GC)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	19		0.36	% v/v			02/15/13 11:05	1.78
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	130000000		2300000	ug/m3			02/15/13 11:05	1.78

Method: TO3 - Volatile Organic	Compounds in	Ambient Air,	Cryogenic Pre-	Conc Techniques	(GC)			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		3.2	ppm v/v			02/15/13 18:21	1.78
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		13000	ug/m3			02/15/13 18:21	1.78

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# **Client Sample Results**

Client: Kawahara Nursery, Inc

**Client Sample ID: SG2** 

Project/Site: Kawahara / Soil Gas Sampling

Lab Sample ID: 340-6190-2

TestAmerica Job ID: 340-6190-1

Matrix: Air

Date Collected: 02/08/13 09:11 Date Received: 02/13/13 12:00

Sample Container: Summa Canister 6L

Method: D1946 - Fixed Gases in Ai	r (GC)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	22		0.36	% v/v			02/15/13 11:24	1.78
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	140000000		2300000	ug/m3			02/15/13 11:24	1.78

Method: TO3 - Volatile Organi	c Compounds in	Ambient Air,	Cryogenic Pre-C	onc Techniques	(GC)			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		3.2	ppm v/v			02/15/13 19:32	1.78
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		13000	ug/m3			02/15/13 19:32	1.78

## **Client Sample Results**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

Lab Sample ID: 340-6190-3

TestAmerica Job ID: 340-6190-1

Date Collected: 02/08/13 09:43 Date Received: 02/13/13 12:00

**Client Sample ID: SG1** 

Analyte

Oxygen

Analyte

Oxygen

Sample Container: Summa Canister 6L

Method: D1946 - Fixed Gases in Air (GC)

Matrix: Air

Analyzed Dil Fac Prepared 02/15/13 11:42 1.94

Analyzed

02/15/13 11:42

Dil Fac 1.94

Ĭ	_								
	Method: TO3 - Volatile Organic Co	mpounds in A	Ambient Air,	Cryogenic Pre-Cor	nc Techniques	(GC)			
١	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	TPH (as Gasoline)	ND		3.5	ppm v/v			02/15/13 19:52	1.94
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	TPH (as Gasoline)	ND		14000	ug/m3			02/15/13 19:52	1.94

2500000

RL

RL

0.39

Unit

% v/v

Unit

ug/m3

D

D

Prepared

Result Qualifier

Result Qualifier

22

Client: Kawahara Nursery, Inc

TestAmerica Job ID: 340-6190-1 Project/Site: Kawahara / Soil Gas Sampling

Method: D1946 - Fixed Gases in Air (GC)

Lab Sample ID: MB 340-4062/10 Client Sample ID: Method Blank Matrix: Air Prep Type: Total/NA

MD MD

Analysis Batch: 4062

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	ND		0.20	% v/v			02/15/13 06:50	1
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oxygen	ND		1300000	ug/m3			02/15/13 06:50	1

Lab Sample ID: LCS 340-4062/6 **Client Sample ID: Lab Control Sample** Matrix: Air Prep Type: Total/NA

Analysis Batch: 4062

-		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Oxygen		2.49	2.65		% v/v		107	80 - 120	
		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Oxygen	 	16000000	17400000		ug/m3		107	80 - 120	

Lab Sample ID: LCSD 340-4062/7 **Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA Matrix: Air

**Analysis Batch: 4062** 

	•		Spike	LCSD	LCSD				%Rec.		RPD
A	nalyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
O	xygen	 	2.49	2.65		% v/v		107	80 - 120	0	20
			Spike	LCSD	LCSD				%Rec.		RPD
A	nalyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0	xygen	 	16000000	17400000		ug/m3		107	80 - 120	0	20

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 340-4064/8 Client Sample ID: Method Blank Matrix: Air Prep Type: Total/NA **Analysis Batch: 4064** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		1.8	ppm v/v			02/15/13 12:16	1
	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH (as Gasoline)	ND		7400	ug/m3			02/15/13 12:16	1

Lab Sample ID: LCS 340-4064/6 **Client Sample ID: Lab Control Sample Matrix: Air** Prep Type: Total/NA

Analysis Batch: 4064

Alialysis batch, 4004									
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
TPH (as Gasoline)	63.7	57.6		ppm v/v		90	80 - 131	 	
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
TPH (as Gasoline)	260000	236000		ug/m3		90	80 - 131	 	

TestAmerica Costa Mesa

Page 8 of 59

# **QC Sample Results**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

### Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab	Sar	nple	ID:	LCSD	340-4064/7	
	_	2.2				

Matrix: Air

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 4064									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
TPH (as Gasoline)	63.7	58.7		ppm v/v		92	80 - 131	2	20
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
TPH (as Gasoline)	260000	240000		ug/m3		92	80 - 131	2	20
	Analyte TPH (as Gasoline)  Analyte	Analyte         Added           TPH (as Gasoline)         63.7           Spike           Analyte         Added	Analyte         Added         Result           TPH (as Gasoline)         63.7         58.7           Spike         LCSD           Analyte         Added         Result	Analyte         Added         Result         Qualifier           TPH (as Gasoline)         63.7         58.7           Spike         LCSD         LCSD           Analyte         Added         Result         Qualifier	Analyte         Added         Result         Qualifier         Unit           TPH (as Gasoline)         63.7         58.7         ppm v/v           Spike         LCSD         LCSD           Analyte         Added         Result         Qualifier         Unit	Analyte         Added         Result         Qualifier         Unit         D           TPH (as Gasoline)         63.7         58.7         ppm v/v           Spike         LCSD         LCSD           Analyte         Added         Result         Qualifier         Unit         D	Analyte         Added         Result Qualifier         Unit         D         %Rec           TPH (as Gasoline)         63.7         58.7         ppm v/v         92           Spike         LCSD         LCSD           Analyte         Added         Result Qualifier         Unit         D         %Rec	Analyte         Added (as Gasoline)         LCSD (as Gasoline)         LCSD (as Gasoline)         Unit (as Gasoline)         D (as Gasoline)         Weec (as Gasoline)         LCSD (as Gasoline)         D (as Gasoline)         Material (as Gasoline)         LCSD (as Gasoline)         LCSD (as Gasoline)         LCSD (as Gasoline)         Weec (as Gasoline)<	Analyte         Added (as Gasoline)         LCSD (as Gasoline)         Unit (as Gasoline)         D (as Gasoline)         Write (as Gasoline)         Write (as Gasoline)         Write (as Gasoline)         Unit (as Gasoline)         D (as Gasoline)         D (as Gasoline)         Unit (as Gasoline)         Unit (as Gasoline)         Write (as Gasolin

# **QC Association Summary**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

#### **GC VOA**

#### Analysis Batch: 4062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
340-6190-1	SG3	Total/NA	Air	D1946	
340-6190-2	SG2	Total/NA	Air	D1946	
340-6190-3	SG1	Total/NA	Air	D1946	
LCS 340-4062/6	Lab Control Sample	Total/NA	Air	D1946	
LCSD 340-4062/7	Lab Control Sample Dup	Total/NA	Air	D1946	
MB 340-4062/10	Method Blank	Total/NA	Air	D1946	

#### Air - GC VOA

#### Analysis Batch: 4064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
340-6190-1	SG3	Total/NA	Air	TO3	_
340-6190-2	SG2	Total/NA	Air	TO3	
340-6190-3	SG1	Total/NA	Air	TO3	
LCS 340-4064/6	Lab Control Sample	Total/NA	Air	TO3	
LCSD 340-4064/7	Lab Control Sample Dup	Total/NA	Air	TO3	
MB 340-4064/8	Method Blank	Total/NA	Air	TO3	

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#### **Lab Chronicle**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

Lab Sample ID: 340-6190-1

Matrix: Air

Matrix: Air

Client Sample ID: SG3
Date Collected: 02/08/13 08:42
Date Received: 02/13/13 12:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	D1946		1.78	4062	02/15/13 11:05	El	TAL LA
	Instrum	ent ID: GC8						
Total/NA	Analysis	TO3		1.78	4064	02/15/13 18:21	JGA	TAL LA
	Instrum	ent ID: GC7						

Client Sample ID: SG2 Lab Sample ID: 340-6190-2

Date Collected: 02/08/13 09:11

Date Received: 02/13/13 12:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	D1946		1.78	4062	02/15/13 11:24	EI	TAL LA
	Instrume	ent ID: GC8						
Total/NA	Analysis	TO3		1.78	4064	02/15/13 19:32	JGA	TAL LA
	Instrume	ent ID: GC7						

Client Sample ID: SG1 Lab Sample ID: 340-6190-3

Date Collected: 02/08/13 09:43 Matrix: Air

Date Received: 02/13/13 12:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	D1946		1.94	4062	02/15/13 11:42	EI	TAL LA
	Instrum	ent ID: GC8						
Total/NA	Analysis	TO3		1.94	4064	02/15/13 19:52	JGA	TAL LA
	Instrum	ent ID: GC7						

Laboratory References:

TAL LA = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

TestAmerica Costa Mesa

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# **Certification Summary**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

#### **Laboratory: TestAmerica Costa Mesa**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arizona	State Program	9	AZ0727	02-09-14
Florida	NELAP	4	E87652	06-30-13
L-A-B	DoD ELAP		L2273	11-09-13
Louisiana	NELAP	6	01948	06-30-13
New York	NELAP	2	11851	04-01-13
Oregon	NELAP	10	CA200013	07-19-13
Utah	NELAP	8	CA000032012-1	06-30-13
Washington	State Program	10	C579	11-29-13

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# **Method Summary**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

Method	Method Description	Protocol	Laboratory
D1946	Fixed Gases in Air (GC)	ASTM	TAL LA
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL LA

#### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

#### Laboratory References:

TAL LA = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

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# **Sample Summary**

Client: Kawahara Nursery, Inc

Project/Site: Kawahara / Soil Gas Sampling

TestAmerica Job ID: 340-6190-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
340-6190-1	SG3	Air	02/08/13 08:42	02/13/13 12:00
340-6190-2	SG2	Air	02/08/13 09:11	02/13/13 12:00
340-6190-3	SG1	Air	02/08/13 09:43	02/13/13 12:00

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H3B200404 Analytical Report .....

Sample Receipt Documentation .....

Total Number of Pages .....

TestAmerica Laboratories, Inc.

#### ANALYTICAL REPORT

PROJECT NO. 340-6190

Kawahara / Soil Gas Sampling

Lot #: H3B200404

Sonia Tabirara

TestAmerica Costa Mesa 3585 Cadillac Ave Suite A Costa Mesa, CA 92626

TESTAMERICA LABORATORIES, INC.

Project Manager

February 21, 2013

# ANALYTICAL METHODS SUMMARY

#### H3B200404

PARAMETER		· ANALYTICAL METHOD
Volatile	Organics by TO15	EPA-2 TO-15
Reference	2 <b>5</b> :	
EPA-2	"Compendium of Methods for the Determ Organic Compounds in Ambient Air", EP January 1999.	

# **SAMPLE SUMMARY**

#### H3B200404

<u>WO # </u> <u>S</u>	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME	5
MX6M1	001	SG3	02/08/13		
MX6M3 MX6M5	002 003	SG2 SG1	02/08/13 02/08/13		
NOTE (S)					8
- All calculati	ions are perfo	he samples listed above are presented on the following pages.  The before rounding to avoid round-off errors in calculated results.  The not detected at or above the stated limit.			9

- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Page 18 of 59

#### PROJECT NARRATIVE H3B200404

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

#### Sample Receipt

Custody seals were not present.

#### **Quality Control and Data Interpretation**

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

# **CERTIFICATION SUMMARY**

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	L-A-B	DoD ELAP		L2311
TestAmerica Knoxville	Arkansas DEQ	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	. 9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	lowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	· 4	90101
TestAmerica Knoxville	Louisiana DOHH	State Program	6	LA110001
TestAmerica Knoxville	Louisiana DEQ	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina DENR	State Program	4	64
TestAmerica Knoxville	North Carolina DHHS	State Program	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	Federal	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	. 8	QUAN3
TestAmerica Knoxville	Virginia	NELAC	3	460176
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia DEP	State Program	3	345
TestAmerica Knoxville	West Virginia DHHR	State Program	3	9955C

TestAmerica Knoxville West Virginia DHHR State Program 3 9955C

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

#### Client Sample ID: SG3

Lot-Sample #	H3B200404 - 001		Work Order #	MX6M11A	A	Matrix:	AIR
Date Sampled: Prep Date: Prep Batch #:	02/08/2013 02/20/2013 3052014		Date Received: Analysis Date	02/20/2013 02/20/2013			
Dilution Factor.:	1		Method:	TO-15			
PARAMETER		RESULTS (ppb(v/v))	REPORTII LIMIT (pp		RESULTS (ug/m3)	REPORT	
Benzene Ethylbenzene		0.10 0.083	0.080 0.080		0.33 0.36	0.26 0.35	
Methyl tert-butyl Naphthalene	ether	ND ND	0.40 0.20		ND ND	1.4 1.0	
Toluene		0.33	0.080		1.2	0.30	
m-Xylene & p-Xy o-Xylene	vlene	0.46 0.15	0.080 0.080		2.0 0.66	0.35 0.35	
TENTATIVELY IN	IDENTIFIED COMPOU	INDS	RES	ULT		UNITS	
1,1-difluoroethand	e		ND			ppb(v/v)	
SURROGATE			PERCENT RECOVERY			LABORATORY CONTROL LIMITS (%)	· · · · · · · · · · · · · · · · · · ·
4-Bromofluorobe	nzene		108			60 - 140	

 $The \ 'Result' \ in \ ug/m3 \ is \ calculated \ using \ the \ following \ equation: \ Amount \ Found (before \ rounding)* (Molecular \ Weight/24.45)$ 

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) \* Dilution Factor) \* (Molecular Weight/24.45)

#### Client Sample ID: SG2

Lot-Sample #	H3B200404 - 002		Work Order #	MX6M31A	AA	Matrix:	AIR
Date Sampled: Prep Date: Prep Batch #:	02/08/2013 02/20/2013 3052014		Date Received: Analysis Date	02/20/2013			
Dilution Factor.:	1		Method:	TO-15			
PARAMETER		RESULTS (ppb(v/v))	REPORTII LIMIT (pp		RESULTS (ug/m3)	REPORT LIMIT (u	
Benzene		0.45	0.080		1.4	0.26	
Ethylbenzene		0.37	0.080		1.6	0.35	
Methyl tert-butyl	ether	ND	0.40		ND	1.4	
Naphthalene		0.21	0.20		1.1	1.0	
Toluene		1.9	0.080		7.1	0.30	
m-Xylene & p-Xy	lene	1.7	0.080		7.2	0.35	
o-Xylene		0.49	0.080		2.1	0.35	
TENTATIVELY IN	DENTIFIED COMPOU	INDS	RES	ULT		UNITS	
1,1-difluoroethane	,		ND			ppb(v/v)	
SURROGATE			PERCENT RECOVERY		_	LABORATORY CONTROL LIMITS (%)	·
4-Bromofluorober	nzene		106			60 - 140	

 $The \ 'Result' \ in \ ug/m3 \ is \ calculated \ using \ the \ following \ equation: \ Amount \ Found (before \ rounding)* (Molecular \ Weight/24.45)$ 

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) \* Dilution Factor) \* (Molecular Weight/24.45)

#### Client Sample ID: SG1

Lot-Sample #	H3B200404 - 003		Work Order #	MX6M51	AA	Matrix:	AIR
Date Sampled: Prep Date: Prep Batch #:	02/08/2013 02/20/2013 3052014		Date Received: Analysis Date	02/20/201			
Dilution Factor.:	1		Method:	TO-15			
PARAMETER		RESULTS (ppb(v/v))	REPORTII LIMIT (pp		RESULTS (ug/m3)	REPORTI LIMIT (ug	
<b>Benzene</b> Ethylbenzene		<b>0.13</b> ND	<b>0.080</b> 0.080		<b>0.40</b> ND	<b>0.26</b> 0.35	
Methyl tert-butyl	ether	ND	0.40		ND	1.4	
Naphthalene		4.7	0.20		25	1.0	
Toluene		0.31	0.080		1.2	0.30	
m-Xylene & p-Xy	lene	0.40	0.080		1.8	0.35	
o-Xylene		0.13	0.080		0.58	0.35	
TENTATIVELY IN	DENTIFIED COMPOU	NDS	RES	ULT		UNITS	
1,1-difluoroethane	•		ND			ppb(v/v)	
SURROGATE			PERCENT RECOVERY		_	LABORATORY CONTROL LIMITS (%)	·
4-Bromofluorobei	nzene		105		_	60 - 140	

 $The \ 'Result' \ in \ ug/m3 \ is \ calculated \ using \ the \ following \ equation: \ Amount \ Found (before \ rounding)* (Molecular \ Weight/24.45)$ 

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) \* Dilution Factor) \* (Molecular Weight/24.45)

#### Client Sample ID: INTRA-LAB BLANK

Lot-Sample #	H3B210000 - 014B		Work Order #	MX6XP1	AA	Matrix: AIR
Prep Date: Prep Batch #:	02/08/2013 02/20/2013 3052014		Date Received: Analysis Date	02/20/201		
Dilution Factor.:	1		Method:	TO-15		
PARAMETER		RESULTS (ppb(v/v))	REPORTII LIMIT (pp		RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Benzene		ND	0.080		ND	0.26
Ethylbenzene		ND	0.080		ND	0.35
Methyl tert-butyl	ether	ND	0.40		ND	1.4
Naphthalene		ND	0.20		ND	1.0
Toluene		ND	0.080		ND	0.30
m-Xylene & p-Xy	lene	ND	0.080		ND	0.35
o-Xylene		ND	0.080		ND	0.35
TENTATIVELY INDENTIFIED COMPOUNDS			RES	ULT		UNITS
None						
SURROGATE			PERCENT RECOVERY		_	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene			100			60 - 140

 $The \ 'Result' \ in \ ug/m3 \ is \ calculated \ using \ the \ following \ equation: \ Amount \ Found (before \ rounding)* (Molecular \ Weight/24.45)$ 

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) \* Dilution Factor) \* (Molecular Weight/24.45)

#### Client Sample ID: CHECK SAMPLE

<b>Lot-Sample</b> # H3B210000 - 014C			Work Ord	ler#	MX62	XP1AC	Matrix	: AIR
Prep Date: Prep Batch #: Dilution Factor.:	02/08/20 02/20/20 3052014	013	Date Rece Analysis I Method	Date	02/20 02/20 TO-1	/2013		
PARAMETER		SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOU (ug/m3	JNT	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene Ethylbenzene Methyl tert-butyl et Naphthalene Toluene m-Xylene & p-Xyle o-Xylene		5.00 5.00 5.00 5.00 5.00 10.0 5.00	4.63 4.92 5.22 4.00 4.76 10.6 5.38	16 22 18 26 19 43 22		14.8 21.4 18.8 20.9 18.0 45.9 23.3	93 98 104 80 95 106 108	70 - 130 70 - 130 60 - 140 40 - 140 70 - 130 70 - 130
SURROGATE			PERCE RECOV				LABOR CONTR LIMITS	OL
4-Bromofluorobenzene			110				60 - 14	0

 $The \ 'Result' \ in \ ug/m3 \ is \ calculated \ using \ the \ following \ equation: \ Amount \ Found (before \ rounding)* (Molecular \ Weight/24.45)$ 

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) \* Dilution Factor) \* (Molecular Weight/24.45)

Phone (714) 258-8610 Fax (714) 258-0921

Client Information (Sub Contract Lab)

3585 Cadillac Ave Suite A

Costa Mesa. CA 92626

Client Contact:

H3B200404

# **Chain of Custody Record**

Tabirara, Marisol (Sonia)

THE LEADER IN ENVIRONMENTAL TESTING

M - Hexane

O - AsNaO2

P - Na2O4S

Q - Na2SO3

S - H2SO4

U - Acetone V - MCAA

W - ph 4-5

Z - other (specify)

R - Na2S2SO3

T - TSP Dodecahydrate

N - None

COC No:

Page:

340-4327.1

Shipping/Receiving sonia.tabirara@testamericainc.com Page 1 of 1 Company: Job #: TestAmerica Laboratories, Inc. **Analysis Requested** 340-6190-1 Address: Preservation Codes: 5815 Middlebrook Pike, City: B - NaOH Knoxville C - Zn Acetate D - Nitric Acid State, Zip: E - NaHSO4 TN, 37921 SUBCONTRACT/ TO15 sub to TA Knoxville F - MeOH Phone: G - Amchlor 865-291-3000(Tel) 865-584-4315(Fax) H - Ascorbic Acid Email: J - DI Water K - EDTA Project #: Project Name: L - EDA Kawahara / Soil Gas Sampling 34001675 SSOW#: Other: Matrix Sample (W=water, Type S=solid. Page (C=comp, Sample Sample Identification - Client ID (Lab ID) Sample Date Time G=grab) Special Instructions/Note: BT=Tissue, A=Ali 26 08:42 х SG3 (340-6190-1) 2/8/13 Air Pacific of 59 09:11 х SG2 (340-6190-2) Air 2/8/13 Pacific 09:43 Х SG1 (340-6190-3) 2/8/13 Air Pacific

Sampler:

Possible Hazard Identification Unconfirmed 

Disposal By Lab Special Instructions/QC Requirements:

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Carrier Tracking No(s):

Months

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Empty Kit Relinquished by:	Date:	Time:	Ma	ethod of Shipment:	
Relinquished by 2/19/13 11:30	Date/Time:	Company	Received by:	Date/Time: 1/20/13 // 33	Company TAKNOX
Reliniq <del>uishe</del> d by:	Date/Time:	Company	Received by:	Date/Time: /	Company /
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Spale Intact: Custody Spal No:		10 Protection (1974)	Cooler Temperatura(a) OC and Other Remarks		

# TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Lot Number: <a href="https://haily.com/haily.checklist-haily.ch

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
. Do sample container labels match COC? (IDs, Dates, Times)	V			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	4/4
Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10 °C)	·			☐ 2a Temp Blank = ☐ 2b Cooler Temp = ☐ 2c Cooling initiated for recently collected samples, ice present.	
Were samples received with correct chemical preservative (excluding Encore)?	<u> </u>		V	☐ 3a Sample preservative =	
Were custody seals present/intact on cooler and/or containers?				☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
. Were all of the samples listed on the COC received?	V			☐ 5a Samples received-not on COC☐ 5b Samples not received-on COC	
. Were all of the sample containers received intact?	~			☐ 6a Leaking ☐ 6b Broken	
. Were VOA samples received without headspace?				☐ 7a Headspace (VOA only)	
. Were samples received in appropriate containers?	1	<u> </u>		☐ 8a Improper container	
. Did you check for residual chlorine, if necessary?			V	☐ 9a Could not be determined due to matrix interference	
Were samples received within holding time?	1	<u> </u>		☐ 10a Holding time expired	
1. For rad samples, was sample activity info. provided?	ļ		1	☐ Incomplete information	
2. For 1613B water samples is pH<9?			/	If no, was pH adjusted to pH 7 - 9 with sulfuric acid?	
3. Are the shipping containers intact?	/			☐ <b>13a</b> Leaking ☐ <b>13b</b> Other:	
4. Was COC relinquished? (Signed/Dated/Timed)	1			☐ 14a Not relinquished	
5. Are tests/parameters listed for each sample?	/			☐ 15a Incomplete information	
5. Is the matrix of the samples noted?	<u> </u>			☐ 15a Incomplete information	
7. Is the date/time of sample collection noted?				☐ 15a Incomplete information	
8. Is the client and project name/# identified?	1			☐ 15a Incomplete information	
9. Was the sampler identified on the COC?			1	□ 19a Other	

Sample Receiving Associate: 

| Part | Date: 1/20/13

QA026R23.doc, 022812

Adj.

Initial

Pres. (-

in or +

psig)

Analyst/Date

ID\_

S (in) Initial

Pi (in)

Pbarr Pres.

Final

Pres. Pf

(psig)

1			Initial Can I Tessai	<u> </u>	
Analyst/Date	Can Tedlar bag prep Time	Baro ID <u>\$2</u> Pbarr (in)	Sample ID	Can#	Pres. upon receipt (-in or + psig)
Molo	$n\infty$	29.11	MX6M1	1143	+8.4
		1	MX6M3	8000	15.3
<del></del>	<del>                                     </del>	<del> </del>			

**Initial Can Pressure** 

MX6M5

Page 28 of 59

**Subsequent Dilutions** 

InCan

Final

Pres.

Pf

(psig)

Serial

Dilution

Can #

Final

Pres.

Pf

(psig)

Comments

COSTA Mesa

Vol

(mL)

Second

In-can

Final

Pres. Pf

(psig)

First

InCan

Final

Pres. Pf

(psig)

#### **TestAmerica**

3585 Cadillac Ave., Suite A Costa Mesa, CA 92626 Phone 714-258-8610 Fax 714-258-0921

# **Canister Samples Chain of Custody Record**

<u>TestAmerica</u>

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

THE LEADER IN ENVIRONMEN

Client Contact Information John	Project Mar	nager:	CVS2 of cocs																	
Company: Kawanava Nursery	Phone: 7	07 69	Samples Collected By: TEG field tech under supervision of FGob										obla							
City/State/Zip Moving H. H. CA 9.5037 Phone: 408 640 4289	Email: Frank, Goldman Qymail.com Site Contact:																		rction)	
FAX: Johnk@kniplants.com	LAB Conta	ct: 50v	nia										~	ss se						98 86
Project Name: Kawahaya			Turnarou	nd Time									క	note						note
Site: 165.50 Ashland SanLorenzo		andard (Sp		<u> </u>	<del></del>							-	3	iy in			i			ify ir
PO# None	R	tush (Spec	ify)											Spec	6)					sbec
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	TO-3	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Amblent Air	Soll Gas	Landfill Gas	Other (Please specify in notes section)
SG3	02/08/13	84=	1205	-30	-3	HEIYE	34004	<b>√</b>		$\checkmark$			$\checkmark$					$\checkmark$		
	02/98/13	911	1208	-30	-3	HFOIL	3400008	$\checkmark$		$\checkmark$			$\checkmark$				:	$\checkmark$		
SG2 SGI	02/08/13	943	1211	-30	-3	HF006	34000499	$\checkmark$		$\checkmark$			Land Ball					$\checkmark$		
							!													
															1617 1450					
		•		Temperatur	e (Fahrenhei	:)														
Harding Control of the Control of th		Interior		Ambient				]												
	Start																			
	Stop																			····
	***			·	ches of Hg)	<del></del>														
SEATON AND AND AND AND AND AND AND AND AND AN		Interior		Ambient																
	Start	<u> </u>																		
Special Instructions/QC Requirements & Comment	Stop																			
10																				
Tub/ Xolin 8/11/13 + 20			1	Received by:		2/	13/1	3 /	2.00											
Samples Relinquished by.					Received	eived by:														
Relinquished by:	Date/Time:	Received				by:						Na contraction of the contractio								

2/21/2013

/2013

Lab Use Only

Shipper Name:

Opened by:

Condition:

W

TAL-8604-340(0312)

#### **Login Sample Receipt Checklist**

Client: Kawahara Nursery, Inc Job Number: 340-6190-1

Login Number: 6190 List Source: TestAmerica Costa Mesa

List Number: 1

Creator: Morales, Sergio

oreator. morates, oergio		
Question	Answer Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a href="fig86">&lt;6mm (1/4").</a>	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

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### CANISTER FIELD DATA RECORD

CLIENT:	VFR ID: #F145  Duration of comp.: Hrs. / mins.  Flow setting: ml/min  Initials: ###
Į.	

READING	TIME	Vac. (inches Hg) Or PRESS. (psig)	DATE	INITIALS
INITIAL VACUUM CHECK		<i>5</i> 0″	2(513	B
INITIAL FIELD VACUUM	1230	-30	2/8/13	eVS
FINAL FIELD READING	-3	-3	2/8/13	CVS

LABORATORY CAN	IISTER PRESSURIZA	TION	·
INITIAL VACUUM (Inches Hg// PSIA (circle unit used))	13.90	2/14/13	(z)
.FINAL PRESSURE (PSIA)	24.80	2/14/13	(57 <sup>1</sup>

Pressurization Gas:	_	
	COMPOSITE TIME (HOURS)	FLOW RATE RANGE (ml/mln)
COMMENTS:	15 Min.	316 – 333
	30 Min.	158 – 166.7
	11	79.2 - 83.3 39.6 - 41.7
	4	19.8 – 20.8
•	6	13.2 - 13.9
	8	9.9 – 10.4
	10	7.92 - 8.3 6.6 - 6.9
	12 24	3.5 - 4.0

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# CANISTER FIELD DATA RECORD

CLIENT:	Duration of	VFR ID: Hrs. / mins.  Duration of comp. : Hrs. / mins.  Flow setting: ml/min  Initials:			
READING	TIME .	Vac. (Inches Hg) Or PRESS. (pslg)	DATE	INITIALS	
INITIAL VACUUM CHECK		30"	2/5/13	B	
INITIAL FIELD VACUUM	1300	-30	2/8/1		
FINAL FIELD READING	-3	-3	2/8/1	3 (25	
LA	BORATORY CANIS	STER PRESSURIZA	TION		
INITIAL VACUUM (inches Hg / PSIA (circle	e unit used))	13.92	2/14/13		
.FINAL PRESSURE (PSIA)		24.76	2/14/13	ET	
Pressurization Gas:			COMPOSITE	FLOW RATE RANGE	
COMMENTS:	<u> </u>		TIME (HOURS) 15 Min. 30 Min.	(mVmln) 316 - 333 158 - 166.7	
			2 4	79.2 - 83.3 39.6 - 41.7 19.8 - 20.8	
			6 - 8 10	13.2 - 13.9 9.9 - 10.4 7.92 - 8.3	
			12 24	6.6 6.9 3.5 4.0	

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# CANISTER FIELD DATA RECORD

CLIENT:			VFR ID: Hrs. / mins.  Flow setting: ml/min  Initials:			
READING	TIME	Vac. (inches Hg) Or PRESS. (psig)	DATE	INITIALS		
INITIAL VACUUM CHECK		50"	2/5/13	B		
INITIAL FIELD VACUUM	153/0-	-30	2/8/1	3 <15		
FINAL FIELD READING	3		2/2/1	2 2 2 5		
			TION			
LABORATORY CANISTER PRESSURIZATION						
INITIAL VACUUM (Inches Hg / PSIA (circle	unit used))	12.81	2/14/13			
.FINAL PRESSURE (PSIA)		24.80	2/14/13	5		
Pressurization Gas: N2						
COMMENTS:			COMPOSITE TIME (HOURS) 15 Min.	FLOW RATE RANGE (ml/min) 316 – 333 158 – 166.7		
			30 Min.	79.2 – 83.3		
			2	39.6 – 41.7 19.8 – 20.8		
	***		6	13.2 – 13.9		
			8	9.9 – 10.4		
		•	10	7.92 - 8.3		

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#### CANISTER QC CERTIFICATION



Certification Type:	TO-15 SIM(SCAN)	
Date Cleaned/Batch	A122912C 340-5599	
Date of QC	01-01-13 010313	
Data File Number	(SIM-MSD)	D
	(SIM-MSD	)
	CANISTER ID NUMBERS	
* 34000224	34001143	
0701	0727	
0112	069167 4 1/21/13	
1160	1232	
1171	0690	
+ 1166	1. 0726	

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "Certification Type" indicated above.

ر <b>*</b> ه	INDICATES	THE CAN	OR CANS	WHICH	WERE S	SCREENED.
	MADIONIES	THE CAN			46 101 175 4	201 remited

Reviewed By: O1-02-13 O10 3/3

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### CANISTER QC CERTIFICATION



Date:

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Certification Type:	10-10	SIM ISCAN
Date Cleaned/Batch  Date of QC  Data File Number	166,0 1166,0	340-5774 0-17-13 pro1173 GEAN-MSE
	CANISTER ID NUM	MBERS
*34000081 1130 0385 1395 0420 1337		3400008 0613 0208 1212- 0389 0575
target analyte concentration ( " <u>Certification Type</u> " indicated	greater than or equal to I above.	s certifies this batch contains no the method criteria for the
4 1- 2		i de la companya de l

Reviewed By:

#### CANISTER QC CERTIFICATION



Certification Type:	T0-15	
Date Cleaned/Batch	A012113E	340-5866
Date of QC	0 22	
Data File Number	whol	22 (MSa)
	CANISTER ID NUMBE	R <u>S</u>
*34001662		34000894
0182		0581
0499	•	0879
1253		0780
1339		0173
1 0579		1280

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "Certification Type" indicated above.

"\*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

### Of - 22-13

| Date: | N:\CONDOCS\TestAmerica DOCs\Can QC Cert 20070712.

Job No.: 340-5599-1 Lab Name: TestAmerica Costa Mesa SDG No.: Client Sample ID: 34000224 Lab Sample ID: 340-5599-1 Lab File ID: MB01033.D Matrix: Air Analysis Method: TO-15 SIM Date Collected: 12/29/2012 00:00 Date Analyzed: 01/03/2013 11:26 Sample wt/vol: 500(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3700 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.0080
100-44-7	Benzyl chloride	ND		0.10	0.050
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND	*	0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.0080
75-00-3	Chloroethane	ND		0.045	0.020
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.080
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.0050
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.020
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.020
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.020
75-71-8	Dichlorodifluoromethane	ND		0.010	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0080
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0080
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.008
78-87-5	1,2-Dichloropropane	ND		0.040	0.020
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0080
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0080
123-91-1	1,4-Dioxane	ND		0.10	0.050
100-41-4	Ethylbenzene	ND		0.020	0.0080
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.012
75-09-2	Methylene Chloride	ND	*	0.20	0.050
91-20-3	Naphthalene	ND	*	0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.0080
108-88-3	Toluene	ND		0.020	0.008
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	ND		0.030	0.008
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.02
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.008

FORM I TO-15 SIM

Job No.: 340-5599-1 Lab Name: TestAmerica Costa Mesa SDG No.: \_\_\_ Lab Sample ID: 340-5599-1 Client Sample ID: 34000224 Lab File ID: MB01033.D Matrix: Air Analysis Method: TO-15 SIM Date Collected: 12/29/2012 00:00 Sample wt/vol: 500(mL) Date Analyzed: 01/03/2013 11:26 Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: Level: (low/med) Low % Moisture: Analysis Batch No.: 3700 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.020
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.0050
179601-23-1	m,p-Xylene	ND		0.040	0.016
95-47-6	o-Xylene	ND		0.020	0.0080

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		70-130
2037-26-5	Toluene-d8 (Surr)	93		70-130

Report Date: 03-Jan-2013 12:29:10 Chrom Revision: 2.0 22-Oct-2012 16:30:48

TestAmerica Costa Mesa Target Compound Quantitation Report

Data File: \\Lachrom\ChromData\MSD\20130103-2545.b\MB01033.D

Lims ID: 340-5599-A-1 Client ID: 34000224 Inject. Date: 03-Jan-2013 11:26:30 Dil. Factor: 1.0000

Sample Type: Client

Sample ID: 340-5599-A-1 Misc. Info.: 340-0002545-006

Operator: DLK Instrument ID: MSD Purge Vol: 500.000 mL ALS Bottle#: 10 Lims Batch ID: 3700 Lims Sample ID: 6

Detector: MS SCAN

Method Label: TO-15 SIM

Last Update: 03-Jan-2013 12:29:10 Calib Date: 09-Dec-2012 16:10:30 Quant Method: Internal Standard Quant By: Initial Calibration

Last ICal File: \\Lachrom\ChromData\MSD\20121209-2400.b\IC1209A.D

Limit Group: TO-15\_SIM\_ICAL

Integrator: RTE ID Type: Deconvolution ID

Column Type: Rtx-Volatiles Column Dia: 0.32 mm

Process Host: XAWRK022

First Level Reviewer: yabutl Date: 03-Jan-2013 12:29:10

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ppb v/v	Flags
* 15 Chlorobromomethane (IS)	130	10.935	10.935	0.0	100	22828	2.00	
\$ 17 1,2-Dichloroethane-d4 (Surr)	65	11.736	11.736	0.0	100	32672	1.86	
* 21 1,4-Difluorobenzene	114	12.351	12.340	0.011	100	72430	2.00	
\$ 27 Toluene-d8 (Surr)	98	14.486	14.476	0.010	100	58953	1.86	
* 34 Chlorobenzene-d5 (IS)	117	16.494	16.494	0.0	100	66865	2.00	
\$ 41 4-Bromofluorobenzene (Surr)	95	17.861	17.852	0.009	96	45192	1.86	

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13

15

Report Date: 03-Jan-2013 12:29:10 Chrom Revision: 2.0 22-Oct-2012 16:30:48

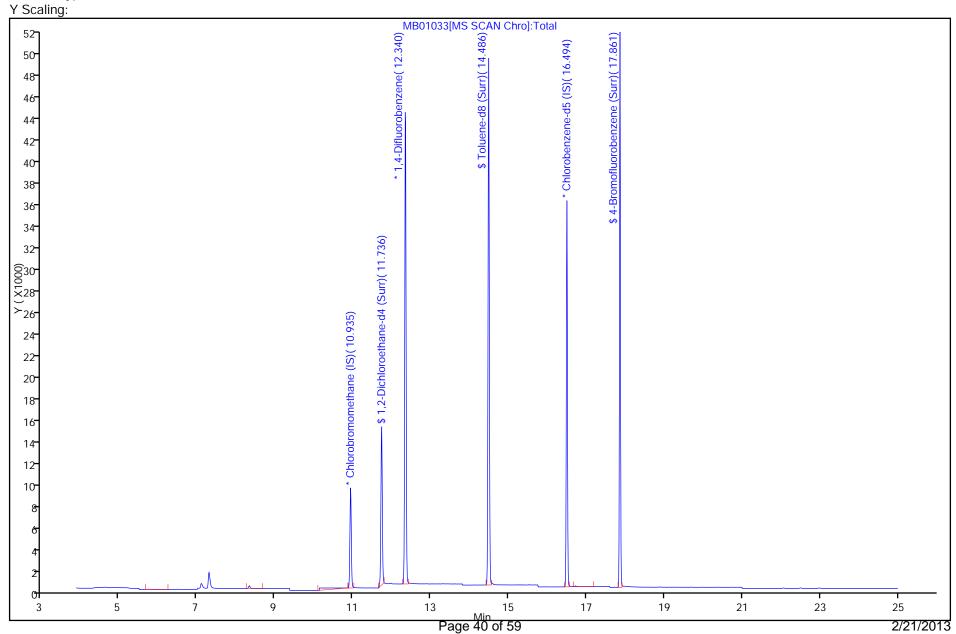
TestAmerica Costa Mesa

Data File: \Lachrom\ChromData\MSD\20130103-2545.b\MB01033.D

Injection Date: 03-Jan-2013 11:26:30 Limit Group: TO-15\_SIM\_ICAL

Client ID: 34000224 Instrument ID: MSD Lims Batch ID: 3700 Lims Sample ID: 6

Operator ID: DLK Purge Vol: 500.000 mL Column Type: Rtx-Volatiles Column Dia: 0.32 mm



Lab Name: TestAmerica Costa Mesa Job No.: 340-5599-1 SDG No.: Client Sample ID: 34000224 Lab Sample ID: 340-5599-1 Lab File ID: MB12323.d Matrix: Air Analysis Method: TO-15 Date Collected: 12/29/2012 00:00 Date Analyzed: 01/01/2013 05:52 Sample wt/vol: 250(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3674 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	ND		1.2	0.60
107-02-8	Acrolein	ND		2.5	0.70
107-13-1	Acrylonitrile	ND		2.0	0.40
107-05-1	Allyl chloride	ND		0.80	0.40
71-43-2	Benzene	ND		0.40	0.20
100-44-7	Benzyl chloride	ND		0.80	0.20
75-27-4	Bromodichloromethane	ND		0.30	0.15
75-25-2	Bromoform	ND		0.80	0.20
74-83-9	Bromomethane	ND		0.80	0.20
106-99-0	1,3-Butadiene	ND		0.80	0.20
106-97-8	n-Butane	ND		0.50	0.20
78-93-3	2-Butanone (MEK)	ND		0.80	0.40
75-65-0	tert-Butyl alcohol (TBA)	ND		5.0	1.5
104-51-8	n-Butylbenzene	ND		0.80	0.2
135-98-8	sec-Butylbenzene	ND		0.50	0.2
98-06-6	tert-Butylbenzene	ND		0.80	0.20
75-15-0	Carbon disulfide	ND		0.80	0.20
56-23-5	Carbon tetrachloride	ND		0.80	0.20
75-00-3	Chloroethane	ND		1.5	0.7
108-90-7	Chlorobenzene	ND		0.30	0.1
75-45-6	Chlorodifluoromethane	ND		0.80	0.2
67-66-3	Chloroform	ND		0.30	0.10
74-87-3	Chloromethane	ND		0.80	0.40
95-49-8	2-Chlorotoluene	ND		0.80	0.20
110-82-7	Cyclohexane	ND		0.50	0.20
124-48-1	Dibromochloromethane	ND		0.40	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.20
74-95-3	Dibromomethane	ND		0.40	0.20
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroetha	ND		0.40	0.15
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.15
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.15
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.1
75-71-8	Dichlorodifluoromethane	ND		0.40	0.1
75-34-3	1,1-Dichloroethane	ND		0.30	0.1
107-06-2	1,2-Dichloroethane	ND		0.80	0.2

Job No.: 340-5599-1 Lab Name: TestAmerica Costa Mesa SDG No.: Client Sample ID: 34000224 Lab Sample ID: 340-5599-1 Lab File ID: MB12323.d Matrix: Air Analysis Method: TO-15 Date Collected: 12/29/2012 00:00 Date Analyzed: 01/01/2013 05:52 Sample wt/vol: 250(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3674 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.20
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.20
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.20
78-87-5	1,2-Dichloropropane	ND		0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.15
123-91-1	1,4-Dioxane	ND		0.80	0.40
141-78-6	Ethyl acetate	ND		0.30	0.15
100-41-4	Ethylbenzene	ND		0.40	0.15
622-96-8	4-Ethyltoluene	ND		0.40	0.15
142-82-5	n-Heptane	ND		0.80	0.20
87-68-3	Hexachlorobutadiene	ND		0.80	0.20
110-54-3	n-Hexane	ND		0.80	0.20
591-78-6	2-Hexanone	ND		0.80	0.20
98-82-8	Isopropylbenzene	ND		0.80	0.20
99-87-6	4-Isopropyltoluene	ND		0.80	0.20
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.20
80-62-6	Methyl methacrylate	ND		0.80	0.40
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.15
75-09-2	Methylene chloride	ND		0.40	0.20
98-83-9	alpha-Methylstyrene	ND		0.40	0.15
91-20-3	Naphthalene	ND		2.0	0.70
111-65-9	n-Octane	ND		0.40	0.15
109-66-0	n-Pentane	ND		1.0	0.40
115-07-1	Propylene	ND		0.80	0.40
103-65-1	n-Propylbenzene	ND		0.80	0.20
100-42-5	Styrene	ND		0.40	0.15
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.10
127-18-4	Tetrachloroethene	ND		0.40	0.15
109-99-9	Tetrahydrofuran	ND		2.0	0.40
108-88-3	Toluene	ND		0.40	0.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	ND		0.40	0.20
120-82-1	1,2,4-Trichlorobenzene	ND		2.5	0.70
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.15
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.1

Job No.: 340-5599-1 Lab Name: TestAmerica Costa Mesa SDG No.: Lab Sample ID: 340-5599-1 Client Sample ID: 34000224 Lab File ID: MB12323.d Matrix: Air Analysis Method: TO-15 Date Collected: 12/29/2012 00:00 Sample wt/vol: 250(mL) Date Analyzed: 01/01/2013 05:52 Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3674 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.15
75-69-4	Trichlorofluoromethane	ND		0.40	0.15
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.20
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.15
540-84-1	2,2,4-Trimethylpentane	ND		0.50	0.20
108-05-4	Vinyl acetate	ND		0.80	0.20
593-60-2	Vinyl bromide	ND		0.80	0.40
75-01-4	Vinyl chloride	ND		0.40	0.15
179601-23-1	m,p-Xylene	ND		0.80	0.20
95-47-6	o-Xylene	ND		0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

> TestAmerica Costa Mesa Target Compound Quantitation Report

Data File: \\Lachrom\ChromData\MSG\20121230-2529.b\\MB12323.d

Lims ID: 340-5599-A-1 Client ID: 34000224 Inject. Date: 01-Jan-2013 05:52:30 Dil. Factor: 1.0000

Sample Type: Client

Sample ID: 340-5599-A-1 Misc. Info.: 340-0002529-033

Operator:DLKInstrument ID:MSGPurge Vol:250.000 mLALS Bottle#:1Lims Batch ID:3674Lims Sample ID:33

Detector: MS SCAN

 $\label{lem:lem:method: MSG} $$\operatorname{MSG}_20121230-2529.b\TO-15\_MSG.m$$$ 

Method Label: TO-15/TO-14A

Last Update: 02-Jan-2013 12:46:38 Calib Date: 26-Dec-2012 12:36:30 Quant Method: Internal Standard Quant By: Initial Calibration

Limit Group: TO-15-TO-15\_MOD\_ICAL

Integrator: RTE ID Type: Deconvolution ID

Column Type: RTX-Volatiles Column Dia: 0.32 mm

Process Host: XAWRK031

First Level Reviewer: kammererd Date: 02-Jan-2013 12:46:38

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ppb v/v	Flags
* 67 Chlorobromomethane (IS)	49	11.311	11.317	-0.006	86	50306	4.00	
\$ 74 1,2-Dichloroethane-d4 (Surr)	65	12.111	12.111	0.0	0	43155	3.75	
* 80 1,4-Difluorobenzene	114	12.712	12.712	0.0	97	78022	4.00	
\$ 90 Toluene-d8 (Surr)	98	14.845	14.852	-0.007	94	82148	3.92	
* 99 Chlorobenzene-d5 (IS)	117	16.885	16.886	-0.001	96	66225	4.00	
\$ 111 4-Bromofluorobenzene (Surr)	95	18.516	18.516	0.0	73	57422	4.11	

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Report Date: 02-Jan-2013 12:46:38 Chrom Revision: 2.0 22-Oct-2012 16:30:48

TestAmerica Costa Mesa

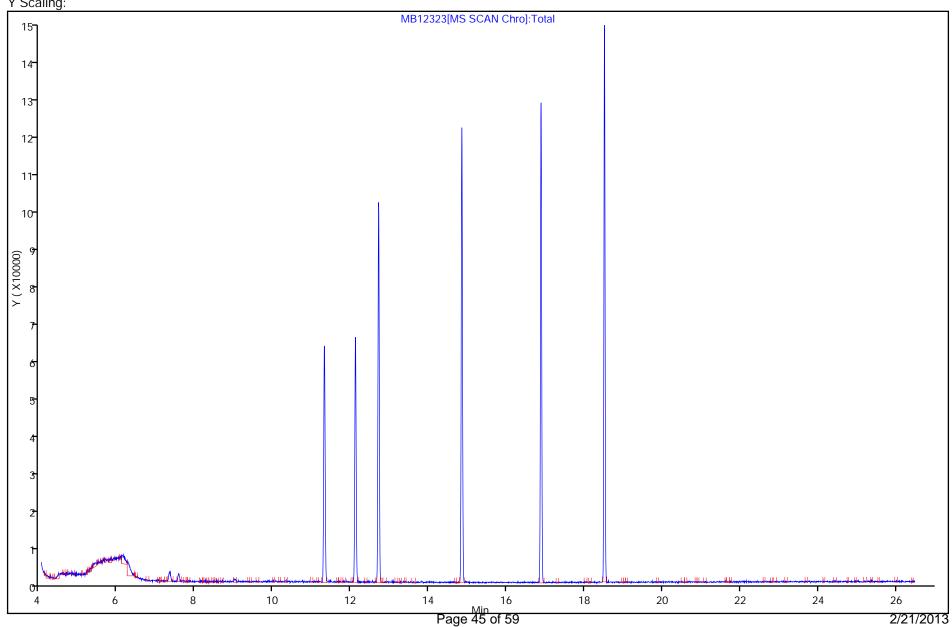
Data File: 

Injection Date: 01-Jan-2013 05:52:30 Limit Group: TO-15-TO-15\_MOD\_ICAL

Client ID: Instrument ID: 34000224 MSG Lims Batch ID: 3674 Lims Sample ID: 33

Operator ID: DLK Purge Vol: 250.000 mL Column Type: **RTX-Volatiles** Column Dia: 0.32 mm

Y Scaling:



Job No.: 340-5774-1 Lab Name: TestAmerica Costa Mesa SDG No.: Client Sample ID: 34000081 Lab Sample ID: 340-5774-1 Lab File ID: MB01166.D Matrix: Air Analysis Method: TO-15 SIM Date Collected: 01/15/2013 00:00 Date Analyzed: 01/16/2013 17:09 Sample wt/vol: 500(mL) Dilution Factor: 1 Soil Aliquot Vol: GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3795 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.0080
100-44-7	Benzyl chloride	ND	*	0.10	0.050
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND	*	0.010	0.005
108-90-7	Chlorobenzene	ND		0.020	0.008
75-00-3	Chloroethane	ND		0.045	0.02
67-66-3	Chloroform	ND		0.020	0.005
74-87-3	Chloromethane	ND		0.20	0.08
124-48-1	Dibromochloromethane	ND		0.010	0.005
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.005
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.02
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.02
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.02
75-71-8	Dichlorodifluoromethane	ND		0.010	0.005
75-34-3	1,1-Dichloroethane	ND		0.020	0.005
107-06-2	1,2-Dichloroethane	ND		0.020	0.005
75-35-4	1,1-Dichloroethene	ND		0.020	0.008
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.008
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.008
78-87-5	1,2-Dichloropropane	ND		0.040	0.02
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.008
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.008
123-91-1	1,4-Dioxane	ND	*	0.10	0.05
100-41-4	Ethylbenzene	ND		0.020	0.008
87-68-3	Hexachlorobutadiene	ND	*	0.020	0.01
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.01
75-09-2	Methylene Chloride	ND	*	0.20	0.05
91-20-3	Naphthalene	ND		0.013	0.01
100-42-5	Styrene	ND		0.030	0.01
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.01
127-18-4	Tetrachloroethene	ND		0.020	0.008
108-88-3	Toluene	ND		0.020	0.008
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	ND		0.030	0.008
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.02
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.008

FORM I TO-15 SIM

Lab Name: TestAmerica Costa Mesa Job No.: 340-5774-1 SDG No.: \_\_\_ Lab Sample ID: 340-5774-1 Client Sample ID: 34000081 Lab File ID: MB01166.D Matrix: Air Analysis Method: TO-15 SIM Date Collected: 01/15/2013 00:00 Sample wt/vol: 500(mL) Date Analyzed: 01/16/2013 17:09 Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: Level: (low/med) Low % Moisture: Analysis Batch No.: 3795 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.020
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.0050
179601-23-1	m,p-Xylene	ND		0.040	0.016
95-47-6	o-Xylene	ND		0.020	0.0080

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		70-130
2037-26-5	Toluene-d8 (Surr)	88		70-130

> TestAmerica Costa Mesa Target Compound Quantitation Report

Data File: \\Lachrom\ChromData\MSD\20130116-2608.b\\MB01166.D

Lims ID: 340-5774-A-1 Client ID: 34000081 Inject. Date: 16-Jan-2013 17:09:30 Dil. Factor: 1.0000

Sample Type: Client

Sample ID: 340-5774-A-1 Misc. Info.: 340-0002608-010

Operator:LYInstrument ID:MSDPurge Vol:500.000 mLALS Bottle#:14Lims Batch ID:3795Lims Sample ID:10

Detector: MS SCAN

Method: \\Lachrom\ChromData\MSD\20130116-2608.b\TO15\_MSD.m

Method Label: TO-15 SIM

Last Update: 17-Jan-2013 09:42:55 Calib Date: 09-Dec-2012 16:10:30 Quant Method: Internal Standard Quant By: Initial Calibration

Last ICal File: \\Lachrom\ChromData\MSD\20121209-2400.b\IC1209A.D

Limit Group: TO-15\_SIM\_ICAL

Integrator: RTE ID Type: Deconvolution ID

Column Type: Rtx-Volatiles Column Dia: 0.32 mm

Process Host: XAWRK033

First Level Reviewer: yabutl Date: 17-Jan-2013 09:42:55

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ppb v/v	Flags
* 15 Chlorobromomethane (IS)	130	10.935	10.927	0.008	100	32209	2.00	
\$ 17 1,2-Dichloroethane-d4 (Surr)	65	11.736	11.725	0.011	100	47035	1.90	
* 21 1,4-Difluorobenzene	114	12.340	12.340	0.0	100	95553	2.00	
\$ 27 Toluene-d8 (Surr)	98	14.486	14.476	0.010	99	74120	1.77	
* 34 Chlorobenzene-d5 (IS)	117	16.494	16.494	0.0	100	91704	2.00	
\$ 41 4-Bromofluorobenzene (Surr)	95	17.852	17.852	0.0	98	66370	2.00	

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Report Date: 17-Jan-2013 09:42:55 Chrom Revision: 2.0 22-Oct-2012 16:30:48

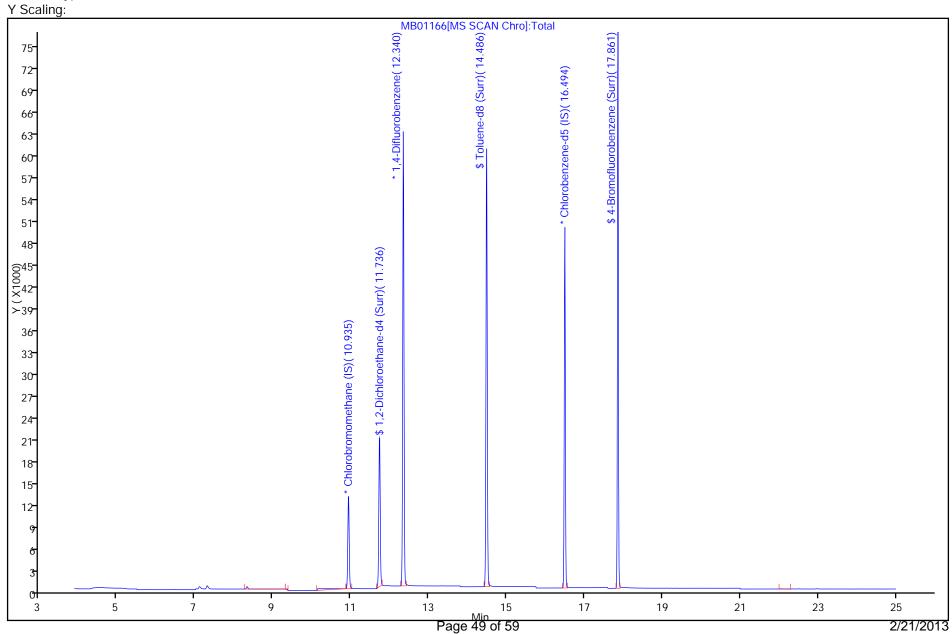
TestAmerica Costa Mesa

Data File: \\Lachrom\ChromData\MSD\20130116-2608.b\\MB01166.D

Injection Date: 16-Jan-2013 17:09:30 Limit Group: TO-15\_SIM\_ICAL

Client ID: 34000081 Instrument ID: MSD Lims Batch ID: 3795 Lims Sample ID: 10

Operator ID: LY Purge Vol: 500.000 mL Column Type: Rtx-Volatiles Column Dia: 0.32 mm



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Lab Name: TestAmerica Costa Mesa Job No.: 340-5774-1 SDG No.: Client Sample ID: 34000081 Lab Sample ID: 340-5774-1 Lab File ID: MB01173.D Matrix: Air Analysis Method: TO-15 Date Collected: 01/15/2013 00:00 Date Analyzed: 01/17/2013 16:45 Sample wt/vol: 250(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: Level: (low/med) Low % Moisture: Analysis Batch No.: 3806 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	
67-64-1	Acetone	ND		1.2	0.60	
107-02-8	Acrolein	ND		2.5	0.70	
107-13-1	Acrylonitrile	ND		2.0	0.40	
107-05-1	Allyl chloride	ND		0.80	0.40	
71-43-2	Benzene	ND		0.40	0.20	
100-44-7	Benzyl chloride	ND		0.80	0.20	
75-27-4	Bromodichloromethane	ND		0.30	0.15	
75-25-2	Bromoform	ND		0.80	0.20	
74-83-9	Bromomethane	ND		0.80	0.20	
106-99-0	1,3-Butadiene	ND		0.80	0.20	
106-97-8	n-Butane	ND		0.50	0.20	
78-93-3	2-Butanone (MEK)	ND		0.80	0.40	
75-65-0	tert-Butyl alcohol (TBA)	ND		5.0	1.5	
104-51-8	n-Butylbenzene	ND		0.80	0.2	
135-98-8	sec-Butylbenzene	ND		0.50	0.2	
98-06-6	tert-Butylbenzene	ND		0.80	0.2	
75-15-0	Carbon disulfide	ND		0.80	0.20	
56-23-5	Carbon tetrachloride	ND		0.80	0.20	
75-00-3	Chloroethane	ND	*	1.5	0.7	
108-90-7	Chlorobenzene	ND		0.30	0.10	
75-45-6	Chlorodifluoromethane	ND		0.80	0.20	
67-66-3	Chloroform	ND		0.30	0.10	
74-87-3	Chloromethane	ND		0.80	0.40	
95-49-8	2-Chlorotoluene	ND		0.80	0.2	
110-82-7	Cyclohexane	ND		0.50	0.20	
124-48-1	Dibromochloromethane	ND		0.40	0.10	
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.20	
74-95-3	Dibromomethane	ND		0.40	0.20	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroetha	ND		0.40	0.1	
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.1	
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.15	
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.1	
75-71-8	Dichlorodifluoromethane	ND		0.40	0.1	
75-34-3	1,1-Dichloroethane	ND		0.30	0.1	
107-06-2	1,2-Dichloroethane	ND		0.80	0.2	

Job No.: 340-5774-1 Lab Name: TestAmerica Costa Mesa SDG No.: Client Sample ID: 34000081 Lab Sample ID: 340-5774-1 Lab File ID: MB01173.D Matrix: Air Analysis Method: TO-15 Date Collected: 01/15/2013 00:00 Date Analyzed: 01/17/2013 16:45 Sample wt/vol: 250(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3806 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.20
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.20
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.20
78-87-5	1,2-Dichloropropane	ND		0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.15
123-91-1	1,4-Dioxane	ND		0.80	0.40
141-78-6	Ethyl acetate	ND		0.30	0.15
100-41-4	Ethylbenzene	ND		0.40	0.15
622-96-8	4-Ethyltoluene	ND		0.40	0.15
142-82-5	n-Heptane	ND		0.80	0.20
87-68-3	Hexachlorobutadiene	ND		0.80	0.20
110-54-3	n-Hexane	ND		0.80	0.20
591-78-6	2-Hexanone	ND		0.80	0.2
98-82-8	Isopropylbenzene	ND		0.80	0.2
99-87-6	4-Isopropyltoluene	ND		0.80	0.20
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.2
80-62-6	Methyl methacrylate	ND		0.80	0.4
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.1
75-09-2	Methylene chloride	ND		0.40	0.2
98-83-9	alpha-Methylstyrene	ND		0.40	0.1
91-20-3	Naphthalene	ND		2.0	0.70
111-65-9	n-Octane	ND		0.40	0.1
109-66-0	n-Pentane	ND		1.0	0.40
115-07-1	Propylene	ND		0.80	0.4
103-65-1	n-Propylbenzene	ND		0.80	0.20
100-42-5	Styrene	ND		0.40	0.15
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.1
127-18-4	Tetrachloroethene	ND		0.40	0.1
109-99-9	Tetrahydrofuran	ND		2.0	0.4
108-88-3	Toluene	ND		0.40	0.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan e	ND		0.40	0.2
120-82-1	1,2,4-Trichlorobenzene	ND		2.5	0.7
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.1
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.1

Lab Name: TestAmerica Costa Mesa	Job No.: 340-5774-1				
SDG No.:					
Client Sample ID: 34000081	Lab Sample ID: 340-5774-1				
Matrix: Air	Lab File ID: MB01173.D				
Analysis Method: TO-15	Date Collected: 01/15/2013 00:00				
Sample wt/vol: 250 (mL)	Date Analyzed: 01/17/2013 16:45				
Soil Aliquot Vol:	Dilution Factor: 1				
Soil Extract Vol.:	GC Column: See SOP ID:				
% Moisture:	Level: (low/med) Low				
Analysis Batch No.: 3806	Units: ppb v/v				

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.15
75-69-4	Trichlorofluoromethane	ND		0.40	0.15
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.20
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.15
540-84-1	2,2,4-Trimethylpentane	ND		0.50	0.20
108-05-4	Vinyl acetate	ND		0.80	0.20
593-60-2	Vinyl bromide	ND		0.80	0.40
75-01-4	Vinyl chloride	ND		0.40	0.15
179601-23-1	m,p-Xylene	ND		0.80	0.20
95-47-6	o-Xylene	ND		0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130

> TestAmerica Costa Mesa Target Compound Quantitation Report

Data File: \\Lachrom\chromdata\MSC\20130117-2615.b\MB01173.D

Lims ID: 340-5774-A-1 Client ID: 34000081 Inject. Date: 17-Jan-2013 16:45:30 Dil. Factor: 1.0000

Sample Type: Client

Sample ID: 340-5774-A-1 Misc. Info.: 340-0002615-007

Operator: DLK Instrument ID: MSC
Purge Vol: 250.000 mL ALS Bottle#: 14
Lims Batch ID: 3806 Lims Sample ID: 7

Detector: MS SCAN

Method: \\Lachrom\chromdata\MSC\20130117-2615.b\TO-15\_MSC.m

Method Label: TO-15/TO-14A

Last Update: 17-Jan-2013 17:27:33 Calib Date: 16-Jan-2013 17:24:30

Quant Method: Internal Standard Quant By: Initial Calibration

Last ICal File: \Lachrom\chromdata\MSC\20130116-2609.b\IC01169.D

Limit Group: TO-15-TO-15\_MOD\_ICAL

Integrator: RTE ID Type: Deconvolution ID

Column Type: RTX-Volatiles Column Dia: 0.32 mm

Process Host: XAWRK026

First Level Reviewer: kammererd Date: 17-Jan-2013 17:27:33

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ppb v/v	Flags
* 64 Chlorobromomethane (IS)	49	11.188	11.188	0.0	92	27706	4.00	
\$ 69 1,2-Dichloroethane-d4 (Surr)	65	12.000	12.000	0.0	94	29850	4.23	
* 77 1,4-Difluorobenzene	114	12.614	12.614	0.0	94	73646	4.00	
\$ 88 Toluene-d8 (Surr)	98	14.797	14.803	-0.006	97	69310	3.80	
* 98 Chlorobenzene-d5 (IS)	117	16.868	16.874	-0.006	84	63028	4.00	
\$ 111 4-Bromofluorobenzene (Surr)	95	18.517	18.517	0.0	86	44000	3.61	

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Report Date: 17-Jan-2013 17:27:33 Chrom Revision: 2.0 22-Oct-2012 16:30:48

TestAmerica Costa Mesa

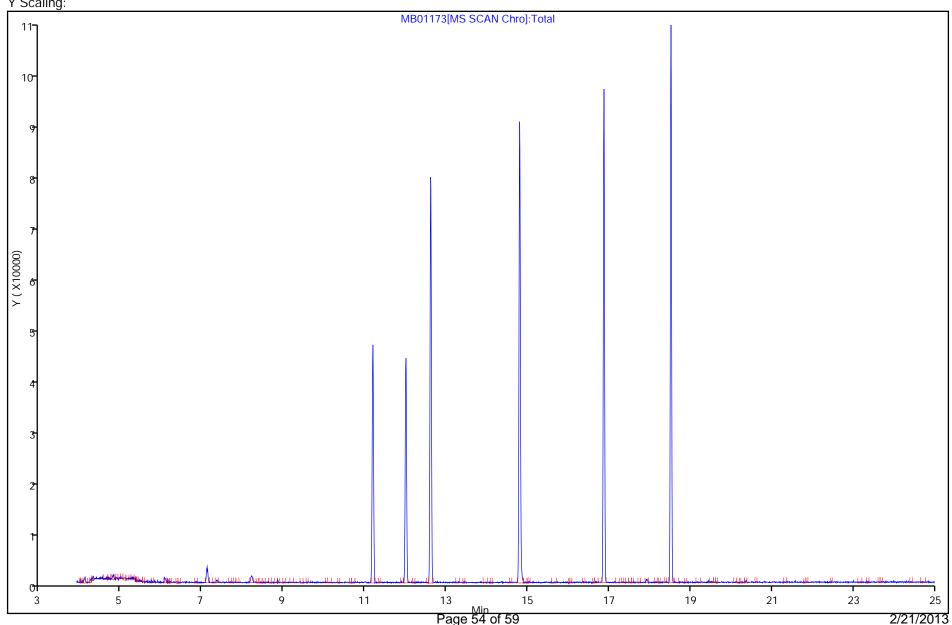
Data File: 

Injection Date: 17-Jan-2013 16:45:30 Limit Group: TO-15-TO-15\_MOD\_ICAL

Client ID: 34000081 Instrument ID: MSC Lims Batch ID: Lims Sample ID: 3806 7

Operator ID: DLK Purge Vol: 250.000 mL Column Type: **RTX-Volatiles** Column Dia: 0.32 mm

Y Scaling:



Lab Name: TestAmerica Costa Mesa Job No.: 340-5866-1 SDG No.: Client Sample ID: 34001662 Lab Sample ID: 340-5866-1 Lab File ID: MB01222.d Matrix: Air Analysis Method: TO-15 Date Collected: 01/21/2013 00:00 Date Analyzed: 01/22/2013 12:33 Sample wt/vol: 250(mL) Soil Aliquot Vol: Dilution Factor: 1 GC Column: See SOP ID: Soil Extract Vol.: Level: (low/med) Low % Moisture: Analysis Batch No.: 3836 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	
67-64-1	Acetone	ND		1.2	0.60	
107-02-8	Acrolein	ND		2.5	0.70	
107-13-1	Acrylonitrile	ND		2.0	0.40	
107-05-1	Allyl chloride	ND		0.80	0.40	
71-43-2	Benzene	ND		0.40	0.20	
100-44-7	Benzyl chloride	ND		0.80	0.20	
75-27-4	Bromodichloromethane	ND		0.30	0.15	
75-25-2	Bromoform	ND		0.80	0.20	
74-83-9	Bromomethane	ND		0.80	0.20	
106-99-0	1,3-Butadiene	ND		0.80	0.20	
106-97-8	n-Butane	ND		0.50	0.20	
78-93-3	2-Butanone (MEK)	ND		0.80	0.40	
75-65-0	tert-Butyl alcohol (TBA)	ND		5.0	1.5	
104-51-8	n-Butylbenzene	ND		0.80	0.20	
135-98-8	sec-Butylbenzene	ND		0.50	0.20	
98-06-6	tert-Butylbenzene	ND		0.80	0.20	
75-15-0	Carbon disulfide	ND		0.80	0.20	
56-23-5	Carbon tetrachloride	ND		0.80	0.20	
75-00-3	Chloroethane	ND		1.5	0.70	
108-90-7	Chlorobenzene	ND		0.30	0.10	
75-45-6	Chlorodifluoromethane	ND		0.80	0.20	
67-66-3	Chloroform	ND		0.30	0.10	
74-87-3	Chloromethane	ND		0.80	0.40	
95-49-8	2-Chlorotoluene	ND		0.80	0.20	
110-82-7	Cyclohexane	ND		0.50	0.20	
124-48-1	Dibromochloromethane	ND		0.40	0.10	
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.20	
74-95-3	Dibromomethane	ND		0.40	0.20	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroetha	ND		0.40	0.15	
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.15	
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.15	
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.1	
75-71-8	Dichlorodifluoromethane	ND		0.40	0.1	
75-34-3	1,1-Dichloroethane	ND		0.30	0.1	
107-06-2	1,2-Dichloroethane	ND		0.80	0.2	

Lab Name: TestAmerica Costa Mesa Job No.: 340-5866-1 SDG No.: Client Sample ID: 34001662 Lab Sample ID: 340-5866-1 Lab File ID: MB01222.d Matrix: Air Analysis Method: TO-15 Date Collected: 01/21/2013 00:00 Date Analyzed: 01/22/2013 12:33 Sample wt/vol: 250(mL) Dilution Factor: 1 Soil Aliquot Vol: GC Column: See SOP \_\_\_\_ ID: \_\_\_\_ Soil Extract Vol.: % Moisture: Level: (low/med) Low Analysis Batch No.: 3836 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.20
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.20
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.20
78-87-5	1,2-Dichloropropane	ND		0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.1
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.1
123-91-1	1,4-Dioxane	ND		0.80	0.4
141-78-6	Ethyl acetate	ND		0.30	0.1
100-41-4	Ethylbenzene	ND		0.40	0.1
622-96-8	4-Ethyltoluene	ND		0.40	0.1
142-82-5	n-Heptane	ND		0.80	0.2
87-68-3	Hexachlorobutadiene	ND		0.80	0.2
110-54-3	n-Hexane	ND		0.80	0.2
591-78-6	2-Hexanone	ND		0.80	0.2
98-82-8	Isopropylbenzene	ND		0.80	0.2
99-87-6	4-Isopropyltoluene	ND		0.80	0.2
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.2
80-62-6	Methyl methacrylate	ND		0.80	0.4
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.1
75-09-2	Methylene chloride	ND		0.40	0.2
98-83-9	alpha-Methylstyrene	ND		0.40	0.1
91-20-3	Naphthalene	ND	*	2.0	0.7
111-65-9	n-Octane	ND		0.40	0.1
109-66-0	n-Pentane	ND		1.0	0.4
115-07-1	Propylene	ND		0.80	0.4
103-65-1	n-Propylbenzene	ND		0.80	0.2
100-42-5	Styrene	ND		0.40	0.1
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.1
127-18-4	Tetrachloroethene	ND		0.40	0.1
109-99-9	Tetrahydrofuran	ND		2.0	0.4
108-88-3	Toluene	ND		0.40	0.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethan	ND		0.40	0.2
120-82-1	1,2,4-Trichlorobenzene	ND		2.5	0.7
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.1
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.1

Lab Name: TestAmerica Costa Mesa Job No.: 340-5866-1 SDG No.: \_\_\_ Lab Sample ID: 340-5866-1 Client Sample ID: 34001662 Lab File ID: MB01222.d Matrix: Air Analysis Method: TO-15 Date Collected: 01/21/2013 00:00 Date Analyzed: 01/22/2013 12:33 Sample wt/vol: 250 (mL) Dilution Factor: 1 Soil Aliquot Vol: GC Column: See SOP ID: Soil Extract Vol.: Level: (low/med) Low % Moisture: Analysis Batch No.: 3836 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.15
75-69-4	Trichlorofluoromethane	ND		0.40	0.15
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.20
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.15
540-84-1	2,2,4-Trimethylpentane	ND		0.50	0.20
108-05-4	Vinyl acetate	ND		0.80	0.20
593-60-2	Vinyl bromide	ND		0.80	0.40
75-01-4	Vinyl chloride	ND		0.40	0.15
179601-23-1	m,p-Xylene	ND		0.80	0.20
95-47-6	o-Xylene	ND		0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	97		70-130

Report Date: 22-Jan-2013 13:25:48 Chrom Revision: 2.0 22-Oct-2012 16:30:48

TestAmerica Costa Mesa Target Compound Quantitation Report

Data File: \Lachrom\ChromData\MSG\20130122-2633.b\MB01222.d

Lims ID: 340-5866-A-1 Client ID: 34001662 Inject. Date: 22-Jan-2013 12:33:30 Dil. Factor: 1.0000

Sample Type: Client

Sample ID: 340-5866-A-1 Misc. Info.: 340-0002633-006

Operator: DLK Instrument ID: MSG
Purge Vol: 250.000 mL ALS Bottle#: 14
Lims Batch ID: 3836 Lims Sample ID: 6

Detector: MS SCAN

 $\label{lem:lem:method: MSG} $$\operatorname{MSG}_20130122-2633.b\TO-15\_MSG.m$$$ 

Method Label: TO-15/TO-14A

Last Update: 22-Jan-2013 13:25:48 Calib Date: 26-Dec-2012 12:36:30

Quant Method: Internal Standard Quant By: Initial Calibration

Last ICal File: \\Lachrom\ChromData\MSG\20121226-2503.b\IC12268.d

Limit Group: TO-15-TO-15\_MOD\_ICAL

Integrator: RTE ID Type: Deconvolution ID

Column Type: RTX-Volatiles Column Dia: 0.32 mm

Process Host: XAWRK017

First Level Reviewer: kammererd Date: 22-Jan-2013 13:25:48

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Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ppb v/v	Flags
* 67 Chlorobromomethane (IS)	49	11.360	11.367	-0.007	88	45911	4.00	
\$ 74 1,2-Dichloroethane-d4 (Surr)	65	12.160	12.160	0.0	0	40814	3.88	
* 80 1,4-Difluorobenzene	114	12.756	12.756	0.0	97	68943	4.00	
\$ 90 Toluene-d8 (Surr)	98	14.889	14.895	-0.006	94	72005	3.88	
* 99 Chlorobenzene-d5 (IS)	117	16.929	16.929	0.0	95	59094	4.00	S
\$ 111 4-Bromofluorobenzene (Surr)	95	18.553	18.560	-0.007	75	48300	3.88	

QC Flag Legend

**Processing Flags** 

s - Failed ISTD Recovery Test

Page 58 of 59

2

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5

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13

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Report Date: 22-Jan-2013 13:25:48 Chrom Revision: 2.0 22-Oct-2012 16:30:48

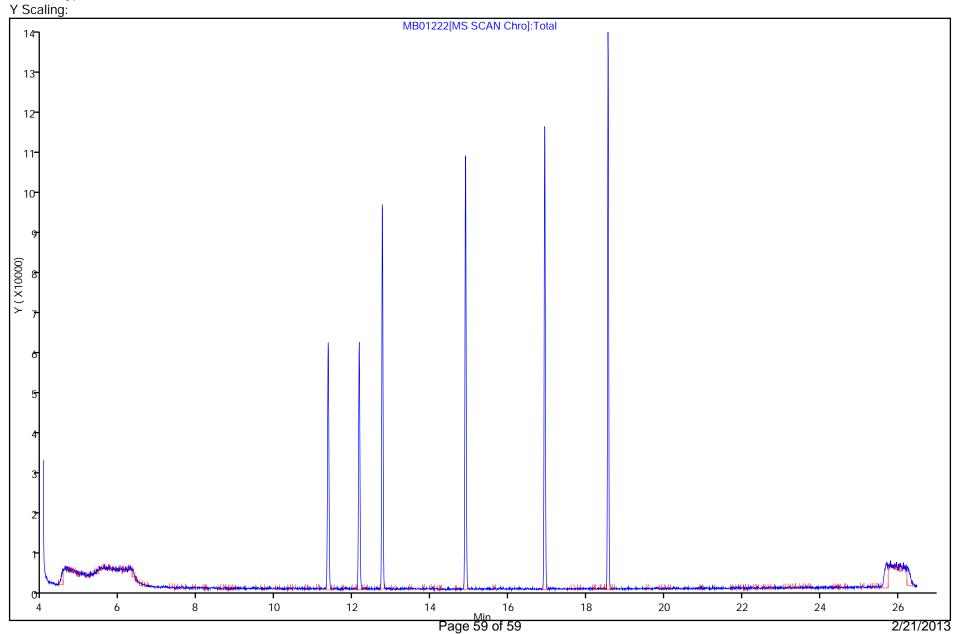
TestAmerica Costa Mesa

Data File: \\Lachrom\ChromData\MSG\20130122-2633.b\MB01222.d

Injection Date: 22-Jan-2013 12:33:30 Limit Group: TO-15-TO-15\_MOD\_ICAL

Client ID: 34001662 Instrument ID: MSG Lims Batch ID: 3836 Lims Sample ID: 6

Operator ID: DLK Purge Vol: 250.000 mL Column Type: RTX-Volatiles Column Dia: 0.32 mm



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