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December 15, 2019

Ms. Renee Purdy
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Los Angeles Region
320 West 4th Street, Suite 200
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Subject: Nursery Growers Association
Los Angeles County Irrigated Lands Group
Conditional Waiver for Irrigated Lands
ANNUAL MONITORING REPORT
R4-2016-0143 (THROUGH DECEMBER 15, 2019)

Dear Ms. Purdy:

Pacific Ridgeline prepared this *Annual Monitoring Report* on behalf of Nursery Growers Association, Los Angeles County Irrigated Lands Group (LAILG). Monitoring and reporting was conducted in accordance with the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (CWIL; Order # R4-2016-0143) under the Quality Assurance Project Plan and Monitoring and Reporting Plan submitted by LAILG for the previous CWIL.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

Respectfully submitted,

Los Angeles Irrigated Lands Group

John Schoustra
NGA Board Member



**ANNUAL MONITORING REPORT-
ORDER # R4-2016-0143
(THROUGH DECEMBER 15, 2019)**

**NURSERY GROWERS ASSOCIATION
LOS ANGELES COUNTY
IRRIGATED LANDS GROUP**

December 15, 2019

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ACRONYMS

ABC	Aquatic Bioassay and Consulting Laboratories
ALB	Aquatic Life Benchmark
AMR	Annual Monitoring Report
BMP	Best Management Practice
COC	Chain of Custody
CWIL	Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands
EPA	United States Environmental Protection Agency
GPS	Global Positioning System
LAILG	Los Angeles Irrigated Lands Group
LARWQCB	Los Angeles Regional Water Quality Control Board
MDL	Method Detection Limit
MRP	Monitoring and Reporting Plan
NGA	Nursery Growers Association
OC	Organochlorinated Pesticides
OP	Organophosphate Pesticides
PacRL	Pacific Ridgeline
PP	Pyrethroid Pesticides
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
RPD	Relative Percent Difference
TDS	Total Dissolved Solids
TIE	Toxicity Identification Evaluation
TUc	Toxicity concentration in toxicity units
WMA	Watershed Management Area
WQBs	Water Quality Benchmarks
WQMP	Water Quality Management Plan

**ANNUAL MONITORING REPORT-YEAR FOUR UNDER
ORDER # R4-2016-0143 (THROUGH DECEMBER 15, 2019)**

**NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

1.0 INTRODUCTION

The NGA is a non-profit association chartered in the late 1950s. The purpose of NGA is to foster and encourage the growth and development of quality nursery stock and to promote all matters that pertain to the best interests of the wholesale nursery growers. NGA developed the LAILG for compliance with the CWIL, which currently consists of Order #R4-2016-0143. PacRL was contracted by NGA to manage the technical aspect of the LAILG.

The LARWQCB is a State of California Agency that regulates water quality within the coastal watershed of Ventura and Los Angeles Counties under the authorities of the Federal Clean Water Act and State Porter Cologne Water Quality Control Act. The area under the jurisdiction of the LARWQCB is known as the Los Angeles Region.

Water quality impacts associated with agriculture can be primarily traced to discharges resulting from irrigation or stormwater. These discharges may contain pollutants that have been imported or introduced into the irrigation or stormwater; in addition, irrigation practices can mobilize and or concentrate some pollutants. In order to mitigate these potentially polluted discharges from impacting the beneficial uses of water bodies within the Los Angeles Region, the LARWQCB adopted a CWIL (Order No. R4-2005-0080) on November 3, 2005, as mandated by state law and policy.

On October 7, 2010, the LARWQCB adopted a second CWIL for the Los Angeles Region (Order No. R4-2010-0186). Order R4-2010-0186 was extended for six months under Order R4-2015-0202. Order R4-2016-0134, adopted on April 14, 2016, slightly revised the program and extended water quality monitoring throughout the Los Angeles Region for an additional four years.

The LAILG has members within the Dominguez Channel LA/Long Beach Harbors WMA, the Los Angeles River Watershed, the San Gabriel River Watershed, the Santa Monica Bay WMA, and the eastern portion of the Santa Clara River Watershed. All five Watersheds and WMAs have impacted waterbodies that appear on the Federal 303(d) list, and listed contaminants include constituents that could be related to agricultural uses.

Agriculture in the County of Los Angeles mostly consists of smaller parcel sizes located in urban environments, specifically under power lines. The LAILG was initially formed to assist growers of nursery stock with compliance with the CWIL, but has since expanded to include any grower in the Los Angeles Region who wishes to be part of the group. Refer to Table 1 and Table 2 for crop type and acreage information specific to the LAILG throughout each watershed.

The objective of this AMR is to evaluate compliance with water quality benchmarks established the CWIL and various other water quality programs, and to report findings to the LARWQCB. This AMR describes the monitoring efforts and results that have been undertaken by the NGA for compliance with the CWIL through October 15, 2019, along with presenting historical data collected throughout the life of the program. This report also includes updated data collected as part of the Water Quality Management Plan (WQMP) dated September 27, 2019.

Table 1 LAILG Distribution and Crop Type, Total Acres

		Color Plants	Cutflower	General Ornamental	Greenhouse	Multiple	Orchard	Row Crop	Sod	Vineyard	Unknown	TOTAL ACRES	% TOTAL
# Enrolled Growers	Total Acreage Mapped												
	TOTAL ACRES	90.89	9.80	936.27	14.30	2,241.59	14.44	20.05	16.50	204.33	243.07	3,791.24	
6	Santa Clara River Watershed ¹	0.00	0.00	9.50	0.00	890.00	0.00	0.00	0.00	39.00	0.35	938.85	24.76%
31	Santa Monica Bay WMA	0.00	0.00	44.97	3.89	132.50	9.92	0.00	0.00	159.53	3.38	354.19	9.34%
142	Los Angeles River Watershed	13.80	1.00	520.03	3.91	2.00	2.50	9.50	16.50	5.80	154.72	729.76	19.25%
54	Dominguez Channel LA/Long Beach Harbor WMA	57.09	5.00	110.72	6.50	4.75	2.02	1.00	0.00	0.00	35.24	222.32	5.86%
58	San Gabriel River Watershed*	20.00	3.80	251.05	0.00	1,212.34	0.00	9.55	0.00	0.00	49.38	1,546.12	40.78%
291	% TOTAL	2.40%	0.26%	24.70%	0.38%	59.13%	0.38%	0.53%	0.44%	5.39%	6.41%		

* California State Polytechnical University of Pomona accounts for 1,200 of the total acres in the San Gabriel River Watershed
 ! Golden Oaks Ranch accounts for 890 of the total acres in the Santa Clara River Watershed

Table 2 LAILG Distribution and Crop Type, Irrigated Acres

		Color Plants	Cutflower	General Ornamental	Greenhouse	Multiple	Orchard	Row Crop	Sod	Vineyard	Unknown	IRRIGATED ACRES	% TOTAL
# Enrolled Growers	Irrigated Acreage Mapped												
	IRRIGATED ACRES	60.48	6.23	615.20	6.86	184.23	8.02	15.15	16.50	78.41	236.08	1,227.16	
6	Santa Clara River Watershed ¹	0.00	0.00	7.75	0.00	70.00	0.00	0.00	0.00	6.50	0.35	84.60	6.89%
31	Santa Monica Bay WMA	0.00	0.00	31.08	1.20	30.00	5.00	0.00	0.00	68.16	2.63	138.07	11.25%
142	Los Angeles River Watershed	9.30	0.28	316.24	3.91	1.89	1.00	8.00	16.50	3.75	149.83	510.70	41.62%
54	Dominguez Channel LA/Long Beach Harbor WMA	36.68	4.25	77.61	1.75	3.00	2.02	1.00	0.00	0.00	33.99	160.30	13.06%
58	San Gabriel River Watershed*	14.50	1.70	182.52	0.00	79.34	0.00	6.15	0.00	0.00	49.28	333.49	27.18%
291	% TOTAL	4.93%	0.51%	50.13%	0.56%	15.01%	0.65%	1.23%	1.34%	6.39%	19.24%		

1.1 PROGRAM HISTORY

During the first Waiver period, LAILG collected samples from sixteen sampling locations during two sampling events each dry season and two sampling events each wet season. The program existed in this state for the entirety of the 2007 and 2008 monitoring years, and a working WQMP was submitted to the LARWQCB on July 8, 2009. The LAILG placed the program on hold at this time due to financial constraints from growers abandoning the program and a lack of enforcement by the LARWQCB.

LAILG reinstated the program briefly before the new Waiver, and one round of reduced sampling occurred in March of 2011. Following the release of the second Waiver, LAILG prepared a revised MRP and QAPP to address updated requirements. The new MRP presented a reduced sampling schedule in order to offset costs associated with the lack of growers enrolling in the Waiver program.

Water quality monitoring data collected during each Waiver period exceeded applicable Water Quality Benchmarks and necessitated the generation of a WQMP. LAILG prepared a Water Quality Management Plan, Version 1.1, dated July 26, 2013, which outlined steps LAILG would take to implement, track, and evaluate additional BMPs throughout the group. Updates to the original plan were submitted on August 21, 2015 and May 10, 2017 that outlined progress towards the original goals of the WQMP goals. The most recent WQMP, Version 2.1, was submitted on September 27, 2019.

LAILG has been operating under the MRP developed for the previous CWIL during the current waiver period. LAILG has continued to operate under the basic parameters of the MRP and WQMP developed for Order R4-2010-0186, with the goal of gathering enough information to properly apply the WQMP methodology to develop a new MRP for Order R4-2016-0134. During this interim sampling period, LAILG focused sampling efforts to address locations where previous samples had been collected and WQB exceedances had been observed.

Currently, a new MRP was submitted to the LARWQCB on November 1, 2019 that outlined an updated approach to future sampling methodology within the group. Approval of the new MRP is still pending review from the LARWQCB.

2.0 BACKGROUND AND SAMPLING METHODOLOGY

2.1 HISTORICAL SAMPLING

As of December 2019, the LAILG is comprised of 330 sites and an estimated 4,083 total acres and 1,474 irrigated acres. A complete list of current group members enrolled in LAILG is included in Appendix A, and a discussion of current enrollment and group status is discussed in Section 7.0.

For this sampling event, LAILG has continued to operate under the basic parameters of the MRP and WQMP developed for Order R4-2010-0186, with the goal of gathering enough information to properly apply the WQMP methodology to develop a new MRP for Order R4-2016-0134. This methodology includes edge of field sampling at select grower locations that are representative of the group. During this interim sampling period, LAILG is focusing sampling efforts to address locations where previous samples have been collected and WQO exceedances have been observed, along with newer facilities enrolled in the program. Sampling sites that were chosen for this interim period are presented on Table 1. A running log of all locations sampled since the inception of the program, along with sampling dates and site status is included in Appendix B. Maps presenting currently enrolled members and sampling locations are presented as Figures 1.0-1.5.

Table 3 - Interim Sampling Locations

NAME	SITE #	APPROXIMATE GPS LOCATION	ADDRESS	ACRES IRRIGATED	CROP TYPE
ABC Nursery, Inc.	4	N 33° 52' 55.7" W 118° 16' 06.0"	424 E. Gardena Boulevard Gardena, CA	11.51	General Ornamentals
Boething Treeland Farms, Inc.	19	N 34° 09' 51.1" W 118° 38' 20.7"	23475 Long Valley Road Woodland Hills, CA	14.68	General Ornamentals
H&H Nursery *	64	N 33° 52' 07.1" W 118° 08' 32.4"	6220 Lakewood Boulevard Lakewood, CA	2.50	Retail / Multiple
Norman's Nursery	125	N 34° 05' 42.3" W 118° 04' 53.5"	8550 E Broadway San Gabriel, CA	7.00	General Ornamentals
Colorama Wholesale Nursery	150	N 34° 08' 27.5" W 117° 55' 35.9"	1025 N. Todd Ave. Azusa, CA	15.30	Color Plants
Sakaida Nursery, Inc.	158	N 34° 06' 49.0" W 118° 04' 54.8"	8538-8601 Longden Ave San Gabriel, CA	6.89	General Ornamentals
SY Nursery Inc.	168	N 33° 50' 59.2" W 118° 04' 36.0"	19900 S Pioneer Blvd Cerritos, CA	4.75	General Ornamentals
T-Y Nursery	176	N 33° 51' 18.7" W 118° 23' 10.9"	Between Flagler/Paulina Redondo Beach, CA	7.50	General Ornamentals
Ultra Greens Nursery	178	N 34° 17' 57.4" W 118° 25' 06.5"	13102 Maclay Street Sylmar, CA	8.50	General Ornamentals
Valley Sod Farms, Inc.	184	N 34° 13' 23.1" W 118° 29' 34.5"	16405 Chase Street North Hills, CA	36.00	Sod
El Nativo Growers	202	N 34° 06' 38.2" W 117° 56' 26.4"	200 S. Peckham Azusa, CA	7.00	General Ornamentals

* H&H added for interim sampling at during 4th Quarter of 2017, as Site #150 was no longer in operation.

2.2 NEW SAMPLING APPROACH

As outlined in the WQMP dated September 27, 2019 and the MRP submitted on November 1, 2019, LAILG separated members into various groups based on their operational practices and land use patterns based on responses to a General Questionnaire submitted to each member. Members were broken into five groups: Large, Medium, Small, Micro, and non-responsive/unknown. Due to logistical issues with stormwater sampling in the Los Angeles Region during storm events, the entire group was divided into North and South Regions for sampling purposes.

LAILG proposed to randomize sampling sites in each region for each sampling event, including randomization of members in each grouping in the region. Samples will be collected from one random member in each regional grouping during each sampling event, plus an additional follow up sample from a member that previously reported a WQB exceedance in historical sampling events in the region. A total of five sites will be visited each sampling event, once during the dry season and once during the wet season of each year.

Randomization for sampling sites will be conducted with random.org, by randomizing each grouping within each region for each sampling event. Records of the randomization will be kept on file. The top location in each group will be selected as the sampling site, and the second location in each group will be selected as the alternate site. The follow up sampling for a location that previously reported a WQB exceedance will be hand selected by LAILG. Once a site has been randomly chosen for sampling, it will be removed from the randomization list. If WQB exceedances are reported at a location, it will be added to the list for follow up sampling.

An alternate site will be included in the randomization since many of the current locations have never been visited by LAILG personnel. It is anticipated that some chosen random location may not have sufficient runoff during rain events for sampling, due to topography or operational practices. If a site is visited during a wet season sampling event and it is apparent that there will not be sufficient runoff for sampling during the time of the visit, the alternate location will be visited and site conditions will be noted. Included in the notes will be observations on what size storm might be required in order to produce runoff at the location.

3.0 SAMPLING EVENTS

During the wet season of this reporting period, which lasted from October 15, 2018 through May 14, 2019, interim sampling sites listed in Table 1 were divided into groups and visited on November 29, 2018 and January 14, 2019. On November 29, 2018, a total of four of the five sites had sufficient runoff to conduct sampling, and on January 14, 2019, four of five sites were sampled.

During the dry season of this reporting period, which lasted from May 15, 2019 through October 14, 2019, all interim sampling sites listed in Table 1 were visited on August 22 and August 30, 2019. All sites were visited during normal operating hours with visits lasting for one hour or for a complete watering cycle, whichever was greater. During the visits, irrigation watering practices were observed and noted. Inspections included communicating with site operators regarding recently implemented BMPs at each site and verifying BMPs that had been implemented in the past. Irrigation runoff was not observed and samples were not collected at any of the selected sites visited during the dry season. Photographs were taken at each site, and each site visited is discussed in Section 5.

A total of 98 samples have been collected by LAILG during the life of the program. Over half of the samples were collected during the first two years of the program, prior to the suspension of the monitoring group. Collected samples have historically been from storm water runoff during the wet season; irrigated runoff from the dry season has not been encountered since 2008. A summarized history of collected samples is presented on Table 2. A complete history of collected samples is presented in Appendix B.

Table 4 – Historical Sampling Timeline

	CWIL Order # R4-2005-0080												Total
	YEAR 1 ¹				YEAR 2 ²				YEAR 3		YEAR 4		
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season	Wet Season	Dry Season	Wet Season	
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #1	Event #1	Event #1	
Samples Collected	5	3	14	8	2	1	8	11	0	ns*	0	ns*	52
Sites Visited	16	16	16	16	14	14	18	18	18	N/A	18	N/A	164

1 Wet Season sampling events took place over five storms due to localized rain patterns and a general lack of uniform storm intensity and duration.

2 Wet Season sampling events took place during two storm days where all sites were visited.

	CWIL Order # R4-2010-0186																Total					
	Interim Sampling Event ³	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				
		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		
		Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1		Event #2	Event #1	Event #2	Event #1	Event #2
March 2011	4	0	0	4	4	0	0	0	0	0	0	5	0	0	0	2	1	0	0	2	0	22
Sites Visited	4	5	5	5	5	5	5	na	na	5	5	5	na	5	5	5	5	5	5	5	na	84

3 The previous CWIL (Order R4-2005-0080) was replaced on October 7, 2010 with the adoption of a new Waiver (Order R4-2010-0186). As a good faith measure, the LAILG conducted a sampling event during the wet season between the execution of the new CWIL and the required submittal date of an MRP on April 7, 2011.

	CWIL Order # R4-2016-0143														Total
	YEAR 1 ⁴				YEAR 2 ⁴				YEAR 3 ⁴				YEAR 4 ⁴		
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	
Samples Collected	0	0	3	5	0	0	4	4	0	0	4	4	0	0	24
Sites Visited	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70

4 Sites were sampled in the interim based on the MRP from CWIL Order R4-2010-0186.

4.0 WATER QUALITY BENCHMARKS

Samples were collected and analyzed as presented in the MRP and QAPP developed for Order R4-2010-0186, along with any additional requirements set forth in Order R4-2016-0143. Table 3 presents the list of constituents analyzed during this reporting period.

Table 5 - List of Constituents for Testing

CONSTITUENT	UNITS	FIELD/LABORATORY TEST
Flow	Cubic feet per second	Field
pH	pH units	Field
Temperature	°F	Field
Dissolved Oxygen	mg/L	Field
Turbidity	NTU	Field
Total Dissolved Solids	mg/L	Laboratory
Total Suspended Solids	mg/L	Laboratory
Hardness (as CaCO ₃)	mg/L	Laboratory
Chloride	mg/L	Laboratory
Ammonia	mg/L	Laboratory
Nitrate-Nitrogen	mg/L	Laboratory
Phosphate	mg/L	Laboratory
Sulfate	mg/L	Laboratory
Total Copper	ng/L	Laboratory
Organophosphate Suite ¹	ng/L	Laboratory
Organochlorines Suite ²	ng/L	Laboratory
Toxaphene	ng/L	Laboratory
Pyrethroids	ng/L	Laboratory
Toxicity	TU _c ³	Laboratory
E.Coli	MPN/100ml	Laboratory
Trash	Observations	Field

¹ Organophosphate Suite: Bolstar, Chlorpyrifos, Demeton, Diazinon, Dichlorvos, Dimethoate, Disulfoton, Ethoprop, Fenchlorophos, Fensulfothion, Fenthion, Malathion, Merphos, Methyl Parathion, Mevinphos, Phorate, Tetrachlorvinphos, Tokuthion, Trichloronate.

² Organochlorine Suite: 2,4' - DDD, 2,4' - DDE, 2,4' DDT, 4,4' -DDD, 4,4' -DDE, 4,4' -DDT, Aldrin, BHC-alpha, BHC-beta, BHC-delta, BHC-gamma, Chlordane-alpha, Chlordane-gamma, Dieldrin, Endosulfan sulfate, Endosulfan-I, Endosulfan-II, Endrin, Endrin Aldehyde, Endrin Ketone.

³ Chronic Toxic Unit is the reciprocal of the sample concentration that caused no observable effect on the test organism by the end of a chronic toxicity test.

mg/l milligrams per liter
 ng/L nanograms per liter
 °F degrees Fahrenheit
 TU_c chronic toxic unit
 NTU nephelitic turbidity units

4.1 WATER QUALITY BENCHMARKS

The following tables present water quality benchmarks that apply to this program for the sites that were sampled during the previous year. They are derived from language included in Appendix 4 of the current Waiver, along with the Water Quality Control Plan Los Angeles Region (Basin Plan) objectives, California Toxics Rule benchmarks, USEPA ALB guidelines, and CCR Title 22 maximum contamination levels for municipal water (organic chemicals).

For the purpose of analysis, benchmarks are broken into four general groups: general chemistry (including nutrients), pesticides, toxicity, and field monitoring results.

General Chemistry

General Chemistry water quality objectives for each site were obtained from the *Water Quality Control Plan, Los Angeles Region*. To choose the most appropriate water quality objectives for each site, all sites were assumed to drain through storm drains that ran perpendicularly to the closest blue line stream. The most relevant stream reach and related water quality objectives were chosen for each site using this assumption. Table 4 outlines the site-specific water quality objectives and associated fixed sampling sites used to evaluate general chemistry results for this report.

Table 6 - Water Quality Benchmarks, General Chemistry

Watershed/stream reach	NGA Site #	Ammonia	TDS	Sulfate	Chloride	Nitrogen	TSS	Copper (µg/L)	Phosphate
Los Angeles River:									
Above Figueroa St.	19, 184	a)	950	300	150	8	—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
Rio Hondo above Santa Ana Freeway	125, 158	a)	750	300	150	8	—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
Pacoima Wash above Pacoima spreading grounds	178	a)	250	30	10	MUN	—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
San Gabriel River:									
Between Firestone Blvd. and San Gabriel River Estuary	168	a)	MUN				—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
Between Morris Dam and Ramona Blvd.	150, 202	a)	450	100	100	8	—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
Dominguez Channel	4	a)	MUN				—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
Santa Monica Bay	176	a)	MUN				—	$CCC=0.960e^{[(0.8545(\text{in hardness}))+(-1.702)]}$	—
USEPA Municipal Drinking Water Standards		a)	500	250	400	10	—	1.3 (mg/L)	—

* All limits are recorded for milligrams per liter (mg/L)

a) Limit varies, see Water Quality Control Plan, Los Angeles Region

MUN No site specific objectives have been established. Objectives are based on USEPA guidelines for municipal drinking water standards.

— No numeric benchmarks, water quality benchmarks shall be based on the surface water and groundwater basin objectives currently contained in the Water Quality Control Plan Los Angeles Region (Basin Plan) or other applicable water quality standards established for the Los Angeles Region.

Pesticides

Pesticide water quality objectives were taken from the Waiver, USEPA ALB guidelines, and the California Toxics Rule. Table 5 presents pesticide benchmarks outlined in the Waiver. Table 6 presents OC pesticide benchmarks outlined by the California Toxics Rule.

Table 7 - Water Quality Benchmarks, Pesticides, CWIL

CONSTITUENT	UNITS	WATER QUALITY BENCHMARK
Chlordane	µg/L	0.00059
4,4' - DDT	µg/L	0.00059
4,4' - DDD	µg/L	0.00084
DDE	µg/L	0.00059
Dieldrin	µg/L	0.00014
Toxaphene	µg/L	0.00075
Chlorpyrifos	µg/L	0.025
Diazinon	µg/L	0.10
µg/L	micrograms per liter	

Table 8 - Additional Water Quality Benchmarks, Pesticides, California Toxics Rule

CONSTITUENT	UNITS	WATER QUALITY BENCHMARK
		Human Health (30-day Average) Drinking Water Sources (consumption of water and aquatic organisms)
Aldrin	ug/L	0.00013
alpha-BHC	ug/L	0.0039
beta-BHC	ug/L	0.014
gamma-BHC (Lindane)	ug/L	0.019
Endosulfan and derivatives	ug/L	110
Endrin	ug/L	0.76
Endrin aldehyde	ug/L	0.76
Heptachlor	ug/L	0.00021
Heptachlor epoxide	ug/L	0.0001

Table 7 presents ALB benchmarks for OP and pyrethroid pesticides. Any pesticide that exceeded the value reported for acute invertebrates were considered a water quality exceedance for LAILG evaluation purposes. The guidelines for acute invertebrates were chosen because historically the most sensitive species in toxicity testing was *Ceriodaphna dubia*, a species of water flea. The CWIL does not directly cover benchmarks for these constituents, and does not specifically require ALB benchmarks to be considered as WQBs.

Table 9 - Water Quality Benchmarks, Pesticides, Aquatic Life Benchmarks

OPP Aquatic Life Benchmarks (µg / L) (Freshwater)

Pesticides	Footnote	CAS Number	Fish		Invertebrates		Nonvascular Plants	Vascular Plants	Office of Water Aquatic Life Criteria	
			Acute 1	Chronic 2	Acute 3	Chronic 4	Acute 5	Acute 6	Maximum Concentration (CMC)	Continuous Concentration (CCC)
OP Pesticides										
Azinphos Methyl	9	86-50-0	0.18	0.44	0.08	0.25	—	—	—	—
Chlorpyrifos		2921-88-2	0.90	0.57	0.05	0.04	140	—	—	—
Coumaphos	10	56-72-4	170	11.7	0.037	0.0337	—	166	—	—
Dichlovos (DDVP)		62-73-7	91.5	5.2	0.035	0.0058	14,000	—	0.083	0.041
Dimethoate	9	60-51-5	3100	430	21.5	0.5	20,000	>92,600	—	—
Disulfoton	9	298-04-4	19.5	3	1.95	0.01	—	—	—	—
Ethoprop		13194-48-4	150	24	22	0.8	8,400	—	—	—
Fenthion	8	55-38-9	415	7.5	2.6	0.013	400	> 2,800	—	—
Malathion		121-75-5	2.05	8.6	0.049	0.060	2,400	24,000	—	0.1
Methyl Parathion	13	298-00-0	925	< 10	0.485	0.25	15,000	18,000	—	—
Naled		300-76-5	46	2.9	0.07	0.045	25	> 1,800	—	—
Phorate	8	298-02-2	1.175	0.34	0.3	0.21	> 1,300	—	—	—
Pyrethroid Pesticides										
Allethrin		584-79-2	3.9	—	1.05	—	—	—	—	—
Bifenthrin		82657-04-3	0.075	0.04	0.8	0.0013	—	—	—	—
Cyfluthrin		68359-37-5	0.034	0.01	0.0125	0.0074	>181	—	—	—
Cypermethrin		52315-07-8	0.195	0.14	0.21	0.069	—	—	—	—
Fenpropathrin (Danitol)		64257-84-7	1.1	0.06	0.265	0.064	—	—	—	—
Deltamethrin		52918-63-5	0.29	0.017	0.055	0.0041	—	—	—	—
Esfenvalerate	9	66230-04-4	0.035	0.035	0.025	0.017	—	—	—	—
Lambda-cyhalothrin		91465-08-6	0.039	0.031	0.0035	0.002	> 310	—	—	—
Pendimethalin		40487-42-1	69	6.3	140	14.5	5.2	12.5	—	—
Permethrin	16	52645-53-1	0.395	0.0515	0.0195	0.0014	68	—	—	—
Prallethrin		23031-36-9	6	3	3.1	0.65	—	>1.324	—	—
Sumithrin		26002-80-2	7.9	1.1	2.2	0.47	—	—	—	—
Tefluthrin		79538-32-2	0.03	0.004	0.035	0.008	—	—	—	—

Limits Reported in ug/L

⁸ Because the underlying toxicity value is a "greater-than" value (such as >265,000), this benchmark may overestimate toxicity.

⁹ The chronic benchmark is based on the acute toxicity value (which was lower than the lowest available chronic toxicity value), and therefore may underestimate chronic

¹⁰ Although the underlying acute toxicity value is greater than or equal to the chronic toxicity value, the acute benchmark is lower than the chronic benchmark because acute and chronic toxicity values were multiplied by LOC values of 0.5 and 1, respectively.

¹³ Because the underlying toxicity value is a "less-than" value (such as <1,500), this benchmark may underestimate toxicity.

¹⁶ Toxicity values and benchmarks apply to permethrin. If monitoring data represent only the *cis* isomer of permethrin in water, comparison with benchmarks may underestimate potential toxicity.

Toxicity

Toxicity water quality objectives were determined as outlined in the MRP and QAPP, and through communications with ABC laboratory. Because tests are run on 100% concentration of samples (no dilution water), numerical values of TUC cannot be accurately determined. Due to the lack of TUC values, a TIE was generally run on samples that exhibited a high mortality. Chronic toxicity testing is conducted for *Pimephales promelas* (fathead minnow), *Ceriodaphnia* (water flea), and *Selenastrum capricornutum* (green algae). During this waiver period, *Ceriodaphnia* has been the most sensitive species and was the only species tested this sampling year.

Adequate sample volume was collected during sampling events so that TIE procedures could be initiated as soon as possible after toxicity was observed. TIE testing was only initiated if initial testing indicated the presence of significant toxicity in the sample. For the purpose of triggering TIE procedures, significant toxicity was defined as at least 50 percent mortality or a 50 percent reduction in growth. The 50 percent threshold is consistent with the approach recommended in guidance published by the EPA for conducting TIEs, which recommends a minimum threshold of 50 percent mortality because the probability of completing a successful TIE decreases rapidly for samples with less than this level of toxicity. Ultimately, it is up to the analyzing lab to determine if a TIE should be initiated.

Field Monitoring

For field monitoring results, the Basin Plan for the Los Angeles Region contains narrative objectives for certain chemicals, most notably: biostimulator substances, temperature, pH, turbidity, and Total Suspended Solids. Table 8 presents field monitoring and toxicity benchmarks, as outlined in the Los Angeles Basin Plan. These narrative objectives contain verbiage stating that the natural or ambient conditions of receiving waters are not to be altered by discharges, including some of the constituents listed above. This is problematic, as natural or ambient conditions have not been established in many receiving waters, and discharges from growing operations in the urban Los Angeles Region drain primarily to storm drains. The ultimate endpoint of these storm drains are not well mapped or established, and are comingled with discharges from a number of land use types. Due to the difficulty in ascertaining the impacts to receiving waters, it is assumed in this report that discharges do not affect the receiving water bodies in a large enough magnitude to alter natural or ambient conditions.

Table 10 - Water Quality Benchmarks, Field Monitoring and Toxicity

Constituent	Narrative Objective	Applicable Benchmarks
pH	The pH of inland surface water shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed by more than 0.5 pH units from natural conditions as a result of waste discharges.	6.5 ≤ pH ≤ 8.5 Changes to ambient receiving water conditions are not assessed; "ambient" or "natural" conditions have not been established
Temperature	For water designated WARM, water temperature shall not be altered by more than 5°F above natural temperature. At no time shall WARM-designated waters be raised above 80°F as a result of water discharge	WARM: ≤ 80°F Changes to ambient receiving water conditions are not assessed; "ambient" or "natural" conditions have not been established
	For waters designated as COLD, water temperature shall not be altered by more than 5°F above the natural temperature.	COLD: No numeric benchmark. Changes to ambient receiving water conditions are not assessed; "ambient" or "natural" conditions have not been established.
Dissolved Oxygen	No single dissolved oxygen determination shall be less than 5 mg/L, except when natural conditions cause lesser concentrations.	≥ 5 mg/L
	The dissolved oxygen content of all surface waters designated as WARM shall not be depressed below 5 mg/L as a result of waste discharge.	WARM: ≥ 5 mg/L
	The dissolved oxygen content of all surface waters designated as COLD and SPWN shall not be depressed below 7 mg/L as a result of waste discharge.	COLD, SPWN: ≥ 7 mg/L
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attribute to controllable water quality factors shall not exceed the following limits: Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.	No Numeric benchmarks. Changes to ambient receiving water conditions are not assessed; "ambient" or "natural" conditions have not been established.
Toxicity	All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal or aquatic life. There shall be no chronic toxicity in ambient waters outside mixing zones.	≤ 1.0 TUc ^[3]
Biostimulator Substances	Waters shall not contain biostimulator substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affect beneficial uses.	No Numeric benchmarks. Nutrients listed on Table X.
Total Suspended Solids (TSS)	Wastes shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.	No numeric benchmarks.

5.0 INDIVIDUAL SAMPLING SITE RESULTS

This section presents current and historical sampling events on a site by site basis for sampling sites sampled during this sampling year. Information includes: a summary of detected constituents from water quality sampling, photographs from visits conducted during the most recent site visits and sampling, site maps, and basic site information. All current interim sampling sites are included in this section. Samples collected from sampling sites that are no longer operating or are from previous sampling sites not included as part of the interim sampling protocol are included in the evaluation presented in Section 7 and in Appendix B, but are not presented in this section.

A complete tabulated summary of results from this sampling year, along with historical sampling results, is presented in Appendix B. Laboratory analytical results for samples collected during this sampling year are included in Appendix C.

5.1 INTERIM SAMPLING LOCATIONS

NGA SITE #19

Previous Sampling Group: Group 1

Previous Sampling Frequency - Fixed

Total / Irrigated Acres: 32.0/14.7 Acres

Sample site GPS location: N 34° 09' 51.1" W 118° 38' 2.07"

January 14, 2019, wet season, sample collected



August 30, 2019, dry season, no sample collected



Site Drainage - The main area of the site drains eastward onto Valley Circle Boulevard. Based on site topography, the eastern edge of the site along Valley Circle Boulevard was chosen as the sampling location.

Sampling - Ten samples collected to date. This site was visited during the second wet season sampling event and the second dry season sampling event during this sampling year, and a sample was collected on January 14, 2019.

Historical sampling results for this site are presented in Table 9.

Aerial photography of the site is presented on Figure 2.

Table 11 - Summary of samples collected, NGA #19

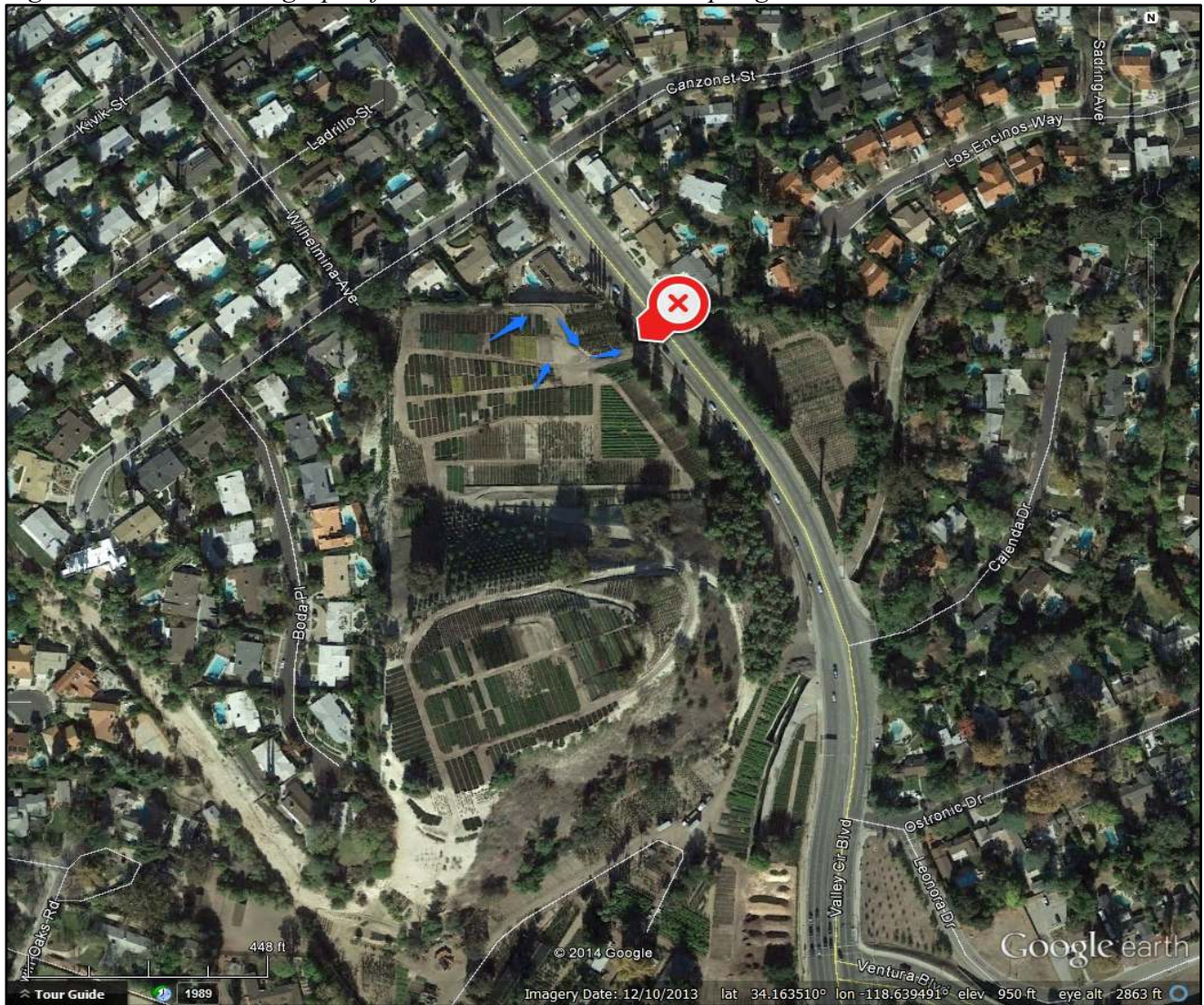
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #19	NGA-#19-LAILG-1	8/13/2007	1	108.57	2.2882	10.84	118.85	2.68	772	4.62	5.09	568	na	na	na
NGA #19	LAILG-NGA#19-2	12/18/2007	1.4	162.66	11.2352	86.7	290.99	2.13	1,292	4.01	5.544	684	na	na	na
NGA #19	LAILG-NGA19-3	1/5/2008	0.12	157.52	0.2125	0.44	451.78	0.96	1,030	1.26	1.173	84	na	na	na
NGA #19	LAILG-NGA 19-4	8/12/2008	0.03	104.03	1.1877	12.65	107.33	1.75	834	1.86	15.494	213	na	na	na
NGA #19	LAILG-NGA 19-5	11/26/2008	0.96	115.72	1.507	26.94	126.35	1.356	748	4.69	4.884	995	na	na	na
NGA #19	LAILG-NGA 19-6	3/23/2011	0.54	110	0.86	55	250	1.1	1,200	0.860	3.4	550	440	180	0.090
NGA #19	LAILG-NGA 19-7	2/28/2014	1.4	120	2.40	53	160	2.8	1,000	2.40	4.7	650	319	128	0.056
NGA #19	LAILG-NGA-19-8	1/20/2017	0.31	42	0.780	25	61	0.82	700	0.78	2.7	430	163	65.2	0.047
NGA #19	LAILG-NGA-19-9	3/22/2018	0.53	140	0.480	93	150	0.54	1,400	0.48	3.3	760	434	174	0.060
NGA #19	LAILG-NGA-19-10	1/14/2019	1.9	51	0.630	31/40 ^{EO}	40	0.11	490	0.63	3.2	780	287	81.6/20.1	0.057

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)			Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Total Chlordane	Chlorpyrifos	Diazinon	Malathion	Total sum of all detected Pyrethroids
NGA #19	NGA-#19-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	0
NGA #19	LAILG-NGA#19-2	12/18/2007	nd	2.4	nd	15	2,291.3	1,814
NGA #19	LAILG-NGA19-3	1/5/2008	5.6	14	nd	nd	nd	6.8
NGA #19	LAILG-NGA 19-4	8/12/2008	nd	1.3	nd	nd	nd	91.8
NGA #19	LAILG-NGA 19-5	11/26/2008	24.7	6.6	130.1	32.6	nd	2,236.2
NGA #19	LAILG-NGA 19-6	3/23/2011	nd	nd	25	nd	nd	29
NGA #19	LAILG-NGA 19-7	2/28/2014	nd	nd	22	nd	nd	30
NGA #19	LAILG-NGA-19-8	1/20/2017	nd	nd	nd	nd	nd	64
NGA #19	LAILG-NGA-19-9	3/22/2018	nd	nd	nd	nd	nd	78
NGA #19	LAILG-NGA-19-10	1/14/2019	nd	nd	nd	nd	nd	nd

Results above CWIL Limits are presented in **BOLD**.

- | | | | |
|------|-----------------------------|-------|------------------------|
| mg/L | milligrams per liter | Diss | Dissolved |
| ng/L | nanograms per liter | Ortho | Orthophosphate |
| OC | Organochlorinated Pesticide | Phos | Phosphorus |
| OP | Organophosphorus Pesticide | TDS | Total Dissolved Solids |
| Pyd | Pyrethroid Pesticide | TSS | Total Suspended Solids |
| na | Constituent not analyzed | Ca | Calcium |
| nd | Constituent not detected | Cu | Copper |

Figure 2 – Aerial Photograph of NGA #19 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #124/125

Previous Sampling Group: Group 1
Previous Sampling Frequency - Fixed
Total/Irrigated Acres: 10.4/8.3 Acres
Sample site GPS location: N 34° 05' 56.9" W 118° 04' 56.0"

November 29, 2018, wet season, sample collected



August 22, 2019, dry season, no sample collected



Site Drainage - The site drains southward into a gravel bed along the southern border of the property, near the railroad tracks. Based on drainage and runoff indicators, the south/southwest edge of the property was chosen as the sampling location.

Sampling - Ten samples collected to date. This site was visited during the first wet season sampling event and first dry season sampling event during this sampling year, and a sample was collected on November 29, 2018.

Historical sampling results for this site are presented in Table 10.

Aerial photography of the site is presented on Figure 3.

Table 12 - Summary of samples collected, NGA #124

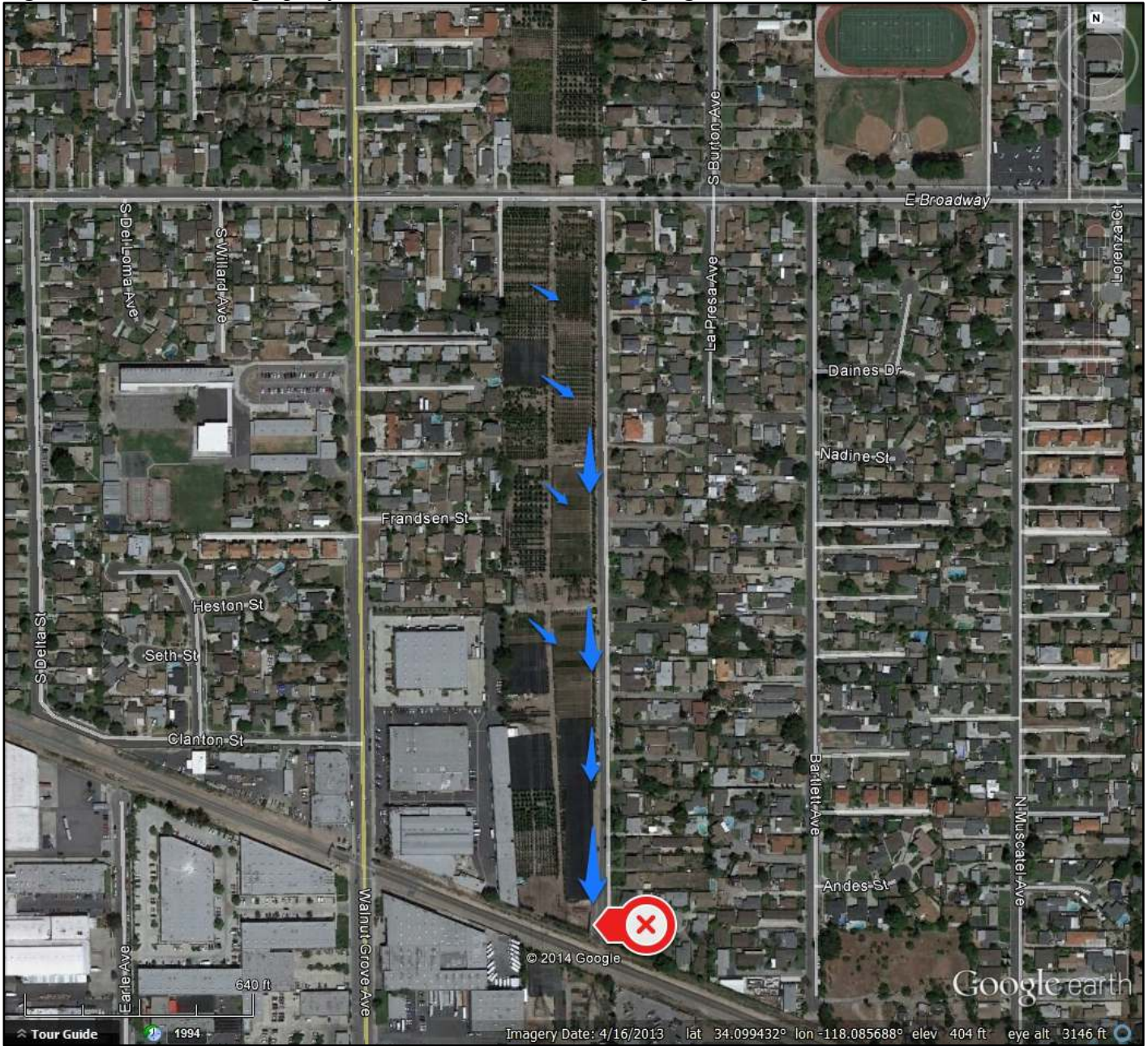
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #124	NGA-#124-LAILG-1	8/13/2007	9.8	69.23	3.5006	72.48	206.25	4.31	1,002	3.96	4.627	99.5	na	na	na
NGA #124	NGA-#124-LAILG-2	12/7/2007	4.6	33.03	3.9247	45.41	59.24	2.9	550	2.76	3.168	90	na	na	na
NGA #124	LAILG-NGA#124-3	1/5/2008	15.5	28.3	0.9814	28.34	57.68	1.66	378	1.66	2.228	40	na	na	na
NGA #124	LAILG-NGA#124-4	11/26/2008	0.48	37.78	2.595	28.36	84.22	2.975	568	2.53	3.297	117	na	na	na
NGA #124	LAILG-NGA 124-5	12/15/2008	1.68	26.51	24.4087	40.43	45.28	21.115	424	3.66	2.706	115.5	na	na	na
NGA #124	LAILG-NGA 124-6	3/21/2011	0.36	9.4	1.8	6.7	24	1.8	240	1.800	2.7	620	61	24	0.045
NGA #124	LAILG-NGA 124-7	2/28/2014	4.5	21	1.200**	13	100	1.5	420	1.2	2.2	160	125	50.2	0.049
NGA #124	LAILG-NGA-124-8	2/17/2017	0.50	7.6	0.77**	3.8	70	0.73*	270	0.76**	3.9	740	120	48.1	0.120
NGA #124	LAILG-NGA-124-9	1/9/2018	4.10	44	1.9	1.0	270	2	840	1.80	3.0	150	327	131	0.059
NGA #124	LAILG-NGA-124-10	11/29/2018	1.1	44	1.800	28	140	1.9	610	1.8	0.28	420	186	74.7	0.120

Site	Sample #	Date	OC Pesticides (ng/L)			OP Pesticides (ng/L)		Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Dieldrin	Total Chlordane	Chlorpyrifos	Malathion	Total sum of all detected Pyrethroids
NGA #124	NGA-#124-LAILG-1	8/13/2007	51.5	na	34	nd	nd	136.9
NGA #124	NGA-#124-LAILG-2	12/7/2007	37.4	na	11.4	nd	nd	3,704.3
NGA #124	LAILG-NGA#124-3	1/5/2008	nd	na	17.1	nd	nd	1,898.6
NGA #124	LAILG-NGA#124-4	11/26/2008	19.3	na	8.2	nd	nd	7,536.1
NGA #124	LAILG-NGA 124-5	12/15/2008	10.4	na	13.6	nd	85.3	19,281.3
NGA #124	LAILG-NGA 124-6	3/21/2011	nd	33	nd	10	nd	169.8
NGA #124	LAILG-NGA 124-7	2/28/2014	nd	nd	nd	17	13	3,916
NGA #124	LAILG-NGA-124-8	2/17/2017	nd	nd	nd	nd	nd	4,890
NGA #124	LAILG-NGA-124-9	1/9/2018	nd	nd	nd	nd	nd	226
NGA #124	LAILG-NGA-124-10	11/29/2018	nd	n	nd	nd	nd	1,895

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 3 – Aerial Photograph of NGA #124 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #178

Previous Sampling Group: Group 1
Previous Sampling Frequency - Fixed
Total/Irrigated Area: 10.0/8.5 Acres
Sample site GPS location: N 34° 17' 57.42" W 118° 25' 06.46"

November 29, 2018, wet season, sample collected



August 22, 2019, dry season, no sample collected



Site Drainage - The drainage gradient flows to the south, through a channel that crosses the property. Based on drainage properties, the end of the channel was identified as the anticipated sampling location.

Sampling - Five samples collected to date. This site was visited during the first wet season sampling event and the first dry season sampling event during this sampling year, and a sample was collected on November 29, 2018.

Historical sampling results for this site are presented in Table 11.

Aerial photography of the site is presented on Figure 4.

Table 13 - Summary of samples collected, NGA #178

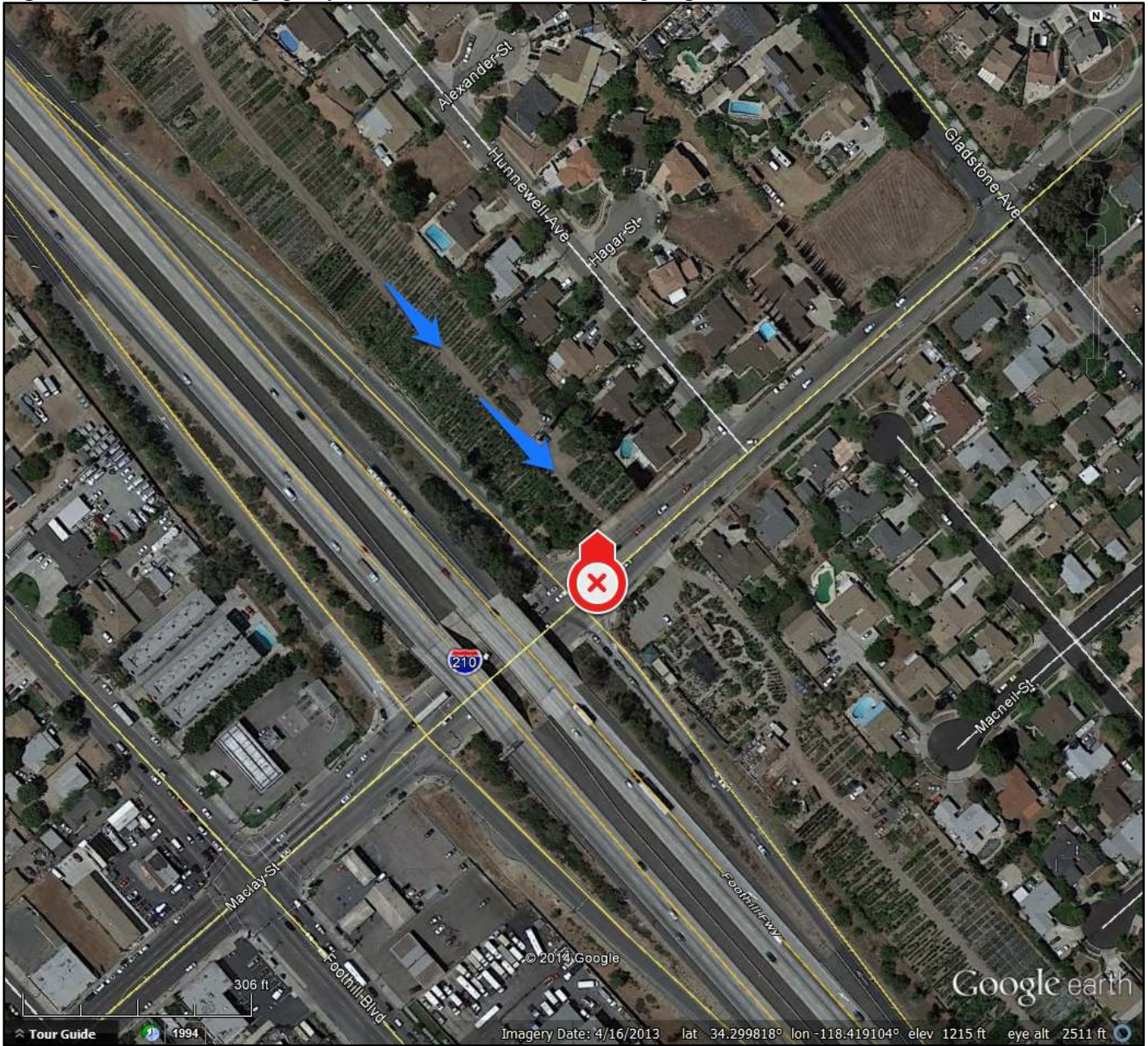
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #178	LAILG-NGA 178-1	12/15/2008	0.81	85.04	2.4077	12.99	148.27	2.648	462	2.64	2.934	72.7	na	na	na
NGA #178	LAILG-NGA 178-2	2/28/2014	0.87	120	2.2	10	370	2.4	940	2.2	3.6	270	324	130	0.030
NGA #178	LAILG-NGA-178-3	2/17/2017	0.58	74	1.3	0.55	200	1.3*	720	1.3	13	2900	431	173	0.37
NGA #178	LAILG-NGA-178-4	1/9/2018	0.48	87	2.400	3.9	100	2.4	520	2.4	5.6	930	172	69	0.073
NGA #178	LAILG-NGA-178-5	11/29/2018	3.6	290	2.300	17	250	2.4	1300	2.3	2.8	160	242	96.8	0.042

Site	Sample #	Date	OC Pesticides (ng/L)	OP Pesticides (ng/L)	Pyd Pesticides (ng/L)	
			Total DDT and Derivatives	No OP Pesticides Detected	Total sum of all detected Pyrethroids	
NGA # 178	LAILG-NGA 178-1	12/15/2008	25.3		No OP Pesticides Detected	4.9
NGA # 178	LAILG-NGA 178-2	2/28/2014	nd			40
NGA #178	LAILG-NGA-178-3	2/17/2017	nd			20
NGA #178	LAILG-NGA-178-4	1/9/2018	nd			nd
NGA #178	LAILG-NGA-178-5	11/29/2018	nd			nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 4 – Aerial Photograph of NGA #178 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #184

Previous Sampling Group: Group 1
Previous Sampling Frequency - Fixed
Total/Irrigated Area: 36.0/36.0 Acres
Sample site GPS location: N 34° 13' 29.41" W 118° 29' 22.83"

November 29, 2018, wet season, no sample collected



August 22, 2019, dry season, no sample collected



Site Drainage - The site is split into three lots, with the northern section selected as the sampling location based on site topology and drainage patterns. The northern section is a five-acre lot with a drainage gradient flowing to the north. Water flows into a drainage ditch along the eastern side of the property and flows south onto Chase Street. Based on drainage properties, the point of exit from the property onto Chase Street was identified as the anticipated sampling location.

Sampling - Four samples collected to date. This site was visited during the first wet season sampling event and the first dry season sampling event during this sampling year, no samples were collected.

Historical sampling results for this site are presented in Table 12.

Aerial photography of the site is presented on Figure 5.

Table 14 - Summary of samples collected, NGA #184

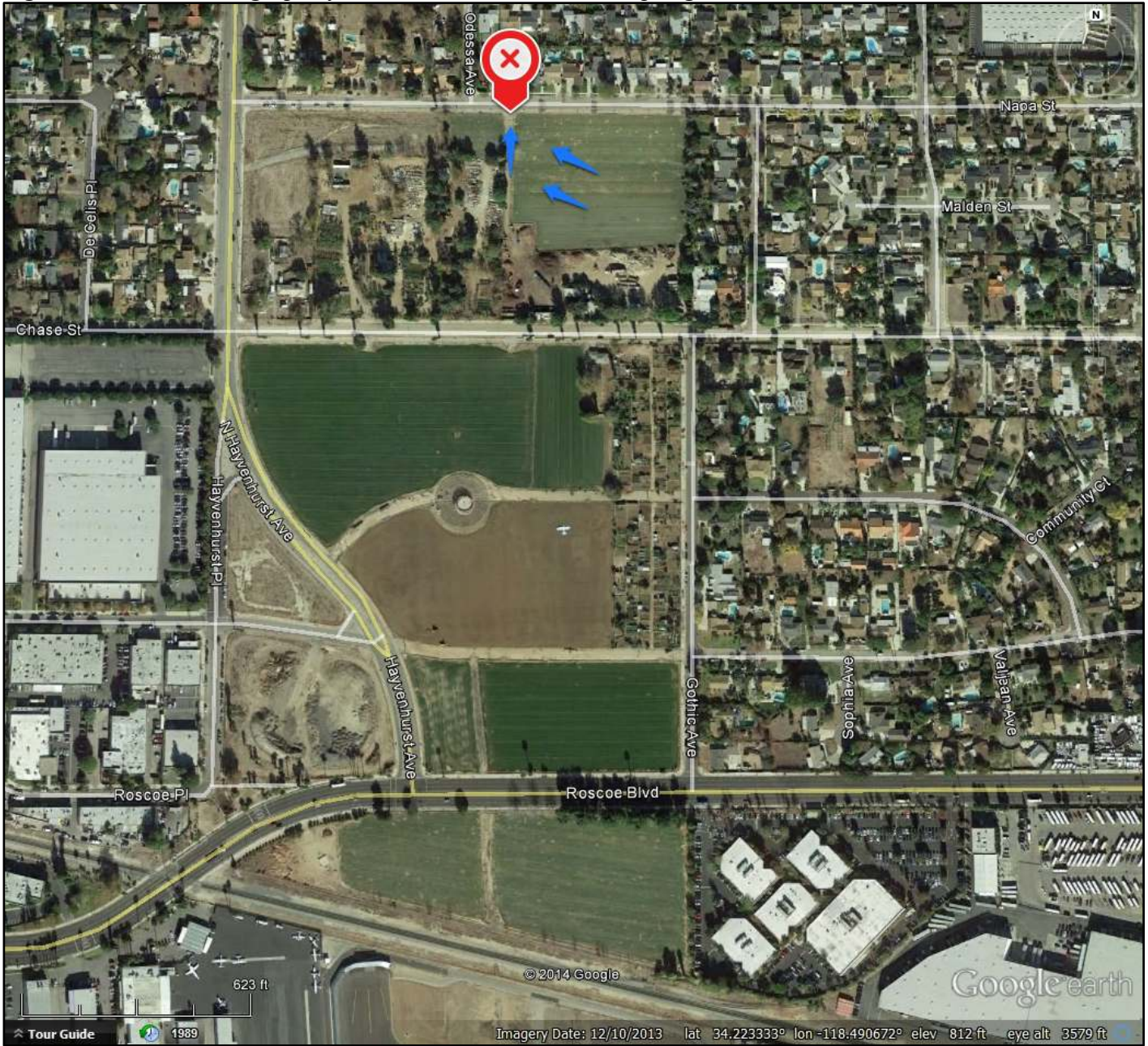
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #184	LAILG-NGA 184-1	11/26/08	0.46	31.44	0.609	3.12	17.92	0.643	206	0.88	1.3	129.5	na	na	na
NGA #184	LAILG-NGA 184-2	12/15/08	0.64	27.46	0.7339	4.41	33.57	0.502	240	2.16	2.94	1,079	na	na	na
NGA #184	LAILG-NGA 184-3	2/28/14	0.23	2.5	0.33	0.4	1.6	0.44	41	0.33	0.72	160	13.8	5.54	0.0079
NGA #184	LAILG-NGA-184-4	1/9/18	7.4	23	1.500	1.3	61	1.7	240	1.5	10	230	104	41.8	0.110

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Total Chlordane	No OP Pesticides Detected	Total sum of all detected Pyrethroids
NGA #184	LAILG-NGA 184-1	11/26/08	nd	nd		3.1
NGA #184	LAILG-NGA 184-2	12/15/08	22	4.2		30.7
NGA #184	LAILG-NGA 184-3	2/28/14	nd	nd		2.5
NGA #184	LAILG-NGA-184-4	1/9/18	nd	nd	352	

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 5 – Aerial Photograph of NGA #184 and General Sampling Location



General Sampling Location

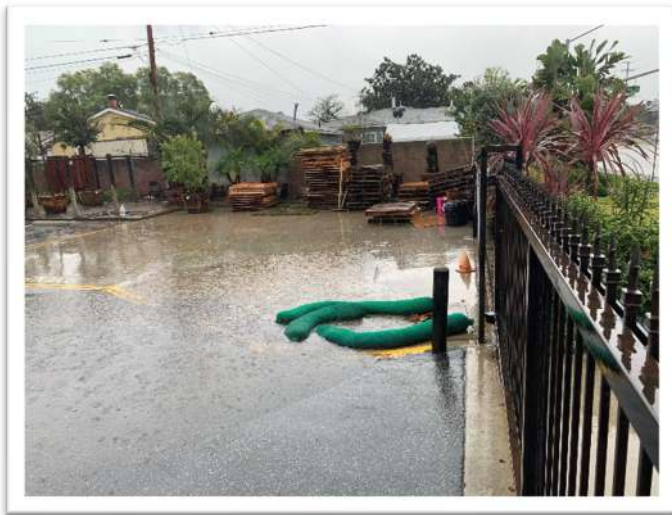


General Surface Flow to Sampling Location

NGA SITE #64

Sampling Group: Group 3
Sampling Frequency - Fixed
Total/Irrigated Acres: 5.5/2.5 Acres
Sample site GPS location: N 33° 52' 05.9" W 118° 08' 32.3"

January 14, 2019, wet season, sample collected



August 30, 2019, dry season, no sample collected



Site Drainage - The site drains to the west, into two drains on the western border of the property that feed directly to Lakewood Boulevard. Based on drainage, one of the western drains was chosen as the sampling location.

Sampling - Six samples collected to date. This site was visited during the second wet season sampling event and the second dry season sampling event during this sampling year, and a sample was collected on January 14, 2019.

Historical sampling results for this site are presented in Table 19.

Aerial photography of the site is presented on Figure 11.

Table 15 - Summary of samples collected, NGA #64

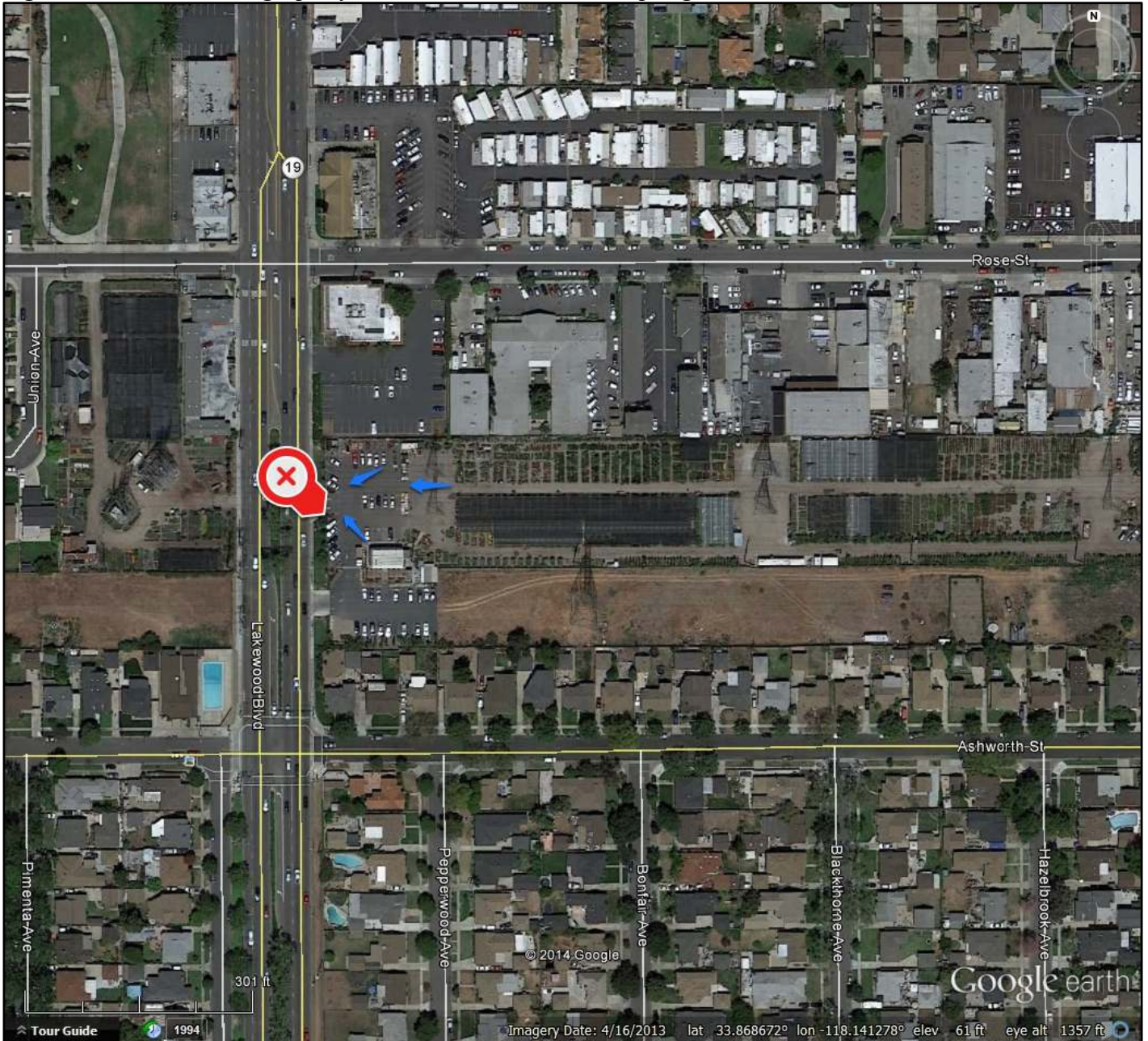
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #64	LAILG-NGA-64-1	1/23/2008	0.2	3.82	0.2818	3.83	101.1	0.3	nd	0.46	0.393	76	na	na	na
NGA #64	LAILG-NGA-64-2	12/15/2008	1.15	12.38	0.4307	5.39	35.34	0.49	232	0.71	0.868	112	na	na	na
NGA #64	LAILG-NGA-64-3	3/17/2012	0.79	5.8	0.28	0.70	8.4	0.32	57	0.28	1.5	500	51	21	0.047
NGA #64	LAILG-NGA-64-4	1/5/2016	0.63	3.9	0.15	0.70	7.2	0.17	45	0.16	0.5	190	28.3	11.3	0.027
NGA #64	LAILG-NGA-64-5	3/22/2018	0.37	3.3	0.260	1.4	5.8	0.26	92	0.26	0.64	110	29.1	11.7	0.013
NGA #64	LAILG-NGA-64-6	1/14/2019	0.21	6.0	0.240	3.1	7.8	0.018	49	0.23	0.51	140	39.4	10.6/3.15	0.013

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Toxaphene		
NGA #64	LAILG-NGA-64-1	1/23/2008	0	0	No OP Pesticides Detected	47.4
NGA #64	LAILG-NGA-64-2	12/15/2008	43.3	666		110
NGA #64	LAILG-NGA-64-3	3/17/2012	28	nd		22
NGA #64	LAILG-NGA-64-4	1/5/2016	nd	nd		7.3
NGA #64	LAILG-NGA-64-5	3/22/2018	nd	nd		nd
NGA #64	LAILG-NGA-64-6	1/14/2019	nd	nd		nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 11 – Aerial Photograph of NGA #64 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #168

Previous Sampling Group: Group 3
Previous Sampling Frequency - Fixed
Total/Irrigated Acres: 6.0/4.75 Acres
Sample site GPS location: N 33° 51' 3.2" W 118° 4' 55.2"

January 14, 2019, wet season, sample collected



August 30, 2019, dry season, no sample collected



Site Drainage -The site drains to the east of the property through drainage ditches and runs into Jacob Avenue. Based on drainage properties, the eastern edge of the property by the drainage ditches was chosen as the sampling location.

Sampling - Ten samples collected to date. This site was visited during the second wet season sampling event and second dry season sampling event during this sampling year, and a sample as collected on January 14, 2019.

Historical sampling results for this site are presented in Table 14.

Aerial photography of the site is presented on Figure 7.

Table 16 - Summary of samples collected, NGA #168

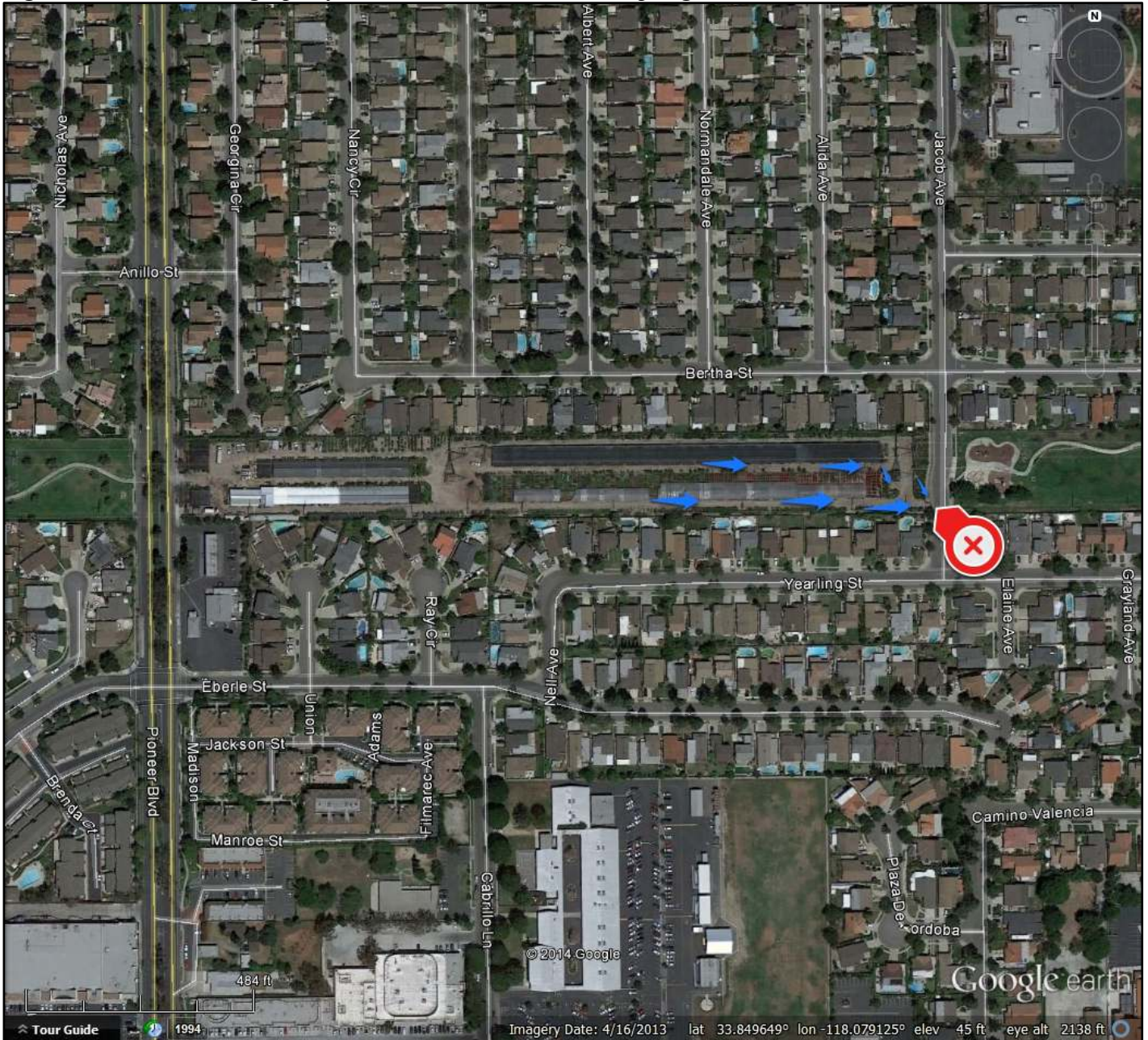
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #168	NGA-#168-LAILG-1	8/13/2007	0.4	81.85	1.977	4.93	131.16	2.28	664	2.13	3.243	122	na	na	na
NGA #168	ILGNGA-#168-2	9/28/2007	2.2	172.52	1.582	8.91	340.14	2.15	1,297	3.51	5.379	504	na	na	na
NGA #168	NGA-#168-LAILG-3	11/30/2007	0.48	101.43	2.1635	30.81	245.04	2.67	951	3.13	3.548	nd	na	na	na
NGA #168	LAILG-NGA-168-4	1/25/2008	0.38	65.9	3.053	14.58	117.44	3.07	592	5.45	2.363	1126.7	na	na	na
NGA #168	LAILG-NGA-168-5	12/15/2008	0.25	53.4	1.4434	15.33	130.75	1.568	492	2.24	2.386	236	na	na	na
NGA #168	LAILG-NGA-168-6	3/17/2012	0.89	82	1.1	35	470	1.7	1,100	1.1	8.4	1200	500	200	0.110
NGA #168	LAILG-NGA-168-7	5/15/2015	0.18	57	0.36	11	120	0.44	400	0.36	0.74	91	134	53.7	0.036
NGA #168	LAILG-NGA-168-8	1/5/2016	0.36	41	0.32	15	160	0.45	410	0.32	0.80	140	162	64.9	0.036
NGA #168	LAILG-NGA-168-9	3/22/2018	0.14	32	0.450	10	200	0.52	470	0.45	0.69	35	155	62.0	0.027
NGA #168	LAILG-NGA-168-10	1/14/2019	0.18	27	0.400	11	44	0.054	220	0.41	0.90	97	98.5	25.9/8.21	0.026

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Total Chlordane	Malathion	Total sum of all detected Pyrethroids
NGA #168	NGA-#168-LAILG-1	8/13/2007	nd	nd	nd	1,379.1
NGA #168	ILGNGA-#168-2	9/28/2007	118	nd	nd	964.0
NGA #168	NGA-#168-LAILG-3	11/30/2007	2.7	2.8	8.9	466.1
NGA #168	LAILG-NGA-168-4	1/25/2008	19.2	nd	nd	187.9
NGA #168	LAILG-NGA-168-5	12/15/2008	11.8	nd	38.9	1,375.9
NGA #168	LAILG-NGA-168-6	3/17/2012	nd	nd	nd	72
NGA #168	LAILG-NGA-168-7	5/15/2015	nd	nd	nd	484.3
NGA #168	LAILG-NGA-168-8	1/5/2016	nd	nd	nd	379
NGA #168	LAILG-NGA-168-8	1/5/2016	nd	nd	nd	97
NGA #168	LAILG-NGA-168-10	1/14/2019	nd	nd	nd	909

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 7 – Aerial Photograph of NGA #168 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #4

Previous Sampling Group: Group 4
Previous Sampling Frequency - Fixed
Total / Irrigated Acres: 19.2 / 11.5
Sample site GPS location: N 33° 52' 55.5" W 118° 16' 06.1"

January 14, 2019, wet season, sample collected



August 30, 2019, dry season, no sample collected



Site Drainage - The northern half of the site drains northward into two storm drains located on the property boundary along Gardena Boulevard. The southern half of the site drains to the south, where the majority appears to percolate into the soil. Another storm drain is located on the southwest corner of the property. Based on drainage properties, one of the northern storm drains on the edge of the site was chosen as the sampling location.

Sampling – Ten samples collected to date. This site was visited during the second wet season sampling event and second dry season sampling event during this sampling year, and a sample as collected on January 14, 2019.

Historical sampling results for this site are presented in Table 15.

Aerial photography of the site is presented on Figure 8.

Table 17 - Summary of samples collected, NGA #4

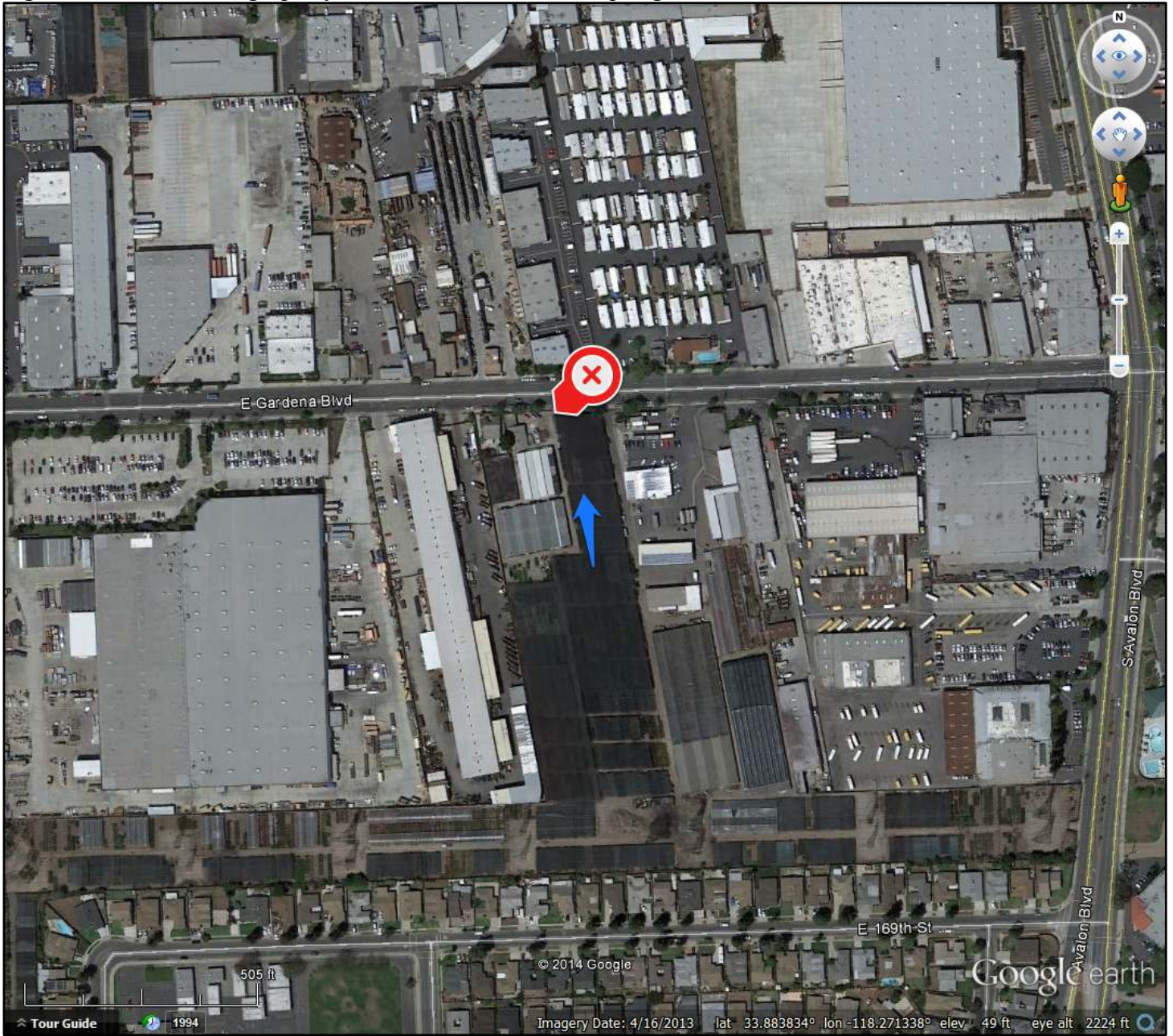
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #4	NGA #4-LAILG-1	12/7/2007	0.48	20.64	1.1355	4.03	20.39	0.8	186	0.77	0.829	58	na	na	na
NGA #4	LAILG-NGA4-2	1/23/2008	0.24	1.45	0.1891	0.6	3.87	0.15	145	0.26	1.848	27	na	na	na
NGA #4	LAILG-NGA 4-3	8/13/2008	0.68	350.11	11.5262	200.18	219.52	69.7	2,238	13.05	31.713	371	na	na	na
NGA #4	LAILG-NGA 4-4	12/15/2008	0.52	8.67	1.0382	2.7	15.23	0.158	238	2.33	2.231	295	na	na	na
NGA #4	LAILG-NGA 4-5	3/21/2011	0.69	10	0.31	1.5	8.3	0.52	110	0.310	2.6	810	62	25	0.230
NGA #4	LAILG-NGA 4-6	3/25/2012	na	69	1.1	17	52	1.0	320	1.1	1.4	34	100	42	0.051
NGA #4	LAILG-NGA-4-8	1/20/2017	0.33	3.3	0.082	0.76	2.4	0.080	46	0.082	0.12	15	7.58	3.04	0.0045
NGA #4	LAILG-NGA-4-9	3/22/2018	0.32	2.4	0.25	0.58	2.500	0	42.000	0.25	0.44	82	13.5	5.4200	0.022
NGA #4	LAILG-NGA-4-10	1/14/2019	0.24	1.8	0.086	0.67	1.1	0.16	<10	0.084	0.21	31	12.5	3.70/0.784	0.009

Site	Sample #	Date	OC Pesticides (ng/L)			OP Pesticides (ng/L)				Pyd Pesticides (ng/L)
			Dicofol	Total DDT and Derivatives	Total Chlordane	Chlorpyrifos	Diazinon	Dichlorvos	Malathion	Total sum of all detected Pyrethroids
NGA #4	NGA #4-LAILG-1	12/7/2007	nd	nd	nd	1,122.6	175.2	11.3	nd	2,107.5
NGA #4	LAILG-NGA4-2	1/23/2008	nd	nd	nd	153.8	2,212.1	nd	15,453.2	1,389.4
NGA #4	LAILG-NGA 4-3	8/13/2008	485.7	nd	38.8	nd	6,058.9	nd	1,148,630	26,753.7
NGA #4	LAILG-NGA 4-4	12/15/2008	nd	nd	99.5	590.9	859	nd	102,357.2	96,588.0
NGA #4	LAILG-NGA 4-5	3/21/2011	na	38	39.6	11,000	1,000	nd	7,300	1,625.3
NGA #4	LAILG-NGA 4-6	3/25/2012	nd	nd	nd	44,000	nd	nd	2,100	109.7
NGA #4	LAILG-NGA-4-8	1/20/2017	nd	nd	nd	11	17	nd	30	nd
NGA #4	LAILG-NGA-4-9	3/22/2018	nd	nd	nd	360	62.0	nd	160	nd
NGA #4	LAILG-NGA-4-10	1/14/2019	nd	nd	nd	nd	nd	nd	nd	nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 8 – Aerial Photograph of NGA #4 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE #176

Previous Sampling Group: Group 4
Previous Sampling Frequency - Fixed
Total/Irrigated Acres: 12.0/7.5 Acres
Sample site GPS location: N 33° 51' 24.4" W 118° 22' 51.6"

January 14, 2019, wet season, no sample collected



August 30, 2019, dry season, no sample collected



Site Drainage - The site drains to the center, and they currently have a catch basin in the center to catch site runoff. During heavy rains, runoff from the site is reported to occur, and appears that it would run off to the southeast corner of the site.

Sampling – Three samples collected to date. This site was visited during the second wet season sampling event and second dry season sampling event during this sampling year; no samples were collected.

Historical sampling results for this site are presented in Table 16.

Aerial photography of the site is presented on Figure 9.

Table 18 - Summary of samples collected, NGA #176

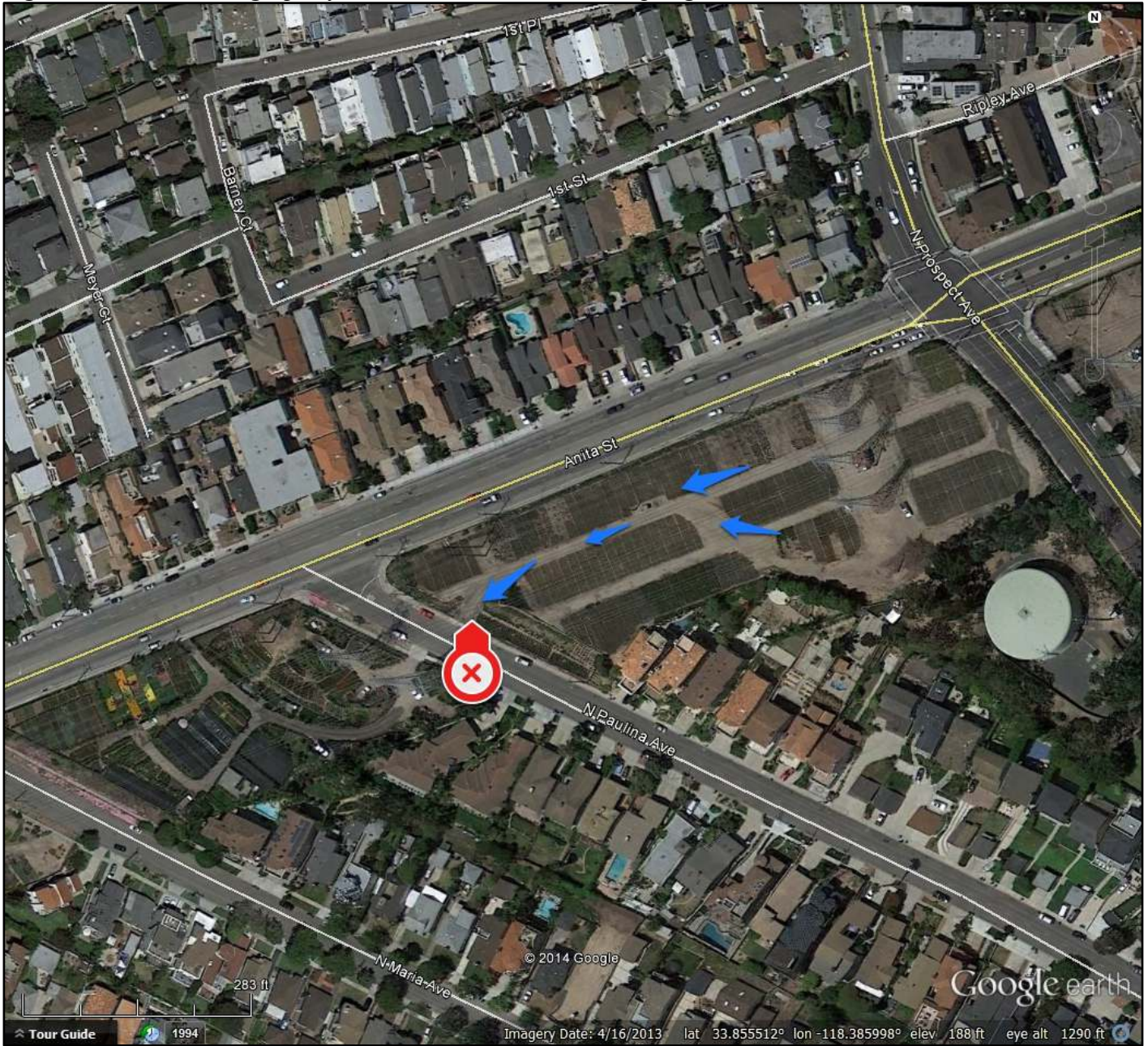
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #176	NGA-#176-LAILG-1	12/18/07	5.5	56.82	0.7145	3.85	293.12	0.54	680	12.21	3.447	6,168	na	na	na
NGA #176	LAILG-NGA-176-2	3/25/12	0.30	29	0.99	8.7	43	0.99	220	0.99	2.2	550	80	32	0.066
NGA #176	LAILG-NGA-176-3	1/20/17	<0.10	3.9	0.28**	0.70	3.6	0.32	97	0.28**	0.70	360	13.4	5.38	0.029

Site	Sample #	Date	OC Pesticides (ng/L)	OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			No Detected DDT and Derivatives	No Detected OP Pesticides Detected	Total sum of all detected Pyrethroids
NGA #176	NGA-#176-LAILG-1	12/18/07	No Detected DDT and Derivatives	No Detected OP Pesticides Detected	873.9
NGA #176	LAILG-NGA-176-2	3/25/12			305
NGA #176	LAILG-NGA-176-3	1/20/17			nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 9 – Aerial Photograph of NGA #176 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE # 158

Previous Sampling Group: Group 1
Previous Sampling Frequency - Rotating
Total / Irrigated Acres: 7.00 / 6.89
Sample site GPS location: N 34° 06' 49.0" W 118° 04' 55.9"

November 29, 2018, wet season, sample collected



August 22, 2019, dry season, no sample collected



Site Drainage – The topography is relatively flat, and drains as surface flow. Based on drainage properties and site access, the southwestern corner of property to the north of Longden Avenue was chosen as the sampling location.

Sampling – Two samples collected to date. This site was visited during the first wet season sampling event and the first dry season sampling event during this sampling year, and a sample was collected on November 29, 2018.

Historical sampling results for this site are presented in Table 17.

Aerial photography of the site is presented on Figure 10.

Table 19 - Summary of samples collected, NGA #158

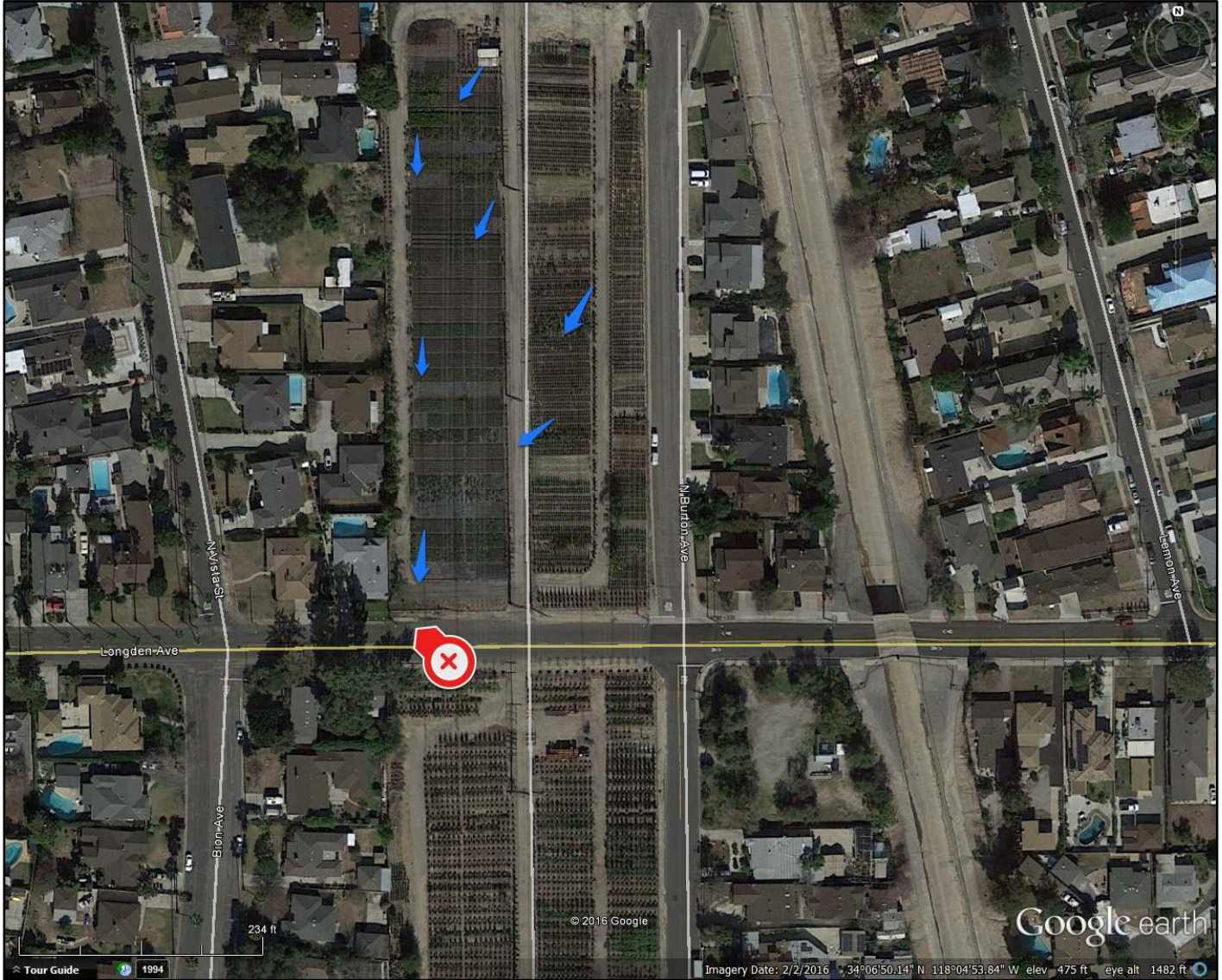
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #158	LAILG-NGA-158-1	2/17/2017	0.18	1.9	0.19	0.55	20	0.29	38	0.19	0.60	110	29.5	11.8	0.039
NGA #158	LAILG-NGA-158-2	11/29/2018	0.67	13	0.610	8.0	74	0.68	190	0.59	1.4	300	90	36.0	0.096

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			No Detected DDT and Derivatives	No Detected Chlordanes	Diazinon	Total sum of all detected Pyrethroids
NGA #158	LAILG-NGA-158-1	2/17/2017			nd	54
NGA #158	LAILG-NGA-158-2	11/29/2018			150	nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 10 – Aerial Photograph of NGA #158 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

NGA SITE # 202

Previous Sampling Group: Group 2
Previous Sampling Frequency - Rotating
Total / Irrigated Acres: 9.00 / 7.00
Sample site GPS location: N 34° 06' 37.6" W 117° 56' 28.0"

November 29, 2018, wet season, sample collected



August 22, 2019, dry season, no sample collected



Site Drainage – The site lies in a valley, with the surrounding area a couple feet above grade. Natural grade drains from north to south. The estimated discharge will be the southern-most access gate on the property.

Sampling – Three samples collected to date. This site was visited during the first wet season sampling event and the first dry season sampling event during this sampling year, and a sample was collected on November 29, 2018.

Historical sampling results for this site are presented in Table 18.

Aerial photography of the site is presented on Figure 11.

Table 20 - Summary of samples collected, NGA #202

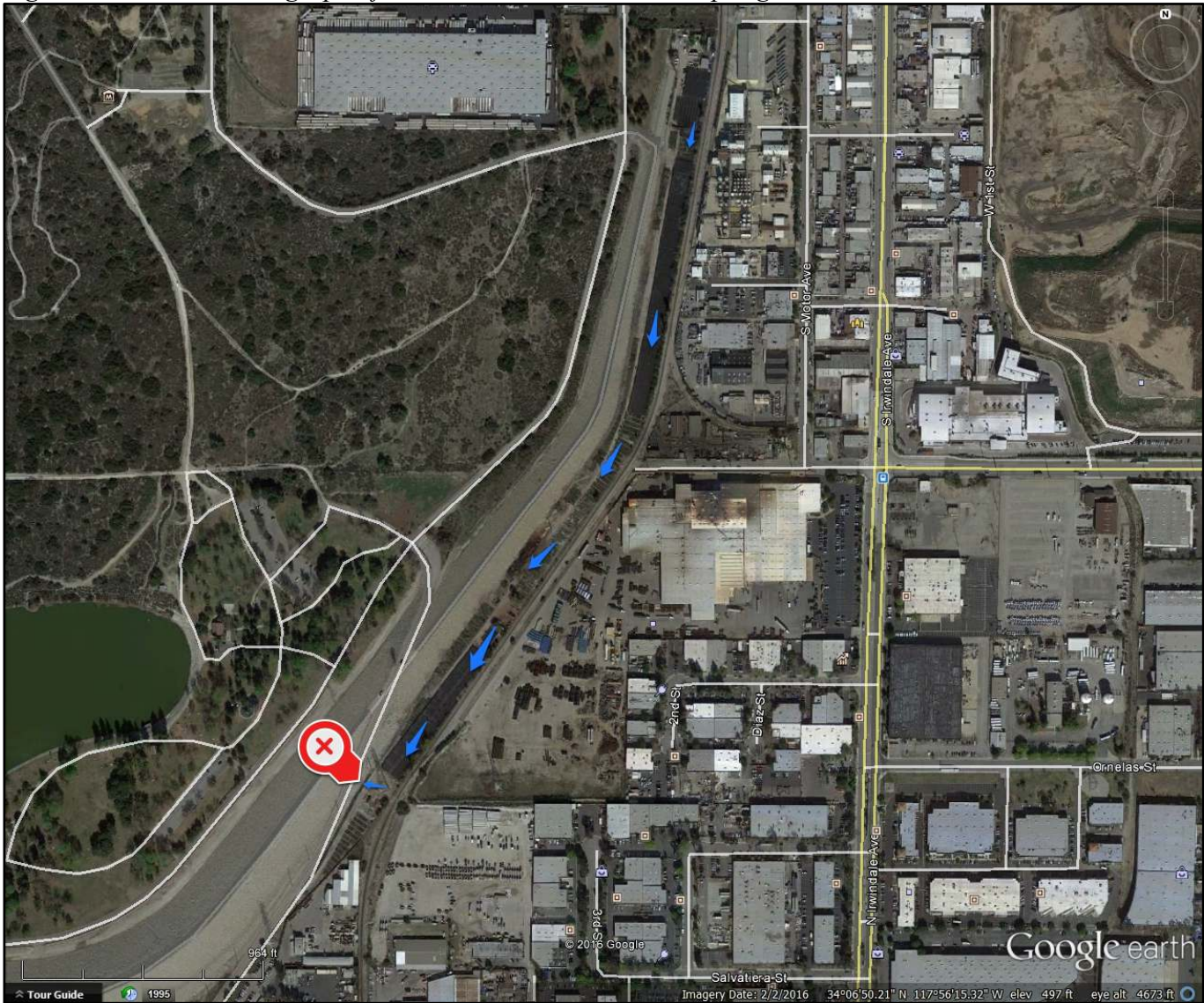
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #202	LAILG-NGA-202-1	2/17/2017	0.11	6.5	0.45	1.8	18	0.47*	140	0.46	0.81	130	39.7	15.9	0.038
NGA #202	LAILG-NGA-202-2	1/9/2018	0.23	30	1.800	7.2	60	1.8	310	1.8	2.2	61	99.2	39.7	0.037
NGA #202	LAILG-NGA-202-3	11/29/2018	0.22	37	1.200	8.5	56	1.3	300	1.2	1.4	87	83.8	33.5	0.056

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			No Detected DDT and Derivatives	No Detected Chlordanes	Malathion	Total sum of all detected Pyrethroids
NGA #202	LAILG-NGA-202-1	2/17/2017	No Detected DDT and Derivatives	No Detected Chlordanes	nd	96
NGA #202	LAILG-NGA-202-2	1/9/2018			73	47
NGA #202	LAILG-NGA-202-3	11/29/2018			nd	nd

Results above CWIL Limits are presented in **BOLD**.

mg/L	milligrams per liter	Diss	Dissolved
ng/L	nanograms per liter	Ortho	Orthophosphate
OC	Organochlorinated Pesticide	Phos	Phosphorus
OP	Organophosphorus Pesticide	TDS	Total Dissolved Solids
Pyd	Pyrethroid Pesticide	TSS	Total Suspended Solids
na	Constituent not analyzed	Ca	Calcium
nd	Constituent not detected	Cu	Copper

Figure 11 – Aerial Photograph of NGA #202 and General Sampling Location



General Sampling Location



General Surface Flow to Sampling Location

6.0 SUMMARY OF SAMPLING SITE RESULTS

6.1 WATER QUALITY BENCHMARK EXCEEDANCES

A total of 98 samples have been collected since the inception of the program. During this sampling year, a total of eight samples were collected over two sampling events.

For or the purpose of analysis, benchmarks are broken into four general groups: general chemistry (including nutrients), pesticides, toxicity, and field monitoring. Water quality benchmarks for each group are presented in Section 4. A summary of WQBs exceeded during this sampling year, and throughout the life of the program, is presented below. Numerical values for each constituent are presented on the tables included in Appendix B, and laboratory analytical results are presented in Appendix C. A discussion of the exceedances follows.

6.1.1 General Chemistry

Based on laboratory analytical results, WQBs were exceeded for nine general chemistry constituents in samples collected at six of the eight sites sampled during this sampling year. Table 19 summarizes general chemistry exceedances for individual constituents reported during this sampling year and throughout the life of the program. A complete summary of analytical results for general chemistry constituents is included in Appendix B.

Total Dissolved Solids

Laboratory results reported TDS exceedances in one of the eight samples collected during this sampling period, and 32 of the 98 total samples (32.7 %) collected throughout the life of the program have reported exceedances of TDS.

Chloride

Laboratory results reported Chloride exceedances in one of the eight samples collected during this sampling period, and nine of the 98 total samples (9.2 %) collected throughout the life of the program have reported exceedances of Chloride.

Sulfate

Laboratory results reported Sulfate exceedances in one of the eight samples collected during this sampling period, and 13 of the 98 total samples (13.3 %) collected throughout the life of the program have reported exceedances of Sulfate.

Nutrients (Nitrate/Ammonia/Phosphorus)

Laboratory results reported Nitrogen exceedances in six of the eight samples during this sampling period, and 51 of the 98 total samples (52.0 %) collected throughout the life of the program. Laboratory results did not report Nitrogen as Ammonia exceedances in any samples collected during this sampling period. Four of the 98 total samples (4.1 %) collected throughout the life of the program have reported exceedances of Ammonia. WQBs for Phosphate have not been established.

Table 21 - Summary of Water Quality Exceedances, General Chemistry

Constituent	CWIL Order # R4-2005-0080												Total	% of samples
	YEAR 1				YEAR 2				YEAR 3		YEAR 4			
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season	Wet Season	Dry Season	Wet Season		
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #1	Event #1	Event #1		
Ammonia	1	1	0	1	0	0	1	0	ns	ns	ns	ns	4	7.7%
TDS	4	3	5	2	1	0	2	2	ns	ns	ns	ns	19	36.5%
Sulfate	0	0	1	1	0	0	2	2	ns	ns	ns	ns	6	11.5%
Chloride	1	0	2	1	0	0	0	1	ns	ns	ns	ns	5	9.6%
Nitrogen	3	3	7	2	2	1	4	8	ns	ns	ns	ns	30	57.7%
Total Number of Exceedances	9	7	15	7	3	1	9	13	ns	ns	ns	ns	64	
Average # of Exceedances per sample	1.80	2.33	1.07	0.88	1.50	1.00	1.13	1.18	ns	ns	ns	ns	1.23	
Number of Samples Collected	5	3	14	8	2	1	8	11	ns	ns	ns	ns	52	

ns Program suspended, no sample collected

Constituents	CWIL Order # R4-2010-0186																	Total	% of samples	
	Interim Sampling	YEAR 1				YEAR 2			YEAR 3			YEAR 4				YEAR 5				
		Dry Season		Wet Season		Dry Season		Wet Season	Dry Season		Wet Season	Dry Season		Wet Season		Dry Season				Wet Season
		Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #1	Event #2	Event #1	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2			Event #1
Ammonia	0	--	--	0	0	--	--	--	--	--	0	--	--	0	0	--	--	0	0	0.0%
TDS	3	--	--	1	1	--	--	--	--	--	2	--	--	1	0	--	--	0	8	36.4%
Sulfate	0	--	--	1	1	--	--	--	--	--	1	--	--	1	0	--	--	0	4	18.2%
Chloride	0	--	--	0	0	--	--	--	--	--	1	--	--	0	0	--	--	0	1	4.5%
Nitrogen	2	--	--	2	1	--	--	--	--	--	3	--	--	1	1	--	--	1	11	50.0%
Total Number of Exceedances	5	0	0	4	3	0	0	0	0	0	7	0	0	3	1	0	0	1	24	
Average # of Exceedances per sample	1.25	--	--	1.00	0.75	--	--	--	--	--	1.40	--	--	1.50	1.00	--	--	0.50	1.09	
Number of Samples Collected	4	0	0	4	4	0	0	0	0	0	5	0	0	2	1	0	0	2	22	

-- No sample collected

Table 21, cont. - Summary of Water Quality Exceedances, General Chemistry

Constituents	CWIL Order # R4-2016-0143														Total	% of samples
	YEAR 1, Interim				YEAR 2, Interim				YEAR 3, Interim				YEAR 4, Interim			
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season			
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2		
Ammonia	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0.0%
TDS	--	--	0	1	--	--	2	1	--	--	1	0	--	--	5	20.8%
Sulfate	--	--	0	1	--	--	1	0	--	--	1	0	--	--	3	12.5%
Chloride	--	--	0	1	--	--	1	0	--	--	1	0	--	--	3	12.5%
Nitrogen	--	--	1	1	--	--	0	2	--	--	4	2	--	--	10	41.7%
Total Number of Exceedances	0	0	1	4	0	0	4	3	0	0	7	2	0	0	21	
Average # of Exceedances per sample	--	--	0.33	0.80	--	--	1.00	0.75	--	--	1.75	0.50	--	--	0.88	
Number of Samples Collected	0	0	3	5	0	0	4	4	0	0	4	4	0	0	24	

-- No sample collected

Constituents	Totals, all Orders		Total	% of samples
	Dry Season	Wet Season		
Ammonia	2	2	4	4.1%
TDS	8	24	32	32.7%
Sulfate	0	13	13	13.3%
Chloride	1	8	9	9.2%
Nitrogen	9	42	51	52.0%
Total Number of Exceedances	20.00	89.00	109	
Average # of Exceedances per sample	1.82	1.02	1.11	
Number of Samples Collected	11	87	98	

6.1.2 Pesticides

Based on laboratory analytical results, WQBs were exceeded for four pesticide constituents in samples collected at three of the eight sites during this sampling year. Table 20 summarizes pesticide exceedances for individual constituents reported throughout the life of the program. A complete summary of analytical results for the analyzed pesticide constituents is included in Appendix B.

OC Pesticides

Laboratory results did not report OC Pesticide exceedances in the eight samples collected this sampling year. There have been 58 individual constituent exceedances in the 98 total samples collected throughout the life of the program.

Chlordane and 4,4' DDE have been the most prevalent OC pesticides detected, accounting for 39 of the 58 total exceedances. Exceedances were more prevalent during the original waiver period (CWIL Order #R4-2005-0080).

OP Pesticides

Laboratory results reported OP Pesticide exceedances in the one of the eight samples collected this sampling year. There have been 29 individual constituent exceedances in the 98 total samples collected throughout the life of the program.

OP pesticides detected over WQBs throughout all waiver periods have been Chlorpyrifos, Diazinon, and Malathion.

Pyrethroids

Laboratory results reported Pyrethroid Pesticide exceedances in the two of the eight samples collected this sampling year. There have been 100 individual constituent exceedances in the 98 total samples collected throughout the life of the program.

Table 22 - Summary of Water Quality Exceedances, Pesticides

Constituent	CWIL Order # R4-2005-0080													Total	% of samples
	YEAR 1				YEAR 2				YEAR 3		YEAR 4				
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season	Wet Season	Dry Season	Wet Season			
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #1	Event #1	Event #1			
Waiver Limitations															
OC Pesticides															
Chlordane	1	0	6	1	2	1	4	3	ns	ns	ns	ns	18	34.62%	
4,4' DDT	2	2	2	1	0	0	0	0	ns	ns	ns	ns	7	13.46%	
4,4' DDD	2	2	2	1	0	0	0	2	ns	ns	ns	ns	9	17.31%	
4,4' DDE	2	1	5	2	0	1	2	4	ns	ns	ns	ns	17	32.69%	
Dieldrin	0	0	0	0	0	0	0	0	ns	ns	ns	ns	0	0.00%	
Toxaphene	0	0	0	0	0	0	0	1	ns	ns	ns	ns	1	1.92%	
Waiver, OC Pesticide # of Exceedances	7	5	15	5	2	2	6	10	0	0	0	0	52		
OP Pesticides															
Chlorpyrifos	0	0	2	1	0	0	1	3	ns	ns	ns	ns	7	13.46%	
Diazinon	0	0	2	1	1	0	0	1	ns	ns	ns	ns	5	9.62%	
Waiver, OP Pesticide # of Exceedances	0	0	4	2	1	0	1	4	0	0	0	0	12		
Aquatic Life Guidelines															
OP Pesticides															
Malathion	0	0	1	1	1	0	0	2	ns	ns	ns	ns	5	9.62%	
ALB, OP Pesticide # of Exceedances	0	0	1	1	1	0	0	2	0	0	0	0	5		
Pyrethroid Pesticides															
Bifenthrin	1	2	4	0	0	0	2	3	ns	ns	ns	ns	12	23.08%	
Cyfluthrin	2	1	4	2	0	0	5	4	ns	ns	ns	ns	18	34.62%	
Fenpropathrin (Danitol)	1	0	3	2	1	0	2	2	ns	ns	ns	ns	11	21.15%	
Fluvalinate	0	1	0	0	1	0	2	3	ns	ns	ns	ns	7	13.46%	
Deltamethrin	0	0	2	2	1	0	0	2	ns	ns	ns	ns	7	13.46%	
Lambda-cyhalothrin	1	0	1	1	1	0	6	2	ns	ns	ns	ns	12	23.08%	
Permethrin	1	1	4	0	1	0	3	4	ns	ns	ns	ns	14	26.92%	
ALB, Pyrethroid Pesticide # of Exceedances	6	5	18	7	5	0	20	20	0	0	0	0	81		
Total Number of Exceedances	13	10	38	15	9	2	27	36	ns	ns	ns	ns	150		
Average # of Exceedances per sample	2.60	3.33	2.71	1.88	4.50	2.00	3.38	3.27	ns	ns	ns	ns	2.88		
Number of Samples Collected	5	3	14	8	2	1	8	11	ns	ns	ns	ns	52		

ns Program suspended, no sample collected

Table 22 cont.- Summary of Water Quality Exceedances, Pesticides

Constituents	CWIL Order # R4-2010-0186																	Total	% of samples	
	Interim Sampling	YEAR 1				YEAR 2			YEAR 3			YEAR 4				YEAR 5				
		Dry Season		Wet Season		Dry Season	Wet Season		Dry Season	Wet Season		Dry Season		Wet Season		Dry Season	Wet Season			
		March 2011	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #1	Event #2	Event #1	Event #1	Event #2	Event #1	Event #2	Event #1			Event #2
Waiver Limitations																				
OC Pesticides																				
Chlordane	1			0	0				--	--	0	--	--	0	0	--	--	0	1	4.55%
4,4' DDT	1			0	0				--	--	0	--	--	0	0	--	--	0	1	4.55%
4,4' DDD	0			0	0				--	--	0	--	--	0	0	--	--	0	0	0.00%
4,4' DDE	1			1	1				--	--	0	--	--	0	0	--	--	0	3	13.64%
Dieldrin	1			0	0				--	--	0	--	--	0	0	--	--	0	1	4.55%
Toxaphene	0			0	0				--	--	0	--	--	0	0	--	--	0	0	0.00%
Waiver, OC Pesticide # of Exceedances	4	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
OP Pesticides																				
Chlorpyrifos	3	--	--	0	1				--	--	1	--	--	0	0	--	--	0	5	22.73%
Diazinon	1	--	--	0	0				--	--	0	--	--	0	0	--	--	0	1	4.55%
Waiver, OP Pesticide # of Exceedances	4	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	6	
Aquatic Life Guidelines																				
OP Pesticides																				
Malathion	1	--	--	0	1	--	--	--	--	--	0	--	--	0	0	--	--	0	2	9.09%
ALB, OP Pesticide # of Exceedances	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Pyrethroid Pesticides																				
Bifenthrin	0	--	--	0	0	--	--	--	--	--	1	--	--	1	0	--	--	0	2	9.09%
Cyfluthrin	0	--	--	0	0	--	--	--	--	--	1	--	--	0	0	--	--	0	1	4.55%
Cypermethrin	0	--	--	0	0	--	--	--	--	--	0	--	--	0	0	--	--	0	0	0.00%
Fenpropathrin (Danitol)		--	--			--	--	--	--	--	0	--	--	1	0	--	--	0	1	4.55%
Deltamethrin	0	--	--	1	0	--	--	--	--	--	0	--	--	0	0	--	--	0	1	4.55%
Lambda-cyhalothrin	0	--	--	0	0	--	--	--	--	--	0	--	--	0	0	--	--	0	0	0.00%
Permethrin	2	--	--	0	1	--	--	--	--	--	1	--	--	1	0	--	--	0	5	22.73%
ALB, Pyrethroid Pesticide # of Exceedances	2	0	0	1	1	0	0	0	0	0	3	0	0	3	0	0	0	0	10	
Total # of Exceedances	11	0	0	2	4	0	0	0	0	0	4	0	0	3	0	0	0	0	24	
Average # of Exceedances per sample	2.75	--	--	0.50	1.00	--	--	--	--	--	0.80	--	--	1.50	0.00	--	--	0.00	1.09	
Number of Samples Collected	4	0	0	4	4	0	0	0	0	0	5	0	0	2	1	0	0	2	22	

-- No Sample Collected

Table 22 cont.- Summary of Water Quality Exceedances, Pesticides

Constituents	CWIL Order # R4-2016-0143														Total	% of samples		
	YEAR 1, Interim				YEAR 2, Interim				YEAR 3, Interim				YEAR 4, Interim					
	Dry Season		Wet Season		Dry Season		Wet Season		Dry Season		Wet Season		Dry Season					
	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2	Event #1	Event #2				
Waiver Limitations																		
OC Pesticides																		
Chlordane	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
4,4' DDT	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
4,4' DDD	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
4,4' DDE	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Dieldrin	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Toxaphene	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Waiver, OC Pesticide # of Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OP Pesticides																		
Chlorpyrifos	--	--	0	0	--	--	0	1	--	--	0	0	--	--	0	0	1	4.17%
Diazinon	--	--	0	0	--	--	0	0	--	--	1	0	--	--	0	0	1	4.17%
Waiver, OP Pesticide # of Exceedances	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
Aquatic Life Guidelines																		
OP Pesticides																		
Malathion	--	--	0	0	--	--	1	1	--	--	0	0	--	--	0	0	2	8.33%
ALB, OP Pesticide # of Exceedances	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	
Pyrethroid Pesticides																		
Bifenthrin	--	--	0	2	--	--	0	0	--	--	1	0	--	--	0	0	3	12.50%
Cyfluthrin	--	--	0	1	--	--	0	0	--	--	1	1	--	--	0	0	3	12.50%
Cypermethrin	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Fenpropathrin (Danitol)	--	--	0	1	--	--	0	0	--	--	0	0	--	--	0	0	1	4.17%
Deltamethrin	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Lambda-cyhalothrin	--	--	0	0	--	--	0	0	--	--	0	0	--	--	0	0	0	0.00%
Permethrin	--	--	0	1	--	--	1	0	--	--	0	0	--	--	0	0	2	8.33%
ALB, Pyrethroid Pesticide # of Exceedances	0	0	0	5	0	0	1	0	0	0	2	1	0	0	0	0	9	
Total # of Exceedances	0	0	0	5	0	0	2	2	0	0	3	1	0	0	0	0	13	
Average # of Exceedances per sample	--	--	0.00	1.00	--	--	0.50	0.50	--	--	0.75	0.25	--	--	--	--	0.54	
Number of Samples Collected	0	0	3	5	0	0	4	4	0	0	4	4	0	0	0	0	24	

-- No samples collected

Table 22 cont.- Summary of Water Quality Exceedances, Pesticides

Constituents	Totals, all Orders		Total	% of samples
	Dry Season	Wet Season		
Waiver Limitations				
OC Pesticides				
Chlordane	4	15	19	19.39%
4,4' DDT	4	4	8	8.16%
4,4' DDD	4	5	9	9.18%
4,4' DDE	4	16	20	20.41%
Dieldrin	0	1	1	1.02%
Toxaphene	0	1	1	1.02%
Waiver, OC Pesticide # of Exceedances	16	42	58	
OP Pesticides				
Chlorpyrifos	0	13	13	13.27%
Diazinon	1	6	7	7.14%
Waiver, OP Pesticide # of Exceedances	1	19	20	
Aquatic Life Guidelines				
OP Pesticides				
Malathion	1	8	9	9.18%
ALB, OP Pesticide # of Exceedances	1	8	9	
Pyrethroid Pesticides				
Bifenthrin	3	14	17	17.35%
Cyfluthrin	3	19	22	22.45%
Cypermethrin	2	9	11	11.22%
Fenpropathrin (Danitol)	2	7	9	9.18%
Deltamethrin	1	7	8	8.16%
Lambda-cyhalothrin	2	10	12	12.24%
Permethrin	3	18	21	21.43%
ALB, Pyrethroid Pesticide # of Exceedances	16	84	100	
Total # of Exceedances	34	153	187	
Average # of Exceedances per sample	3.09	1.76	1.91	
Number of Samples Collected	11	87	98	

ni Not included in laboratory analytical suite during this Waiver period

-- No samples collected

6.1.3 Toxicity

Based on laboratory analytical results, toxicity was not significant enough to initiate a TIE in any of the eight samples collected during this sampling year. A total of 16 TIEs have been conducted throughout the life of the program. Seven of the TIEs did not show a significant observed toxicity effect in follow up testing.

Historical TIE results indicated a variety of reasons for toxicity, including non-polar organic compounds, particulate-bound toxicants, volatile compounds, organophosphates, particulate bound toxicants, metals, and a combination of the previously listed toxicants. A historical summary of analytical results for toxicity testing is included for each site in Appendix B.

6.1.4 Field Monitoring Results

Field Monitoring Water Quality Benchmarks are based on the surface water and groundwater basin objectives currently contained in the Basin Plan or other applicable water quality standards established for the Los Angeles Region. Field monitoring readings have not exceeded Basin Plan objectives at any sites sampled during the entire program. A historical summary of results for field measurements is included for each site in Appendix B. Hard copies of field data sheets and field reports are kept on file at PacRL, and are available upon request.

6.2 QUALITY ASSURANCE AND QUALITY CONTROL

QA/QC of data collected this sampling year fell within acceptable control limits established by the analyzing laboratories, and are included in the tables in Appendix B and laboratory analytical documentation included in Appendix C. All field monitoring equipment was calibrated prior to each monitoring event, and verified after calibration with mid-range standards. Calibration logs are kept on-file at PacRL.

Field duplicates and laboratory duplicates are used to check the precision of samples. Field duplicates were not collected this year as the one per 20 samples threshold had yet to be met. Lab duplicates, blank spike duplicates, laboratory control spike duplicates, and matrix spike duplicates were all accepted by the laboratory and did not cause any data to be estimated, as discussed in the laboratory analytical report.

Percent recoveries for bank spike samples, laboratory control samples, and matrix spike samples are used to check the accuracy of samples. Some of these values fell outside the QAQC limits set in the QAPP, however, data was considered valid due to varying reasons, as discussed in the laboratory analytical report included in Appendix C.

7.0 WQMP/MRP UPDATE

Updated information on member groupings collected since the submittal of the WQMP (V2.1) on September 27, 2019 is presented in this section. A full updated WQMP with newly collected monitoring data and implemented BMPs will be submitted by October 31, 2020, per Waiver requirements. Methodology and all additional information on the data presented can be found in the aforementioned report.

7.1 Grouping Results

At this time, a total of 170 out of the 254 individual operators (66.9%) and 222 of the 330 facilities (67.3%), which represent 1,107.03 of the 1,473.51 irrigated acres (75.1%) enrolled in the program, have answered the General Questionnaire and were able to be grouped for this report. The current grouping status for members that have submitted sufficient data is summarized in Tables 21 through 23, and the current status of all members of the group, including gaps in current information, is presented on the growers list in Appendix A.

Table 23. Summary of Grouping Results

Group	# Operators Grouped	# Facilities Grouped	Irrigated Acres Represented	% of Grouped Operators	% of Grouped Facilities
LARGE	31	53	461.42	18.2%	23.9%
MEDIUM	30	50	328.3	17.6%	22.5%
SMALL	77	84	265.79	45.3%	37.8%
MICRO	32	35	51.52	18.8%	15.8%
Total Grouped	170	222	1107.03		
Total Enrolled	254	330	1473.51		
% of Total Grouped	66.9%	67.3%	75.1%		

Table 24. Summary of Grouping Results, North Region

NORTH SAMPLING REGION				
Group	# Facilities	Irrigated Acres Represented	% of N Grouped Facilities	% Acres N Grouped Facilities
LARGE	26	315.34	16.0%	36.1%
MEDIUM	34	232.94	20.9%	26.6%
SMALL	34	97.02	20.9%	11.1%
MICRO	16	22.4	9.8%	2.6%
UNKNOWN	53	206.83	32.5%	23.7%
Total Grouped	110	667.70		
Total Enrolled	163	874.53		
% of Total Grouped	67.5%	76.3%		

Table 25. Summary of Grouping Results, South Region

SOUTH SAMPLING REGION				
Group	# Facilities	Irrigated Acres Represented	% of S Grouped Facilities	% Acres S Grouped Facilities
LARGE	27	146.08	24.1%	24.4%
MEDIUM	16	95.36	14.3%	15.9%
SMALL	50	168.77	44.6%	28.2%
MICRO	19	29.12	17.0%	4.9%
UNKNOWN	55	159.68	49.1%	26.7%
Total Grouped	112	439.33		
Total Enrolled	167	599.01		
% of Total Grouped	67.1%	73.3%		

APPENDIX A

**UPDATED LIST OF LOS ANGELES COUNTY IRRIGATED LANDS
GROUP, AS OF JANUARY 31, 2019**

NGA #	GROUP	SAMPLING REGION	NUTRIENT GROUPING	PESTICIDE GROUPING	WATER GROUPING	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL				MAILING				CROP TYPE	Watershed	ACREAGE		PAPERWORK			EDUCATION		GROUP DUES		
								APN	ADDRESS	CITY	DWP/SCE	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED	Info	General Q	BMP Q	2018	2019	2018	2019	2020
144	Large	N	Low	Low		Green Landscape Nursery	Richard Green	2809-003-270	25235 Orchard Village Rd.	Valencia		26191 Bouquet Canyon Rd.	Saugus	CA	91350	GO	SC	3.00	2.00	X	X	X			X	X	
145	Large	S	Average	Average	High	Centeno's Nursery & Landscaping	Jose Centeno / Jessica Centeno	7339-008-91373	565 W. 189th Street	Gardena	DWP	17514 S. Figueroa St.	Gardena	CA	90248	GO	D	4.67	3.60	X	X	X			X	X	X
146	Unknown	S				Estanfor Nursery	Rafael Rangel	6134-039-270	1130 Stanford Ave	Compton	DWP	1017 E. 150th Street	Compton	CA	90220	GO	LA	2.22	1.79						X	X	
149	Small	S	Low	Low	High	Vargas Nursery	Oscar Vargas/ Reuben Vargas	7162-001-274	17020 Passage Ave	Bellflower	SCE	3925 E. Elizabeth St	Compton	CA	90221	GO	SG	1.75	1.75	X	X	X			X	X	
151	Large	S	Low	High	High	Rainforest Flora Inc.	Jerry Robinson	7522-006-800	19121 Hawthorne Blvd	Torrance	SCE	19121 Hawthorne Blvd.	Torrance	CA	90503	GH	D	5.00	1.00	X	X	X	X	X	X	X	X
152	Medium	S	Low	Average	Low	Rancho Escondido Vineyard	George Rosenthal	4464-027-01844	Newton Cyn & Kanan Rd	Malibu		Raleigh Enterprises, 100 Wilshire Blvd., 8th Floor	Santa Monica	CA	90401	V	SM	40.00	25.00	X	X	X	X	X	X	X	X
154	Small	S				Rolling Hills Nursery	Esteban Villafana / Koji Shimohara	7116-001-800	6944 Orange Ave	Long Beach		PO Box 789	Paramount	CA	90723	GO	LA	8.50	5.00	X	X	X	X	X	X	X	X
158	Medium	N	Average	High	High	Sakaída Nursery, Inc.	Mike Gutierrez	5381-015-80253	8538-8601 Longden Ave	San Gabriel	SCE	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	7.00	6.89	X	X	X	X	X	X	X	X
159	Medium	N	Average	High	Average	Sakaída Nursery, Inc.	Mike Gutierrez	5389-005-80053	8626 E Grand Ave	Rosemead	SCE	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	4.50	4.00	X	X	X	X	X	X	X	X
160	Medium	N	Average	High	High	Sakaída Nursery, Inc.	Mike Gutierrez	5381-011-011	6544 N. Vista Street	San Gabriel	SCE	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	4.00	3.00	X	X	X	X	X	X	X	X
161	Micro	S	High	Average	Average	Salco Growers	Frank Spina	7165-001-27071	6236 Bellflower Rd	Lakewood	DWP	6236 Bellflower Blvd	Lakewood	CA	90713	C	SG	3.83	3.83	X	X	X			X	X	
164	Medium	N	Low	Average	Average	San Gabriel Nursery & Florist	Mary Swanton	5373-028-02453	632 S San Gabriel Blvd	San Gabriel		632 South San Gabriel Blvd.	San Gabriel	CA	91776	M	LA	2.00	1.89	X	X	X	X	X	X	X	X
168	Medium	S	Average	High	Average	SY Nursery, Inc.	Patty Yasutake	7055-008-800	19900 S Pioneer Blvd	Cerritos	SCE	19900 S. Pioneer Blvd.	Cerritos	CA	90703	GO	SG	6.00	4.75	X	X	X	X	X	X	X	X
169	Medium	N	Average	High	Average	Tapia Bros., Inc.	Tom Tapia	2229-033-900	5240 Hayvenhurst Ave.	Encino		5251 Hayvenhurst Ave.	Encino	CA	91436	R	LA	60.00	40.00	X	X	X					
170	Unknown	S				Toro Nursery Inc.	Salvador Sanchez	4095-001-80140	17585 Crenshaw Blvd.	Torrance		17585 Crenshaw Blvd	Torrance	CA	90504	C	D	17.00	15.78								
171	Large	S				T-Y Nursery, Inc.	Terry Yasutake	7521-012-80075	Between Firmona Ave. / N. Beryl St.	Torrance		5221 Arvada Street	Torrance	CA	90503	GO	SM	21.25	13.50		X	X			X	X	X
176	Large	S				T-Y Nursery, Inc.	Terry Yasutake	7502-012-80075	Paulina Ave.	Redondo Beach		5221 Arvada Street	Torrance	CA	90503	GO	SM	12.00	7.50			X	X		X	X	X
178	Large	N				Ultra Greens Nursery	Michael Lentz	2525-001-80225	13102 Maclay Street	Sylmar		P O Box 922259	Sylmar	CA	91392	GO	LA	10.00	8.50		X	X	X	X			
179	Large	N				Ultra Greens Nursery	Michael Lentz	2504-009-800	14025 Polk Street	Sylmar		P O Box 922259	Sylmar	CA	91392	GO	LA	1.50	1.23		X	X	X	X			
180	Medium	S	High	High	High	Gomez Growers (United Plant Growers/Gomez Growers)	Jose Gomez	7311-013-80073	3698 Caspian Avenue	Long Beach	SCE	3698 Caspian Avenue	Long Beach	CA	90810	C	LA	7.30	5.80	X	X	X	X	X	X	X	X
184	Large	N	Low	Low	Low	Valley Sod Farm, Inc.	Dan Gibson	2689-002-91026	16405 Chase Street	North Hills		16405 Chase Street	North Hills	CA	91343	S	LA	16.50	16.50	X	X	X	X	X	X	X	X
186	Small	S	Average	Average	Average	I.T. Nursery Inc	Wayne Tagawa	6125-014-003	256 East Alondra	Gardena		256 E Alondra Blvd	Gardena	CA	90248	GO	D	2.75	1.75	X	X	X			X	X	X
187	Large	N	High	Average	High	West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	8666-021-90286	2820 Amherst Ave	La Verne		P. O. Box 8046	La Verne	CA	91750	GO	SG	5.00	4.50	X	X	X	X	X	X	X	X
188	Large	N	Average	High	Low	West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	8378-022-910	West end of Puddingstone West off of Fairplex at Bracket Field / 1420 Puddingstone Dr.	La Verne		P. O. Box 8046	La Verne	CA	91750	GO	SG	20.00	15.25	X	X	X	X	X	X	X	X
190	Large	N				West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	5386-015-80053	5820 Burton Ave.	San Gabriel	SCE	P. O. Box 8046	La Verne	CA	91750	GO	LA	15.00	15.00	X	X	X	X	X	X	X	X
199	Small	S	Low	Average	Low	Moraga Vineyards	Scott Rich	4368-005-02543	1070 Moraga Dr.	Los Angeles		650 N. Sepulveda Blvd	Los Angeles	CA	90049	V	SM	14.00	6.20	X	X	X			X	X	X
200	Large	S	Average	Average	Low	C&S Nursery, Inc.	Santiago Rosales II	5025-006-900	3615 Hauser Bl	Los Angeles	DWP	P.O. Box 642179	Los Angeles	CA	90064	GO	SM	2.46	2.46	X	X	X			X	X	X
202	Large	N	Average	High	High	El Nativo Growers, Inc.	James Campbell	8533-010-90986	200 S. Peckham	Azusa		200 South Peckham Rd.	Azusa	CA	91702	GO	SG	13.00	10.00	X	X	X	X	X	X	X	X
204	Small	N	High	Average	Low	Worldwide Exotics Inc.	Michelle Jennings	2528-025-800	11157 Orcas Avenue	Lake View Terrace	SCE	10260 Arwood Rd.	Lake View Terrace	CA	91342	GO	LA	6.80	2.00	X	X	X			X	X	X
205	Large	N	High	High	High	California State Polytechnic University	Duncan McKee/Dave Matias	8709-023-90887	3801 W. Temple	Pomona		3801 W. Temple Ave.	Pomona	CA	91768	M	SG	1,200.00	70.00	X	X	X	X	X	X	X	X
206	Micro	N	Low	Low	High	A&R Nursery, Inc.	Adrian Lopez	5284-023-801	7950 Graves Ave	Rosemead		7950 Graves Ave	Rosemead	CA	91770	GO	LA	2.50	0.80	X	X	X					
207	Medium	N	Low	Average		Golden Oak Ranch	Steve Sligh	2848-010-020	19802 Placerita Canyon Rd	Newhall		19802 Placerita Canyon Rd	Newhall	CA	91321	M	SC	890.00	70.00	X	X	X			X	X	
208	Unknown	N				1940 Las Palomas, LLC	Raul Alvarado (Julia)	8237-010-012	1940 Las Palomas Drive	Rowland Heights		1940 Las Palomas Drive	Rowland Heights	CA	90631	O	SM	4.00	3.50								
209	Unknown	N				Greenhower Nursery	Steven Lin	8272-003-00382	2320 Desire Ave	Rowland Heights		2320 Desire Ave	Rowland Heights	CA	91748	GO	SM	2.60	2.00								
210	Small	S	Low	Average		Hevadu	Megan Cunha	4469-021-032	6415 Busch Drive	Malibu		27450 Pacific Coast Highway	Malibu	CA	90265	V	SM	8.00	2.75	X	X	X			X	X	X
211	Micro	N	Low	Low		Barranquilla Nursery	Rosealina Malta	2812-005-016	28920 Bouquet Canyon Road	Saugus		29021 Bouquet Canyon Rd. Spc. 243	Santa Clarita	CA	91390	GO	SC	2.50	2.00	X	X	X			X	X	X
218	Unknown	S				Cielo Farms Vineyard	Richard Hirsh	4464-008-04544	31424 Mulholland Highway	Malibu		31424 Mulholland Highway	Malibu	CA	90265	V	SM	27.00	10.00	X			X	X	X	X	X
221	Small	S	Low	Average	Low	The Malibu Vineyard	Michael McCarty	4451-016-02244	3222 Rambla Pacifico	Malibu		3222 Rambla Pacifico	Malibu	CA	90265	V	SM	2.50	2.00	X	X	X	X	X	X	X	X

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								APN	ADDRESS	CITY	DWP/SCE	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED	Info	General Q	BMP Q	2018	2019	2018	2019	2020	
284	Small	S	Low	Low	High	House of Bonsai Rusack Vineyard/Kangaru Enterprises, LLC	Victoria Lee	7048-012-80070	5214 Palo Verde Avenue	Lakewood	SCE	5214 Palo Verde Avenue	Lakewood	CA	90713	GO	SG	5.00	4.00	X	X	X			X	X		
285	Medium	S	Low	Average	Low	Moon Valley Nurseries / LB Palm Growers	Steven Gerbac	7480-043-020	1 El Rancho Escondido Rd.	Avalon		1825 Ballard Canyon Rd.	Solvang	CA	93463	V	SM	6.40	6.00	X	X	X			X	X	X	
286	Large	S	Low	High	High	Maggie's Farm	Armando Rodriguez	7107-004-800	17020 Downey Rd.	Bellflower	SCE	19820 N. 7th St., Suite 260	Phoenix	AZ	85024	GO	LA	4.50	4.00	X	X	X	X		X			
287	Unknown	N				MB Landscaping & Nursery	Nate Pietso / Casey Kramer	2055-001-032	6500 Chesboro Rd	Agoura Hillas		918 11th St #9	Santa Monica	CA	90403	R	IP	4	4									
289	Large	S	Low			MB Landscaping & Nursery	Maria Martinez	7336-004-010	20300 S. Figueroa St	Carson	DWP	20300 S. Figueroa St.	Carson	CA	90745	GO	D	2.50	2.50	X	X	X	X		X	X		
290	Large	S	Low			MB Landscaping & Nursery	Maria Martinez	6126-009-802	201 E Walnut Street	Carson		20300 S. Figueroa St.	Carson	CA	90745	GO	D	6.20	5.00	X	X	X	X		X	X		
292	Large	S	Low			MB Landscaping & Nursery	Maria Martinez	6134-008-27061	700 135th St.	Los Angeles	DWP	20300 S. Figueroa St.	Carson	CA	90745	GO	LA	6.20	5.70	X	X	X	X		X	X		
293	Small	N	Low		Low	N.K. Nursery	Kaz Kitajima	8242-016-810	780 S. Stimson Ave	City of Industry		780 S. Stimson Ave	City of Industry	CA	91745	GO	SG	2	1	X	X	X	X		X	X	X	
294	Large	N	Low	High	High	Moon Valley Nurseries / Premium Trees, LLC	Armando Rodriguez	5268-005-80152	2600 W Lincoln Ave	Montebello	SCE	19820 N. 7th St., Suite 260	Phoenix	AZ	85024	GO	LA	16.50	7.00	X	X	X	X		X			
295	Small	S				Torrance Wholesale Nursery	Margaret Edelman	4089-016-802	18901 Ermanita Ave	Torrance		18901 Ermanita Ave.	Torrance	CA	90504	GO	D	2	1.87	X	X				X			
296	Medium	S	High	High	High	Gomez Growers (United Plant Growers/Gomez Growers)	Jose Gomez	7048-015-80170	5150 Knoxville Ave	Lakewood	SCE	3698 Caspian Avenue	Long Beach	CA	90810	C	SG	3.50	3.00	X	X	X	X	X	X	X	X	X
297	Micro	S		Low	Low	UVA Nursery	Alberto Gomez / Ariana Gutierrez	7339-009-27273	19033 Anelo Ave	Gardena	DWP	17516 Scudder Ct.	Carson	CA	90746	GO	D	2.10	2.10	X	X	X			X	X		
298	Unknown	N				Vineland Growers Nursery	Fidel Montenegro/ Gaby Ruiz	2414-003-901 24	6200 Vineland Ave	North Hollywood	DWP	6200 Vineland Ave	Hollywood	CA	91606	GO	LA	5.00	5.00	X			X	X	X	X		
299	Small	N	Low	Low	Low	V&N Nursery	Jose Uribe	2126-014-90021	18841 Hart St	Reseda	DWP	10953 Lindblade St.	Culver City	CA	90232	GO	LA	5.05	3.70	X	X	X	X	X	X	X		
300	Small	S	High		High	Garibaldo's Nursery	Filemon Garibaldo	7160-003-80171	8834 Rose St.	Bellflower	SCE	8834 Rose St.	Bellflower	CA	90706	GO	SG	1.80	1	X	X	X			X	X	X	
301	Unknown	N				Horizon Nursery	Rafael Rosalez	8007-001-90680	9919 Cedardale Dr.	Santa Fe Springs	SCE	9919 Cedardale Dr.	Santa Fe Springs	CA	90670	GO	IP	3.5	2	X	X	X						
302	Micro	S	Average	Average	High	Ramirez Strawberry Ranch	Rigoberto Ramirez	7317-015-80573	3511 Santa Fe Ave.	Long Beach		2710 Delta Ave	Long Beach	CA	90810	R	LA	2.50	2.00	X	X	X			X	X	X	X
303	Unknown	S				Western Plants and Trees	Alberto Reyes	4142-011-803	12703 Bart Ave.	Hawthorne		13712 Milton Ave	Westminster	CA	92863	GO	IP	0.68	0.5									
304	Unknown	N				Chuy's Nursery	Jesus Martinez	5265-001-808	1996 S. Orange Ave	Monterey Park	SCE	9124 E. Gallatin Rd.	Pico Rivera	CA	90660	GO	LA	3	2	X					X	X	X	
305	Small	N	Outlier	Low	Low	Alonso Family Vineyard	Juan Alonso	3214-043-01732	12625 Sierra Hwy	Santa Clarita		9124 E. Gallatin Rd.	Pico Rivera	CA	90660	V	SC	39.00	6.50	X	X	X			X	X	X	
306	Small	N	Average	Low	High	Mimosa Nursery	Khiem Doan	6351-035-80363	6270 Allston Street	East Los Angeles	SCE	6270 Allston Street	East Los Angeles	CA	90022	GO	LA	3.30	2.20	X	X	X			X	X	X	
307	Unknown	N				Hana Star Farms, Inc	Hidehiko Kasahara	8174-013-80081	6509 Pioneer Blvd	Whittier		20646 Markham St.	Perris	CA	92570	R	SG	5.9	2.5						X	X	X	
308	Unknown	N				Agua Dulce Winery	Judy Kajama	3213-014-0517	9640 Sierra Highway	Agua Dulce	SCE	9640 Sierra Hwy	Agua Dulce	CA	91390	V	SC	75	62									
309	Micro	N	Average	Low	High	Pedro Perez Nursery	Pedro Perez	2666-003-901	11362 Woodley Ave.	Granada Hills	DWP	IP	IP	CA	91344	GO	LA	3.19	3.19						X	X		
310	Small	S	Average	Low	Low	Green Touch Nursery	Oscar Vargas	7107-005-800	8842 Park St.	Bellflower	SCE	8842 Park St.	Bellflower	CA	90706	GO	LA	0.81	0.81	X	X	X			X	X		
311	Small	N	Average	Low		LA Sanchez Nursery	Eusebio Sanchez	8294-030-800	16525 Circle Hill Ln	Hacienda Heights	SCE	11159 1/2 Kauffman St.	El Monte	CA	91731	GO	SG	1.5	1	X	X	X						
312	Small	S	High	Low	High	Martinez Nursery	Angel Martinez	7165-019-803	5761 Ashworth St	Lakewood	SCE	PO Box 1665	Bellflower	CA	90707	GO	SG	2.00	1.50	X	X	X	X	X	X	X	X	X
313	Large	S				Moon Valley Nurseries / Pacific View Nursery	Armando Rodriguez	4467-021-00244	29081 Pacific Coast Hwy	Malibu		19820 N. 7th St., Suite 260	Phoenix	AZ	85024	GO	SM	4.76	4				X		X	X		
314	Unknown	N				Plascencia Nursery	Maria Silva	8551-011-27185	12920 Ramona Blvd	Baldwin Park	DWP	PO Box 1952	Temple City	CA	91760	GO	SG	7.84	7.84						X	X		
315	Large	N	Low	Average	Low	San Antonio Nursery Corp	Rafael Macias	2538-002-90025	11753 Wicks St.	Sun Valley	DWP	11753 Wicks St.	Sun Valley	CA	91352	GO	LA	19.07	19.07	X	X	X			X	X		
316	Small	N	Low	Low	Low	Saticoy Nursery	Armando Orozco Torres	2715-013-900	18058 San Fernando Mission Blvd.	Granada Hills	DWP	11321 Runnymede St.	Sun Valley	CA	91352	GO	LA	5.00	5.00	X	X	X			X	X		
317	Unknown	N				Starline Nursery Company	David Mejia	8558-023-80085	1233 Vineland Ave	La Puente		PO Box 1000	La Puente	CA	91747	GO	SG	2.5	2									
318	Unknown	N				Starline Nursery Company	David Mejia	IP	16505 Colima Rd	Hacienda Heights		PO Box 1000	La Puente	CA	91747	GO	SG	2.5	2									
319	Unknown	N				Sunshine Food & Nursery	Kevin Wong	5288-003-80152	8500 Dorothy St.	Rosemead	SCE	8500 Dorothy St.	Rosemead	CA	91770	GO	LA	6.50	5.00	X					X			
320	Large	N	Low	High	High	Brightview Tree Company	Robert Crudup	2548-001-011	9500 Foothill Blvd	Sunland		3200 West Telegraph Rd.	Fillmore	CA	93015	GO	LA	10.00	5.00	X	X	X			X	X	X	X
321	Unknown	S				Lucky Plants Nursery	Steven Chu	IP	14515 S. Raymond Ave.	Gardena		1062 Aviation Blvd.	Hermosa Beach	CA	90254	IP	D	3	2.5									
322	Small	N	Low	Low	Low	Reyes Winery	Robert Reyes	3213-016-029	10262 Sierra Hwy	Santa Clarita		1227 Buena Vista #C	Duarte	CA	91010	V	SC	16.25	14.00		X	X	X	X	X			
323	Small	N	Average	Average	Average	3 Pinos Nursery	Bartolo Lopez S.	2118-024-90921	18899 Sherman Way	Reseda	DWP	8427 Shirley Ave.	Northridge	CA	91324	GO	LA	3.5	1.8	X	X	X			X	X		
324	Unknown	N				90-90 Nursery	Jose Salazar	2629-015-902 24	14667 Tupper St.	Panorama City	DWP	14667 Tupper St.	Panorama City	CA	91402	IP	LA	1	0.86						X	X		

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								APN	ADDRESS	CITY	DWP/SCE	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED	Info	General Q	BMP Q	2018	2019	2018	2019	2020				
325	Small	S	Low	Low	Low	Juan Aguirre Farming	Juan Gregorio Aguirre	6045-015-27160	North of 92nd St, between Fir Ave and Minder St. & North of 92nd St, between Miner St and Juniper St.	Los Angeles	DWP	9806 Anzac Ave.	Los Angeles	CA	90002	IP	LA	2.73	2.73	X	X	X				X	X				
326	Small	N	High	Low	High	American Growers Plus, Inc.	Nick A. Gomez	2103-013-901-2	18830 Strathem St.	Reseda	DWP	18436 E. Section Center St.	Covina	CA	91722	IP	LA	1.05	1.05	X	X	X	X	X	X	X	X	X			
327	Unknown	N				American Sprinkler & Cardanall Nursery	IP	IP	23429 Erwin St.	Woodland Hills	DWP	23429 Erwin St.	Woodland Hills	CA	91367	IP	LA	2.05	2.05							X					
328	Micro	S	Low			Crair Vineyards	Daniela Crair	4467-018-024	5931 Kanan Dume Rd.	Malibu		5931 Kanan Dume Rd.	Malibu	CA	90265	V	SM	1.8	1	X	X	X									
329	Unknown	S				RI's Demolition and Disposal	Maricela Rodriguez	6132-004-900	599 W. 135 St.	Gardena	DWP	PO Box 609	Lawndale	CA	90260	IP	D	2.93	2.93							X	X				
330	Small	S	Low	Low	Low	Army's Garden	Army Gonzales	7337-005-273	South of the 405 Fwy & North of Carson St.	Carson	DWP	3650 Pine Ave.	Long Beach	CA	90807	IP	D	1.19	1.19	X	X	X			X	X	X				
331	Unknown	N				Lorenzo Sanchez Nursery	Lorenzo Sanchez	2642-001-900	14001 Garber St. East of Wilbur Ave. between Blythe St. and Elkwood St.	Arleta	DWP	14001 Garber St.	Arleta	CA	91331	IP	LA	0.81	0.81							X	X				
332	Unknown	N				Ramy's Nursery	Ramy Cohen	2103-015-903-21	8600 Jefferson St.	Paramount	DWP	6319 California St.	Long Beach	CA	90805	IP	SG	2.85	2.85						X	X	X				
333	Micro	S				Billy Lee	Billy Lee	6268-017-270-63	8600 Jefferson St.	Paramount	DWP	6319 California St.	Long Beach	CA	90805	IP	SG	2.85	2.85						X	X	X				
334	Micro	N	High	Average	Average	Bird of Paradise Nursery	Rogelio Garhlo	5272-009-277	4112 Paramount Blvd.	Pico Rivera	DWP	4112 Paramount Blvd.	Pico Rivera	CA	90660	IP	LA	0.70	0.70	X	X	X				X	X				
335	Small	N	Low	Low		C&Y Nursery	Carlos Mejia	2310-008-900	11811 Strathern St.	North Hollywood	DWP	11811 Strathern St.	North Hollywood	CA	91605	IP	LA	3	3	X	X	X				X	X				
337	Unknown	N				Arturo Carbajal Nursery	Arturo Carbajal	8125-001-901	12201 Pellissier Rd.	Whittier	DWP	1215 N. Stimson Ave.	La Puente	CA	91744	IP	SG	2.4	2.4							X	X				
338	Small	N	Low	Low	Low	Classic Landscaping & Nursery	Sam Mozes	2127-014-006	18756 Erwin St.	Tarzana		18756 Erwin St.	Tarzana	CA	91335	IP	LA	1.00	1.00	X	X	X	X	X	X	X					
339	Unknown	N				Daniel Velazquez Nursery	Daniel Velazquez	2681-009-902	11363 Woodley Ave.	Granada Hills	DWP	P.O. Box 7865	Mission Hills	CA	91345	IP	LA	1.64	1.64							X	X				
340	Unknown	S				David's Nursery	Ana G. Meza-Arredondo	7315-037-271	909 E. Sepulveda Blvd.	Carson	DWP	503 Pacific St.	Carson	CA	90745	IP	D	3.1	3.1							X	X				
341	Unknown	S				Eden Nursery	Trinidad Alcaraz	6089-022-283	11600 Berendo Ave.	Gardena	DWP	1711 N. Acacia Ave.	Compton	CA	90222	IP	D	1.4	1.4							X	X				
342	Unknown	N				El Bajio Nursery	Benancio Queme	2642-022-90226	13760 Sunburst St.	Arleta	DWP	9314 Woodman Ave.	Arleta	CA	91331	IP	LA	1.64	1.64							X	X				
343	Unknown	S				El Castillo Nursery	Jesus Aguilar	6119-006-900	555 W. 146th St.	Gardena	DWP	8009 Rose St.	Paramount	CA	90723	IP	D	1.55	1.55							X	X				
344	Unknown	S				Environmental Arts	Peter Lee	6120-029-900	North Side of 152nd St. / Figueroa	Gardena	DWP	PO Box 157	Estates	CA	90247	IP	D	1.1	1.1							X	X				
345	Small	N	High	Low	Low	Exotic Garden Nursery	Jimmy King	2127-021-900	18801 Victory Blvd.	Reseda	DWP	18801 Victory Blvd.	Reseda	CA	91335	IP	LA	2.35	2.35	X	X	X				X	X				
346	Unknown	S				F&A Nursery	Francisco Garcia	7162-014-270	8650 Artesia Blvd.	Bellflower	DWP	13213 Curtis and King Rd.	Norwalk	CA	90650	IP	LA	1.32	1.32							X	X				
347	Unknown	N				Four Seasons Wholesale Nursery	Dan LaFleur	2763-021-90027	18840 Nordhoff St.	Northridge	DWP	1880 Sinaloa Rd.	Simi Valley	CA	93065	IP	LA	12.75	12.75							X	X				
348	Micro	N				Wilmington Nursery	Juan Ramirez & Andres Ramirez Mendoza	2310-023-901	West of Morella Ave between Arminta St. and Stagg St. Los Angeles	Los Angeles	DWP	898 E Deloras Drive	Carson	CA	90745	IP	LA	1.68	1.68							X	X				
349	Unknown	N				F&A Nursery	Francisco Garcia	6369-003-273	East of Crider Ave, between Washington Blvd and the railroad tracks, Pico Rivera	Norwalk	DWP	13213 Curtis and King Rd.	Norwalk	CA	90650	IP	LA	2.4	2.4							X	X				
350	Unknown	S				Gil Hernandez Nursery	Gil Hernandez	6115-039-270	12969 Vermont Ave.	Gardena	DWP	10607 San Antonio Ave.	South Gate	CA	90280	IP	D	2.6	2.6							X	X				
351	Unknown	S				Gomez Calderon Nursery	Gomez Calderon	6234-011-274	South of Imperial Hwy and North Gardendale St.	South Gate	DWP	9956 Downey and Sanford Bridge Rd.	Downey	CA	90240	IP	LA	3.8	3.8							X	X				
352	Unknown	S				Grace Farms	Myong H. Koches / Yung L. Lee	7404-003-278	Intersection of Bonita St. and E. Pacific St.	Carson	DWP	912 W. 11th St. #1	San Pedro	CA	90731	IP	D	0.89	0.89							X	X				
353	Unknown	S				Grace Farms	Myong H. Koches / Yung L. Lee	7404-004-273	Realty St. and Delores Dr. (intersecting Wilmington Ave.)	Carson	DWP	912 W. 11th St. #1	San Pedro	CA	90731	IP	D	1.62	1.62							X	X				
354	Small	N				Green Effects Inc.	Gary Jackson	2321004901-232	11739 1/2 Vose St.	North Hollywood	DWP	11505 Vanowen St	North Hollywood	CA	91605	GO	LA	4.10	4.10	X	X	X	X	X	X	X	X	X			
355	Medium	N	Low	Average	Low	Green House Nurseries, Inc.	Mark Whitten	2642-021-900	9400 Canterbury Ave.	Arleta	DWP	9400 Canterbury Ave.	Arleta	CA	91331	IP	LA	3.48	3.48	X	X	X	X	X	X	X	X				
356	Medium	N	Low	Average	High	Green Set, Inc.	Dan Needham	2320-016-903	11520 Vanowen St.	North Hollywood	DWP	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	0.9	0.9							X	X				
357	Medium	N	Low	Average	Low	Green Set, Inc.	Dan Needham	2320-017-90023	6732 Camellia Ave.	North Hollywood	DWP	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	2	2							X	X				
358	Medium	N	Low	Average	Low	Green Set, Inc.	Dan Needham	2321-007-90123	11617 Dehougne St.	North Hollywood	DWP	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	4.82	4.82							X	X				
359	Unknown	S				La Escondida Nursery (Growing Nursery)	Luis Humberto Mercado	6236-001-270	East of the LA River, between Century Ave. and the 105 Fwy	Paramount	DWP	7306 Walnut Ave.	Paramount	CA	90723	IP	LA	3.84	3.84							X	X				

NGA #	GROUP	SAMPLING REGION	NUTRIENT GROUPING	PESTICIDE GROUPING	WATER GROUPING	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL				MAILING				CROP TYPE	Watershed	ACREAGE		PAPERWORK			EDUCATION		GROUP DUES					
								APN	ADDRESS	CITY	DWP/SCE	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED	Info	General Q	BMP Q	2018	2019	2018	2019	2020			
397	Unknown	S				Nick Williams Nursery	Nick Williams	2161-004-907	West of Yoland Ave. between Linnet St. and Wells Dr.	Los Angeles	DWP	1061 Meadows End Dr.	Calabasas	CA	91302	IP	LA	0.69	0.69									X	X	
398	Unknown	N				David Garcia Nursery	David Garcia	IP	28367 San Canyon Rd. Spc 66	Canyon Country	DWP	28367 San Canyon Rd. Spc 66	Canyon Country	CA	91387	IP	SC	0.35	0.35									X	?	
399	Small	N	Average	Low	High	Saticoy Nursery	Armando Orozco Torres	2307-015-90023	12205 Saticoy St	North Hollywood	DWP	11321 Runnymede St.	Sun Valley	CA	91352	IP	LA	1.57	1.57	X	X	X					X	X		
400	Medium	N	High	Low		Acosta Growers Inc.	Heriberto Acosta/Eddie Acosta	8620-015-270 86	17000 Block of Renwick Rd between Homerest Ave and Lark Ellen Ave	Azusa	DWP	18012 E. Alford St.	Azusa	CA	91702	GO	SG	3.71	3.71				X		N/A	X	N/A	X		
401	Micro	S	Low			Montage Vineyards	John Gooden		27326 Winding Way	Malibu		400 Del Norte Blvd.	Oxnard	CA	93030	V	SM	3.4	0.75	X	X				N/A		X	X		
402	Micro	N				Fantasy Nursery	Apolonio Diaz	IP	16526 Circle Hill Ln.	Hacienda Heights	SCE	16526 Circle Hill Ln.	Hacienda Heights	CA	91745	GO	SG	3	2	X	X	X	X	X	X	X	X			
403	Medium	N	Low	Low	Low	San Gabriel Nursery & Florist	Mary Swanton	5373-031-008	714 S. Gladys Ave.	San Gabriel		632 South San Gabriel Blvd.	San Gabriel	CA	91776	IP	LA	0.75	0.39	X	X	X	X	X	X	X	X	X	X	
405	Medium	S	Low	Average	Low	Jesus Ayon Nursery	Jesus Ayon	IP	7044 Long Beach Blvd.	Long Beach		PO Box 91922	City of Industry	CA	91715	IP	IP	16	14	X	X	X	N/A							
406	Micro	S	Low	Average		Gooch Vineyard	Patrice Gaburo	IP	27366 Winding Way	Malibu		27366 Winding Way	Malibu	CA	90265	V	LA	2.6	0.75	X	X									
407	Small	N	High	Low		American Growers Plus, Inc.	Nick A. Gomez	2103-011-901	Wilbur Ave & Strathern St.	Reseda	DWP	18436 E. Section Center St.	Covina	CA	91722	IP	LA	1.38	1.38						X	X	X	X		
408	Micro	N	High	Average		Bird of Paradise Nursery	Rogelio Garhlo	5272-008-278 52	Paramount Blvd & Isora St.	Pico Rivera	DWP	4112 Paramount Blvd.	Pico Rivera	CA	90660	IP	LA	0.88	0.88								X	X		
410	Medium	N	Low	Low		California Nurseries	Jose Gutierrez	2104-004-904	18924 Roscoe Blvd.	Northridge	DWP	P.O. Box 2778	North Hills	CA	91393	GO	LA	2.19	2.19					X	X	X				
412	Unknown	S				Jaugregui Nursery, LLC	Filiberto Jaugregui	7238-030-274 72	7198 E. Atherton	Long Beach	DWP	4185 Paseo de Oro	Cypress	CA	90630	GO	SG	0.81	0.81					N/A		X	X			
415	Unknown	N				Girasol Nursery	Humberto Cardenas/Salvador Montoya	6373-021-270	4765 Calada Ave	Pico Rivera	DWP	PO Box 6862	Pico Rivera	CA	90661	IP	LA	0.33	0.33					N/A	X	N/A	X			
416	Unknown	N				Clifford Sussman Nursery	Clifford Sussman	8661-013-907	1243 N. San Dimas Ave.	San Dimas	DWP	IP	IP	CA	IP	IP	SG	1.73	1.73							X	X			
418	Unknown	S				RJ's Demolition and Disposal	Maricela Rodriguez	6045-019-270	90th St. & Miner St.	Los Angeles	DWP	355 W. Alondra Blvd.	Gardena	CA	90248	IP	LA	1.59	1.59							X	X			
419	Unknown	S				RJ's Demolition and Disposal	Maricela Rodriguez	6045-020-270	Alameda St. & 90th St.	Los Angeles	DWP	355 W. Alondra Blvd.	Gardena	CA	90248	IP	LA	2.91	2.91							X	X			
421	Unknown	N				Tops Landscape Co.	Kong Yun	2156-020-900	18807 Hatteras St	Reseda	DWP	18809 Calvert St.	Reseda	CA	91335	IP	LA	1.14	1.14							X	X			
422	Unknown	N				Green Valley Growers Wholesale Nursery / Ventura Nursery	Erik Estrada	2336-009-901 23	Victory Blvd. / Fair Ave.	North Hollywood	DWP	18841 Hart St.	Reseda	CA	91335	IP	LA	2.03	2.03								X			
423	Micro	N	Average	Low		Robles Nursery	Jorge Robles-Cervantes	2414-014-900	6000 Riverton	North Hollywood	DWP	874 N. Robles Ave. #6	Pasadena	CA	91104	IP	LA	1.00	0.80	X	X	X				X	X			
424	Unknown	S				Felipe Serrano	Felipe Serrano	IP	Ashworth St. & Clark Ave.	Lakewood	DWP	IP	IP	CA	IP	IP	IP	0.61	0.61								?			
425	Unknown	S				Ramon Ramirez Nursery	Ramon Ramirez	6120-028-901	Figueroa St. & 152nd St.	Los Angeles	DWP	15803 S. Ainsworth St	Gardena	CA	90247	IP	D	1.41	1.41					N/A		N/A	X			
426	Unknown	N				Ramon Ramirez Nursery	Ramon Ramirez	8386-022-272	Amelia Ave. & Lindsay Way	Glendora	DWP	IP	IP	CA	IP	IP	IP	2.6	2.6					N/A		N/A				
427	Unknown	S				R&A Nursery	Julia Arrolla Garrido	7167-033-270 71	6229 Bellflower Blvd.	Lakewood	DWP	6856 Belhurst Ave.	Long Beach	CA	90805	IP	SG	3	3							X	X			

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			DWP/SCE	MAILING				CROP TYPE	Waters hed	ACREAGE		Comments
			APN	ADDRESS	CITY		ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED	
5	ABC Nursery, Inc.	Eric Yonemura	7168-034-800 7168-034-801	6221 Clark Avenue	Lakewood	SCE	424 East Gardena Blvd.	Gardena	CA	90248	GO	SG	6.4	1.66	Emailed Eric 10/18/19 to submit NOT to avoid being billed for this site.
14	Acosta Growers Inc.	Eddie Acosta / Carlos Acosta	5283007271	2657 Delta Ave	Rosemead		18012 E. Alford St.	Azusa	CA	91702	General Ornamental	LA	1.5	1.13	NOT-Lot Not Re-leased by owner
15	Acosta Growers Inc.	Eddie Acosta / Carlos Acosta	5283017270 5283017271	2450 Charlotte Ave	Rosemead		18012 E. Alford St.	Azusa	CA	91702	General Ornamental	LA	2.5	1.88	NOT-Lot Not Re-leased by owner
57	Specialized Growers	Ruben Valdez													8/27/18 NOT approved; business sold
90	Kobata Growers, Inc.	Jack Mayesh	7336004277 7336004276	20300 Figueroa Street	Carson		17622 Van Ness	Torrance	CA	90504	Color	D	3	2.5	NOT on file
137	Pacific Nursery	Sharon/Glenn Tachibana	6114001007	14504 S Normandie Ave	Gardena		14504 S. Normandie Ave.	Gardena	CA	90247	General Ornamental	D	4.5	3	NOT-out of business
150	Colorama Wholesale Nursery	Richard Wilson	8617001029	1025 N. Todd Ave.	Azusa		1025 N Todd Avenue	Azusa	CA	91702	C	SG	26	15.3	NOT approved 12/26/17; Closed permanently; moved out of county
162	San Gabriel Nursery & Florist	Fred Yoshimura/ Mary Swanton	5276018003	2015 Potrero Grande	Monterey Park		632 South San Gabriel Blvd.	San Gabriel	CA	91776	GO	LA	10	6	NOT
165	Sempervirens Botanical Company	John Low	5373028022 4091025800	3237 West 178th Street	Torrance		3237 West 178th Street	Torrance	CA	90504	General Ornamental	D	2	1.5	John Left his parcel and is now on parcel with NGA #134
189	West Covina Wholesale Nursery	Dave Zylstra	8391003911	3425 Damien Ave	La Verne		P. O. Box 8046	La Verne	CA	91750	General Ornamental	SG	1.5	1.25	8/6/18 NOT approved; Location Closed
212	Lam Farm	Nhi Lam	6268-017-270 6268-017-274	8600 Jefferson St.	Paramount	DWP	6319 California Ave	Long Beach	CA	90805	R	LA	3	1	DWP lease terminated - new owner on property
223	Nijjar Vineyard	Sanjeet Nijjar	8527004025	29 Starlite Drive	Bradbury		29 Starlite Drive	Bradbury	CA	91010	Vineyard	LA	0.9	0.5	NOT
224	Schoelkopf Vineyard	Juergen Schoelkopf	4470009058	31499 Pacific Coast Hwy	Malibu		31499 Pacific Coast Highway	Malibu	CA	90265	V	LA	1	0.8	Exempt by WB
228	El Corazon En Las Nubes	Bob Tobias / David Gomez	2058-014-014	32720 Mulholland Hwy	Malibu	SCE	P.O. Box 577	Agoura Hills	CA	91376	V	LA	5	0.9	NOT approved 11/26/19
243	Chartwell Estate Vineyard	Scott Rich Jim Burrows	4362016008	750 Bel Air Rd	Los Angeles		750 Bel Air Rd	Los Angeles	CA	90077	V	SM	1.5	1	Exempt by WB August 7, 2018
249	Hotchkis Vineyard	Frances Lacey	4369028005	10939 Chalon Rd	Los Angeles		10939 Chalon Rd	Los Angeles	CA	90077	V	SM	1.7	0.4	NOT approved 3/12/18
252	Kolawa Properties, LLC	Adam Kolawa	8527007032	673 Deodar Ln	Bradbury		101 E, Huntington Dr., 2nd Floor	Monrovia	CA	91016	Vineyard	SG	4	1	3/22/18 NOT approved
254	Manassero Farms	Dan Manassero	7016007906	North East corner of 166th & Studebaker Rd.	Cerritos		9925 Via La Granja	Yorba Linda	CA	92886	R	SG	4	3	8/22/18 NOT approved
261	ABC Rhubarb Farms	Sonia Chavez	6230022800	6208 Clara St	Bell Gardens		PO Box 39145	Downey	CA	90239	Row Crop	LA	5.83	5	NOT, No longer in growing in LA County
262	The Orchid Garden	James Weiss	4088019802 4088019803	3511 W. 182nd St.	Torrance		2506 Ardmore Ave.	Hermosa Beach	CA	90254	General Ornamental	D	1.25	0.2	NOT in process
273	Pierce College	Paul Nieman	2149007902	6201 Winnetka Ave	Woodland Hills		6201 Winnetka Ave	Woodland Hills	CA	91371	M	LA	430	200	
288	Malibu Organic Lemon MB Landscaping and Nursery	Mike Zacha	4472-010-023	1700 Decker Canyon Rd	Malibu	SCE	1700 Decker Canyon Rd	Malibu	CA	90265	O	LA	220	15	Submitted 12/5/19
291		Maria Martinez	7339017014	19202 Main St.	Carson		20300 S. Figueroa St.	Carson	CA	90745	General Ornamental	D	6	1.5	NOT Yard Not Re-leased
313	Pacific View Nursery	Erik Munoz	4467021002 4467021001	29081 Pacific Coast Hwy	Malibu		29081 Pacific Coast Hwy	Malibu	CA	90265	GO	SM	4.76	4	7/15/19 - Snejana received NOT from Pacific View; land now leased to Moon Valley
336	Cal-Tokyo Landscape Co.	Yoshiharu Kariya	Pending Questionnaire	5531 Leeds St.	South Gate		15428 Cornuta Ave.	Bellflower	CA	90706	Pending Questionnaire	LA	1.99	1.99	8/16/18 approved
404	San Gabriel Nursery & Florist	Fred Yoshimura / Mary Swanton	IP	700-800 S. San Gabriel Blvd.	San Gabriel		632 South San Gabriel Blvd.	San Gabriel	CA	91776	IP	IP	6.25	4.13	3/12/18 NOT approved
	Grand Vista Geranium Gardens	Henry Andrade	IP				18307 S. Central Ave.	Carson	CA	90746					Producing but not enrolled

APPENDIX B

TABULATED DATA, CURRENT AND HISTORICAL SAMPLING RESULTS

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca/Mg	Cu
NGA #124	LAILG-NGA-124-10	11/29/2018	1.1	44	1.800	28	140	1.9	610	1.8	0.28	420	186	74.7	0.120
NGA #158	LAILG-NGA-158-2	11/29/2018	0.67	13	0.610	8.0	74	0.68	190	0.59	1.4	300	90	36.0	0.096
NGA #178	LAILG-NGA-178-5	11/29/2018	3.6	290	2.300	17	250	2.4	1300	2.3	2.8	160	242	96.8	0.042
NGA #202	LAILG-NGA-202-3	11/29/2018	0.22	37	1.200	8.5	56	1.3	300	1.2	1.4	87	83.8	33.5	0.056
Duplicate	LAILG-NGA-DUP	11/29/2018	0.22	38	1.300	8.7	58	1.2	310	1.3	1.3	77	85.9	34.4	0.056
Equip Blank	LAILG-NGA-EB	11/29/2018	<0.10	<0.50	<0.0020	<0.11	<0.50	<0.010	19	<0.0020	<0.010	<5	0.372	0.149	0.0014
Field Blank	LAILG-NGA- FB	11/29/2018	<0.10	<0.50	<0.0020	<0.11	<0.50	<0.010	<10.0	<0.0020	<0.010	<5	<0.250	0.149	0.00060
NGA #4	LAILG-NGA-4-10	1/14/2019	0.24	1.8	0.086	0.67	1.1	0.16	<10	0.084	0.21	31	12.5	3.70/0.784	0.009
NGA #19	LAILG-NGA-19-10	1/14/2019	1.9	51	0.630	31/40 ^{EO}	40	0.11	490	0.63	3.2	780	287	81.6/20.1	0.057
NGA #64	LAILG-NGA-64-6	1/14/2019	0.21	6.0	0.240	3.1	7.8	0.018	49	0.23	0.51	140	39.4	10.6/3.15	0.013
NGA #168	LAILG-NGA-168-10	1/14/2019	0.18	27	0.400	11	44	0.054	220	0.41	0.90	97	98.5	25.9/8.21	0.026
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.11	0.5	0.010	10.0	0.0020	0.010	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL	Conditional waiver for irrigated lands	**	The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However, the sample was analyzed within holding time.
EB	Estimated concentration, constituent detected at greater than 10% in equipment blank		
FD	Estimated concentration. Field Duplicate RPD >25%.	MRL	Method Reporting Limit
FB	Estimated concentration, constituent detected at greater than 10% in field blank	*	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to analysis. The MDL and MRL were raised due to this dilution.
EO	First reported value above calibration range, second run 1 hour out of holding time		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #4	LAILG-NGA4-5	3/21/2011	0.69	10	0.31 ^{EB}	1.5	8.3	0.52	110	0.31 ^{EB}	2.6	810	62	25	0.230
NGA #124	LAILG-NGA124-6	3/21/2011	0.36	9.7	1.8 ^{EB}	6.7	24	1.8	240	1.8 ^{EB}	2.7	620 ^{FD}	61	24	0.045
NGA #150	LAILG-NGA150-5	3/21/2011	3.7	28	12 ^{EB}	120	60 ^{MS-02}	32	1,200	12 ^{EB}	32	110	300	120	0.031
NGA #19	LAILG-NGA19-6	3/23/2011	0.54 ^{MS-01}	110	0.86 ^{EB,MS-01}	55	250	1.1	1,200	0.86 ^{EB,MS-02}	3.4	550	440	180	0.090
Duplicate	LAILG-NGA-DUP	3/21/2011	0.35	9.7	1.7 ^{EB}	6.6	24	1.8	220	1.7 ^{EB}	2.3	82	57	23	0.035
Equip Blank	LAILG-NGA-EB	3/21/2011	nd	nd	2.0	nd	nd	nd	nd	2.0	nd	nd	0.37	0.15	0.0028
Field Blank	LAILG-NGA- FB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/2012	0.89	82	1.1 ^{O9}	35	470	1.7	1,100	1.1 ^{O9}	8.4	1200	500	200	0.110
NGA #31	LAILG-NGA31-4	3/17/2012	1.1	55	1.0 ^{O9}	12	160	0.90	520	1.0 ^{O9}	2.0	81	240	95	0.027
NGA #162	LAILG-NGA162-1	3/17/2012	0.16	35	0.96 ^{O9}	5.9	120	0.95	350	0.96 ^{O9}	1.0	5	140	57	0.014
NGA #64	LAILG-NGA64-3	3/17/2012	0.79 ^{FD}	5.8	0.28 ^{O9}	0.70 ^{FD}	8.4	0.32	57	0.28 ^{O9}	1.5 ^{FD}	500 ^{FD}	51	21	0.047
Duplicate	LAILG-NGA-DUP	3/17/2012	0.60	5.4	0.25 ^{O9}	1.3	8.6	0.27	46	0.25 ^{O9}	1.1	380	44	18	0.049
Equip Blank	LAILG-NGA-EB	3/17/2012	nd	nd	nd ^{O9}	nd	nd	nd	nd	nd ^{O9}	nd	nd	nd	nd	0.00073
Field Blank	LAILG-NGA- FB	3/17/2012	nd	nd	nd ^{O9}	nd	nd	nd	nd	nd ^{O9}	nd	nd	nd	nd	0.00050
NGA #4	LAILG-NGA4-6	3/25/2012	na*	69	1.1	17	52	1.0	320	1.1	1.4	34 ^{FD}	100 ^{FD}	42 ^{FD}	0.051
NGA #170	LAILG-NGA170-1	3/25/2012	0.31	18	0.65	1.6	14	0.60	130	0.65	0.86	100	61	24	0.030
NGA #176	LAILG-NGA176-2	3/25/2012	0.30	29	0.99	8.7	43	0.99	220	0.99	2.2	550	80	32	0.066
NGA #210	LAILG-NGA210-2	3/25/2012	0.20	110	1.4	0.57	250	1.3	700	1.4	2.8 ^{MS-02}	86	270	110	0.0060
Duplicate	LAILG-NGA-DUP	3/25/2012	2.2 ^p	55	1.1	17	44	1.1	290	1.1	1.3	21	61	25	0.051
Equip Blank	LAILG-NGA-EB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CWIL Limits			See Table 7												
MDL			0.048	0.10	0.00022	0.020	0.10	0.0014	4.0	0.00022	0.0014	5	0.039	0.016	0.00027
RL			0.10	0.50	0.002	0.11	0.50	0.010	10	0.002	0.010	5	0.25	0.10	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL Conditional waiver for irrigated lands

EB Estimated concentration, constituent detected at greater than 10% in equipment blank

FD Estimated concentration. Field Duplicate RPD >25%.

FB Estimated concentration, constituent detected at greater than 10% in field blank

na* Ammonia not analyzed due to sample collection via peristaltic pump

p Estimated concentration due to sample collection via peristaltic pump

O9 This sample was received with the EPA recommended holding time expired.

MS-01 The spike recovery for this QC sample is outside of the established control limits possibly due to matrix interference.

MS-02 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #19	LAILG-NGA19-7	2/28/2014	1.4	120	2.400**	53	160	2.8	1,000	2.4**	4.7	650 ^{FD}	319	128	0.056
NGA #26	LAILG-NGA26-1	2/28/2014	2.4	73	1.800**	6.4	180	2.1	590	1.8**	2.3	49	158	63.2	0.056
NGA #124	LAILG-NGA124-7	2/28/2014	4.5	21	1.200**	13	100	1.5	420	1.2**	2.2	160	125	50.2	0.049
NGA #178	LAILG-NGA178-2	2/28/2014	0.87	120	2.200**	10	370	2.4	940	2.2**	3.6	270	324	130	0.030
NGA #184	LAILG-NGA184-3	2/28/2014	0.23	2.5	0.330**	0.40	1.6	0.44	41	0.33**	0.72	160	13.8	5.54	0.0079
Duplicate	LAILG-NGA-DUP	2/28/2014	1.4	120	2.800**	51	170	3.1	1100	2.8**	5.4	470 ^{FD}	320	128	0.057
Equip Blank	LAILG-NGA-EB	2/28/2014	<0.10	<0.50	<0.0020	<0.11	<0.50	<0.010	<10	<0.0020	<0.10	<5	<0.250	<0.100	<0.00050
Field Blank	LAILG-NGA- FB	2/28/2014	<0.10	<0.50	<0.0020	<0.11	<0.50	<0.010	<10	<0.0020	<0.10	<5	<0.250	<0.100	<0.00050
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.11	0.50	0.010	10.0	0.0020	0.10	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL	Conditional waiver for irrigated lands	**	The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However,
EB	Estimated concentration, constituent detected at greater than 10% in equipment blank		the sample was analyzed within holding time.
FD	Estimated concentration. Field Duplicate RPD >25%.	MRL	Method Reporting Limit
FB	Estimated concentration, constituent detected at greater than 10% in field blank		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #150	LAILG-NGA-150-6	12/2/2014	0.41	60	2.4**	13	130	2.6	530	2.5**	3.7	240	179	71.8	0.095
NGA #188	LAILG-NGA-188-1	12/2/2014	0.31	38	0.56**	4.4	110	0.80	330	0.56**	2.0 ^{FD}	2000 ^{FD}	141	56.3	0.036
Duplicate	LAILG-NGA-DUP	12/2/2014	0.27	35	0.58**	4.4	92	0.64	290	0.60**	1.4	430	126	50.6	0.031
NGA #168	LAILG-NGA-168-7	5/15/2015	0.18	57	0.36**	11	120	0.44	400	0.36**	0.74	91	134	53.7	0.036
Equip Blank	LAILG-NGA-EB	12/2/2014	<0.10	2.0	<0.0020**	<0.100	<0.50	<0.010	10	<0.0020**	<0.010	<5	1.64	0.656	0.0011
Field Blank	LAILG-NGA- FB	12/2/2014	<0.10	<0.50	<0.0020**	<0.100	<0.50	<0.010	<10.0	<0.0020**	<0.010	<5	<0.250	<0.100	<0.00050
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.100	0.50	0.010	10.0	0.0020	0.010	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL Conditional waiver for irrigated lands ** The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However, the sample was analyzed within holding time.

EB Estimated concentration, constituent detected at greater than 10% in equipment blank

FD Estimated concentration. Field Duplicate RPD >25%. MRL Method Reporting Limit

FB Estimated concentration, constituent detected at greater than 10% in field blank

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #64	LAILG-NGA-64-4	1/5/2016	0.63	3.9	0.15**	0.70	7.2	0.17	45	0.16**	0.5	190	28.3	11.3	0.027
NGA #168	LAILG-NGA-168-8	1/5/2016	0.36	41	0.32**	15	160	0.45	410	0.32**	0.80	140	162	64.9	0.036
Duplicate	LAILG-NGA-DUP	1/5/2016	0.36	39	0.35**	15	160	0.5	410	0.35**	0.91	160	159	63.6	0.041
Equip Blank	LAILG-NGA-EB	1/5/2016	<0.10	<0.50	<0.0020**	<0.100	<0.50	<0.010	<10.0	<0.0020**	<0.010	<5	<0.250	<0.100	<0.00050
Field Blank	LAILG-NGA- FB	1/5/2016	<0.10	<0.50	<0.0020**	<0.100	<0.50	<0.010	<10.0	<0.0020**	<0.010	<5	<0.250	<0.100	<0.00050
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.100	0.50	0.010	10.0	0.0020	0.010	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

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|------|--|-----|--|
| CWIL | Conditional waiver for irrigated lands | ** | The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However, the sample was analyzed within holding time. |
| EB | Estimated concentration, constituent detected at greater than 10% in equipment blank | | |
| FD | Estimated concentration. Field Duplicate RPD >25%. | MRL | Method Reporting Limit |
| FB | Estimated concentration, constituent detected at greater than 10% in field blank | | |

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #4	LAILG-NGA-4-8	1/20/2017	0.33	3.3	0.082**	0.76	2.4	0.080	46	0.082**	0.12	15	7.58	3.04	0.0045
NGA #19	LAILG-NGA-19-8	1/20/2017	0.31	42 ^{FD}	0.78**	25^{FD}	61 ^{FD}	0.82	700 ^{FD}	0.78**	2.7 ^{FD}	430 ^{FD}	163	65.2	0.047 ^{FD}
NGA #176	LAILG-NGA-176-3	1/20/2017	<0.10	3.9	0.28**	0.70	3.6	0.32	97	0.28**	0.70	360	13.4	5.38	0.029
Duplicate	LAILG-NGA-DUP	1/20/2017	0.33	27	0.86**	15	42	0.85	400	0.86**	5.2	1000	180	72.2	0.095
NGA #124	LAILG-NGA-124-8	2/17/2017	0.50	7.6	0.77**	3.8	70	0.73*	270	0.76**	3.9	740	120	48.1	0.120
NGA #150	LAILG-NGA-150-7	2/17/2017	1.4	10	3.3**	11	54	3.3*	300	3.3**	4.0	180	73.8	29.6	0.057
NGA #158	LAILG-NGA-158-1	2/17/2017	0.18	1.9	0.19**	0.55	20	0.29	38	0.19**	0.60	110	29.5	11.8	0.039
NGA #178	LAILG-NGA-178-3	2/17/2017	0.58	74	1.3**	0.55	200	1.3*	720	1.3**	13*	2900	431	173	0.37
NGA #202	LAILG-NGA- 202-1	2/17/2017	0.11	6.5	0.45**	1.8	18	0.47*	140	0.46**	0.81	130	39.7	15.9	0.038
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.100	0.50	0.010	10.0	0.0020	0.010	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL	Conditional waiver for irrigated lands	**	The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However, the sample was analyzed within holding time.
EB	Estimated concentration, constituent detected at greater than 10% in equipment blank		
FD	Estimated concentration. Field Duplicate RPD >25%.	MRL	Method Reporting Limit
FB	Estimated concentration, constituent detected at greater than 10% in field blank	*	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to analysis. The MDL and MRL were raised due to this dilution.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	General Chemistry												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #124	LAILG-NGA-124-9	1/9/2018	4.1	44	1.900	1.0	270	2.0	840	1.8	3.0	150	327	131	0.059
NGA #178	LAILG-NGA-178-4	1/9/2018	0.48	87	2.400	3.9	100	2.4	520	2.4	5.6	930	172	69	0.073
NGA #184	LAILG-NGA-184-4	1/9/2018	7.4	23	1.500	1.3	61	1.7	240	1.5	10	230	104	41.8	0.110
NGA #202	LAILG-NGA-202-2	1/9/2018	0.23	30	1.800	7.2	60	1.8	310	1.8	2.2	61	99.2	39.7	0.037
NGA #4	LAILG-NGA-4-9	3/22/2018	0.32	2.4	0.250	0.58	2.5	0.22	42	0.25	0.44	82	13.5	5.42	0.022
NGA #19	LAILG-NGA-19-9	3/22/2018	0.53	140	0.480	93	150	0.54	1,400	0.48	3.3	760	434	174	0.060
NGA #64	LAILG-NGA-64-5	3/22/2018	0.37	3.3	0.260	1.4	5.8	0.26	92	0.26	0.64	110	29.1	11.7	0.013
NGA #168	LAILG-NGA-168-9	3/22/2018	0.14	32	0.450	10	200	0.52	470	0.45	0.69	35	155	62.0	0.027
CWIL Limits			See Table 7												
MRL			0.10	0.50	0.0020	0.11	2.0	0.010	10.0	0.0020	0.010	5	0.250	0.100	0.00050

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated by the QA Officer.

CWIL	Conditional waiver for irrigated lands	**	The recommended holding time for filtering is only 15 minutes. The sample was filtered as soon as possible but was filtered past holding time. However, the sample was analyzed within holding time.
EB	Estimated concentration, constituent detected at greater than 10% in equipment blank		
FD	Estimated concentration. Field Duplicate RPD >25%.	MRL	Method Reporting Limit
FB	Estimated concentration, constituent detected at greater than 10% in field blank	*	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to analysis. The MDL and MRL were raised due to this dilution.

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry									
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS
NGA #130	NGA-#130-LAILG-1	8/6/2007	2.5	58.34	2.2457	50.44	43.04	2.29	1,170	2.05	2.305	6.3
NGA #183	NGA-#183-LAILG-1	8/6/2007	0.04 ^J	209.97	0.2336	0.13	177.83	0.23	223	0.23	0.264	11
NGA #19	NGA-#19-LAILG-1	8/13/2007	1	108.57	2.2882	10.84	118.85	2.68	772	4.62	5.09	568
NGA #124	NGA-#124-LAILG-1	8/13/2007	9.8	69.23	3.5006	72.48	206.25	4.31	1,002	3.96	4.627	99.5
NGA #168	NGA-#168-LAILG-1	8/13/2007	0.4	81.85	1.977	4.93	131.16	2.28	664	2.13	3.243	122
NGA BLANK	NGA LAILG-BLANK-1	8/13/2007	0.04 ^J	nd	nd	nd	nd	nd	32	nd	nd	nd
NGA FB LI	NGA-LAILG-FB LI	8/21/2007	0.01 ^J	nd	nd	0.016 ^J	nd	nd	nd	nd	nd	nd
NGA EQB LI	NGA-LAILG-EQB LI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/2007	52.4	95.9	26.84	355.6	87	22.5	2279	23	24	57
NGA #183	ILG-#183	9/26/2007	13.5 ^B	51.63	1.4457 ^B	11.35^B	57.38 ^B	1.64 ^B	317 ^B	2.24 ^B	0.858 ^B	28.7 ^B
NGA #183-DU	ILGNGA-#Dup	9/26/2007	29 ^B	55.3	4.193 ^B	26.77^B	89.17 ^B	4.29 ^B	434 ^B	5.66 ^B	4.488 ^B	20 ^B
NGA #EQUIP	ILGNGA-#Equip	9/26/2007	nd	nd	nd	nd	nd	nd	5	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/2007	2.2	172.52	1.582 ^C	8.91	340.14 ^E	2.15	1,297	3.51	5.379	504
NGA #168	ILGNGA-#168-3	11/30/2007	0.48	101.43	2.1635	30.81	245.04 ^E	2.67	951	3.13	3.548	nd
NGA #182	NGA #182-LAILG-1	12/7/2007	0.4	60.71	1.7533	19.85	159.87^F	1.52	456	1.41	1.554	20.3
NGA #182-DU	NGA-Duplicate	12/7/2007	0.42	59.2	1.8269	19.71	118.48 ^F	1.51	552	1.56	1.523	20.7
NGA #4	NGA #4-LAILG-1	12/7/2007	0.48	20.64	1.1355	4.03	20.39 ^F	0.8	186	0.77	0.829	58
NGA #130	NGA #130-LAILG-2	12/7/2007	0.3	162.95	1.0247	26.16	190 ^F	0.91	830	0.74	0.94	51
NGA #150	NGA #150-LAILG-2	12/7/2007	2.9	27.34	14.0243	80.89	56.59 ^F	9.43	780	8.89	9.445	40
NGA #124	NGA-#124-LAILG-2	12/7/2007	4.6	33.03	3.9247	45.41	59.24 ^F	2.9	550	2.76	3.168	90
NGA #EQUIP	NGA-equip blank	12/7/2007	nd	nd	nd	nd	1.13	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/2007	nd	nd	nd	nd	nd	nd	6	nd	nd	nd
NGA #176	NGA-#176-LAILG-1	12/18/2007	5.5	56.82	0.7145	3.85	293.12	0.54	680	12.21	3.447	6,168
NGA #183	LAILG-NGA#183-3	12/18/2007	1.95	28.41	2.344	11.37	41.11	2.78	292	3.14	3.561	92
NGA #19	LAILG-NGA#19-2	12/18/2007	1.4	162.66	11.2352	86.7	290.99	2.13	1,292	4.01	5.544	684
NGA #13	LAILG-NGA#13-1	12/18/2007	1.6	5.46	0.2033	1.72	32.27	0.49	32	1.44	2.878	944
NGA #53	LAILG-NGA#53-1	12/18/2007	0.7	4.72	0.2973	0.49	12.51	0.57	132	0.75	1.188	124
CWIL Limits			See Table X									
MDL			0.01	0.01	0.0075	0.01	0.01	0.016	0.1	0.01	0.016	0.5
RL			0.05	0.05	0.01	0.05	0.05	0.05	5	0.01	0.05	5

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes;

- CWIL Conditional waiver for irrigated lands
B Estimated concentration, since RPD of duplicate is >25%
C Procedural blank matrix spike recovery out of limits
E ESTIMATED CONCENTRATION, matrix spike does not meet acceptance criteria
F Sulfate detected in lab blank, at 1.09 mg/L.
J Estimated concentrations, results above MDL but less than RL

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
GENERAL CHEMISTRY
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	General Chemistry									
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS
NGA #110	LAILG-NGA110-1	1/4/2008	0.41	10.65	1.3052	2.36	18.22	1.74	162	1.81	2.033	24
NGA #189	LAILG-NGA189-1	1/4/2008	0.59	7.29	0.6851	1.83	26.43	1.33	192	1.8	2.475	20
NGA #19	LAILG-NGA19-3	1/5/2008	0.12	157.52	0.2125	0.44	451.78	0.96	1,030	1.26	1.173	84
NGA #124	LAILG-NGA124-3	1/5/2008	15.5	28.3	0.9814	28.34^{O1}	57.68	1.66	378	1.66	2.228	40
NGA #183	LAILG-NGA183-4	1/5/2008	0.73	5.82	1.0874	1.4	6.36	0.23	106	1.29	1.729	510
NGA #4	LAILG-NGA4-2	1/23/2008	0.24	1.45	0.1891	0.6	3.87	0.15	145	0.26	1.848	27
NGA #53	LAILG-NGA53-2	1/23/2008	0.31	2.19	0.6425	0.76	14.92	0.82	nd	0.68	1.993	516
NGA #64	LAILG-NGA64-1	1/23/2008	0.20	3.82	0.2818	3.83	101.1	0.3	nd	0.46	0.393	76
NGA #130	LAILG-NGA130-3	1/24/2008	0.15	58.12	0.264	3.64	107.65	0.26	383	0.27	0.314	16
NGA #182	LAILG-NGA182-2	1/24/2008	0.17 ^{M4}	7.39	0.6085	1.91 ^{M4}	14.22	0.76	218	0.81	0.825	64
NGA #168	LAILG-NGA168-4	1/25/2008	0.38	65.9	3.053	14.58	117.44	3.07	592	5.45	2.363	1126.7
NGA #19	LAILG-NGA 19-4	8/12/2008	0.03 ^{FB}	104.03	1.1877	12.65	107.33	1.75	834	1.86	15.494	213
NGA #4	LAILG-NGA 4-3	8/13/2008	0.68	350.11	11.5262	200.18	219.52	69.7 ^{FD}	2,238	13.05	31.713	371 ^{FD}
Duplicate	LAILG-NGA-DUP	8/13/2008	0.71	397.47	9.0404	212	252.22	34.87 ^{FD}	2,350	12	26.483	787 ^{FD}
NGA #31	LAILG-NGA 31-1	9/23/2008	0.13 ^{FD}	82.13 ^{EB,FB}	1.562 ^{H,FD}	17.3	134.93	1.472 ^H	602	2.34 ^H	1.813 ^{H,FD}	162
Duplicate	LAILG-NGA-DUP	9/23/2008	0.37 ^{FD}	82.37 ^{EB,FB}	2.629 ^{H,FD}	19.64	136.19 ^{M4}	1.84 ^H	626	2.10 ^H	0.883 ^{H,M3}	127
NGA #19	LAILG-NGA 19-5	11/26/2008	0.96	115.72	1.507	26.94	126.35	1.356	748	4.69	4.884	995
NGA #210	LAILG-NGA 210-1	11/26/2008	0.11	155.92	1.892	0.92	336.78	2.185	884	3.23	3.722	542
NGA #184	LAILG-NGA 184-1	11/26/2008	0.46	31.44	0.609	3.12	17.92	0.643	206 ^{FB}	0.88	1.3	129.5
Duplicate	LAILG-NGA-DUP	11/26/2008	0.48	32.51	0.616	3.1	18.68	0.65	214 ^{FB}	0.86	1.297	128
NGA #124	LAILG-NGA 124-4	11/26/2008	0.48	37.78	2.595	28.36	84.22	2.975	568	2.53	3.297	117
NGA #31	LAILG-NGA 31-2	11/26/2008	0.76	6.12	0.474	3.6	14.84	0.497	104 ^{FB}	1.63	1.94	353
NGA #130	LAILG-NGA 130-4	11/26/2008	0.68	95.81	0.228	9.17	183.82	0.652	616	0.8	1.046	97
NGA #150	LAILG-NGA 150-3	11/26/2008	32.2	65.92	31.579	114.76	258.65	49.896	2,446	37.69	48.048	45.5
NGA #25	LAILG-NGA 25-1	11/26/2008	0.85	21.99	1.1712	5.31	51.95	1.338	166 ^{FB}	1.38	1.641	168.5
NGA #150	LAILG-NGA 150-4	12/15/2008	15.75	47.27	26.0911	268.53	125.27^{M4}	24.935 ^{M4}	1704^{EB}	2.94	24.75 ^{M4}	333.5
NGA #124	LAILG-NGA 124-5	12/15/2008	1.68	26.51	24.4087	40.43	45.28	21.115	424 ^{EB}	3.66	2.706	115.5
NGA #189	LAILG-NGA 189-2	12/15/2008	0.54	31.28	0.6795	9.87	41.27	0.813	220 ^{EB}	0.99	1.261	111.3
NGA #110	LAILG-NGA 110-2	12/15/2008	0.31	28.59	1.186	8.48	50.87	1.469	328 ^{EB}	1.6	1.868	93
NGA #31	LAILG-NGA 31-3	12/15/2008	4.32	36.98	3.0228	12.14	57.58	2.148	364 ^{EB}	2.87	3.155	85.5
NGA #184	LAILG-NGA 184-2	12/15/2008	0.64	27.46	0.7339	4.41	33.57	0.502	240 ^{EB}	2.16	2.94	1,079
NGA #130	LAILG-NGA 130-5	12/15/2008	0.52	46.43	0.4392	11.81	67.8	0.481	258 ^{EB}	0.47	0.512	59.7
NGA #178	LAILG-NGA 178-1	12/15/2008	0.81	85.04	2.4077	12.99	148.27	2.648	462^{EB}	2.64	2.934	72.7 ^{FD}
Duplicate	LAILG-NGA-DUP	12/15/2008	0.79	102.32	2.3169	14.99	173.96	2.604	588	2.62	2.944	49.3
NGA #64	LAILG-NGA 64-2	12/15/2008	1.15	12.38 ^{EB}	0.4307	5.39	35.34	0.49	232 ^{EB}	0.71	0.868	112
NGA #168	LAILG-NGA 168-5	12/15/2008	0.25	53.4	1.4434	15.33	130.75	1.568	492 ^{EB}	2.24	2.386	236
NGA #4	LAILG-NGA 4-4	12/15/2008	0.52	8.67 ^{EB}	1.0382	2.7	15.23	0.158	238 ^{EB}	2.33	2.231	295
CWIL Limits			See Table X									
MDL			0.01	0.01	0.0075	0.01	0.01	0.016	0	0.01	0.016	0.5
RL			0.05	0.05	0.01	0.05	0.05	0.05	5	0.01	0.05	5

Concentrations are reported in milligrams per liter (mg/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes;

CWIL Conditional waiver for irrigated lands

EB Estimated concentration, constituent detected at greater than 10% in equipment blank

FD Estimated concentration. Field Duplicate RPD >25%.

FB Estimated concentration, constituent detected at greater than 10% in field blank

H Sample received and /or analyzed past the recommended holding time.

M3 Detection of the analyte was difficult due to matrix interference.

M4 Spike or surrogate compound recovery was out of control due to matrix interference.

The associated method blank spike or surrogate compound was in control and therefore the sample data was reported without further clarification.

Q1 Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #124	LAILG-NGA-124-10	11/29/2018	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
NGA #158	LAILG-NGA-158-2	11/29/2018	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
NGA #178	LAILG-NGA-178-5	11/29/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
NGA #202	LAILG-NGA-202-3	11/29/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Duplicate	LAILG-NGA-DUP	11/29/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Equip Blank	LAILG-NGA-EB	11/29/2018	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Blank	LAILG-NGA- FB	11/29/2018	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NGA #4	LAILG-NGA-4-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
NGA #19	LAILG-NGA-19-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
NGA #64	LAILG-NGA-64-6	1/14/2019	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
NGA #168	LAILG-NGA-168-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #124	LAILG-NGA-124-9	1/9/2018	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #178	LAILG-NGA-178-4	1/9/2018	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #184	LAILG-NGA-184-4	1/9/2018	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #202	LAILG-NGA-202-2	1/9/2018	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #4	LAILG-NGA-4-9	3/22/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #19	LAILG-NGA-19-9	3/22/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #64	LAILG-NGA-64-5	3/22/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #168	LAILG-NGA-168-9	3/22/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #4	LAILG-NGA-4-8	1/20/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #19	LAILG-NGA-19-8	1/20/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #176	LAILG-NGA-176-3	1/20/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Duplicate	LAILG-NGA-DUP	1/20/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #124	LAILG-NGA-124-8	2/17/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #150	LAILG-NGA-150-7	2/17/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #158	LAILG-NGA-158-1	2/17/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #178	LAILG-NGA-178-3	2/17/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #202	LAILG-NGA- 202-1	2/17/2017	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #64	LAILG-NGA-64-4	1/5/2016	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #168	LAILG-NGA-168-8	1/5/2016	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Duplicate	LAILG-NGA-DUP	1/5/2016	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	1/5/2016	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Blank	LAILG-NGA-FB	1/5/2016	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04 Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #150	LAILG-NGA-150-6	12/2/2014	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
NGA #188	LAILG-NGA-188-1	12/2/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Duplicate	LAILG-NGA-DUP	12/2/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NGA #168	LAILG-NGA-168-7	5/15/2015	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	12/2/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Blank	LAILG-NGA- FB	12/2/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04 Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #19	LAILG-NGA19-7	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #26	LAILG-NGA26-1	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #124	LAILG-NGA124-7	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #178	LAILG-NGA178-2	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #184	LAILG-NGA184-3	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Duplicate	LAILG-NGA-DUP	2/28/2014	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	2/28/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Blank	LAILG-NGA- FB	2/28/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
WQB			nl	0.59	nl	0.84	0.59	0.59	0.13	3.9	14	nl	19	nl	nl	0.14	110,000	110,000	110,000
MRL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04 Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	Dieldrin	Endosulfan Sulfate	Endosulphan-I	Endosulfan-II
NGA #4	LAILG-NGA4-5	3/21/2011	nd	nd	nd	nd	17	21	nd	nd	nd	nd	nd	13	18	nd	nd	nd	nd
NGA #124	LAILG-NGA124-6	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	33^{FD}	nd	nd	nd
NGA # 150	LAILG-NGA 150-5	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA19-6	3/23/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	22	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
NGA #31	LAILG-NGA31-4	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
NGA #162	LAILG-NGA162-1	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
NGA #64	LAILG-NGA64-3	3/17/2012	nd	nd	nd	nd	28^{FD}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
Duplicate	LAILG-NGA-DUP	3/17/2012	nd	nd	nd	nd	51	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
Equip Blank	LAILG-NGA-EB	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
Field Blank	LAILG-NGA- FB	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BSL}	nd
NGA #4	LAILG-NGA4-6	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #170	LAILG-NGA170-1	3/25/2012	nd	nd	nd	nd	9.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA176-2	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #210	LAILG-NGA210-2	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CWIL Limits			nl	0.59	nl	0.84	0.59	0.59	nl	nl	nl	nl	nl	nl	nl	0.14	nl	nl	nl
MDL			5.0	5.0	5.0	5.0	2.5	3.1	1.5	1.8	3.1	2.5	2.1	5.0	5.0	2.1	5.0	1.7	1.9
RL			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above CWIL Limits are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL	Conditional waiver for irrigated lands	S4	The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect.
FD	Estimated concentration. Field Duplicate RPD >25%.	SGC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
J	Estimated concentrations, results above MDL but less than RL		
MDL	Method Detection Limits		
RL	Reporting Limits	BS-L	The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.
nd	not detected		
nl	not listed		

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	cis-Nonachlor	DCPA	Dicofol	Dieldrin
NGA #110	LAILG-NGA110-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA189-1	1/4/2008	nd	nd	nd	nd	22.5	nd	nd	nd	nd	nd	nd	nd	6	nd	nd	nd	nd
NGA #19	LAILG-NGA19-3	1/5/2008	nd	nd	nd	nd	nd	5.6	nd	nd	nd	nd	nd	2.3 ^J	nd	nd	nd	nd	nd
NGA #124	LAILG-NGA124-3	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA183-4	1/5/2008	nd	nd	nd	12	26.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA53-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-1	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA130-3	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182	LAILG-NGA182-2	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-4	1/25/2008	nd	nd	nd	nd	19.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.0 ^J	2.1 ^J	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-3	8/13/2008	nd	nd ^{M4}	nd	nd	nd	nd	nd	nd	nd ^{M4}	nd	nd	9.2 ^{Q2,FD}	9.8 ^{M4,Q2,FD}	12.7 ^{Q2,FD}	nd	485.7 ^{Q1,Q2,FD}	nd ^{M4}
Duplicate	LAILG-NGA-DUP	8/13/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	29.8 ^{FD}	41.3 ^{FD}	44.3 ^{FD}	nd	1064.3 ^{FD}	nd
NGA # 31	LAILG-NGA 31-1	9/23/2008	nd	nd	nd	nd	13.5	nd	nd	nd	nd	nd	nd	nd	7.6 ^{FD}	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	9/23/2008	nd	nd	nd	nd	13.6	nd	nd	nd	nd	nd	nd	nd	11.6 ^{FD}	nd	nd	nd	nd
NGA # 19	LAILG-NGA 19-5	11/26/2008	nd	nd	nd	nd	24.7^{Q6}	nd	nd	nd	nd	nd	nd	7.5 ^{J,Q3}	6.1	nd	nd	nd	nd
NGA # 210	LAILG-NGA 210-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/2008	nd	nd	nd	nd	19.3	nd	nd	nd	nd	nd	nd	3.7 ^J	2.8 ^J	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-2	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	7.8	6.3	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-4	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	6.7 ^J	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	5.6	4.9 ^J	1.0 ^J	nd	nd	nd
NGA # 150	LAILG-NGA 150-4	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/2008	nd	nd	nd	10.4	nd	nd	nd	nd	nd	nd	nd	5.5	4.2 ^J	nd	6.3 ^J	nd	nd
NGA # 189	LAILG-NGA 189-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/2008	nd	nd	nd	6.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/2008	nd	nd	nd	nd	22	nd	nd	nd	nd	nd	nd	nd	4.2 ^J	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/2008	nd	nd ^{M4}	nd ^{M4}	nd ^{M4}	25.3^{FD}	nd ^{M4}	nd	nd	nd ^{M4}	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	12/15/2008	nd	nd	nd	nd	nd ^{FD}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/2008	nd	nd	nd	nd	43.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/2008	nd	nd	nd	nd	11.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-4	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	35.1	34.2	6.5	nd	nd	nd
CWIL Limits			nl	nl	nl	0.59	0.59	0.83	0.13	3.9	14	nl	19	a)	a)	a)	nl	nl	0.14
MDL			1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	50	1
RL			5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	100	5

Concentrations are reported in nanograms per liter (ng/L). **Results above CWIL Limits are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

<p>CWIL Conditional waiver for irrigated lands FD Estimated concentration. Field Duplicate RPD >25%. J Estimated concentrations, results above MDL but less than RL MDL Method Detection Limits RL Reporting Limits nd not detected nl not listed</p>	<p>M4 Spike or surrogate compound recovery was out of control due to matrix interference. The associated method blank spike or surrogate compound was in control and therefore the sample data was reported without further clarification.</p> <p>Q1 Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration.</p> <p>Q2 The sample RPD was out of control. Sample is heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices.</p>	<p>Q3 RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL.</p> <p>Q6 CRG's Quality Assurance Program Document allows for 5% of the target compounds greater than ten times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and cannot be attributed to a specific reason.</p>
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SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides																
			2,4'-DDD	2, 4'-DDE	2,4'-DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	BHC-alpha	BHC-beta	BHC-delta	BHC-gamma	Chlordane-alpha	Chlordane-gamma	cis-Nonachlor	DCPA	Dicofol	Dieldrin
NGA #130	NGA-#130-LAILG-1	8/6/2007	nd	nd	nd	22.8	34.7	16.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	68.3 ^J	nd
NGA #183	NGA-#183-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-1	8/13/2007	nd	nd	nd	22.5	15.3	13.7	nd	nd	nd	nd	nd	nd	nd	nd	12.1	nd	nd
NGA #168	NGA-#168-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLL	NGA-LAILG-FBLL	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/2007	nd	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	ILG-#183	9/26/2007	25 ^B	nd	31.8 ^B	90.3^B	113.8^B	51.1^{B,D}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183-DUP	ILGNGA-#Dup	9/26/2007	nd ^B	nd	nd ^B	64.5^B	70.2^B	nd ^{B,D}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/2007	nd	nd	17.3	16.7	nd	84^D	nd	nd	nd	nd	nd	nd	nd	nd	nd	52 ^J	nd
NGA #168	NGA-#168-LAILG-3	11/30/2007	nd	nd	nd	nd	2.7^J	nd ^C	nd	nd	nd	nd	nd	1.4 ^J	1.4 ^J	1.1 ^J	nd	nd	nd
NGA #182	NGA-#182-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182-DUP	NGA-Duplicate	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	NGA-#4-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	NGA-#130-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	35.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-2	12/7/2007	nd	nd	nd	6.0	22.1	9.3	nd	nd	nd	nd	nd	1.1 ^J	3.0 ^J	nd	nd	63.7 ^J	nd
NGA #EQUIP	NGA-equip blank	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA#176-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA#183-3	12/18/2007	36.8	5.7	20.6	224.8	344.4	73.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	51.5 ^J	nd
NGA #19	LAILG-NGA#19-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #13	LAILG-NGA#13-1	12/18/2007	nd	nd	nd	nd	32.7	nd	nd	nd	nd	nd	nd	18	19.2	19.6	nd	nd	nd
NGA #53	LAILG-NGA#53-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CWIL Limits			nl	nl	nl	0.59	0.59	0.83	0.13	3.9	14	nl	19	a)	a)	a)	nl	nl	0.14
MDL			1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	50	1
RL			5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	100	5

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
A Component of total chlordane, see total chlordane for CWIL limitations
B Estimated concentration, RPD of duplicate sample >25%
C Procedural blank Matrix Spike recovery out of limits
D Procedural blank Matrix Spike Duplicate RPD out of limits
J Estimated concentrations, results above MDL but less than RL

MDL Method Detection Limits
RL Reporting Limits
nd not detected
nl not listed
na not analyzed

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides												Sample Notes	
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor	Total Chlordane		
NGA #124	LAILG-NGA-124-10	11/29/2018	<2000	<100	<100	<2000	<100	<100	<100	<100	<100	<10000	<100	<100	<100	M-04
NGA #158	LAILG-NGA-158-2	11/29/2018	<2000	<100	<100	<2000	<100	<100	<100	<100	<100	<10000	<100	<100	<100	M-04
NGA #178	LAILG-NGA-178-5	11/29/2018	<5000	<50	<50	<1000	<50	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
NGA #202	LAILG-NGA-202-3	11/29/2018	<5000	<50	<50	<1000	<50	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
Duplicate	LAILG-NGA-DUP	11/29/2018	<5000	<50	<50	<1000	<50	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
Equip Blank	LAILG-NGA-EB	11/29/2018	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Field Blank	LAILG-NGA- FB	11/29/2018	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
NGA #4	LAILG-NGA-4-10	1/14/2019	<2000	<100	<100	<2000	<100	<100	<100	<100	<100	<10000	<100	<100	<100	M-04
NGA #19	LAILG-NGA-19-10	1/14/2019	<2000	<100	<100	<2000	<100	<100	<100	<100	<100	<10000	<100	<100	<100	M-04
NGA #64	LAILG-NGA-64-6	1/14/2019	<1000	<50	<50	<1000	<50	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
NGA #168	LAILG-NGA-168-10	1/14/2019	<2000	<100	<100	<2000	<100	<100	<100	<100	<100	<10000	<100	<100	<100	M-04
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59		
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0		

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04

Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides												Sample Notes	
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor	Total Chlordane		
NGA #124	LAILG-NGA-124-9	1/9/2018	<1000	<50	<50	<1000	<50	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
NGA #178	LAILG-NGA-178-4	1/9/2018	<2500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #184	LAILG-NGA-184-4	1/9/2018	<2000	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #202	LAILG-NGA-202-2	1/9/2018	2500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #4	LAILG-NGA-4-9	3/22/2018	<500	<10	<10	<200	<10	<10	<10	<10	<10	<2500	<10	<10	<10	M-04
NGA #19	LAILG-NGA-19-9	3/22/2018	<500	<10	<10	<200	<10	<10	<10	<10	<10	<2500	<10	<10	<10	M-04
NGA #64	LAILG-NGA-64-5	3/22/2018	<500	<10	<10	<200	<10	<10	<10	<10	<10	<2500	<10	<10	<10	M-04
NGA #168	LAILG-NGA-168-9	3/22/2018	<500	<10	<10	<200	<10	<10	<10	<10	<10	<2500	<10	<10	<10	M-04
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59		
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0		

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04

Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Chlorinated Pesticides											Sample Notes		
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor		Total Chlordane	
NGA #4	LAILG-NGA-4-8	1/20/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #19	LAILG-NGA-19-8	1/20/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #176	LAILG-NGA-176-3	1/20/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Duplicate	LAILG-NGA-DUP	1/20/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #124	LAILG-NGA-124-8	2/17/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #150	LAILG-NGA-150-7	2/17/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #158	LAILG-NGA-158-1	2/17/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #178	LAILG-NGA-178-3	2/17/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #202	LAILG-NGA- 202-1	2/17/2017	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59		
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0		

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04

Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides												Sample Notes	
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor	Total Chlordane		
NGA #64	LAILG-NGA-64-6	1/5/2016	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #168	LAILG-NGA-168-1	1/5/2016	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Duplicate	LAILG-NGA-DUP	1/5/2016	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	1/5/2016	<100	<5.0	<5.0	<100	68	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Field Blank	LAILG-NGA-FB	1/5/2016	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59		
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0		

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04 Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides												Sample Notes
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor	Total Chlordane	
NGA #150	LAILG-NGA-150-6	12/2/2014	<1000	<50	<50	<1000	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
NGA #188	LAILG-NGA-188-1	12/2/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Duplicate	LAILG-NGA-DUP	12/2/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
NGA #168	LAILG-NGA-168-7	5/15/2015	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	12/2/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Field Blank	LAILG-NGA- FB	12/2/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59	
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0	

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
WQB Water Quality Benchmarks
MRL Method Reporting Limits
nl not listed

M-04

Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides												Sample Notes	
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Chlordane (tech)	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans-Nonachlor	cis-Nonachlor	Total Chlordane		
NGA #19	LAILG-NGA19-7	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #26	LAILG-NGA26-1	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #124	LAILG-NGA124-7	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #178	LAILG-NGA178-2	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #184	LAILG-NGA184-3	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Duplicate	LAILG-NGA-DUP	2/28/2014	<500	<25	<25	<500	<25	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	2/28/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Field Blank	LAILG-NGA- FB	2/28/2014	<100	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
WQB			nl	760	760	nl	0.21	0.1	nl	nl	0.75	nl	nl	0.59		
MRL			100	5.0	5.0	100	5.0	5.0	5.0	5.0	500	5	5.0	5.0		

Concentrations are reported in nanograms per liter (ng/L). **Results above WQB are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL	Conditional waiver for irrigated lands	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix
WQB	Water Quality Benchmarks		
MRL	Method Reporting Limits		
nl	not listed		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Chlorinated Pesticides										
			Aroclor XXXX, Sum of	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Mirex	Toxaphene	trans- Nonachlor	Total Chlordane
NGA #4	LAILG-NGA#4-2	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.6	39.6
NGA #124	LAILG-NGA#124-3	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA#19-2	3/23/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
NGA #31	LAILG-NGA31-4	3/17/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
NGA #162	LAILG-NGA162-1	3/17/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-3	3/17/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/17/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-6	3/25/2012	nd	nd	nd	nd ^{SGC}	nd	nd	nd	nd	nd	nd	nd
NGA #170	LAILG-NGA170-1	3/25/2012	nd	nd	nd	nd ^{SGC}	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA176-2	3/25/2012	nd	nd	nd	nd ^{SGC}	nd	nd	nd	nd	nd	nd	nd
NGA #210	LAILG-NGA210-2	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/25/2012	nd	nd	nd	nd ^{S4}	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CWIL Limits			nl	nl	nl	nl	nl	nl	nl	nl	0.75	nl	0.59
MDL			40	2.8	3.0	2.0	1.7	1.9	5.0	5.0	120	5.0	5.0
RL			100	5.0	5.0	20.0	5.0	5.0	5.0	5.0	500	5.0	5.0

Concentrations are reported in nanograms per liter (ng/L). **Results above CWIL Limits are presented in BOLD.** Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL	Conditional waiver for irrigated lands	S4	The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect.
MDL	Method Detection Limits		
J	Estimated concentrations, results above MDL but less than RL	SGC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
RL	Reporting Limits		
nd	not detected	BS-L	The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.
nl	not listed		
FD	Estimated concentration. Field Duplicate RPD >25%.		

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date																	
			Endosulfan Sulfate	Endosulphan-I	Endosulfan-II	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Kepone	Mirex	Oxychlorane	Perthane	Toxaphene	trans-Nonachlor	Total Chlordane	
NGA #110	LAILG-NGA#110-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #189	LAILG-NGA#189-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.9	14.9
NGA #19	LAILG-NGA#19-2	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	14	16.3
NGA #124	LAILG-NGA#124-3	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	17.1	17.1
NGA #183	LAILG-NGA#183-4	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA#4-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA#53-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA#64-1	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA#130-3	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182	LAILG-NGA#182-2	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA#168-4	1/25/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.3 ^J	4.4^J
NGA # 4	LAILG-NGA 4-3	8/13/2008	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd	nd ^{M4}	nd	nd	nd	nd	nd	nd	7.1 ^{M4,Q2,FD}	38.8	
Duplicate	LAILG-NGA-DUP	8/13/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	27 ^{FD}	124.4	
NGA # 31	LAILG-NGA 31-1	9/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	7.6	15.2	
Duplicate	LAILG-NGA-DUP	9/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.5	20.1	
NGA # 19	LAILG-NGA 19-5	11/26/2008	nd	nd	nd	nd	nd	339.4 ^{Q3}	nd	nd	nd	nd	nd	nd	nd	nd	6.6 ^{1,Q3}	20.2^J	
NGA # 210	LAILG-NGA 210-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.7 ^J	8.2^J	
NGA # 31	LAILG-NGA 31-2	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.8 ^J	17.9^J	
NGA # 130	LAILG-NGA 130-4	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{Q6}	nd	nd	nd	nd	nd	4.7 ^J	16.2^J	
NGA # 150	LAILG-NGA 150-4	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.9 ^J	13.6^J	
NGA # 189	LAILG-NGA 189-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	4.2^J
NGA # 130	LAILG-NGA 130-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/2008	nd	nd ^{M4}	nd ^{M4}	nd	nd	nd	nd	nd	nd ^{M4}	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	666	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-4	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	23.7	99.5	
CWIL Limits			nl	5.6	5.6	36	nl	nl	0.21	0.1	nl	nl	nl	a)	nl	25	a)	0.57	
MDL			1	1	1	1	1	1	1	1	1	1	1	1	5	10	1	1	
RL			5	5	5	5	5	5	5	5	5	5	5	5	10	50	5	5	

Concentrations are reported in nanograms per liter (ng/L). Results above **CWIL Limits** are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

<p>CWIL MDL J RL nd nl FD</p>	<p>Conditional waiver for irrigated lands Method Detection Limits Estimated concentrations, results above MDL but less than RL Reporting Limits not detected not listed Estimated concentration. Field Duplicate RPD >25%.</p>	<p>M4 Q2</p>	<p>Spike or surrogate compound recovery was out of control due to matrix interference. The associated method blank spike or surrogate compound was in control and therefore the sample data was reported without further clarification. The sample RPD was out of control. Sample is heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices.</p>	<p>Q3 Q6</p>	<p>RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL. CRG's Quality Assurance Program Document allows for 5% of the target compounds greater than ten times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and cannot be attributed to a specific reason.</p>
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SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
CHLORINATED PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pesticides															
			Endosulfan Sulfate	Endosulphan-I	Endosulfan-II	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Kepone	Mirex	Oxychlordane	Perthane	Toxaphene	trans-Nonachlor	Total Chlordane
NGA #130	NGA-#130-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	
NGA #183	NGA-#183-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	
NGA #19	NGA-#19-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	
NGA #124	NGA-#124-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	21.9	34
NGA #168	NGA-#168-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLL	NGA-LAILG-FBLL	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd ^D	nd	nd	nd	nd
NGA #183	ILG-#183	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd ^D	nd	nd	nd	nd
NGA #183-DUP	ILGNGA-#Dup	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd ^D	nd	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd ^D	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-3	11/30/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	nd	1.7 ^J	5.6^J
NGA #182	NGA #182-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182-DUP	NGA-Duplicate	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	NGA #4-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	NGA #130-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA #150-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	7.3	11.4
NGA #EQUIP	NGA-equip blank	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA#176-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA#183-3	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA#19-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	2.4 ^J	2.4^J
NGA #13	LAILG-NGA#13-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	54.1	110.9
NGA #53	LAILG-NGA#53-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^C	nd	nd	nd	nd	nd	nd
CWIL Limits			nl	5.6	5.6	36	nl	nl	0.21	0.1	nl	nl	nl	a)	nl	25	a)	0.57
MDL			1	1	1	1	1	1	1	1	1	1	1	1	5	10	1	1
RL			5	5	5	5	5	5	5	5	5	5	5	5	10	50	5	5

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands
A Component of total chlordane, see total chlordane for CWIL limitations
B Estimated concentration, RPD of duplicate sample >25%
C Procedural blank Matrix Spike recovery out of limits
D Procedural blank Matrix Spike Duplicate RPD out of limits
J Estimated concentrations, results above MDL but less than RL

MDL Method Detection Limits
RL Reporting Limits
nd not detected
nl not listed
na not analyzed

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	
NGA #124	LAILG-NGA-124-10	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	M-02
NGA #158	LAILG-NGA-158-2	11/29/2018	<20	<20	<20	<20	<20	<20	150	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	M-02
NGA #178	LAILG-NGA-178-5	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	M-02
NGA #202	LAILG-NGA-202-3	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	M-02
Duplicate	LAILG-NGA-DUP	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	M-02
Equip Blank	LAILG-NGA-EB	11/29/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Field Blank	LAILG-NGA- FB	11/29/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #4	LAILG-NGA-4-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	M-02
NGA #19	LAILG-NGA-19-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	M-02
NGA #64	LAILG-NGA-64-6	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	M-02
NGA #168	LAILG-NGA-168-10	1/14/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	M-02
WQB			80	nl	50	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	49	nl	485	nl	70	300	nl	nl	nl	nl
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected
M-02 Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes		
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion		Trichloronate	
NGA #124	LAILG-NGA-124-9	1/9/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		
NGA #178	LAILG-NGA-178-4	1/9/2018	<10	<10	<10	<10	<10	<10	<10	<10	13	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #184	LAILG-NGA-184-4	1/9/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #202	LAILG-NGA-202-2	1/9/2018	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #4	LAILG-NGA-4-9	3/22/2018	<50	<50	360	<50	<50	<50	62	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #19	LAILG-NGA-19-9	3/22/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #64	LAILG-NGA-64-5	3/22/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #168	LAILG-NGA-168-9	3/22/2018	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
WQB			80	nl	50	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	49	nl	485	nl	70	300	nl	nl	nl	nl		
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10.0	10	10	10	10	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected
M-02 Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes	
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion		Trichloronate
NGA #4	LAILG-NGA-4-8	1/20/2017	<10	<10	11	<10	<10	<10	17	<10	<10	<10	<10	<10	<10	30	<10	<10	<10	<10	<10	<10	<10	<10	<10		
NGA #19	LAILG-NGA-19-8	1/20/2017	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #176	LAILG-NGA-176-3	1/20/2017	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Duplicate	LAILG-NGA-DUP	1/20/2017	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #124	LAILG-NGA-124-8	2/17/2017	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #150	LAILG-NGA-150-7	2/17/2017	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #158	LAILG-NGA-158-1	2/17/2017	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #178	LAILG-NGA-178-3	2/17/2017	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
NGA #202	LAILG-NGA- 202-1	2/17/2017	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	M-02
WQB			80	nl	25	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	295	nl	485	nl	70	300	nl	nl	nl	nl	
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10.0	10	10	10	10	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected
M-02 Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	
NGA #64	LAILG-NGA-64-4	1/5/2016	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #168	LAILG-NGA-168-8	1/5/2016	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Duplicate	LAILG-NGA-DUP	1/5/2016	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Equip Blank	LAILG-NGA-EB	1/5/2016	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Field Blank	LAILG-NGA-FB	1/5/2016	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
WQB			80	nl	25	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	295	nl	485	nl	70	300	nl	nl	nl	
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10.0	10	10	10	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	
NGA #150	LAILG-NGA-150-6	12/2/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #188	LAILG-NGA-188-1	12/2/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Duplicate	LAILG-NGA-DUP	12/2/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #168	LAILG-NGA-168-7	5/15/2015	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Equip Blank	LAILG-NGA-EB	12/2/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Field Blank	LAILG-NGA- FB	12/2/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
WQB			80	nl	25	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	295	nl	485	nl	70	300	nl	nl	nl	nl
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10.0	10	10	10	10

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	
NGA #19	LAILG-NGA19-7	2/28/2014	<10	<10	22!	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #26	LAILG-NGA26-1	2/28/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	23	<10	<10	<10	<10	<10	<10	<10	<10
NGA #124	LAILG-NGA124-7	2/28/2014	<10	<10	17	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	<10	<10	<10	<10	<10	<10	<10	<10
NGA #178	LAILG-NGA178-2	2/28/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
NGA #184	LAILG-NGA184-3	2/28/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Duplicate	LAILG-NGA-DUP	2/28/2014	<10	<10	31!	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Equip Blank	LAILG-NGA-EB	2/28/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Field Blank	LAILG-NGA- FB	2/28/2014	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
WQB			80	nl	25	37	nl	nl	100	35	21,500	1,950	22,000	nl	nl	2,600	295	nl	485	nl	70	300	nl	nl	nl	nl
MRL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MRL Method Detection Limits
WQB Water Quality Benchmarks
! Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																							Sample Notes	
			Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton-o	Demeton-s	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Ethyl parathion	Fensulfthion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion		Trichloronate
NGA #4	LAILG-NGA4-5	3/21/2011	nd	nd	11000 ^{E1}	nd	nd ^{Q-02}	nd ^{Q-02}	1000 ^{E1}	nd	nd ^{MS-05}	nd ^{Q-02}	nd	nd	nd	nd	7300 ^{E1}	nd	nd	nd	nd	nd	nd	nd	nd	nd	S4
NGA #124	LAILG-NGA124-6	3/21/2011	nd	nd	10	nd	nd ^{Q-02}	nd ^{Q-02}	nd	nd	nd ^{MS-05}	nd ^{Q-02}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #150	LAILG-NGA150-5	3/21/2011	nd	nd	33	nd	nd ^{Q-02}	nd ^{Q-02}	nd	nd	nd ^{MS-05}	nd ^{Q-02}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #19	LAILG-NGA19-6	3/23/2011	nd ^{MS-05,BS-L}	nd ^{MS-05}	25	nd	nd	nd	nd	nd	nd ^{MS-05}	nd ^{BS-03}	nd	nd	nd ^{MS-05}	nd ^{BS-03}	nd	nd ^{Q-08}	nd	nd	nd ^{MS-05}	nd	nd	nd	nd	nd	
Duplicate	LAILG-NGA-DUP	3/21/2011	nd	nd	11	nd	nd ^{Q-02}	nd ^{Q-02}	nd	nd	nd ^{MS-05}	nd ^{Q-02}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Equip Blank	LAILG-NGA-EB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #168	LAILG-NGA168-6	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
NGA #31	LAILG-NGA31-4	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
NGA #162	LAILG-NGA162-1	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
NGA #64	LAILG-NGA64-3	3/17/2012	nd ^{BS-03}	nd	nd	nd	nd	nd	nd	nd	nd ^{MS-05}	nd	nd	nd	nd ^{MS-05}	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	
Duplicate	LAILG-NGA-DUP	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
Equip Blank	LAILG-NGA-EB	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/17/2012	nd ^{BS-03}	nd	nd	nd ^{Q-08,A-01}	nd	nd	nd	nd	nd	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{Q-08}	nd	nd ^{Q-08}	nd	nd	nd	nd	nd	
NGA #4	LAILG-NGA4-6	3/25/2012	nd ^{BS-03}	nd	44,000	nd ^{BS-03}	nd ^{BS-03}	nd ^{BS-03}	nd ^{Q-12}	nd	nd ^{MS-05}	nd	nd	nd	nd ^{Q-08,BS-03}	nd	2,100 ^{Q-08,A-01a}	nd ^{Q-08}	nd ^{BS-03}	nd	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd	nd	
NGA #170	LAILG-NGA170-1	3/25/2012	nd ^{MS-05,BS-L}	nd	nd	nd ^{BS-03}	nd	nd	nd	nd	nd ^{MS-05}	nd	nd	nd ^{MS-05}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{MS-05}	nd	nd ^{Q-08,A-01}	nd	nd	14 ^{BS-03}	nd	nd	
NGA #176	LAILG-NGA176-2	3/25/2012	nd ^{MS-05,BS-L}	nd	nd	nd ^{BS-03}	nd	nd	nd	nd	nd ^{MS-05}	nd	nd	nd ^{MS-05}	nd ^{Q-08}	nd	nd	nd ^{Q-08}	nd ^{MS-05}	nd	nd ^{Q-08,A-01}	nd	nd	nd ^{BS-03}	nd	nd	
NGA #210	LAILG-NGA210-2	3/25/2012	nd ^{MS-05,BS-L}	nd	nd	nd ^{BS-03}	nd	nd	nd	nd	nd ^{MS-05}	nd	nd	nd ^{MS-05}	nd ^{Q-08}	nd	41	nd ^{Q-08}	nd ^{MS-05}	nd	nd ^{Q-08,A-01}	nd	nd	nd ^{BS-03}	nd	nd	
Duplicate	LAILG-NGA-DUP	3/25/2012	nd ^{BS-03}	nd	42,000	nd ^{BS-03}	nd ^{BS-03}	nd ^{BS-03}	nd ^{Q-12}	nd	nd ^{MS-05}	nd	nd	nd	nd ^{Q-08,BS-03}	nd	2,000 ^{Q-08,A-01a}	nd ^{Q-08}	nd ^{BS-03}	nd	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd	nd	
Equip Blank	LAILG-NGA-EB	3/25/2012	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd ^{BS-03}	nd ^{BS-03}	nd ^{Q-12}	nd	nd ^{MS-05}	nd	nd	nd	nd ^{Q-08,BS-03}	nd	nd ^{Q-08,A-01a}	nd ^{Q-08}	nd ^{BS-03}	nd	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd	nd	
Field Blank	LAILG-NGA- FB	3/25/2012	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd ^{BS-03}	nd ^{BS-03}	nd ^{Q-12}	nd	nd ^{MS-05}	nd	nd	nd	nd ^{Q-08,BS-03}	nd	nd ^{Q-08,A-01a}	nd ^{Q-08}	nd ^{BS-03}	nd	nd ^{BS-03}	nd	nd	nd ^{BS-03}	nd	nd	
CWIL Limits			nl	nl	25	nl	nl	nl	100	nl	nl ⁽¹⁾	nl ⁽¹⁾	nl ⁽¹⁾	nl	nl	nl	nl ⁽¹⁾	nl	nl ⁽¹⁾	nl	nl	nl	nl	nl	nl	nl	
MDL			5.5	4.6	6.9	5.1	10	10	5.2	2.9	6.2	10	10	6.7	5.4	2.9	3.8	7.6	5.8	6.3	4.2	7.6	3.0	4.1	3.1	7.8	6.7
RL			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits or ALB guidelines are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MDL Method Detection Limits
RL Reporting Limits
FD Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected
(1) Although no discharge limits were set in the CWIL, the US EPA has set an aquatic life benchmark for this constituent. See Table 7.

E1 The concentration indicated for this analyte is an estimated value above the calibration range.
S4 The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect.
Q-08 High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
A-01 High bias in MS and MSD. However, ll-ccv has an acceptable recovery. The batch was accepted since all samples were ND for this analyte.
A-01a Low recovery in BS and high recoveries in both MS/MSD. However, ll-ccv has an acceptable recovery. The batch was accepted since samples were either ND or yielded very high results.
Q-12 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
Q-02 Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as non-detect.
MS-05 The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BS-L The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.
BS-03 The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																		
			Bolstar	Chlorpyrifos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Fenclorophos	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Phorate	Tetrachlorvinphos	Tokuthion	Trichloronate
NGA #110	LAILG-NGA110-1	1/4/2008	nd	88.5	nd	534.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #189	LAILG-NGA189-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #19	LAILG-NGA19-3	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #124	LAILG-NGA124-3	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #183	LAILG-NGA183-4	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #4	LAILG-NGA4-2	1/23/2008	nd	153.8	nd	2,212.1	nd	nd	nd	nd	nd	nd	15,453.2	nd	nd	nd	nd	nd	nd	nd	
NGA #53	LAILG-NGA53-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #64	LAILG-NGA64-1	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #130	LAILG-NGA130-3	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #182	LAILG-NGA182-2	1/24/2008	nd	nd	nd	nd	nd	13.3	nd	nd	nd	nd	19.9	nd	nd	nd	nd	nd	nd	nd	
NGA #168	LAILG-NGA168-4	1/25/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 19	LAILG-NGA19-4	8/12/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 4	LAILG-NGA 4-3	8/13/2008	nd ^{M4}	nd ^{M4}	nd ^{M4}	6,058.9 ^{O1.O2.FI}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	1,148,630 ^{O1}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	nd ^{M4}	
Duplicate	LAILG-NGA-DUP	8/13/2008	nd	nd	nd	13586.8 ^{FD}	nd	nd	nd	nd	nd	nd	1,117,145	nd	nd	nd	nd	nd	nd	nd	
NGA # 31	LAILG-NGA 31-1	9/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Duplicate	LAILG-NGA-DUP	9/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 19	LAILG-NGA 19-5	11/26/2008	nd	130.1	nd	32.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 210	LAILG-NGA 210-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	56.4	nd	nd	nd	nd	nd	nd	nd	
NGA # 184	LAILG-NGA 184-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Duplicate	LAILG-NGA-DUP	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 124	LAILG-NGA 124-4	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 31	LAILG-NGA 31-2	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 130	LAILG-NGA 130-4	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 150	LAILG-NGA 150-3	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 25	LAILG-NGA 25-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 150	LAILG-NGA 150-4	12/15/2008	nd	90.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 124	LAILG-NGA 124-5	12/15/2008	nd	21	nd	98.5	nd	nd	nd	nd	nd	nd	85.3	nd	nd	nd	nd	nd	nd	nd	
NGA # 189	LAILG-NGA 189-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	26.9	nd	nd	nd	nd	nd	nd	nd	
NGA # 110	LAILG-NGA 110-2	12/15/2008	nd	nd	nd	79.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 31	LAILG-NGA 31-3	12/15/2008	nd	44.5	nd	nd	nd	nd	nd	nd	nd	nd	3,433.9	nd	nd	nd	nd	nd	nd	nd	
NGA # 184	LAILG-NGA 184-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 130	LAILG-NGA 130-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	85.2	nd	nd	nd	nd	nd	nd	nd	
NGA # 178	LAILG-NGA 178-1	12/15/2008	nd	nd	nd	nd	nd	nd	nd ^{M4}	nd	nd	nd ^{M4}	nd	nd	nd	nd	nd	nd ^{M4}	nd	nd	
Duplicate	LAILG-NGA-DUP	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 64	LAILG-NGA 64-2	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA # 168	LAILG-NGA 168-5	12/15/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	38.9	nd	nd	nd	nd	nd	nd	nd	
NGA # 4	LAILG-NGA 4-4	12/15/2008	nd	590.9	nd	859	nd	nd	nd	nd	nd	nd	102,357.2	nd	nd	nd	nd	nd	nd	nd	
CWIL Limits			nl	25	nl	100	nl	nl ⁽¹⁾	nl ⁽¹⁾	nl ⁽¹⁾	nl	nl	nl ⁽¹⁾	nl	nl ⁽¹⁾	nl	nl ⁽¹⁾	nl	nl	nl	
MDL			2	1	1	2	3	3	1	1	2	1	2	3	1	1	8	6	2	3	1
RL			4	2	2	4	6	6	2	2	4	2	4	6	2	2	16	12	4	6	2

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CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MDL Method Detection Limits
RL Reporting Limits
FD Estimated concentration. Field Duplicate RPD >25%.
nl not listed
nd not detected
(1) Although no discharge limits were set in the CWIL, the US EPA has set an aquatic life benchmark for this constituent. See Table 7.

M4 Spike or surrogate compound recovery was out of control due to matrix interference. The associated method blank spike or surrogate compound was in control and therefore the sample data was reported without further clarification.

Q1 Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration.

Q2 The sample RPD was out of control. Sample is heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices.

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
ORGANOPHOSPHORUS PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Organophosphorus Pesticides																		
			Bolstar	Chlorpyrifos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprop	Fenclorphos	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Phorate	Tetrachlorvinphos	Tokuthion	Trichloronate
NGA #130	NGA-#130-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #183	NGA-#183-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #19	NGA-#19-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #124	NGA-#124-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #168	NGA-#168-LAILG-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA BLANK	NGA LAILG-BLANK-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA FBLI	NGA-LAILG-FBLI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA EQBLI	NGA-LAILG-EQBLI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #150	NGA-#150-LAILG	9/25/2007	nd	nd	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd ^D	nd	nd	
NGA #183	ILG-#183	9/26/2007	nd	nd	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd ^D	nd	nd	
NGA #183-DU	ILGNGA-#Dup	9/26/2007	nd	nd	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd ^D	nd	nd	
NGA #EQUIP	ILGNGA-#Equip	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #FIELD	ILGNGA-#FIELD-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #168-2	ILGNGA-#168-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd	nd ^D	nd	nd	nd	nd ^D	nd	nd	
NGA #168	NGA-#168-LAILG-3	11/30/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.9	nd	nd	nd	nd	nd	nd	
NGA #182	NGA-#182-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #182-DU	NGA-Duplicate	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #4	NGA-#4-LAILG-1	12/7/2007	nd	1,122.6	nd	175.2	11.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #130	NGA-#130-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #150	NGA-#150-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #124	NGA-#124-LAILG-2	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #EQUIP	NGA-equip blank	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #FIELD	Field Blank-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #176	NGA-#176-LAILG-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #183	LAILG-NGA#183-3	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #19	LAILG-NGA#19-2	12/18/2007	nd	nd	nd	15	nd	nd	nd	nd	nd	nd	2,291.3	nd	nd	nd	nd	nd	nd	nd	
NGA #13	LAILG-NGA#13-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #53	LAILG-NGA#53-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
CWIL Limits			nl	25	nl	100	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	
MDL			2	1	1	2	3	3	1	1	2	1	2	3	1	1	8	6	2	3	1
RL			4	2	2	4	6	6	2	2	4	2	4	6	2	2	16	12	4	6	2

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in **BOLD**. Footnotes in **BOLD** indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimated.

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
D Procedural blank Matrix Spike Duplicate RPD out of limits
nl not listed

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpropathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Tefluthrin	
NGA #124	LAILG-NGA-124-10	11/29/2018	<40	1,700	110	<40	<40	<40	<40	<40	<40	<40	85	<100	<40	<40	<40	M-04
NGA #158	LAILG-NGA-158-2	11/29/2018	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<250	<100	<500	<100	M-04
NGA #178	LAILG-NGA-178-5	11/29/2018	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<10	<4.0	<20	<4.0	M-04
NGA #202	LAILG-NGA-202-3	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04
Duplicate	LAILG-NGA-DUP	11/29/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04
Equip Blank	LAILG-NGA-EB	11/29/2018	<2.0	3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
Field Blank	LAILG-NGA- FB	11/29/2018	<2.0	<2.0	9.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
NGA #4	LAILG-NGA-4-10	1/14/2019	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<100	<40	<200	<40	M-04
NGA #19	LAILG-NGA-19-10	1/14/2019	<10	<10	<10	<10	<10	<10	<10	59	<10	<10	<10	<25	<10	<50	<10	M-04
NGA #64	LAILG-NGA-64-6	1/14/2019	<10	<10	<10	<10	<10	<10	<10	59	<10	<10	<10	<25	<10	<50	<10	M-04
NGA #168	LAILG-NGA-168-10	1/14/2019	<20	570	240	<20	<20	<20	<20	<20	<20	<20	99	<50	<20	<100	<20	M-04
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	19.5	3,100	2,200	35		
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate
nl	not listed		

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpopathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Telfluthrin	
NGA #124	LAILG-NGA-124-9	1/9/2018	<40	180	<40	<40	<40	<40	<40	<40	<40	<40	46	<100	<40	<200	<40	M-04
NGA #178	LAILG-NGA-178-4	1/9/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04
NGA #184	LAILG-NGA-184-4	1/9/2018	<10	19	<10	<10	<10	<10	<10	<10	<10	<10	290	43	<10	<50	<10	M-04
NGA #202	LAILG-NGA-202-2	1/9/2018	<10	<10	<10	<10	13	<10	<10	<10	<10	<10	34	<25	<10	<50	<10	M-04
NGA #4	LAILG-NGA-4-9	3/22/2018	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<250	<100	<500	<100	M-04
NGA #19	LAILG-NGA-19-9	3/22/2018	<20	<20	<20	<20	<20	<20	<20	51	<20	<20	27	<50	<20	<100	<20	M-04
NGA #64	LAILG-NGA-64-5	3/22/2018	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04
NGA #168	LAILG-NGA-168-9	3/22/2018	<40	97	<40	<40	<40	<40	<40	<40	<40	<40	<40	<100	<40	<200	<40	M-04
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	19.5	3,100	2,200	35		
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate.

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix.
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
nl	not listed		

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpropathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Tefluthrin	
NGA #4	LAILG-NGA-4-8	1/20/2017	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<250	<100	<500	<100	M-04
NGA #19	LAILG-NGA-19-8	1/20/2017	<40	<40	<40	<40	<40	<40	<40	64	<40	<40	<40	<100	<40	<200	<40	M-04
NGA #176	LAILG-NGA-176-3	1/20/2017	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<500	<200	<1000	<200	M-04
Duplicate	LAILG-NGA-DUP	1/20/2017	<40	<40	<40	<40	<40	<40	<40	48	<40	<40	<40	<100	<40	<200	<40	M-04
NGA #124	LAILG-NGA-124-8	2/17/2017	<100	3900	230	<100	<100	<100	<100	<100	<100	<100	760	<250	<100	<500	<100	M-04
NGA #150	LAILG-NGA-150-7	2/17/2017	<20	3900	<20	<20	<20	<20	<20	670	<20	<20	<20	1900	<20	<100	<20	M-04
NGA #158	LAILG-NGA-158-1	2/17/2017	<40	<40	<40	<40	54	<40	<40	<40	<40	<40	<40	<100	<40	<200	<40	M-04
NGA #178	LAILG-NGA-178-3	2/17/2017	<20	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04
NGA #202	LAILG-NGA- 202-1	2/17/2017	<40	42	<40	<40	54	<40	<40	<40	<40	<40	<40	<100	<40	<200	<40	M-04
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	10.6	3,100	2,200	35		
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate
nl	not listed		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes	
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpopathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Telfluthrin
NGA #64	LAILG-NGA-64-4	1/5/2016	<2.0	2.0	<2.0	<2.0	<2.0	2.6	<2.0	<2.0	<2.0	2.7	<2.0	<2.0	<10	<2.0	
NGA #168	LAILG-NGA-168-8	1/5/2016	<2.0	310	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	69	<2.0	<2.0	<10	<2.0	
Duplicate	LAILG-NGA-DUP	1/5/2016	<2.0	250	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	50	<2.0	<2.0	<10	<2.0	
Equip Blank	LAILG-NGA-EB	1/5/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
Field Blank	LAILG-NGA-FB	1/5/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	10.6	3,100	2,200	35	
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate
nl	not listed		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpopathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Telfluthrin	
NGA #150	LAILG-NGA-150-6	12/2/2014	<2.0	4000	<2.0	<2.0	<2.0	<2.0	<2.0	370	<2.0	<2.0	<2.0	1000	<2.0	<10	<2.0	
NGA #188	LAILG-NGA-188-1	12/2/2014	<2.0	51	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	30	<2.0	<2.0	<10	<2.0	
Duplicate	LAILG-NGA-DUP	12/2/2014	<2.0	41	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	30	<2.0	<2.0	<10	<2.0	
NGA #168	LAILG-NGA-168-7	5/15/2015	<2.0	22	<2.0	<2.0	<2.0	<2.0	2.3	<2.0	<2.0	<2.0	460	<5.0	<2.0	<10	<2.0	
Equip Blank	LAILG-NGA-EB	12/2/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
Field Blank	LAILG-NGA- FB	12/2/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	10.6	3,100	2,200	35		
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix.
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate
nl	not listed		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin /Tralomethrin	Dichloran	Fenpopathrin (Danitol)	Fenvalerate /Esfenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Telfluthrin	
NGA #19	LAILG-NGA19-7	2/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	28	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
NGA #26	LAILG-NGA26-1	2/28/2014	<2.0	9.4	20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
NGA #124	LAILG-NGA124-7	2/28/2014	<10	3,700	<10	<10	<10	<10	<10	170	<10	<10	<10	46	<10	<50	<10	M-04, S-GC
NGA #178	LAILG-NGA178-2	2/28/2014	<20	40	<20	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04, S-GC
NGA #184	LAILG-NGA184-3	2/28/2014	<2.0	2.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
Duplicate	LAILG-NGA-DUP	2/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	32	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	
Equip Blank	LAILG-NGA-EB	2/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	S-GC
Field Blank	LAILG-NGA- FB	2/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<10	<2.0	S-GC
WQB			1,050	800	12.5	210	55	nl	265	25	3.5	140,000	10.6	3,100	2,200	35		
MRL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0	

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate.

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M-04	Visual evaluation of the sample indicates the RPD or QC spike is above the control limit due to a non-homogeneous sample matrix.
WQB	Water Quality Benchmark	S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
nl	not listed		

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides													Sample Notes		
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Deltamethrin	Dichloran	Esfenvalerate	Fenvalerate	L-Cyhalothrin	Pendimethalin	Permethrin	Prallethrin	Sumithrin		Telfluthrin	
NGA #4	LAILG-NGA4-5	3/21/2011	nd	22	nd	nd	nd	nd	nd	nd	nd	nd	3.3	1600 ^{E1}	nd	nd	nd	S4
NGA #124	LAILG-NGA124-6	3/21/2011	nd	88	nd	78 ^{FD}	nd	nd	nd	nd	nd	nd	3.8	nd	nd	nd	nd	
NGA #150	LAILG-NGA150-5	3/21/2011	nd	480 ^{E1}	nd	nd	nd	nd	nd	nd	nd	nd	nd	48	nd	nd	nd	
NGA #19	LAILG-NGA19-6	3/23/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	29	nd	nd	nd	nd	
Duplicate	LAILG-NGA-DUP	3/21/2011	nd	74	nd	57	nd	nd	nd	nd	nd	nd	3.7	nd	nd	nd	nd	
Equip Blank	LAILG-NGA-EB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/21/2011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #168	LAILG-NGA168-6	3/17/2012	nd	54	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	nd	18	nd	nd	nd	nd	S4
NGA #31	LAILG-NGA31-4	3/17/2012	nd	2.9	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	nd	33	nd	nd	nd	nd	S4
NGA #162	LAILG-NGA162-1	3/17/2012	nd	11	nd	nd	230	nd	nd ^{BS-03}	nd	nd	nd	23	nd	nd	nd	nd	S4
NGA #64	LAILG-NGA64-3	3/17/2012	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	nd	22	nd	nd	nd	nd	S4
Duplicate	LAILG-NGA-DUP	3/17/2012	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	nd	20	nd	nd	nd	nd	S4
Equip Blank	LAILG-NGA-EB	3/17/2012	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd	nd	nd	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/17/2012	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	S4
NGA #4	LAILG-NGA4-6	3/25/2012	nd ^{BS-03}	9.7	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{FD,BS-03}	100 ^{FD}	nd	nd	nd ^{BS-03}	S4
NGA #170	LAILG-NGA170-1	3/25/2012	nd ^{BS-03}	5.8	nd	nd	nd	nd	nd	nd	nd	nd	11 ^{BS-03}	nd ^{BS-03}	nd	nd	nd ^{BS-03}	S4
NGA #176	LAILG-NGA176-2	3/25/2012	nd ^{BS-03}	270	nd	nd	nd	nd	nd	nd	nd	nd	35 ^{BS-03}	nd ^{BS-03}	nd	nd	nd ^{BS-03}	S4
NGA #210	LAILG-NGA210-2	3/25/2012	nd ^{BS-03}	nd	nd	nd	nd	80	nd	nd	nd	nd	2.7 ^{BS-03}	nd ^{BS-03}	nd	nd	nd ^{BS-03}	S4
Duplicate	LAILG-NGA-DUP	3/25/2012	nd ^{BS-03}	12	nd	nd	nd	nd	nd	nd	nd	nd	47 ^{BS-03}	130 ^{BS-03}	nd	nd	nd ^{BS-03}	S4
Equip Blank	LAILG-NGA-EB	3/25/2012	nd ^{BS-03}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd ^{BS-03}	nd	nd	nd ^{BS-03}	S4
Field Blank	LAILG-NGA- FB	3/25/2012	nd ^{BS-03}	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ^{BS-03}	nd ^{BS-03}	40	nd	nd ^{BS-03}	S4
CWIL Limits			nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl ⁽¹⁾	nl	nl	nl	
MDL			0.85	0.79	0.83	0.66	1.9	0.80	0.98	0.98	1.2	0.50	5.0	0.92	2.4	0.93		
RL			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	10	2.0		

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate.

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	E1	The concentration indicated for this analyte is an estimated value above the calibration range.
FD	estimated concentration. Field Duplicate RPD >25%.	S4	The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect.
nl	not listed	Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
nd	not detected		
(1)	Although no discharge limits were set in the CWIL, the US EPA has set an aquatic life benchmark for this constituent. See Table 8.	BS-L	The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.
		BS-03	The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
		A-01a	Low recovery in BS and high recoveries in both MS/MSD. However, LL-cv has an acceptable recovery. The batch was accepted since samples were either ND or yielded very high result.

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides													
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Danitol	Deltamethrin	Esfenvalerate	Fenvalerate	Fluvalinate	L-Cyhalothrin	Permethrin	Prallethrin	Resmethrin	
NGA #110	LAILG-NGA110-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA189-1	1/4/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA19-3	1/5/2008	nd	nd	nd	nd	6.8	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	LAILG-NGA124-3	1/5/2008	nd	581.5	38	nd	1,207.20	66.4	nd	nd	nd	5.5	nd	nd	nd	nd
NGA #183	LAILG-NGA183-4	1/5/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-2	1/23/2008	nd	nd	15.8	nd	1,178.40	157.1	nd	nd	nd	13.6	24.5	nd	nd	nd
NGA #53	LAILG-NGA53-2	1/23/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-1	1/23/2008	nd	30.2	15.1	nd	2.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA130-3	1/24/2008	nd	143.4	4.2	nd	33.2	nd	nd	nd	nd	3.8	nd	nd	nd	nd
NGA #182	LAILG-NGA182-2	1/24/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-4	1/25/2008	nd	187.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/2008	nd	nd	nd	nd	82	nd	nd	nd	nd	9.8	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-3	8/13/2008	nd ^{M4}	43.8 ^{M4,Q2,FD}	nd ^{FD}	nd ^{M4}	23,704.6 ^{Q1,Q2,FD}	147.3 ^{M4,Q2,FD}	nd ^{M4}	nd	2,488.1 ^{Q1,FD}	10.6 ^{Q2,FD}	359.3 ^{Q1,Q2,FD}	nd ^{M4}	nd ^{M4}	nd ^{M4}
Duplicate	LAILG-NGA-DUP	8/13/2008	nd	306.5 ^{FD}	4.9 ^{FD}	nd	77368.5 ^{FD}	306.9 ^{FD}	nd	nd	1519.6 ^{FD}	37.5 ^{FD}	1,376.0 ^{FD}	nd	nd	nd
NGA # 31	LAILG-NGA 31-1	9/23/2008	nd	nd	4.3	nd	71.9	nd	nd	nd	nd	2.4 ^{EB}	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	9/23/2008	nd	nd	4.9	nd	63.6	nd	nd	nd	nd	2.6 ^{EB}	nd	nd	nd	nd
NGA # 19	LAILG-NGA 19-5	11/26/2008	nd ^{M4}	34.9 ^{M4}	34.4 ^{M4}	nd ^{M4}	1,813.4 ^{M4}	nd ^{M4}	3.3 ^{M4,Q3}	3.3 ^{J,M4,Q3,EB}	274.4 ^{M4}	10.2 ^{M4,FB}	62.3 ^{M4,Q3}	nd	nd ^{M4}	nd ^{M4}
NGA # 210	LAILG-NGA 210-1	11/26/2008	nd	134.5	15.6	23.3	92.9	nd	1.8 ^J	4.1 ^{EB}	nd	7.6 ^{FB}	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/2008	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.1 ^{FB}	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/2008	nd	nd	nd	nd	nd	nd	2.0	0.9 ^{EB}	nd	6.0 ^{FB}	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/2008	nd	4,420.1	650.2	nd	121.6	26.6	0.9 ^J	1.0 ^{J,EB}	2,309.8	5.9 ^{FB}	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-2	11/26/2008	nd	33.9	23.6	nd	382.1	nd	nd	4.3 ^{EB}	nd	16.3 ^{FB}	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-4	11/26/2008	nd	407.5	nd	nd	180.5	nd	nd	1.5 ^{J,EB}	70.0	2.1 ^{FB}	1,096.2	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/2008	nd	8,031.3	nd	nd	nd	nd	3.2	6.4	2,238.7	10.9 ^{FB}	780.0	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/2008	nd	nd	30.1	12.3	0.7 ^{J,EB}	nd	nd	nd	nd	89.6 ^{FB}	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-4	12/15/2008	nd	82,902.4	66.3	51.9	34.1	nd	8.4	9.3	6,642.4	nd	2,116.6	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/2008	nd	17,280.2	220.1	nd	346.4	95.7	0.5 ^J	1.4 ^{J,EB}	1,234.8	3.9 ^{EB,FB}	98.3	nd	nd	nd
NGA # 189	LAILG-NGA 189-2	12/15/2008	nd	nd	nd	nd	0.7 ^J	nd	nd	1.0 ^{J,EB}	4.4 ^{EB,FB}	nd	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/2008	nd	55.2	nd	nd	nd	nd	nd	0.5 ^{J,EB}	11.5 ^{EB,FB}	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/2008	nd	nd	nd	nd	48.5	nd	nd	0.9 ^{J,EB}	nd	3.2 ^{EB,FB}	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/2008	nd	26.2	nd	nd	nd	nd	0.5 ^J	2.0 ^{EB}	nd	2.0 ^{EB,FB}	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-5	12/15/2008	nd	101.8	nd	nd	35.6	nd	nd	nd	28.8	nd	210.7	nd	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/2008	nd	nd ^{Q3}	nd	nd	1.4 ^J	nd ^{Q3}	0.8 ^J	1.0 ^{J,EB}	nd ^{Q3}	1.7 ^{J,EB,FB}	nd	nd ^{M4}	nd ^{M4}	nd ^{M4}
Duplicate	LAILG-NGA-DUP	12/15/2008	nd	nd	nd	nd	1.1 ^J	nd	0.6 ^J	1 ^{J,EB}	3.0 ^{EB,FB}	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/2008	nd	81.3	nd	nd	26.9	nd	1.8 ^J	nd	nd	nd	nd	nd	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/2008	nd	1,333.2	31.9	nd	0.8 ^J	nd	nd	nd	9.3 ^{EB,FB}	0.7 ^{J,EB,FB}	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-4	12/15/2008	nd	311.5	133.6	133.6	93,137.5	452.3	3.6	nd	1,547	44.5	824.4	nd	nd	nd
CWIL Limits			nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl ⁽¹⁾	nl	nl	nl

MDL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	5
RL	2	2	2	2	2	2	2	2	2.0	2	25	2	25

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimate

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	M4	Spike or surrogate compound recovery was out of control due to matrix interference. The associated method blank spike or surrogate compound was in control and therefore the sample data was reported without further clarification.
EB	estimated concentration, constituent detected at greater than 10% in equipment blank	Q1	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration
FD	estimated concentration. Field Duplicate RPD >25%.	Q2	The sample RPD was out of control. Sample is heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices.
nl	not listed	Q3	RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL.
nd	not detected		
J	estimated concentration, results above MDL but below RL		
(1)	Although no discharge limits were set in the CWIL, the US EPA has set an aquatic life benchmark for this constituent. See Table 7		

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
PYRETHROID PESTICIDES
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Pyrethroid Pesticides												
			Allethrin	Bifenthrin	Cyfluthrin	Cypermethrin	Danitol	Deltamethrin	Esfenvalerate	Fenvalerate	Fluvalinate	L-Cyhalothrin	Permethrin	Prallethrin	Resmethrin
NGA #130	NGA-#130-LAILG-1	8/6/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	NGA-#183-LAILG-1	8/6/2007	nd	21 ^J	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/2007	nd	13.7 ^J	24.2 ^J	nd	465.5	nd	nd	nd	5 ^J	nd	444.9	nd	nd
NGA #124	NGA-#124-LAILG-1	8/13/2007	nd	62.2	nd	nd	74.7	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-1	8/13/2007	nd	1348.2	19.8 ^J	nd	nd	nd	nd	nd	nd	11.1 ^J	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBI	NGA-LAILG-FBI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/2007	nd	19,426.6	153.4	nd	nd	nd	nd	nd	515.2	nd	5,208.8	nd	nd
NGA #183	ILG-#183	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183-DUP	ILGNGA-#Dup	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/2007	nd	964	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-3	11/30/2007	nd	nd	1.4 ^J	1.6 ^J	463.1	nd	nd	nd	nd	nd	nd	nd	na
NGA #182	NGA #182-LAILG-1	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #182-DUP	NGA-Duplicate	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #4	NGA #4-LAILG-1	12/7/2007	nd	10.7	30.6	nd	1,940.5	69	nd	nd	1.6 ^J	55.1	nd	nd	na
NGA #130	NGA #130-LAILG-2	12/7/2007	nd	944.6	14.2	nd	73.5	nd	nd	nd	33.5	nd	327.3	nd	na
NGA #150	NGA #150-LAILG-2	12/7/2007	nd	1,566.7	nd	nd	nd	nd	nd	nd	17.9	nd	237.8	nd	na
NGA #124	NGA-#124-LAILG-2	12/7/2007	nd	3,083.4	183.8	nd	150.5	180.3	nd	nd	32.3	3.1	70.9	nd	na
NGA #EQUIP	NGA-equip blank	12/7/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	NGA-#176-LAILG-1	12/18/2007	nd	870.5	nd	nd	3.4	nd	nd	nd	nd	nd	nd	nd	na
NGA #183	LAILG-NGA#183-3	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #19	LAILG-NGA#19-2	12/18/2007	nd	nd	11.5	nd	449.5	nd	nd	nd	6.6	nd	1,346.4	nd	na
NGA #13	LAILG-NGA#13-1	12/18/2007	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #53	LAILG-NGA#53-1	12/18/2007	nd	8	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.5	na
CWIL Limits			nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl
MDL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
RL			2	2	2	2	2	2	2	2	2	2	2	2	2

Concentrations are reported in nanograms per liter (ng/L). Results above CWIL Limits are presented in BOLD. Footnotes in BOLD indicate estimated.ated concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estimatec

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
na not analyzed
J estimated.ated concentration, results above MDL but below RL

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 3 INTERIM
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #124	LAILG-NGA-124-10	11/29/2018	100.00%	N	**	**	**		
NGA #158	LAILG-NGA-158-2	11/29/2018	100.00%	N	**	**	**		
NGA #178	LAILG-NGA-178-5	11/29/2018	100.00%	N	**	**	**		
NGA #202	LAILG-NGA-202-3	11/29/2018	100.00%	N	**	**	**		
NGA #4	LAILG-NGA-4-10	1/14/2019	0.00%	Y	**	**	**		
NGA #19	LAILG-NGA-19-10	1/14/2019	100.00%	N	**	**	**		
NGA #64	LAILG-NGA-64-6	1/14/2019	100.00%	N	**	**	**		
NGA #168	LAILG-NGA-168-10	1/14/2019	100.00%	N	**	**	**		

** not analyzed, not most sensitive species
Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a succesful TIE (Typically needs a TUc of greater than 2).
NR not required

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #124	LAILG-NGA-124-9	1/9/2018	100.00%	N	**	**	**		
NGA #178	LAILG-NGA-178-4	1/9/2018	100.00%	N	**	**	**		
NGA #184	LAILG-NGA-184-4	1/9/2018	100.00%	N	**	**	**		
NGA #202	LAILG-NGA-202-2	1/9/2018	100.00%	N	**	**	**		
NGA #4	LAILG-NGA-4-9	3/22/2018	0.00%	Y	**	**	**		
NGA #19	LAILG-NGA-19-9	3/22/2018	100.00%	N	**	**	**		
NGA #64	LAILG-NGA-64-5	3/22/2018	80.00%	N	**	**	**		
NGA #168	LAILG-NGA-168-9	3/22/2018	100.00%	N	**	**	**		

** not analyzed, not most sensitive species
Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a succesful TIE (Typically needs a TUc of greater than 2).
NR not required

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #4	LAILG-NGA-4-8	1/20/2017	0.00%	Y	21.60%	Y	Y	2/15/2017	Suspended solids or particle bound toxicants
NGA #19	LAILG-NGA-19-8	1/20/2017	100.00%	N	100.00%	N	N		
NGA #176	LAILG-NGA-176-3	1/20/2017	100.00%	N	100.00%	N	N		
NGA #124	LAILG-NGA-124-8	2/17/2017	100.00%	N	100.00%	N	P		
NGA #150	LAILG-NGA-150-7	2/17/2017	0.00%	Y	100.00%	N	P		
NGA #158	LAILG-NGA-158-1	2/17/2017	100.00%	N	100.00%	N	P		
NGA #178	LAILG-NGA-178-3	2/17/2017	100.00%	N	100.00%	N	N		
NGA #202	LAILG-NGA- 202-1	2/17/2017	100.00%	N	100.00%	N	P		

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a successful TIE (Typically needs a TUC of greater than 2).
NR not required

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #64	LAILG-NGA-64-4	1/5/2016	100.00%	N	100.00%	N	N		
NGA #168	LAILG-NGA-168-8	1/5/2016	100.00%	N	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (75.35%)

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a succesful TIE (Typically needs a TUc of greater than 2).
NR not required

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #150	LAILG-NGA-150-6	12/2/2014	100.00%	P	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (>100%)
NGA #188	LAILG-NGA-188-1	12/2/2014	100.00%	N	100.00%	N	N		
NGA #168	LAILG-NGA-168-7	5/15/2015	100.00%	N	100.00%	N	N		

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a succesful TIE (Typically needs a TUc of greater than 2).
NR not required

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #19	LAILG-NGA19-7	2/28/2014	100.00%	N	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (87.03%)
NGA #26	LAILG-NGA26-1	2/28/2014	100.00%	N	100.00%	N	N		
NGA #124	LAILG-NGA124-7	2/28/2014	100.00%	N	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (>100%)
NGA #178	LAILG-NGA178-2	2/28/2014	100.00%	N	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (97.98%)
NGA #184	LAILG-NGA184-3	2/28/2014	100.00%	N	100.00%	N	Y		No TIE, IC50 > 50% for Selenastrum (>100%)

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a successful TIE (Typically needs a TUC of greater than 2).
NR not required

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #4	LAILG-NGA4-5	3/21/2011	0.00%	Y	15.00%	Y	Y	3/27/2012	Non-polar organics and organophosphates
NGA #124	LAILG-NGA124-6	3/21/2011	90.00%	N	100.00%	N	N		
NGA # 150	LAILG-NGA 150-5	3/21/2011	100.00%	N	100.00%	N	Y	3/27/2012	Organophosphates
NGA #19	LAILG-NGA19-6	3/23/2011	100.00%	Y	0.00%	Y	Y	3/27/2012	TIE was initiated, did not show an observed effect
NGA #168	LAILG-NGA168-6	3/17/2012	100.00%	N	95.00%	N	N		
NGA #31	LAILG-NGA31-4	3/17/2012	70.00%	Y	90.00%	N	Y	3/24/2012	Non-polar organic compounds and metals
NGA #162	LAILG-NGA162-1	3/17/2012	100.00%	N	96.67%	N	N		
NGA #64	LAILG-NGA64-3	3/17/2012	90.00%	N	100.00%	N	N		

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a successful TIE (Typically needs a TUC of greater than 2).
NR not required

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE		
			Survival	Reproduction	Survival	Growth	Growth	Date	Result	
NGA #110	LAILG-NGA110-1	1/4/2008	90.00%	N	80.00%	N	N			
NGA #189	LAILG-NGA189-1	1/4/2008	100.00%	N	91.67%	N	Y			
NGA #19	LAILG-NGA19-3	1/5/2008	TIE initiated based in results from sample LAILG-NGA#19-2					1/8/2008	TIE was initiated, did not show an observed effect	
NGA #124	LAILG-NGA124-3	1/5/2008	TIE initiated based in results from sample NGA #124-LAILG-2					1/8/2008	TIE was initiated, did not show an observed effect	
NGA #4	LAILG-NGA4-2	1/23/2008	TIE initiated based in results from sample NGA #4-LAILG-1					1/24/2008	Non-polar organic compounds	
NGA #53	LAILG-NGA53-2	1/23/2008	TIE initiated based in results from sample NGA #53-LAILG-1					1/24/2008	TIE was initiated, did not show an observed effect	
NGA #64	LAILG-NGA64-1	1/23/2008	100.00%	Y	91.67%	N	N			
NGA #182	LAILG-NGA182-2	1/23/2008	TIE initiated based in results from sample NGA #182-LAILG-1					1/24/2008	TIE was initiated, did not show an observed effect	
NGA #19	LAILG-NGA 19-4	8/12/2008	90.00%	N	NR		NR			
NGA # 4	LAILG-NGA 4-3	8/13/2008	0.00%	Y	NR		NR	8/26/2008	Non-polar organics and particulate-bound toxicants	
NGA # 31	LAILG-NGA 31-1	9/23/2008	20.00%	Y	NR		NR			
NGA # 19	LAILG-NGA19-5	11/26/2008	70.00%	Y	NR		NR			
NGA # 210	LAILG-NGA 210-1	11/26/2008	90.00%	P	98.33%	N	N			
NGA # 184	LAILG-NGA 184-1	11/26/2008	80.00%	P	100.00%	N	N			
NGA # 124	LAILG-NGA 124-4	11/26/2008	0.00%	Y	NR		NR	12/9/2008	Volatile compounds	
NGA #31	LAILG-NGA 31-2	11/26/2008	80.00%	N	98.33%	N	P			
NGA # 130	LAILG-NGA 130-4	11/26/2008	NR		NR		N			
NGA # 150	LAILG-NGA 150-3	11/26/2008	NR		NR		P			
NGA # 25	LAILG-NGA 25-1	11/26/2008	80.00%	Y	100.00%	N	N			
NGA # 124	LAILG-NGA 124-5	12/15/2008	0.00%	Y	NR		NR	12/16/2008	TIE was initiated, did not show an observed effect	
NGA # 189	LAILG-NGA 189-2	12/15/2008	NR		NR		Y	1/15/2009	Particulate Bound toxicants and OP compounds	
NGA # 110	LAILG-NGA 110-2	12/15/2008	90.00%	N	NR		NR			
NGA # 178	LAILG-NGA 178-1	12/15/2008	100.00%	N	100.00%	N	N			
NGA # 64	LAILG-NGA 64-2	12/15/2008	90.00%	P	NR		NR			
NGA # 168	LAILG-NGA 168-5	12/15/2008	90.00%	P	NR		NR			
NGA # 4	LAILG-NGA 4-4	12/15/2008	0.00%	Y	NR		NR	12/16/2008	Metals,copper,cadmium,zink,manganese,lead,and nickle	

Y significantly different from control group
N no significant difference between control group
P partial toxicity. Toxicity high enough to exhibit effects, but not significant enough to initiate a succesful TIE (Typically needs a Tuc of greater than 2).
NR not required

SUMMARY OF HISTORICAL SAMPLES COLLECTED UNDER CWIL ORDER R4-2005-0080
TOXICITY RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample #	Date	Ceriodaphnia		Fathead Minnow		Selenastrum	TIE	
			Survival	Reproduction	Survival	Growth	Growth	Date	Result
NGA #130	NGA-#130-LAILG-1	8/6/2007	100.00%	N	93.33%	N	Y		ns
NGA #183	NGA-#183-LAILG-1	8/6/2007	100.00%	N	93.33%	N	N		
NGA #19	NGA-#19-LAILG-1	8/13/2007	80.00%	N	98.30%	N	N		
NGA #124	NGA-#124-LAILG-1	8/13/2007	100.00%	N	98.30%	N	N		
NGA #168	NGA-#168-LAILG-1	8/13/2007	0.00%	Y	98.30%	N	Y	9/28/2008	100% survival
NGA #150	NGA-#150-LAILG	9/25/2007	0.00%	Y	98.33%	N	Y		ns
NGA #168	NGA-#168-LAILG-3	11/30/2007	100.00%	N	100.00%	N	N		
NGA #182	NGA #182-LAILG-1	12/7/2007	0.00%	Y	98.33%	N	Y		ns
NGA #4	NGA #4-LAILG-1	12/7/2007	0.00%	Y	40.00%	Y	Y		ns
NGA #130	NGA #130-LAILG-2	12/7/2007	100.00%	N	98.33%	N	N		
NGA #150	NGA #150-LAILG-2	12/7/2007	100.00%	N	98.33%	N	Y		ns
NGA #124	NGA-#124-LAILG-2	12/7/2007	0.00%	Y	100.00%	N	Y		ns
NGA #176	NGA-#176-LAILG-1	12/18/2007	100.00%	N	100.00%	N	N		
NGA #183	LAILG-NGA#183-3	12/18/2007	100.00%	N	100.00%	N	N		
NGA #19	LAILG-NGA#19-2	12/18/2007	50.00%	Y	100.00%	N	N		ns
NGA #13	LAILG-NGA#13-1	12/18/2007	10.00%	Y	21.67%	Y	N		ns
NGA #53	LAILG-NGA#53-1	12/18/2007	100.00%	N	81.67%	N	N		

Y Significantly different from control group
N No significant difference between control group
ns not enough runoff for follow up sample

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #4	LAILG-NGA#4-5	3/21/2011	Bucket	10:40	0.1250	0.01	11.0	9.81	43	na*	85
				10:44		0.01	11.1	9.64	25	na*	181
				10:50		0.01	11.2	9.29	25	na*	197
NGA #124	LAILG-NGA#124-6	3/21/2011	Bucket	8:00	nm	9	10.4	7.89	292	na*	54.9
				8:05		11	10.5	7.82	282	na*	49.7
				8:10		13	10.5	7.87	268	na*	16.8
NGA #150	LAILG-NGA#150-5	3/21/2011	Bucket	10:47	0.0185	4	15.4	6.70	1170	na*	34.7
				10:49		4	16.0	6.61	1127	na*	33.7
				10:50		5	15.9	6.59	1163	na*	38.0
NGA #19	LAILG-NGA#19-6	3/23/2011	Grab	16:58	nm	nm	13.9	8.88	1.32	na*	999
				17:00		nm	14.2	8.83	1.05	na*	999
				17:02		nm	12.6	8.87	1.19	na*	999
NGA #31	LAILG-NGA#31-4	3/17/2012	Grab	14:30	0.6042	0.88	13.83	7.73	99.9	9.33	220
				14:34		0.84	13.63	7.75	99.9	8.77	174
				14:38		0.94	13.44	7.95	98.6	8.51	181
NGA #64	LAILG-NGA#64-3	3/17/2012	Grab	9:50	0.0833	1.3	14.7	5.5	14.3	10.48	352
				9:53		1.2	14.5	4.9	9.4	10.58	623
				9:58		1.3	14.5	5.2	4.2	10.43	179
NGA #162	LAILG-NGA#162-1	3/17/2012	Grab	13:00	nm	nm	13.37	6.94	66.2	10.67	3.3
				13:02		nm	13.42	7.24	65.9	10.33	1.6
				13:05		nm	13.32	7.46	66.1	9.93	1.2
NGA #168	LAILG-NGA#168-6	3/17/2012	Grab	11:15	0.0556	0.71	13.78	6.1	84.5	10.68	>800
				11:18		0.52	13.83	6.8	85.9	10.05	>800
				11:21		0.71	13.77	7.1	82.2	9.62	>800
NGA #4	LAILG-NGA#4-6	3/25/2012	Pump	12:50	No flow measurements due to access restrictions		16.21	5.63	43.7	8.52	44.9
				12:52			16.31	5.74	39.3	8.58	35.7
				12:54			15.95	5.89	37.1	8.89	42.9

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second
°C degrees celcius
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling
mg/L milligrams per liter
NTU Nephelometric Turbidity Units

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 1
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #170	LAILG-NGA#170-1	3/25/2012	Grab	14:35	nm	nm	13.81	6.18	25.8	10.59	512
				14:37		nm	13.98	6.32	22.1	10.23	452
				14:40		nm	13.73	6.27	19.8	10.31	446
NGA #176	LAILG-NGA#176-2	3/25/2012	Grab	15:15	nm	nm	13.17	6.49	39.7	10.69	>800
				15:17		nm	13.16	6.63	38.4	10.41	>800
				15:21		nm	12.73	6.44	40.2	10.69	>800
NGA #210	LAILG-NGA#210-2	3/25/2012	Grab	17:45	nm	nm	13.21	7.22	0.129	10.55	5.8
				17:47		nm	13.35	7.75	0.130	10.40	3.8
				17:50		nm	13.88	7.93	0.133	10.24	5.5

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second mg/L milligrams per liter
°C degrees celsius NTU Nephelometric Turbidity Units
uS microsiemens nm not monitored

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 3
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #19	LAILG-NGA19-7	2/28/2014	Bucket	6:11	nm	nm	12.4	7.92	1114	9.08	815
				6:12		nm	12.3	7.98	1152	9.52	820
				6:13		nm	12.4	7.87	1112	9.61	810
NGA #26	LAILG-NGA26-1	2/28/2014	Bucket	9:01	nm	nm	14.8	7.77	1081	7.84	212
				9:02		nm	14.7	7.82	1057	7.95	225
				9:03		nm	14.7	7.83	1072	7.88	220
NGA #124	LAILG-NGA124-7	2/28/2014	Bucket	11:22	nm	nm	14.7	7.65	894	9.10	475
				11:23		nm	14.6	7.50	910	9.01	450
				11:24		nm	14.7	7.51	915	8.80	482
NGA #178	LAILG-NGA178-2	2/28/2014	Bucket	10:00	nm	nm	15.0	7.88	928	10.15	468
				10:01		nm	14.9	7.92	952	10.28	472
				10:02		nm	15.0	7.81	943	10.21	490
NGA #184	LAILG-NGA184-3	2/28/2014	Bucket	7:10	nm	nm	14.7	8.01	1213	8.11	512
				7:11		nm	14.6	8.10	1219	8.23	552
				7:12		nm	14.6	7.93	1242	8.15	495

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second mg/L milligrams per liter
°C degrees celsius NTU Nephelometric Turbidity Units
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling

SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 4
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #150	LAILG-NGA150-6	12/2/2014	Grab	8:00	nm	nm	14.8	9.31	460	9.40	150
				8:15		nm	14.8	9.50	450	9.30	130
				8:20		nm	14.9	8.94	440	10.50	180
NGA #168	LAILG-NGA168-7	5/15/2015	Bucket	11:20	nm	nm	16.6	7.35	663	9.87	76
				11:22		nm	16.5	7.44	651	9.47	90
				11:23		nm	16.4	7.5	689	9.72	102
NGA #188	LAILG-NGA188-1	12/2/2014	Grab	13:55	nm	nm	13.9	8.83	399	8.00	900
				14:05		nm	14.1	8.70	382	7.80	800
				14:10		nm	14.1	8.56	393	8.50	630

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second mg/L milligrams per liter
°C degrees celcius NTU Nephelometric Turbidity Units
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2010-0186 YEAR 5 CONTINUATION
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #64	LAILG-NGA-64-4	1/15/2016	Bucket	8:30	nm	nm	13.2	9.00	85	13.00	58
				8:40		nm	13.0	8.80	63	12.62	66
				8:42		nm	12.9	8.27	80	12.37	113
NGA #168	LAILG-NGA168-8	1/15/2016	Bucket	9:15	nm	nm	12.59	8.12	568	12.93	244
				9:45		nm	12.53	8.14	603	12.49	286
				9:47		nm	12.42	7.96	646	12.62	288

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is $2/3 \times \text{width} \times \text{depth}$.

ft/s feet per second mg/L milligrams per liter

°C degrees celcius NTU Nephelometric Turbidity Units

uS microsiemens

na* Not analyzed, DO meter was not functioning properly at the time of field sampling

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 1 INTERIM
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #4	LAILG-NGA-4-8	1/20/2017	Bucket	13:45	nm	nm	13.76	8.37	76	5.67	35.9
				14:05		nm	13.99	7.66	57	8.34	31.8
				nm		nm	nm	nm	nm	nm	
NG#19	LAILG-NGA19-8	1/20/2017	Bucket	8:03	nm	nm	7.56	9.01	884	8.08	1000
				8:25		nm	7.54	9.06	882	8.08	1000
				8:40		nm	8.24	8.12	741	6.19	1000
NGA#176	LAILG-NGA-176-3	1/20/2017	Bucket	12:00	nm	nm	10.69	8.54	123	13.93	641
				12:30		nm	11.31	8.07	159	7.51	738
				nm		nm	nm	nm	nm	nm	
NGA #124	LAILG-NGA-124-8	2/17/2017	Bucket	14:45	est. 10 gal/sec		12.97	7.92	209	14.88	847
				14:50			12.96	8.16	431	17.56	825
				14:55			12.98	7.98	309	18.91	832
NGA #150	LAILG-NGA150-7	2/17/2017	Bucket	16:10	nm	nm	12.99	7.53	325	6.44	70.1
				16:15		nm	13.03	7.44	324	8.84	48.4
				16:20		nm	13.04	7.34	267	10.31	42.6
NGA #158	LAILG-NGA-158-1	2/17/2017	Bucket	14:03	est. 1 gal/sec		12.45	8.76	413	13.21	70.9
				14:13			12.98	8.14	73	21.37	51.8
				14:27			12.84	8.09	213	18.64	46.4
NGA #178	LAILG-NGA178-3	2/17/2017	Bucket	12:40	est. 1 gal/sec		11.97	8.25	893	na	1000+
				12:43			11.99	8.12	903	na	1000+
				12:48			11.98	8.06	894	na	1000+
NGA #202	LAILG-NGA202-1	2/17/2017	Bucket	15:10	est. 15 gal/sec		12.86	8.18	131	12.93	122
				15:15			12.85	8.17	129	12.80	116
				15:20			12.85	8.14	127	10.01	108

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second mg/L milligrams per liter
°C degrees celcius NTU Nephelometric Turbidity Units
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #124	LAILG-NGA-124-9	1/9/2018	Bucket	8:30	18"	2.00	13.74	7.77	1130	30.30	339
				8:35		2.00	13.75	7.80	1190	nm	325
				8:40		2.00	13.75	7.80	1200	nm	330
NG#178	LAILG-NGA-178-4	1/9/2018	Bucket	6:45	20"	2.00	12.02	8.07	743	31.07	1000+
				6:50		2.00	12.00	8.15	750	nm	1000+
				6:55		2.00	12.00	8.10	750	nm	1000+
NG#184	LAILG-NGA-184-4	1/9/2018	Bucket	5:35	est. 3 gal/sec		11.75	7.89	399	27.23	1000+
				5:40			11.80	7.75	398	nm	1000+
				5:45			11.79	7.79	395	nm	1000+
NGA#202	LAILG-NGA-202-2	1/9/2018	Bucket	11:30	6"	0.25	16.06	8.36	431	20.61	230
				11:35		0.25	16.10	8.30	425	nm	169
				1:40		0.25	16.11	8.40	430	nm	175
NGA #4	LAILG-NGA-4-9	3/22/2018	Bucket	11:00	24"	1.00	15.86	7.76	56	17.89	220
				11:05		1.00	15.99	7.76	55	17.38	206
				11:10		1.00	16.16	7.85	51	16.19	192
NGA #19	LAILG-NGA-19-9	3/22/2018	Bucket	8:10	10"	2.00	14.05	6.88	1310	31.18	743
				8:15		2.00	14.08	6.89	1320	31.17	738
				8:20		2.00	14.12	6.89	1300	31.15	732
NGA #64	LAILG-NGA-64-5	3/22/2018	Bucket	11:45	12"	0.50	17.46	8.80	84	24.32	43.9
				11:50		0.50	18.11	9.13	57	15.87	25.8
				11:55		0.50	18.09	9.17	70	15.79	59.6
NGA #168	LAILG-NGA-168-9	3/22/2018	Bucket	13:00	4"	0.50	16.87	9.17	674	17.76	92.7
				13:05		0.50	16.84	9.24	680	16.89	90.1
				13:10		0.50	16.80	9.27	679	16.23	84.3

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is 2/3*width*depth.
ft/s feet per second mg/L milligrams per liter
°C degrees celcius NTU Nephelometric Turbidity Units
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling

**SUMMARY OF SAMPLES COLLECTED - CWIL ORDER R4-2016-0143 YEAR 2 INTERIM
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP**

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross Section (ft ²)	Flow (ft/s)	Temperature (°C)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #124	LAILG-NGA-124-10	11/29/2018	Bucket	7:25	0.5000	2.00	14.90	7.50	nm	nm	82.2
				7:30		2.00	14.90	7.63	nm	nm	94.4
				7:35		2.00	14.90	7.59	nm	nm	92.0
NG#158	LAILG-NGA-178-5	11/29/2018	Bucket	8:20	0.0116	0.50	14.90	7.40	nm	nm	105
				8:25		0.50	14.90	7.50	nm	nm	108
				8:30		0.50	14.90	7.55	nm	nm	99
NG#178	LAILG-NGA-178-5	11/29/2018	Bucket	5:55	0.0139	1.00	14.10	7.60	nm	nm	61.2
				6:00		1.00	14.10	7.95	nm	nm	63.5
				6:05		1.00	14.10	7.51	nm	nm	67.5
NGA#202	LAILG-NGA-202-3	11/29/2018	Bucket	10:35	0.0556	2.00	15.80	7.62	nm	nm	85.0
				10:40		2.00	15.80	7.74	nm	nm	86.5
				10:45		2.00	15.80	7.76	nm	nm	82.0
NGA #4	LAILG-NGA-4-10	1/14/2019	Bucket	12:45	0.0556	0.50	12.40	7.10	nm	nm	23.8
				12:50		0.50	12.40	7.20	nm	nm	25.6
				12:55		0.50	12.30	7.15	nm	nm	22.0
NGA #19	LAILG-NGA-19-10	1/14/2019	Bucket	7:30	0.0218	1.00	11.90	7.46	106	nm	272
				7:33		0.75	11.90	7.43	107	nm	286
				7:38		0.50	11.80	7.40	106	nm	263
NGA #64	LAILG-NGA-64-6	1/14/2019	Bucket	12:05	0.1110	1.00	12.90	7.10	nm	nm	45.4
				12:10		1.00	12.90	6.90	nm	nm	52.4
				12:15		1.00	12.90	7.00	nm	nm	45
NGA #168	LAILG-NGA-168-10	1/14/2019	Bucket	11:00	0.0873	3.00	11.50	6.76	330	9.42	75.5
				11:05		3.00	11.50	6.85	330	9.60	72.0
				11:10		3.00	11.50	6.90	330	9.40	68.0

* Runoff streams were assumed to have a parabolic shape unless field measurements indicated otherwise. The cross sectional area of a parabola is $2/3 \times \text{width} \times \text{depth}$.

ft/s feet per second mg/L milligrams per liter
°C degrees celcius NTU Nephelometric Turbidity Units
uS microsiemens
na* Not analyzed, DO meter was not functioning properly at the time of field sampling

APPENDIX C

LABORATORY ANALYTICAL RESULTS AND CHAIN OF CUSTODY DOCUMENTATION



Weck Laboratories, Inc.
Analytical & Environmental Services

14859 East Clark Avenue : Industry : CA 91745

Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

STANDARD CHAIN OF CUSTODY RECORD

WECK WKO#

8K29062

Page 1 Of 1

CLIENT NAME: Pacific Ridgeline		PROJECT: NGA # 178		ANALYSES REQUESTED								SPECIAL HANDLING	
ADDRESS: 1891 Greenleaf Ave. Suite 621 Ventura, CA 93003		PHONE: 855-682-1802 ext 102		TDS-SM2540C / TS-3005-40B Cl, SO4, NO3-NO2-N, EPA 300.0 Ammonia-N EPA 332.1 Copper EPA 200.8 Hardness 200.7 OPP low level EPA 525.2 Organic Pest/PCBs low VI EPA 806.8 Pyrethroid Pest by GC/MS Other-P and P Residue EPA 335.1 Other and P Total As EPA 335.3								<input type="checkbox"/> Same Day Rush 150% <input type="checkbox"/> 24 Hour Rush 100% <input type="checkbox"/> 48-72 Hour Rush 75% <input type="checkbox"/> 4 - 5 Day Rush 30% <input type="checkbox"/> Rush Extractions 60% <input checked="" type="checkbox"/> 10 - 15 Business Days <input checked="" type="checkbox"/> QA/QC Data Package	
PROJECT MANAGER: Bryn Home		FAX:										EMAIL: Scott@Pacrl.com + Bryn@Pacrl.com	

ID# (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPL TYPE	Cl ₂ Y/N	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT	TDS-SM2540C / TS-3005-40B	Cl, SO4, NO3-NO2-N, EPA 300.0	Ammonia-N EPA 332.1	Copper EPA 200.8	Hardness 200.7	OPP low level EPA 525.2	Organic Pest/PCBs low VI EPA 806.8	Pyrethroid Pest by GC/MS	Other-P and P Residue EPA 335.1	Other and P Total As EPA 335.3	COMMENTS
	11/29/18	5:00	RW		LAILG-NGA-EB	12	X	X	X	X	X	X	X	X	X	X	
	11/29/18	5:55			LAILG-NGA-178-5												
	11/29/18	7:25			LAILG-NGA-124-10												
	11/29/18	8:20			LAILG-NGA-158-2												
	11/29/18	10:00			LAILG-NGA-EB												
	11/29/18	10:35			LAILG-NGA-202-3												*In smaller cooler for FB per Scott Jordan
	11/29/18				LAILG-NGA-DUP												via phone call on 11/29/18 at 15:33 -CS 11/29/18

RELINQUISHED BY		DATE / TIME	RECEIVED BY		DATE / TIME	SAMPLE CONDITION:		SAMPLE TYPE CODE:	
SIGNATURE: Scott Jordan PRINT NAME: Scott Jordan		12:05 11/29/18	SIGNATURE: Tomelmer PRINT NAME: Tomelmer		11/29/18 12:05	Actual Temperature: 55°C		AQ=Aqueous NA= Non Aqueous SL = Sludge DW = Drinking Water WW = Waste Water RW = Rain Water GW = Ground Water SO = Soil SW = Solid Waste OL = Oil OT = Other Matrix	
SIGNATURE: _____ PRINT NAME: _____			SIGNATURE: _____ PRINT NAME: _____			Received On Ice		Y/N	
SIGNATURE: _____ PRINT NAME: _____			SIGNATURE: _____ PRINT NAME: _____			Preserved		Y/N	
SIGNATURE: _____ PRINT NAME: _____			SIGNATURE: _____ PRINT NAME: _____			Preserved at Lab		Y/N	
SIGNATURE: _____ PRINT NAME: _____			SIGNATURE: _____ PRINT NAME: _____			Evidence Seals Present		Y/N	
SIGNATURE: _____ PRINT NAME: _____			SIGNATURE: _____ PRINT NAME: _____			Container Damaged		Y/N	

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM OR VISIT WWW.WECKLABS.COM)

SPECIAL REQUIREMENTS / BILLING INFORMATION

Work Orders: 9A14144

Report Date: 2/26/2019

Project: Nursery Growers Association #178

Received Date: 1/14/2019

Turnaround Time: Normal

Phones: (805) 933-1770

Attn: Scott Jordan

Fax:

Client: Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

P.O. #:

Billing Code:

ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH # • ISO 17025 #L2457.01 • LACSD #10143 •
NELAP-CA #04229CA • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Scott Jordan,

Enclosed are the results of analyses for samples received 1/14/19 with the Chain-of-Custody document. The samples were received in good condition, at 10.5 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Chris Samatmanakit
Project Manager





WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
 1891 Goodyear Avenue, Suite 621
 Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Case Narrative

Original Nitrate+Nitrite analysis by EPA 300.0 for sample LAILG-NGA-19-10 had a result outside of calibration range. Sample was re-analyzed for confirmation, but was done 1 hour past holding time. Both results are included in the analytical report.

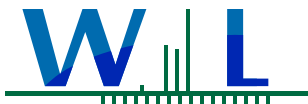
Dissolved ortho-P and dissolved P were analyzed using EPA 365.3 due to instrumentation issue in order to meet compliance holding times.

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
LAILG-NGA-19-10	Scott Jordan	9A14144-01	Water	01/14/19 07:30	
LAILG-NGA-168-10	Scott Jordan	9A14144-02	Water	01/14/19 11:00	
LAILG-NGA-64-6	Scott Jordan	9A14144-03	Water	01/14/19 12:05	
LAILG-NGA-4-10	Scott Jordan	9A14144-04	Water	01/14/19 12:45	

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	By ANAB
EPA 8270M in Water			
Dichloran	99-30-9	✓	
Tefluthrin	79538-32-2	✓	
Pendimethalin	40487-42-1	✓	
Allethrin	584-79-2	✓	
Prallethrin	23031-36-9	✓	
Bifenthrin	82657-04-3	✓	
Sumithrin (Phenothrin)	26002-80-2	✓	
L-Cyhalothrin	91465-08-6	✓	
Permethrin	52645-53-1	✓	
Cyfluthrin	68359-37-5	✓	
Cypermethrin	52315-07-8	✓	
Fenvalerate/Esfenvalerate	51630-58-1	✓	
Deltamethrin/Tralomethrin	52820-00-5	✓	
Fenpropathrin (Danitol)	39515-41-8	✓	
Triphenyl phosphate	115-86-6	✓	
Perylene-d12	1520-96-3	✓	



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

Sample: LAILG-NGA-19-10
9A14144-01 (Water)

Sampled: 01/14/19 7:30 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W9A0785	Instr: LC12	Prepared: 01/15/19 08:11	Analyst: jan		
Chloride, Total	51	0.50	mg/l	1	01/15/19 17:52	
NO2+NO3 as N	31	0.11	mg/l	1	01/15/19 17:52	E-01
Sulfate as SO4	40	0.50	mg/l	1	01/15/19 17:52	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 608						
Batch ID: W9A1051						
Instr: GC07						
Prepared: 01/21/19 08:54						
Analyst: adm						
2,4'-DDD	ND	100	ng/l	20	02/19/19 23:38	M-04
2,4'-DDE	ND	100	ng/l	20	02/19/19 23:38	M-04
2,4'-DDT	ND	100	ng/l	20	02/19/19 23:38	M-04
4,4'-DDD	ND	100	ng/l	20	02/19/19 23:38	M-04
4,4'-DDE	ND	100	ng/l	20	02/19/19 23:38	M-04
4,4'-DDT	ND	100	ng/l	20	02/19/19 23:38	M-04
Aldrin	ND	100	ng/l	20	02/19/19 23:38	M-04
alpha-BHC	ND	100	ng/l	20	02/19/19 23:38	M-04
alpha-Chlordane	ND	100	ng/l	20	02/19/19 23:38	M-04
Aroclor 1016	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1221	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1232	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1242	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1248	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1254	ND	2000	ng/l	20	02/19/19 23:38	M-04
Aroclor 1260	ND	2000	ng/l	20	02/19/19 23:38	M-04
beta-BHC	ND	100	ng/l	20	02/19/19 23:38	M-04
Chlordane (tech)	ND	2000	ng/l	20	02/19/19 23:38	M-04
cis-Nonachlor	ND	100	ng/l	20	02/19/19 23:38	M-04
delta-BHC	ND	100	ng/l	20	02/19/19 23:38	M-04
Dieldrin	ND	100	ng/l	20	02/19/19 23:38	M-04
Endosulfan I	ND	100	ng/l	20	02/19/19 23:38	M-04
Endosulfan II	ND	100	ng/l	20	02/19/19 23:38	M-04
Endosulfan sulfate	ND	100	ng/l	20	02/19/19 23:38	M-04
Endrin	ND	100	ng/l	20	02/19/19 23:38	M-04
Endrin aldehyde	ND	100	ng/l	20	02/19/19 23:38	M-04
gamma-BHC (Lindane)	ND	100	ng/l	20	02/19/19 23:38	M-04
gamma-Chlordane	ND	100	ng/l	20	02/19/19 23:38	M-04
Heptachlor	ND	100	ng/l	20	02/19/19 23:38	M-04
Heptachlor epoxide	ND	100	ng/l	20	02/19/19 23:38	M-04
Methoxychlor	ND	100	ng/l	20	02/19/19 23:38	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

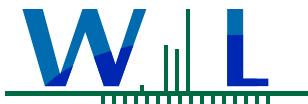
Sample Results

(Continued)

Sample: LAILG-NGA-19-10
9A14144-01 (Water)

Sampled: 01/14/19 7:30 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W9A1051	Instr: GC07	Prepared: 01/21/19 08:54		Analyst: adm	
Mirex	ND	100	ng/l	20	02/19/19 23:38	M-04
Toxaphene	ND	10000	ng/l	20	02/19/19 23:38	M-04
trans-Nonachlor	ND	100	ng/l	20	02/19/19 23:38	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	51% Conc: 50.6	34-125			02/19/19 23:38	M-04
Tetrachloro-meta-xylene	88% Conc: 87.6	35-111			02/19/19 23:38	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W9A0999	Instr: AA06	Prepared: 01/17/19 10:30		Analyst: mcs	
Ammonia as N	1.9	0.10	mg/l	1	01/18/19 17:27	
Method: EPA 365.3	Batch ID: W9A0923	Instr: UVVIS04	Prepared: 01/16/19 09:46		Analyst: ymt	
o-Phosphate as P	0.63	0.010	mg/l	1	01/16/19 10:53	**
o-Phosphate as P, dissolved	630	10	ug/l	1	01/16/19 10:53	**
Method: EPA 365.3	Batch ID: W9A0924	Instr: UVVIS04	Prepared: 01/16/19 09:45		Analyst: anb	
Phosphorus as P, Total	3.2	0.10	mg/l	1	01/23/19 11:03	M-06
Method: EPA 365.3	Batch ID: W9A1080	Instr: UVVIS04	Prepared: 01/18/19 11:50		Analyst: anb	
Phosphorus, Dissolved	0.11	0.050	mg/l	1	01/25/19 14:29	M-06
Method: SM 2540C	Batch ID: W9A0899	Instr: _ANALYST	Prepared: 01/15/19 19:36		Analyst: mcs	
Total Dissolved Solids	490	10	mg/l	1	01/16/19 18:35	
Method: SM 2540D	Batch ID: W9A0898	Instr: OVEN11	Prepared: 01/15/19 19:36		Analyst: sar	
Total Suspended Solids	780	5	mg/l	1	01/16/19 14:52	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: W9A0855	Instr: ICPO3	Prepared: 01/15/19 16:03		Analyst: mtt	
Calcium, Total	81.6	0.100	mg/l	1	01/29/19 02:31	
Magnesium, Total	20.1	0.100	mg/l	1	01/29/19 02:31	
Method: EPA 200.8	Batch ID: W9A0858	Instr: ICPMS02	Prepared: 01/15/19 16:08		Analyst: jea	
Copper, Total	57	0.50	ug/l	1	02/08/19 15:46	
Method: SM 2340B	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/15/19 16:03		Analyst: mtt	
Hardness as CaCO3, Total	287	0.662	mg/l	1	01/29/19 02:31	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13		Analyst: EFC	
Allethrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Bifenthrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Cyfluthrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Cypermethrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Deltamethrin/Tralomethrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Dichloran	ND	10	ng/l	5	02/05/19 18:58	M-04



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-19-10
9A14144-01 (Water)

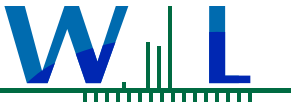
Sampled: 01/14/19 7:30 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13		Analyst: EFC	
Fenpropathrin (Danitol)	59	10	ng/l	5	02/05/19 18:58	M-04
Fenvalerate/Esfenvalerate	ND	10	ng/l	5	02/05/19 18:58	M-04
L-Cyhalothrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Pendimethalin	ND	10	ng/l	5	02/05/19 18:58	M-04
Permethrin	ND	25	ng/l	5	02/05/19 18:58	M-04
Prallethrin	ND	10	ng/l	5	02/05/19 18:58	M-04
Sumithrin (Phenothrin)	ND	50	ng/l	5	02/05/19 18:58	M-04
Tefluthrin	ND	10	ng/l	5	02/05/19 18:58	M-04
<i>Surrogate(s)</i>						
Perylene-d12	66% Conc: 164	2-205			02/05/19 18:58	M-04
Triphenyl phosphate	93% Conc: 233	6-222			02/05/19 18:58	M-04

Semivolatle Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15		Analyst: EFC	
Azinphos methyl (Guthion)	ND	100	ng/l	1	01/26/19 10:38	M-02
Bolstar	ND	100	ng/l	1	01/26/19 10:38	M-02
Chlorpyrifos	ND	100	ng/l	1	01/26/19 10:38	M-02
Coumaphos	ND	100	ng/l	1	01/26/19 10:38	M-02
Demeton-o	ND	100	ng/l	1	01/26/19 10:38	M-02
Demeton-s	ND	100	ng/l	1	01/26/19 10:38	M-02
Diazinon	ND	100	ng/l	1	01/26/19 10:38	M-02
Dichlorvos	ND	100	ng/l	1	01/26/19 10:38	M-02
Dimethoate	ND	100	ng/l	1	01/26/19 10:38	M-02
Disulfoton	ND	100	ng/l	1	01/26/19 10:38	M-02
Ethoprop	ND	100	ng/l	1	01/26/19 10:38	M-02
Ethyl parathion	ND	100	ng/l	1	01/26/19 10:38	M-02
Fensulfothion	ND	100	ng/l	1	01/26/19 10:38	M-02
Fenthion	ND	100	ng/l	1	01/26/19 10:38	M-02
Malathion	ND	100	ng/l	1	01/26/19 10:38	M-02
Merphos	ND	100	ng/l	1	01/26/19 10:38	M-02
Methyl parathion	ND	100	ng/l	1	01/26/19 10:38	M-02
Mevinphos	ND	100	ng/l	1	01/26/19 10:38	M-02
Naled	ND	100	ng/l	1	01/26/19 10:38	M-02
Phorate	ND	100	ng/l	1	01/26/19 10:38	M-02
Ronnel	ND	100	ng/l	1	01/26/19 10:38	M-02
Stirophos	ND	100	ng/l	1	01/26/19 10:38	M-02
Tokuthion (Prothiofos)	ND	100	ng/l	1	01/26/19 10:38	M-02



WECK LABORATORIES, INC.

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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-19-10
9A14144-01 (Water) Sampled: 01/14/19 7:30 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)						
Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15	Analyst: EFC		
Trichloronate	ND	100	ng/l	1	01/26/19 10:38	M-02
<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	108% Conc: 5420	76-128			01/26/19 10:38	M-02
Triphenyl phosphate	160% Conc: 8020	40-163			01/26/19 10:38	M-02

Sample: LAILG-NGA-19-10
9A14144-01RE1 (Water) Sampled: 01/14/19 7:30 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W9A0785	Instr: LC12	Prepared: 01/15/19 08:11	Analyst: jan		
NO2+NO3 as N	40	0.56	mg/l	5	01/16/19 07:55	O-21



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

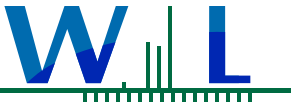
Sample: LAILG-NGA-168-10
9A14144-02 (Water)

Sampled: 01/14/19 11:00 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W9A0785	Instr: LC12	Prepared: 01/15/19 08:11	Analyst: jan		
Chloride, Total	27	0.50	mg/l	1	01/15/19 18:10	
NO2+NO3 as N	11	0.11	mg/l	1	01/15/19 18:10	
Sulfate as SO4	44	0.50	mg/l	1	01/15/19 18:10	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 608						
Batch ID: W9A1051						
Instr: GC07						
Prepared: 01/21/19 08:54						
Analyst: adm						
2,4'-DDD	ND	100	ng/l	20	02/20/19 00:09	M-04
2,4'-DDE	ND	100	ng/l	20	02/20/19 00:09	M-04
2,4'-DDT	ND	100	ng/l	20	02/20/19 00:09	M-04
4,4'-DDD	ND	100	ng/l	20	02/20/19 00:09	M-04
4,4'-DDE	ND	100	ng/l	20	02/20/19 00:09	M-04
4,4'-DDT	ND	100	ng/l	20	02/20/19 00:09	M-04
Aldrin	ND	100	ng/l	20	02/20/19 00:09	M-04
alpha-BHC	ND	100	ng/l	20	02/20/19 00:09	M-04
alpha-Chlordane	ND	100	ng/l	20	02/20/19 00:09	M-04
Aroclor 1016	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1221	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1232	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1242	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1248	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1254	ND	2000	ng/l	20	02/20/19 00:09	M-04
Aroclor 1260	ND	2000	ng/l	20	02/20/19 00:09	M-04
beta-BHC	ND	100	ng/l	20	02/20/19 00:09	M-04
Chlordane (tech)	ND	2000	ng/l	20	02/20/19 00:09	M-04
cis-Nonachlor	ND	100	ng/l	20	02/20/19 00:09	M-04
delta-BHC	ND	100	ng/l	20	02/20/19 00:09	M-04
Dieldrin	ND	100	ng/l	20	02/20/19 00:09	M-04
Endosulfan I	ND	100	ng/l	20	02/20/19 00:09	M-04
Endosulfan II	ND	100	ng/l	20	02/20/19 00:09	M-04
Endosulfan sulfate	ND	100	ng/l	20	02/20/19 00:09	M-04
Endrin	ND	100	ng/l	20	02/20/19 00:09	M-04
Endrin aldehyde	ND	100	ng/l	20	02/20/19 00:09	M-04
gamma-BHC (Lindane)	ND	100	ng/l	20	02/20/19 00:09	M-04
gamma-Chlordane	ND	100	ng/l	20	02/20/19 00:09	M-04
Heptachlor	ND	100	ng/l	20	02/20/19 00:09	M-04
Heptachlor epoxide	ND	100	ng/l	20	02/20/19 00:09	M-04
Methoxychlor	ND	100	ng/l	20	02/20/19 00:09	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-168-10
9A14144-02 (Water)

Sampled: 01/14/19 11:00 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W9A1051	Instr: GC07	Prepared: 01/21/19 08:54	Analyst: adm		
Mirex	ND	100	ng/l	20	02/20/19 00:09	M-04
Toxaphene	ND	10000	ng/l	20	02/20/19 00:09	M-04
trans-Nonachlor	ND	100	ng/l	20	02/20/19 00:09	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	83% Conc: 83.3	34-125			02/20/19 00:09	M-04
Tetrachloro-meta-xylene	86% Conc: 86.5	35-111			02/20/19 00:09	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W9A0999	Instr: AA06	Prepared: 01/17/19 10:30	Analyst: mcs		
Ammonia as N	0.18	0.10	mg/l	1	01/18/19 17:27	
Method: EPA 365.3	Batch ID: W9A0923	Instr: UVVIS04	Prepared: 01/16/19 09:46	Analyst: ymt		
o-Phosphate as P	0.41	0.010	mg/l	1	01/16/19 10:53	**
o-Phosphate as P, dissolved	400	10	ug/l	1	01/16/19 10:53	**
Method: EPA 365.3	Batch ID: W9A1080	Instr: UVVIS04	Prepared: 01/18/19 11:50	Analyst: anb		
Phosphorus, Dissolved	0.054	0.020	mg/l	1	01/25/19 14:29	M-06
Method: EPA 365.3	Batch ID: W9A1522	Instr: UVVIS04	Prepared: 01/29/19 15:39	Analyst: anb		
Phosphorus as P, Total	0.90	0.020	mg/l	1	02/04/19 14:21	M-06
Method: SM 2540C	Batch ID: W9A1095	Instr: OVEN01	Prepared: 01/18/19 13:48	Analyst: mcs		
Total Dissolved Solids	220	10	mg/l	1	01/19/19 09:32	
Method: SM 2540D	Batch ID: W9A0960	Instr: OVEN11	Prepared: 01/16/19 15:34	Analyst: sar		
Total Suspended Solids	97	5	mg/l	1	01/17/19 19:09	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: W9A0855	Instr: ICPO3	Prepared: 01/15/19 16:03	Analyst: mtt		
Calcium, Total	25.9	0.100	mg/l	1	01/29/19 02:34	
Magnesium, Total	8.21	0.100	mg/l	1	01/29/19 02:34	
Method: EPA 200.8	Batch ID: W9A0858	Instr: ICPMS02	Prepared: 01/15/19 16:08	Analyst: jea		
Copper, Total	26	0.50	ug/l	1	02/08/19 15:53	
Method: SM 2340B	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/15/19 16:03	Analyst: mtt		
Hardness as CaCO3, Total	98.5	0.662	mg/l	1	01/29/19 02:34	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13	Analyst: EFC		
Allethrin	ND	20	ng/l	10	02/05/19 19:25	M-04
Bifenthrin	570	20	ng/l	10	02/05/19 19:25	M-04
Cyfluthrin	240	20	ng/l	10	02/05/19 19:25	M-04
Cypermethrin	ND	20	ng/l	10	02/05/19 19:25	M-04
Deltamethrin/Tralomethrin	ND	20	ng/l	10	02/05/19 19:25	M-04
Dichloran	ND	20	ng/l	10	02/05/19 19:25	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

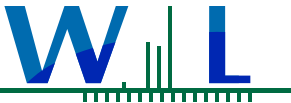
Sample: LAILG-NGA-168-10
9A14144-02 (Water)

Sampled: 01/14/19 11:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13	Analyst: EFC		
Fenprothrin (Danitol)	ND	20	ng/l	10	02/05/19 19:25	M-04
Fenvalerate/Esfenvalerate	ND	20	ng/l	10	02/05/19 19:25	M-04
L-Cyhalothrin	ND	20	ng/l	10	02/05/19 19:25	M-04
Pendimethalin	99	20	ng/l	10	02/05/19 19:25	M-04
Permethrin	ND	50	ng/l	10	02/05/19 19:25	M-04
Prallethrin	ND	20	ng/l	10	02/05/19 19:25	M-04
Sumithrin (Phenothrin)	ND	100	ng/l	10	02/05/19 19:25	M-04
Tefluthrin	ND	20	ng/l	10	02/05/19 19:25	M-04
<i>Surrogate(s)</i>						
Perylene-d12	67% Conc: 168	2-205			02/05/19 19:25	M-04
Triphenyl phosphate	95% Conc: 238	6-222			02/05/19 19:25	M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15	Analyst: EFC		
Azinphos methyl (Guthion)	ND	100	ng/l	1	01/26/19 11:04	M-02
Bolstar	ND	100	ng/l	1	01/26/19 11:04	M-02
Chlorpyrifos	ND	100	ng/l	1	01/26/19 11:04	M-02
Coumaphos	ND	100	ng/l	1	01/26/19 11:04	M-02
Demeton-o	ND	100	ng/l	1	01/26/19 11:04	M-02
Demeton-s	ND	100	ng/l	1	01/26/19 11:04	M-02
Diazinon	ND	100	ng/l	1	01/26/19 11:04	M-02
Dichlorvos	ND	100	ng/l	1	01/26/19 11:04	M-02
Dimethoate	ND	100	ng/l	1	01/26/19 11:04	M-02
Disulfoton	ND	100	ng/l	1	01/26/19 11:04	M-02
Ethoprop	ND	100	ng/l	1	01/26/19 11:04	M-02
Ethyl parathion	ND	100	ng/l	1	01/26/19 11:04	M-02
Fensulfothion	ND	100	ng/l	1	01/26/19 11:04	M-02
Fenthion	ND	100	ng/l	1	01/26/19 11:04	M-02
Malathion	ND	100	ng/l	1	01/26/19 11:04	M-02
Merphos	ND	100	ng/l	1	01/26/19 11:04	M-02
Methyl parathion	ND	100	ng/l	1	01/26/19 11:04	M-02
Mevinphos	ND	100	ng/l	1	01/26/19 11:04	M-02
Naled	ND	100	ng/l	1	01/26/19 11:04	M-02
Phorate	ND	100	ng/l	1	01/26/19 11:04	M-02
Ronnel	ND	100	ng/l	1	01/26/19 11:04	M-02
Stirophos	ND	100	ng/l	1	01/26/19 11:04	M-02
Tokuthion (Prothiofos)	ND	100	ng/l	1	01/26/19 11:04	M-02



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

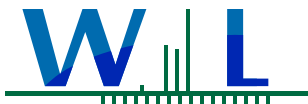
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Sample: LAILG-NGA-168-10
9A14144-02 (Water)

Sampled: 01/14/19 11:00 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)						
Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15	Analyst: EFC		
Trichloronate	ND	100	ng/l	1	01/26/19 11:04	M-02
<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	115% Conc: 5730	76-128			01/26/19 11:04	M-02
Triphenyl phosphate	143% Conc: 7150	40-163			01/26/19 11:04	M-02



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

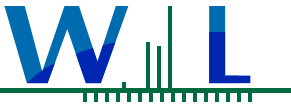
Sample: LAILG-NGA-64-6
9A14144-03 (Water)

Sampled: 01/14/19 12:05 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W9A0785	Instr: LC12	Prepared: 01/15/19 08:11	Analyst: jan		
Chloride, Total	6.0	0.50	mg/l	1	01/15/19 18:28	
NO2+NO3 as N	3.1	0.11	mg/l	1	01/15/19 18:28	
Sulfate as SO4	7.8	0.50	mg/l	1	01/15/19 18:28	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 608						
Batch ID: W9A1051						
Instr: GC07						
Prepared: 01/21/19 08:54						
Analyst: adm						
2,4'-DDD	ND	50	ng/l	10	02/20/19 04:11	M-04
2,4'-DDE	ND	50	ng/l	10	02/20/19 04:11	M-04
2,4'-DDT	ND	50	ng/l	10	02/20/19 04:11	M-04
4,4'-DDD	ND	50	ng/l	10	02/20/19 04:11	M-04
4,4'-DDE	ND	50	ng/l	10	02/20/19 04:11	M-04
4,4'-DDT	ND	50	ng/l	10	02/20/19 04:11	M-04
Aldrin	ND	50	ng/l	10	02/20/19 04:11	M-04
alpha-BHC	ND	50	ng/l	10	02/20/19 04:11	M-04
alpha-Chlordane	ND	50	ng/l	10	02/20/19 04:11	M-04
Aroclor 1016	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1221	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1232	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1242	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1248	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1254	ND	1000	ng/l	10	02/20/19 04:11	M-04
Aroclor 1260	ND	1000	ng/l	10	02/20/19 04:11	M-04
beta-BHC	ND	50	ng/l	10	02/20/19 04:11	M-04
Chlordane (tech)	ND	1000	ng/l	10	02/20/19 04:11	M-04
cis-Nonachlor	ND	50	ng/l	10	02/20/19 04:11	M-04
delta-BHC	ND	50	ng/l	10	02/20/19 04:11	M-04
Dieldrin	ND	50	ng/l	10	02/20/19 04:11	M-04
Endosulfan I	ND	50	ng/l	10	02/20/19 04:11	M-04
Endosulfan II	ND	50	ng/l	10	02/20/19 04:11	M-04
Endosulfan sulfate	ND	50	ng/l	10	02/20/19 04:11	M-04
Endrin	ND	50	ng/l	10	02/20/19 04:11	M-04
Endrin aldehyde	ND	50	ng/l	10	02/20/19 04:11	M-04
gamma-BHC (Lindane)	ND	50	ng/l	10	02/20/19 04:11	M-04
gamma-Chlordane	ND	50	ng/l	10	02/20/19 04:11	M-04
Heptachlor	ND	50	ng/l	10	02/20/19 04:11	M-04
Heptachlor epoxide	ND	50	ng/l	10	02/20/19 04:11	M-04
Methoxychlor	ND	50	ng/l	10	02/20/19 04:11	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-64-6
9A14144-03 (Water)

Sampled: 01/14/19 12:05 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W9A1051	Instr: GC07	Prepared: 01/21/19 08:54	Analyst: adm		
Mirex	ND	50	ng/l	10	02/20/19 04:11	M-04
Toxaphene	ND	5000	ng/l	10	02/20/19 04:11	M-04
trans-Nonachlor	ND	50	ng/l	10	02/20/19 04:11	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	83% Conc: 83.0	34-125			02/20/19 04:11	M-04
Tetrachloro-meta-xylene	96% Conc: 96.2	35-111			02/20/19 04:11	M-04

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

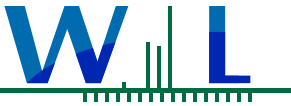
Method: EPA 350.1	Batch ID: W9A0999	Instr: AA06	Prepared: 01/17/19 10:30	Analyst: mcs		
Ammonia as N	0.21	0.10	mg/l	1	01/18/19 17:27	
Method: EPA 365.3	Batch ID: W9A0923	Instr: UVVIS04	Prepared: 01/16/19 09:46	Analyst: ymt		
o-Phosphate as P	0.23	0.010	mg/l	1	01/16/19 10:53	**
o-Phosphate as P, dissolved	240	10	ug/l	1	01/16/19 10:53	**
Method: EPA 365.3	Batch ID: W9A1080	Instr: UVVIS04	Prepared: 01/18/19 11:50	Analyst: anb		
Phosphorus, Dissolved	0.018	0.010	mg/l	1	01/25/19 14:29	
Method: EPA 365.3	Batch ID: W9A1522	Instr: UVVIS04	Prepared: 01/29/19 15:39	Analyst: anb		
Phosphorus as P, Total	0.51	0.020	mg/l	1	02/04/19 14:21	M-06
Method: SM 2540C	Batch ID: W9A1095	Instr: OVEN01	Prepared: 01/18/19 13:48	Analyst: mcs		
Total Dissolved Solids	49	10	mg/l	1	01/19/19 09:32	
Method: SM 2540D	Batch ID: W9A1026	Instr: OVEN11	Prepared: 01/17/19 14:34	Analyst: sar		
Total Suspended Solids	140	5	mg/l	1	01/18/19 12:16	

Metals by EPA 200 Series Methods

Method: EPA 200.7	Batch ID: W9A0855	Instr: ICPO3	Prepared: 01/15/19 16:03	Analyst: mtt		
Calcium, Total	10.6	0.100	mg/l	1	01/29/19 02:37	
Magnesium, Total	3.15	0.100	mg/l	1	01/29/19 02:37	
Method: EPA 200.8	Batch ID: W9A0858	Instr: ICPMS02	Prepared: 01/15/19 16:08	Analyst: jea		
Copper, Total	13	0.50	ug/l	1	02/08/19 16:00	
Method: SM 2340B	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/15/19 16:03	Analyst: mtt		
Hardness as CaCO3, Total	39.4	0.662	mg/l	1	01/29/19 02:37	

Pyrethroid Pesticides by EPA 8270M

Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13	Analyst: EFC		
Allethrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Bifenthrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Cyfluthrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Cypermethrin	ND	15	ng/l	5	02/05/19 19:52	M-04, R-01
Deltamethrin/Tralomethrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Dichloran	ND	10	ng/l	5	02/05/19 19:52	M-04



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-64-6
9A14144-03 (Water)

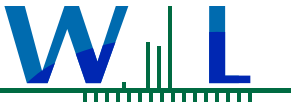
Sampled: 01/14/19 12:05 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13		Analyst: EFC	
Fenpropathrin (Danitol)	ND	10	ng/l	5	02/05/19 19:52	M-04
Fenvalerate/Esfenvalerate	ND	10	ng/l	5	02/05/19 19:52	M-04
L-Cyhalothrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Pendimethalin	ND	10	ng/l	5	02/05/19 19:52	M-04
Permethrin	ND	25	ng/l	5	02/05/19 19:52	M-04
Prallethrin	ND	10	ng/l	5	02/05/19 19:52	M-04
Sumithrin (Phenothrin)	ND	50	ng/l	5	02/05/19 19:52	M-04
Tefluthrin	ND	10	ng/l	5	02/05/19 19:52	M-04
<i>Surrogate(s)</i>						
Perylene-d12	62% Conc: 156	2-205			02/05/19 19:52	M-04
Triphenyl phosphate	113% Conc: 283	6-222			02/05/19 19:52	M-04

Semivolatle Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15		Analyst: EFC	
Azinphos methyl (Guthion)	ND	100	ng/l	1	01/26/19 11:29	M-02
Bolstar	ND	100	ng/l	1	01/26/19 11:29	M-02
Chlorpyrifos	ND	100	ng/l	1	01/26/19 11:29	M-02
Coumaphos	ND	100	ng/l	1	01/26/19 11:29	M-02
Demeton-o	ND	100	ng/l	1	01/26/19 11:29	M-02
Demeton-s	ND	100	ng/l	1	01/26/19 11:29	M-02
Diazinon	ND	100	ng/l	1	01/26/19 11:29	M-02
Dichlorvos	ND	100	ng/l	1	01/26/19 11:29	M-02
Dimethoate	ND	100	ng/l	1	01/26/19 11:29	M-02
Disulfoton	ND	100	ng/l	1	01/26/19 11:29	M-02
Ethoprop	ND	100	ng/l	1	01/26/19 11:29	M-02
Ethyl parathion	ND	100	ng/l	1	01/26/19 11:29	M-02
Fensulfothion	ND	100	ng/l	1	01/26/19 11:29	M-02
Fenthion	ND	100	ng/l	1	01/26/19 11:29	M-02
Malathion	ND	100	ng/l	1	01/26/19 11:29	M-02
Merphos	ND	100	ng/l	1	01/26/19 11:29	M-02
Methyl parathion	ND	100	ng/l	1	01/26/19 11:29	M-02
Mevinphos	ND	100	ng/l	1	01/26/19 11:29	M-02
Naled	ND	100	ng/l	1	01/26/19 11:29	M-02
Phorate	ND	100	ng/l	1	01/26/19 11:29	M-02
Ronnel	ND	100	ng/l	1	01/26/19 11:29	M-02
Stirophos	ND	100	ng/l	1	01/26/19 11:29	M-02
Tokuthion (Prothiofos)	ND	100	ng/l	1	01/26/19 11:29	M-02



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FINAL REPORT

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Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

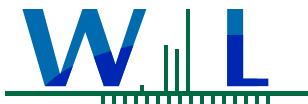
(Continued)

Sample: LAILG-NGA-64-6
9A14144-03 (Water)

Sampled: 01/14/19 12:05 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)						
Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15	Analyst: EFC		
Trichloronate	ND	100	ng/l	1	01/26/19 11:29	M-02
<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	111% Conc: 5540	76-128			01/26/19 11:29	M-02
Triphenyl phosphate	154% Conc: 7710	40-163			01/26/19 11:29	M-02



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Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

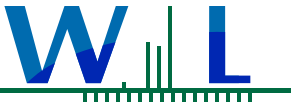
Sample: LAILG-NGA-4-10
9A14144-04 (Water)

Sampled: 01/14/19 12:45 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W9A0785	Instr: LC12	Prepared: 01/15/19 08:11	Analyst: jan		
Chloride, Total	1.8	0.50	mg/l	1	01/15/19 18:46	
NO2+NO3 as N	0.67	0.11	mg/l	1	01/15/19 18:46	
Sulfate as SO4	1.1	0.50	mg/l	1	01/15/19 18:46	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 608						
Batch ID: W9A1051						
Instr: GC07						
Prepared: 01/21/19 08:54						
Analyst: adm						
2,4'-DDD	ND	100	ng/l	20	02/20/19 04:41	M-04
2,4'-DDE	ND	100	ng/l	20	02/20/19 04:41	M-04
2,4'-DDT	ND	100	ng/l	20	02/20/19 04:41	M-04
4,4'-DDD	ND	100	ng/l	20	02/20/19 04:41	M-04
4,4'-DDE	ND	100	ng/l	20	02/20/19 04:41	M-04
4,4'-DDT	ND	100	ng/l	20	02/20/19 04:41	M-04
Aldrin	ND	100	ng/l	20	02/20/19 04:41	M-04
alpha-BHC	ND	100	ng/l	20	02/20/19 04:41	M-04
alpha-Chlordane	ND	100	ng/l	20	02/20/19 04:41	M-04
Aroclor 1016	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1221	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1232	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1242	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1248	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1254	ND	2000	ng/l	20	02/20/19 04:41	M-04
Aroclor 1260	ND	2000	ng/l	20	02/20/19 04:41	M-04
beta-BHC	ND	100	ng/l	20	02/20/19 04:41	M-04
Chlordane (tech)	ND	2000	ng/l	20	02/20/19 04:41	M-04
cis-Nonachlor	ND	100	ng/l	20	02/20/19 04:41	M-04
delta-BHC	ND	100	ng/l	20	02/20/19 04:41	M-04
Dieldrin	ND	100	ng/l	20	02/20/19 04:41	M-04
Endosulfan I	ND	100	ng/l	20	02/20/19 04:41	M-04
Endosulfan II	ND	100	ng/l	20	02/20/19 04:41	M-04
Endosulfan sulfate	ND	100	ng/l	20	02/20/19 04:41	M-04
Endrin	ND	100	ng/l	20	02/20/19 04:41	M-04
Endrin aldehyde	ND	100	ng/l	20	02/20/19 04:41	M-04
gamma-BHC (Lindane)	ND	100	ng/l	20	02/20/19 04:41	M-04
gamma-Chlordane	ND	100	ng/l	20	02/20/19 04:41	M-04
Heptachlor	ND	100	ng/l	20	02/20/19 04:41	M-04
Heptachlor epoxide	ND	100	ng/l	20	02/20/19 04:41	M-04
Methoxychlor	ND	100	ng/l	20	02/20/19 04:41	M-04



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Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

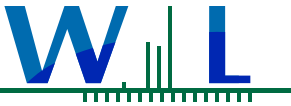
Sample Results

(Continued)

Sample: LAILG-NGA-4-10
9A14144-04 (Water)

Sampled: 01/14/19 12:45 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W9A1051	Instr: GC07	Prepared: 01/21/19 08:54		Analyst: adm	
Mirex	ND	100	ng/l	20	02/20/19 04:41	M-04
Toxaphene	ND	10000	ng/l	20	02/20/19 04:41	M-04
trans-Nonachlor	ND	100	ng/l	20	02/20/19 04:41	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	58% Conc: 58.4	34-125			02/20/19 04:41	M-04
Tetrachloro-meta-xylene	85% Conc: 85.4	35-111			02/20/19 04:41	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W9A0999	Instr: AA06	Prepared: 01/17/19 10:30		Analyst: mcs	
Ammonia as N	0.24	0.10	mg/l	1	01/18/19 17:27	
Method: EPA 365.3	Batch ID: W9A0923	Instr: UVVIS04	Prepared: 01/16/19 09:46		Analyst: ymt	
o-Phosphate as P	0.084	0.010	mg/l	1	01/16/19 10:53	**
o-Phosphate as P, dissolved	86	10	ug/l	1	01/16/19 10:53	**
Method: EPA 365.3	Batch ID: W9A1080	Instr: UVVIS04	Prepared: 01/18/19 11:50		Analyst: anb	
Phosphorus, Dissolved	0.16	0.010	mg/l	1	01/25/19 14:29	
Method: EPA 365.3	Batch ID: W9A1522	Instr: UVVIS04	Prepared: 01/29/19 15:39		Analyst: anb	
Phosphorus as P, Total	0.21	0.020	mg/l	1	02/04/19 14:21	M-06
Method: SM 2540C	Batch ID: W9A1095	Instr: OVEN01	Prepared: 01/18/19 13:48		Analyst: mcs	
Total Dissolved Solids	ND	10	mg/l	1	01/19/19 09:32	
Method: SM 2540D	Batch ID: W9A1026	Instr: OVEN11	Prepared: 01/17/19 14:34		Analyst: sar	
Total Suspended Solids	31	5	mg/l	1	01/18/19 12:16	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: W9A0855	Instr: ICPO3	Prepared: 01/15/19 16:03		Analyst: mtt	
Calcium, Total	3.70	0.100	mg/l	1	01/29/19 02:40	
Magnesium, Total	0.784	0.100	mg/l	1	01/29/19 02:40	
Method: EPA 200.8	Batch ID: W9A0858	Instr: ICPMS02	Prepared: 01/15/19 16:08		Analyst: jea	
Copper, Total	9.0	0.50	ug/l	1	02/08/19 16:08	
Method: SM 2340B	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/15/19 16:03		Analyst: mtt	
Hardness as CaCO3, Total	12.5	0.662	mg/l	1	01/29/19 02:40	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13		Analyst: EFC	
Allethrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Bifenthrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Cyfluthrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Cypermethrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Deltamethrin/Tralomethrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Dichloran	ND	40	ng/l	20	02/05/19 20:20	M-04



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-4-10
9A14144-04 (Water)

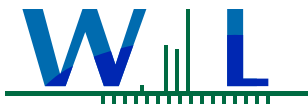
Sampled: 01/14/19 12:45 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W9A1053	Instr: GCMS13	Prepared: 01/18/19 09:13		Analyst: EFC	
Fenpropathrin (Danitol)	ND	40	ng/l	20	02/05/19 20:20	M-04
Fenvalerate/Esfenvalerate	ND	40	ng/l	20	02/05/19 20:20	M-04
L-Cyhalothrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Pendimethalin	ND	40	ng/l	20	02/05/19 20:20	M-04
Permethrin	ND	100	ng/l	20	02/05/19 20:20	M-04
Prallethrin	ND	40	ng/l	20	02/05/19 20:20	M-04
Sumithrin (Phenothrin)	ND	200	ng/l	20	02/05/19 20:20	M-04
Tefluthrin	ND	40	ng/l	20	02/05/19 20:20	M-04
<i>Surrogate(s)</i>						
Perylene-d12	62% Conc: 156	2-205			02/05/19 20:20	M-04
Triphenyl phosphate	101% Conc: 252	6-222			02/05/19 20:20	M-04

Semivolatle Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15		Analyst: EFC	
Azinphos methyl (Guthion)	ND	100	ng/l	1	01/26/19 11:55	M-02
Bolstar	ND	100	ng/l	1	01/26/19 11:55	M-02
Chlorpyrifos	ND	100	ng/l	1	01/26/19 11:55	M-02
Coumaphos	ND	100	ng/l	1	01/26/19 11:55	M-02
Demeton-o	ND	100	ng/l	1	01/26/19 11:55	M-02
Demeton-s	ND	100	ng/l	1	01/26/19 11:55	M-02
Diazinon	ND	100	ng/l	1	01/26/19 11:55	M-02
Dichlorvos	ND	100	ng/l	1	01/26/19 11:55	M-02
Dimethoate	ND	100	ng/l	1	01/26/19 11:55	M-02
Disulfoton	ND	100	ng/l	1	01/26/19 11:55	M-02
Ethoprop	ND	100	ng/l	1	01/26/19 11:55	M-02
Ethyl parathion	ND	100	ng/l	1	01/26/19 11:55	M-02
Fensulfothion	ND	100	ng/l	1	01/26/19 11:55	M-02
Fenthion	ND	100	ng/l	1	01/26/19 11:55	M-02
Malathion	ND	100	ng/l	1	01/26/19 11:55	M-02
Merphos	ND	100	ng/l	1	01/26/19 11:55	M-02
Methyl parathion	ND	100	ng/l	1	01/26/19 11:55	M-02
Mevinphos	ND	100	ng/l	1	01/26/19 11:55	M-02
Naled	ND	100	ng/l	1	01/26/19 11:55	M-02
Phorate	ND	100	ng/l	1	01/26/19 11:55	M-02
Ronnel	ND	100	ng/l	1	01/26/19 11:55	M-02
Stirophos	ND	100	ng/l	1	01/26/19 11:55	M-02
Tokuthion (Prothiofos)	ND	100	ng/l	1	01/26/19 11:55	M-02



WECK LABORATORIES, INC.

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Project Number: Nursery Growers Association #178

Reported:
02/26/2019 16:18

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-4-10
9A14144-04 (Water)

Sampled: 01/14/19 12:45 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)						
Method: EPA 525.2M	Batch ID: W9A0798	Instr: GCMS13	Prepared: 01/15/19 11:15	Analyst: EFC		
Trichloronate	ND	100	ng/l	1	01/26/19 11:55	M-02
<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	111% Conc: 5530	76-128			01/26/19 11:55	M-02
Triphenyl phosphate	133% Conc: 6630	40-163			01/26/19 11:55	M-02



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Ventura, CA 93003

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FINAL REPORT

Project Number: Nursery Growers Association #178

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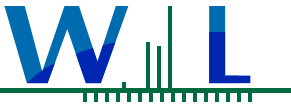
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Project Manager: Scott Jordan

Quality Control Results

Anions by IC, EPA Method 300.0

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0785 - EPA 300.0										
Blank (W9A0785-BLK1)				Prepared & Analyzed: 01/15/19						
Chloride, Total	ND	0.50	mg/l							
NO2+NO3 as N	ND	0.11	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W9A0785-BS1)				Prepared & Analyzed: 01/15/19						
Chloride, Total	20.7	0.50	mg/l	20.0		104	90-110			
NO2+NO3 as N	4.19	0.11	mg/l	4.00		105	90-110			
Sulfate as SO4	18.2	0.50	mg/l	20.0		91	90-110			
Matrix Spike (W9A0785-MS1)				Source: 9A14006-02			Prepared & Analyzed: 01/15/19			
Chloride, Total	230	5.0	mg/l	200	23.6	103	76-118			
NO2+NO3 as N	50.6	1.1	mg/l	40.0	8.28	106	84-115			
Sulfate as SO4	232	5.0	mg/l	200	49.2	92	78-111			
Matrix Spike (W9A0785-MS2)				Source: 9A15001-02			Prepared & Analyzed: 01/15/19			
Chloride, Total	248	5.0	mg/l	200	41.9	103	76-118			
NO2+NO3 as N	42.0	1.1	mg/l	40.0	0.335	104	84-115			
Sulfate as SO4	252	5.0	mg/l	200	67.1	92	78-111			
Matrix Spike Dup (W9A0785-MSD1)				Source: 9A14006-02			Prepared & Analyzed: 01/15/19			
Chloride, Total	230	5.0	mg/l	200	23.6	103	76-118	0.3	20	
NO2+NO3 as N	50.5	1.1	mg/l	40.0	8.28	106	84-115	0.08	20	
Sulfate as SO4	232	5.0	mg/l	200	49.2	91	78-111	0.2	20	
Matrix Spike Dup (W9A0785-MSD2)				Source: 9A15001-02			Prepared & Analyzed: 01/15/19			
Chloride, Total	247	5.0	mg/l	200	41.9	103	76-118	0.08	20	
NO2+NO3 as N	42.1	1.1	mg/l	40.0	0.335	104	84-115	0.2	20	
Sulfate as SO4	252	5.0	mg/l	200	67.1	92	78-111	0.08	20	



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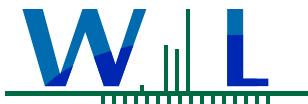
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A1051 - EPA 608										
Blank (W9A1051-BLK1)										
Prepared: 01/21/19 Analyzed: 02/19/19										
2,4'-DDD	ND	5.0	ng/l							
2,4'-DDE	ND	5.0	ng/l							
2,4'-DDT	ND	5.0	ng/l							
4,4'-DDD	ND	5.0	ng/l							
4,4'-DDE	ND	5.0	ng/l							
4,4'-DDT	ND	5.0	ng/l							
Aldrin	ND	5.0	ng/l							
alpha-BHC	ND	5.0	ng/l							
alpha-Chlordane	ND	5.0	ng/l							
Aroclor 1016	ND	100	ng/l							
Aroclor 1221	ND	100	ng/l							
Aroclor 1232	ND	100	ng/l							
Aroclor 1242	ND	100	ng/l							
Aroclor 1248	ND	100	ng/l							
Aroclor 1254	ND	100	ng/l							
Aroclor 1260	ND	100	ng/l							
beta-BHC	ND	5.0	ng/l							
Chlordane (tech)	ND	100	ng/l							
cis-Nonachlor	ND	5.0	ng/l							
delta-BHC	ND	5.0	ng/l							
Dieldrin	ND	5.0	ng/l							
Endosulfan I	ND	5.0	ng/l							
Endosulfan II	ND	5.0	ng/l							
Endosulfan sulfate	ND	5.0	ng/l							
Endrin	ND	5.0	ng/l							
Endrin aldehyde	ND	5.0	ng/l							
gamma-BHC (Lindane)	ND	5.0	ng/l							
gamma-Chlordane	ND	5.0	ng/l							
Heptachlor	ND	5.0	ng/l							
Heptachlor epoxide	ND	5.0	ng/l							
Methoxychlor	ND	5.0	ng/l							
Mirex	ND	5.0	ng/l							
Toxaphene	ND	500	ng/l							
trans-Nonachlor	ND	5.0	ng/l							
<i>Surrogate(s)</i>										
Decachlorobiphenyl	62.9		ng/l	100		63	34-125			
Tetrachloro-meta-xylene	64.8		ng/l	100		65	35-111			
LCS (W9A1051-BS1)										
Prepared: 01/21/19 Analyzed: 02/19/19										
4,4'-DDD	91.2	5.0	ng/l	100		91	42-133			



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Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A1051 - EPA 608 (Continued)										
LCS (W9A1051-BS1)										
				Prepared: 01/21/19 Analyzed: 02/19/19						
4,4'-DDE	86.6	5.0	ng/l	100		87	33-126			
4,4'-DDT	94.5	5.0	ng/l	100		94	35-147			
Aldrin	94.3	5.0	ng/l	100		94	18-117			
alpha-BHC	98.5	5.0	ng/l	100		98	47-119			
beta-BHC	102	5.0	ng/l	100		102	53-123			
delta-BHC	112	5.0	ng/l	100		112	51-123			
Dieldrin	92.5	5.0	ng/l	100		93	48-123			
Endosulfan I	89.9	5.0	ng/l	100		90	14-131			
Endosulfan II	98.1	5.0	ng/l	100		98	40-121			
Endosulfan sulfate	108	5.0	ng/l	100		108	44-140			
Endrin	103	5.0	ng/l	100		103	40-143			
Endrin aldehyde	119	5.0	ng/l	100		119	18-136			
gamma-BHC (Lindane)	98.8	5.0	ng/l	100		99	49-117			
Heptachlor	97.3	5.0	ng/l	100		97	31-130			
Heptachlor epoxide	93.5	5.0	ng/l	100		94	49-122			
<i>Surrogate(s)</i>										
Decachlorobiphenyl	88.2		ng/l	100		88	34-125			
Tetrachloro-meta-xylene	90.0		ng/l	100		90	35-111			
Matrix Spike (W9A1051-MS1)										
		Source: 9A14144-01			Prepared: 01/21/19 Analyzed: 02/19/19					
4,4'-DDD	49.7	100	ng/l	100	ND	50	23-124			M-04
4,4'-DDE	58.6	100	ng/l	100	ND	59	30-114			M-04
4,4'-DDT	113	100	ng/l	100	89.2	24	11-151			M-04
Aldrin	52.1	100	ng/l	100	ND	52	18-110			M-04
alpha-BHC	62.6	100	ng/l	100	ND	63	43-114			M-04
beta-BHC	71.7	100	ng/l	100	ND	72	24-135			M-04
delta-BHC	89.3	100	ng/l	100	ND	89	37-122			M-04
Dieldrin	70.6	100	ng/l	100	ND	71	27-132			M-04
Endosulfan I	57.9	100	ng/l	100	ND	58	0.1-140			M-04
Endosulfan II	52.2	100	ng/l	100	ND	52	17-122			M-04
Endosulfan sulfate	69.5	100	ng/l	100	ND	69	37-131			M-04
Endrin	91.3	100	ng/l	100	ND	91	42-144			M-04
Endrin aldehyde	230	100	ng/l	100	ND	230	11-113			M-04, MS-05
gamma-BHC (Lindane)	70.0	100	ng/l	100	ND	70	33-112			M-04
Heptachlor	300	100	ng/l	100	ND	300	28-131			M-04, MS-05
Heptachlor epoxide	64.2	100	ng/l	100	ND	64	36-117			M-04
<i>Surrogate(s)</i>										
Decachlorobiphenyl	51.2		ng/l	100		51	34-125			M-04
Tetrachloro-meta-xylene	77.6		ng/l	100		78	35-111			M-04



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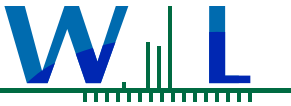
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A1051 - EPA 608 (Continued)										
Matrix Spike Dup (W9A1051-MSD1) Source: 9A14144-01 Prepared: 01/21/19 Analyzed: 02/19/19										
4,4'-DDD	59.5	100	ng/l	100	ND	59	23-124	200	30	M-04
4,4'-DDE	67.8	100	ng/l	100	ND	68	30-114	15	30	M-04
4,4'-DDT	139	100	ng/l	100	89.2	49	11-151	20	30	M-04
Aldrin	57.5	100	ng/l	100	ND	58	18-110	10	30	M-04
alpha-BHC	70.0	100	ng/l	100	ND	70	43-114	11	30	M-04
beta-BHC	85.6	100	ng/l	100	ND	86	24-135	18	30	M-04
delta-BHC	87.2	100	ng/l	100	ND	87	37-122	2	30	M-04
Dieldrin	79.1	100	ng/l	100	ND	79	27-132	11	30	M-04
Endosulfan I	134	100	ng/l	100	ND	134	0.1-140	79	30	MS-05, M-04
Endosulfan II	66.0	100	ng/l	100	ND	66	17-122	23	30	M-04
Endosulfan sulfate	80.6	100	ng/l	100	ND	81	37-131	200	30	M-04
Endrin	103	100	ng/l	100	ND	103	42-144	12	30	M-04
Endrin aldehyde	315	100	ng/l	100	ND	315	11-113	31	30	M-04, MS-05
gamma-BHC (Lindane)	78.5	100	ng/l	100	ND	78	33-112	11	30	M-04
Heptachlor	376	100	ng/l	100	ND	376	28-131	23	30	M-04, MS-05
Heptachlor epoxide	73.5	100	ng/l	100	ND	73	36-117	13	30	M-04
<i>Surrogate(s)</i>										
Decachlorobiphenyl	69.8		ng/l	100		70	34-125			M-04
Tetrachloro-meta-xylene	86.6		ng/l	100		87	35-111			M-04



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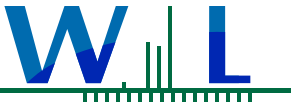
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0898 - SM 2540D										
Blank (W9A0898-BLK1) Prepared: 01/15/19 Analyzed: 01/16/19										
Total Suspended Solids	ND	5	mg/l							
LCS (W9A0898-BS1) Prepared: 01/15/19 Analyzed: 01/16/19										
Total Suspended Solids	61.0	5	mg/l	56.0		109	90-110			
Duplicate (W9A0898-DUP1) Source: 9A15081-01 Prepared: 01/15/19 Analyzed: 01/16/19										
Total Suspended Solids	118	5	mg/l		123			4	20	
Duplicate (W9A0898-DUP2) Source: 9A15081-02 Prepared: 01/15/19 Analyzed: 01/16/19										
Total Suspended Solids	64.0	5	mg/l		59.0			8	20	
Batch: W9A0899 - SM 2540C										
Blank (W9A0899-BLK1) Prepared: 01/15/19 Analyzed: 01/16/19										
Total Dissolved Solids	ND	10	mg/l							
LCS (W9A0899-BS1) Prepared: 01/15/19 Analyzed: 01/16/19										
Total Dissolved Solids	806	10	mg/l	824		98	96-102			
Duplicate (W9A0899-DUP1) Source: 9A09096-04 Prepared: 01/15/19 Analyzed: 01/16/19										
Total Dissolved Solids	1370	10	mg/l		1390			1	10	
Duplicate (W9A0899-DUP2) Source: 9A13004-01 Prepared: 01/15/19 Analyzed: 01/16/19										
Total Dissolved Solids	1370	10	mg/l		1360			0.7	10	
Batch: W9A0923 - EPA 365.3										
Blank (W9A0923-BLK1) Prepared & Analyzed: 01/16/19										
o-Phosphate as P	ND	0.010	mg/l							
o-Phosphate as P, dissolved	ND	10	ug/l							
LCS (W9A0923-BS1) Prepared & Analyzed: 01/16/19										
o-Phosphate as P	0.205	0.010	mg/l	0.200		102	88-111			
o-Phosphate as P, dissolved	205	10	ug/l	200		102	88-111			
Matrix Spike (W9A0923-MS1) Source: 9A14144-04 Prepared & Analyzed: 01/16/19										
o-Phosphate as P	0.284	0.010	mg/l	0.200	0.0840	100	85-112			
o-Phosphate as P, dissolved	288	10	ug/l	200	86.0	101	85-112			
Matrix Spike Dup (W9A0923-MSD1) Source: 9A14144-04 Prepared & Analyzed: 01/16/19										
o-Phosphate as P	0.287	0.010	mg/l	0.200	0.0840	102	85-112	1	20	
o-Phosphate as P, dissolved	283	10	ug/l	200	86.0	98	85-112	2	20	
Batch: W9A0924 - EPA 365.3										
Blank (W9A0924-BLK1) Prepared: 01/16/19 Analyzed: 01/23/19										
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W9A0924-BS1) Prepared: 01/16/19 Analyzed: 01/23/19										
Phosphorus as P, Total	0.188	0.010	mg/l	0.200		94	90-110			
Matrix Spike (W9A0924-MS1) Source: 9A14079-01 Prepared: 01/16/19 Analyzed: 01/23/19										
Phosphorus as P, Total	0.332	0.010	mg/l	0.200	0.143	94	90-110			
Matrix Spike Dup (W9A0924-MSD1) Source: 9A14079-01 Prepared: 01/16/19 Analyzed: 01/23/19										



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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0924 - EPA 365.3 (Continued)										
Matrix Spike Dup (W9A0924-MSD1)										
Phosphorus as P, Total	0.337	0.010	mg/l	0.200	0.143	97	90-110	1	20	
Batch: W9A0960 - SM 2540D										
Blank (W9A0960-BLK1)										
Total Suspended Solids	ND	5	mg/l							
LCS (W9A0960-BS1)										
Total Suspended Solids	55.0	5	mg/l	50.8		108	90-110			
Duplicate (W9A0960-DUP1)										
Total Suspended Solids	4.00	5	mg/l		3.00			200	20	R-03
Duplicate (W9A0960-DUP2)										
Total Suspended Solids	18.0	5	mg/l		19.0			5	20	
Batch: W9A0999 - EPA 350.1										
Blank (W9A0999-BLK1)										
Ammonia as N	ND	0.10	mg/l							
LCS (W9A0999-BS1)										
Ammonia as N	0.253	0.10	mg/l	0.250		101	90-110			
Matrix Spike (W9A0999-MS1)										
Ammonia as N	1.02	0.10	mg/l	0.250	0.778	95	90-110			
Matrix Spike Dup (W9A0999-MSD1)										
Ammonia as N	1.01	0.10	mg/l	0.250	0.778	91	90-110	1	15	
Batch: W9A1026 - SM 2540D										
Blank (W9A1026-BLK1)										
Total Suspended Solids	ND	5	mg/l							
LCS (W9A1026-BS1)										
Total Suspended Solids	66.0	5	mg/l	60.3		109	90-110			
Duplicate (W9A1026-DUP1)										
Total Suspended Solids	9.00	5	mg/l		8.00			12	20	
Duplicate (W9A1026-DUP2)										
Total Suspended Solids	28.0	5	mg/l		25.0			11	20	
Batch: W9A1080 - EPA 365.3										
Blank (W9A1080-BLK1)										
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W9A1080-BS1)										
Phosphorus, Dissolved	0.194	0.010	mg/l	0.200		97	90-110			
Matrix Spike (W9A1080-MS1)										
Phosphorus, Dissolved	0.296	0.010	mg/l	0.200	0.0960	100	90-110			
Matrix Spike (W9A1080-MS2)										
Phosphorus, Dissolved	0.360	0.010	mg/l	0.200	0.155	102	90-110			



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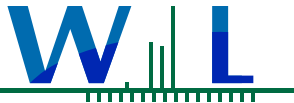
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A1080 - EPA 365.3 (Continued)										
Matrix Spike Dup (W9A1080-MSD1) Source: 9A14119-01 Prepared: 01/18/19 Analyzed: 01/25/19										
Phosphorus, Dissolved	0.298	0.010	mg/l	0.200	0.0960	101	90-110	0.7	20	
Matrix Spike Dup (W9A1080-MSD2) Source: 9A14144-04 Prepared: 01/18/19 Analyzed: 01/25/19										
Phosphorus, Dissolved	0.358	0.010	mg/l	0.200	0.155	102	90-110	0.6	20	
Batch: W9A1095 - SM 2540C										
Blank (W9A1095-BLK1) Prepared: 01/18/19 Analyzed: 01/19/19										
Total Dissolved Solids	ND	10	mg/l							
LCS (W9A1095-BS1) Prepared: 01/18/19 Analyzed: 01/19/19										
Total Dissolved Solids	793	10	mg/l	824		96	96-102			
Duplicate (W9A1095-DUP1) Source: 9A16063-02 Prepared: 01/18/19 Analyzed: 01/19/19										
Total Dissolved Solids	766	10	mg/l		774			1	10	
Duplicate (W9A1095-DUP2) Source: 9A15006-01 Prepared: 01/18/19 Analyzed: 01/19/19										
Total Dissolved Solids	70100	10	mg/l		69900			0.2	10	
Batch: W9A1522 - EPA 365.3										
Blank (W9A1522-BLK1) Prepared: 01/29/19 Analyzed: 02/04/19										
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W9A1522-BS1) Prepared: 01/29/19 Analyzed: 02/04/19										
Phosphorus as P, Total	0.192	0.010	mg/l	0.200		96	90-110			
Matrix Spike (W9A1522-MS1) Source: 9A23046-01 Prepared: 01/29/19 Analyzed: 02/04/19										
Phosphorus as P, Total	0.341	0.010	mg/l	0.200	0.132	104	90-110			
Matrix Spike Dup (W9A1522-MSD1) Source: 9A23046-01 Prepared: 01/29/19 Analyzed: 02/04/19										
Phosphorus as P, Total	0.336	0.010	mg/l	0.200	0.132	102	90-110	1	20	



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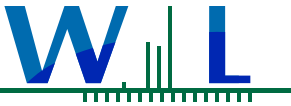
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0855 - EPA 200.7										
Blank (W9A0855-BLK1)				Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	ND	0.100	mg/l							
Magnesium, Total	ND	0.100	mg/l							
LCS (W9A0855-BS1)				Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	51.7	0.100	mg/l	50.2	103		85-115			
Magnesium, Total	50.8	0.100	mg/l	50.2	101		85-115			
Matrix Spike (W9A0855-MS1)				Source: 9A14032-01 Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	55.4	0.100	mg/l	50.2	4.05	102	70-130			
Magnesium, Total	51.3	0.100	mg/l	50.2	0.580	101	70-130			
Matrix Spike (W9A0855-MS2)				Source: 9A14032-02 Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	56.7	0.100	mg/l	50.2	6.50	100	70-130			
Magnesium, Total	50.5	0.100	mg/l	50.2	0.764	99	70-130			
Matrix Spike Dup (W9A0855-MSD1)				Source: 9A14032-01 Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	54.3	0.100	mg/l	50.2	4.05	100	70-130	2	30	
Magnesium, Total	50.1	0.100	mg/l	50.2	0.580	99	70-130	2	30	
Matrix Spike Dup (W9A0855-MSD2)				Source: 9A14032-02 Prepared: 01/15/19 Analyzed: 01/29/19						
Calcium, Total	57.2	0.100	mg/l	50.2	6.50	101	70-130	0.9	30	
Magnesium, Total	51.0	0.100	mg/l	50.2	0.764	100	70-130	1	30	
Batch: W9A0858 - EPA 200.8										
Blank (W9A0858-BLK1)				Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	ND	0.50	ug/l							
Blank (W9A0858-BLK2)				Prepared: 01/15/19 Analyzed: 02/11/19						
Copper, Total	ND	0.50	ug/l							
LCS (W9A0858-BS1)				Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	49.3	0.50	ug/l	49.9	99		85-115			
LCS (W9A0858-BS2)				Prepared: 01/15/19 Analyzed: 02/11/19						
Copper, Total	49.2	0.50	ug/l	49.9	98		85-115			
Matrix Spike (W9A0858-MS1)				Source: 9A14032-03 Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	77.7	0.50	ug/l	49.9	30.4	95	70-130			
Matrix Spike (W9A0858-MS2)				Source: 9A14100-23 Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	50.0	0.50	ug/l	49.9	0.410	99	70-130			
Matrix Spike (W9A0858-MS3)				Source: 9A14100-23 Prepared: 01/15/19 Analyzed: 02/11/19						
Copper, Total	51.9	0.50	ug/l	49.9	0.410	103	70-130			
Matrix Spike Dup (W9A0858-MSD1)				Source: 9A14032-03 Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	77.9	0.50	ug/l	49.9	30.4	95	70-130	0.2	30	
Matrix Spike Dup (W9A0858-MSD2)				Source: 9A14100-23 Prepared: 01/15/19 Analyzed: 02/08/19						
Copper, Total	50.5	0.50	ug/l	49.9	0.410	100	70-130	1	30	
Matrix Spike Dup (W9A0858-MSD3)				Source: 9A14100-23 Prepared: 01/15/19 Analyzed: 02/11/19						
Copper, Total	52.4	0.50	ug/l	49.9	0.410	104	70-130	0.9	30	



WECK LABORATORIES, INC.

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Project Manager: Scott Jordan

Quality Control Results

(Continued)

Pyrethroid Pesticides by EPA 8270M

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A1053 - EPA 8270M										
Blank (W9A1053-BLK1)										
Prepared: 01/18/19 Analyzed: 02/05/19										
Allethrin	ND	2.0	ng/l							
Bifenthrin	ND	2.0	ng/l							
Cyfluthrin	ND	2.0	ng/l							
Cypermethrin	ND	2.0	ng/l							
Deltamethrin/Tralomethrin	ND	2.0	ng/l							
Desulfinylfipronil	ND	2.0	ng/l							
Dichloran	ND	2.0	ng/l							
Fenpropathrin (Danitol)	ND	2.0	ng/l							
Fenvalerate/Esfenvalerate	ND	2.0	ng/l							
Fipronil	ND	2.0	ng/l							
Fipronil sulfide	ND	2.0	ng/l							
Fipronil sulfone	ND	2.0	ng/l							
L-Cyhalothrin	ND	2.0	ng/l							
Pendimethalin	ND	2.0	ng/l							
Permethrin	ND	5.0	ng/l							
Prallethrin	ND	2.0	ng/l							
Sumithrin (Phenothrin)	ND	10	ng/l							
Tefluthrin	ND	2.0	ng/l							
<i>Surrogate(s)</i>										
<i>Perylene-d12</i>	199		ng/l	250		80	2-205			
<i>Triphenyl phosphate</i>	246		ng/l	250		98	6-222			
LCS (W9A1053-BS1)										
Prepared: 01/18/19 Analyzed: 02/05/19										
Allethrin	45.4	2.0	ng/l	50.0		91	50-150			
Bifenthrin	42.6	2.0	ng/l	50.0		85	50-150			
Cyfluthrin	39.0	2.0	ng/l	50.0		78	50-150			
Cypermethrin	40.1	2.0	ng/l	50.0		80	50-150			
Deltamethrin/Tralomethrin	41.9	2.0	ng/l	50.0		84	50-150			
Desulfinylfipronil	45.0	2.0	ng/l	50.0		90	50-150			
Dichloran	34.5	2.0	ng/l	50.0		69	50-150			
Fenpropathrin (Danitol)	48.0	2.0	ng/l	50.0		96	50-150			
Fenvalerate/Esfenvalerate	42.4	2.0	ng/l	50.0		85	50-150			
Fipronil	44.4	2.0	ng/l	50.0		89	50-150			
Fipronil sulfide	41.0	2.0	ng/l	50.0		82	50-150			
Fipronil sulfone	42.4	2.0	ng/l	50.0		85	50-150			
L-Cyhalothrin	40.4	2.0	ng/l	50.0		81	50-150			
Pendimethalin	38.3	2.0	ng/l	50.0		77	50-150			
Permethrin	40.1	5.0	ng/l	50.0		80	50-150			
Prallethrin	46.9	2.0	ng/l	50.0		94	50-150			
Sumithrin (Phenothrin)	43.0	10	ng/l	50.0		86	50-150			



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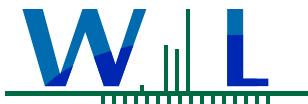
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Pyrethroid Pesticides by EPA 8270M (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A1053 - EPA 8270M (Continued)										
LCS (W9A1053-BS1)										
Prepared: 01/18/19 Analyzed: 02/05/19										
Tefluthrin	33.7	2.0	ng/l	50.0		67	50-150			
<i>Surrogate(s)</i>										
Perylene-d12	205		ng/l	250		82	2-205			
Triphenyl phosphate	250		ng/l	250		100	6-222			
LCS Dup (W9A1053-BSD1)										
Prepared: 01/18/19 Analyzed: 02/05/19										
Allethrin	55.3	2.0	ng/l	50.0		111	50-150	20	50	
Bifenthrin	51.3	2.0	ng/l	50.0		103	50-150	19	50	
Cyfluthrin	47.9	2.0	ng/l	50.0		96	50-150	21	50	
Cypermethrin	49.0	2.0	ng/l	50.0		98	50-150	20	50	
Deltamethrin/Tralomethrin	52.0	2.0	ng/l	50.0		104	50-150	21	50	
Desulfinylfipronil	51.4	2.0	ng/l	50.0		103	50-150	13	50	
Dichloran	41.2	2.0	ng/l	50.0		82	50-150	18	50	
Fenpropathrin (Danitol)	58.2	2.0	ng/l	50.0		116	50-150	19	50	
Fenvalerate/Esfenvalerate	54.4	2.0	ng/l	50.0		109	50-150	25	50	
Fipronil	52.0	2.0	ng/l	50.0		104	50-150	16	50	
Fipronil sulfide	51.3	2.0	ng/l	50.0		103	50-150	22	50	
Fipronil sulfone	49.2	2.0	ng/l	50.0		98	50-150	15	50	
L-Cyhalothrin	47.5	2.0	ng/l	50.0		95	50-150	16	50	
Pendimethalin	46.5	2.0	ng/l	50.0		93	50-150	19	50	
Permethrin	49.6	5.0	ng/l	50.0		99	50-150	21	50	
Prallethrin	55.9	2.0	ng/l	50.0		112	50-150	17	50	
Sumithrin (Phenothrin)	53.8	10	ng/l	50.0		108	50-150	22	50	
Tefluthrin	42.1	2.0	ng/l	50.0		84	50-150	22	50	
<i>Surrogate(s)</i>										
Perylene-d12	239		ng/l	250		95	2-205			
Triphenyl phosphate	328		ng/l	250		131	6-222			



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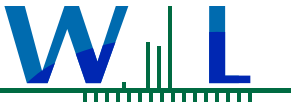
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0798 - EPA 525.2M										
Blank (W9A0798-BLK1)			Prepared: 01/15/19 Analyzed: 01/26/19							
Azinphos methyl (Guthion)	ND	10	ng/l							
Bolstar	ND	10	ng/l							
Chlorpyrifos	ND	10	ng/l							
Coumaphos	ND	10	ng/l							
Demeton-o	ND	10	ng/l							
Demeton-s	ND	10	ng/l							
Diazinon	ND	10	ng/l							
Dichlorvos	ND	10	ng/l							
Dimethoate	ND	10	ng/l							
Disulfoton	ND	10	ng/l							
Ethoprop	ND	10	ng/l							
Ethyl parathion	ND	10	ng/l							
Fensulfothion	ND	10	ng/l							
Fenthion	ND	10	ng/l							
Malathion	ND	10	ng/l							
Merphos	18.8	10	ng/l							B-06
Methyl parathion	ND	10	ng/l							
Mevinphos	ND	10	ng/l							
Naled	ND	10	ng/l							
Phorate	ND	10	ng/l							
Ronnel	ND	10	ng/l							
Stirophos	ND	10	ng/l							
Tokuthion (Prothiofos)	ND	10	ng/l							
Trichloronate	ND	10	ng/l							
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	535		ng/l	500		107	76-128			
Triphenyl phosphate	644		ng/l	500		129	40-163			
LCS (W9A0798-BS1)			Prepared: 01/15/19 Analyzed: 01/29/19							
Azinphos methyl (Guthion)	39.3	10	ng/l	50.0		79	0.1-188			
Bolstar	30.1	10	ng/l	50.0		60	11-166			
Chlorpyrifos	69.1	10	ng/l	50.0		138	37-169			
Coumaphos	41.4	10	ng/l	50.0		83	0.1-225			
Demeton-o	10.4	10	ng/l	50.0		21	0.1-211			
Demeton-s	ND	10	ng/l	50.0			0.1-213			BS-03
Diazinon	53.1	10	ng/l	50.0		106	43-152			
Dichlorvos	52.0	10	ng/l	50.0		104	46-133			
Dimethoate	6.88	10	ng/l	50.0		14	10-234			
Disulfoton	27.0	10	ng/l	50.0		54	0.1-212			
Ethoprop	53.0	10	ng/l	50.0		106	53-163			



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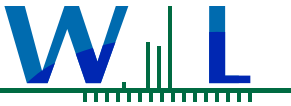
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0798 - EPA 525.2M (Continued)										
LCS (W9A0798-BS1)				Prepared: 01/15/19 Analyzed: 01/29/19						
Ethyl parathion	73.1	10	ng/l	50.0	146	7-230				
Fensulfothion	5.19	10	ng/l	50.0	10	0.1-265				
Fenthion	34.7	10	ng/l	50.0	69	20-177				
Malathion	62.8	10	ng/l	50.0	126	14-175				
Merphos	109	10	ng/l	50.0	218	28-181				Q-08
Methyl parathion	72.0	10	ng/l	50.0	144	0.1-252				
Mevinphos	12.1	10	ng/l	50.0	24	14-202				
Naled	49.3	10	ng/l	50.0	99	0.1-240				
Phorate	47.0	10	ng/l	50.0	94	26-180				
Ronnel	60.1	10	ng/l	50.0	120	34-154				
Stirophos	64.8	10	ng/l	50.0	130	0.1-188				
Tokuthion (Prothiofos)	48.2	10	ng/l	50.0	96	23-159				
Trichloronate	59.2	10	ng/l	50.0	118	34-153				
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	544		ng/l	500	109	76-128				
Triphenyl phosphate	635		ng/l	500	127	40-163				
Matrix Spike (W9A0798-MS1)				Source: 9A15012-01			Prepared: 01/15/19 Analyzed: 01/26/19			
Azinphos methyl (Guthion)	83.7	10	ng/l	50.0	ND	167	0.1-154			MS-05
Bolstar	48.5	10	ng/l	50.0	ND	97	4-184			
Chlorpyrifos	55.3	10	ng/l	50.0	ND	111	37-168			
Coumaphos	59.5	10	ng/l	50.0	ND	119	0.1-203			
Demeton-o	24.8	10	ng/l	50.0	ND	50	0.1-208			
Demeton-s	73.6	10	ng/l	50.0	ND	147	0.1-207			
Diazinon	50.0	10	ng/l	50.0	ND	100	36-153			
Dichlorvos	61.1	10	ng/l	50.0	ND	122	42-137			
Dimethoate	144	10	ng/l	50.0	ND	288	4-222			MS-05
Disulfoton	59.3	10	ng/l	50.0	ND	119	12-199			
Ethoprop	62.5	10	ng/l	50.0	ND	125	51-167			
Ethyl parathion	61.6	10	ng/l	50.0	ND	123	5-229			
Fensulfothion	164	10	ng/l	50.0	ND	328	0.1-316			MS-05
Fenthion	57.5	10	ng/l	50.0	ND	115	23-169			
Malathion	60.5	10	ng/l	50.0	ND	121	6-184			
Merphos	140	10	ng/l	50.0	ND	280	3-210			Q-08
Methyl parathion	66.7	10	ng/l	50.0	ND	133	0.1-249			
Mevinphos	62.8	10	ng/l	50.0	ND	126	25-189			
Naled	95.1	10	ng/l	50.0	ND	190	0.1-242			
Phorate	62.0	10	ng/l	50.0	ND	124	31-181			
Ronnel	53.7	10	ng/l	50.0	ND	107	29-153			
Stirophos	68.7	10	ng/l	50.0	ND	137	0.1-167			



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Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0798 - EPA 525.2M (Continued)										
Matrix Spike (W9A0798-MS1)			Source: 9A15012-01			Prepared: 01/15/19 Analyzed: 01/26/19				
Tokuthion (Prothiofos)	53.8	10	ng/l	50.0	ND	108	27-160			
Trichloronate	46.0	10	ng/l	50.0	ND	92	40-150			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	547		ng/l	500		109	76-128			
Triphenyl phosphate	649		ng/l	500		130	40-163			
Matrix Spike Dup (W9A0798-MSD1)			Source: 9A15012-01			Prepared: 01/15/19 Analyzed: 01/26/19				
Azinphos methyl (Guthion)	79.0	10	ng/l	50.0	ND	158	0.1-154	6	30	MS-05
Bolstar	48.9	10	ng/l	50.0	ND	98	4-184	0.8	30	
Chlorpyrifos	56.3	10	ng/l	50.0	ND	113	37-168	2	30	
Coumaphos	52.8	10	ng/l	50.0	ND	106	0.1-203	12	30	
Demeton-o	23.8	10	ng/l	50.0	ND	48	0.1-208	4	30	
Demeton-s	67.5	10	ng/l	50.0	ND	135	0.1-207	9	30	
Diazinon	44.2	10	ng/l	50.0	ND	88	36-153	12	30	
Dichlorvos	57.7	10	ng/l	50.0	ND	115	42-137	6	30	
Dimethoate	133	10	ng/l	50.0	ND	266	4-222	8	30	MS-05
Disulfoton	60.3	10	ng/l	50.0	ND	121	12-199	2	30	
Ethoprop	62.0	10	ng/l	50.0	ND	124	51-167	0.8	30	
Ethyl parathion	62.6	10	ng/l	50.0	ND	125	5-229	2	30	
Fensulfothion	145	10	ng/l	50.0	ND	290	0.1-316	12	30	
Fenthion	62.7	10	ng/l	50.0	ND	125	23-169	9	30	
Malathion	63.2	10	ng/l	50.0	ND	126	6-184	4	30	
Merphos	136	10	ng/l	50.0	ND	272	3-210	3	30	Q-08
Methyl parathion	67.1	10	ng/l	50.0	ND	134	0.1-249	0.6	30	
Mevinphos	55.2	10	ng/l	50.0	ND	110	25-189	13	30	
Naled	93.9	10	ng/l	50.0	ND	188	0.1-242	1	30	
Phorate	60.2	10	ng/l	50.0	ND	120	31-181	3	30	
Ronnel	52.2	10	ng/l	50.0	ND	104	29-153	3	30	
Stirophos	71.2	10	ng/l	50.0	ND	142	0.1-167	4	30	
Tokuthion (Prothiofos)	52.4	10	ng/l	50.0	ND	105	27-160	3	30	
Trichloronate	47.4	10	ng/l	50.0	ND	95	40-150	3	30	
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	534		ng/l	500		107	76-128			
Triphenyl phosphate	676		ng/l	500		135	40-163			

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Notes and Definitions

Item	Definition
**	The recommended holding time for field filtering is only 15 minutes. The sample was filtered as soon as possible but it was filtered past holding time. However, the sample was analyzed within holding time.
B-06	This analyte was found in the method blank, which was possibly contaminated during sample preparation. The batch was accepted since this analyte was either not detected or more than 10 times of the blank value for all the samples in the batch.
BS-03	The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
E-01	The concentration indicated for this analyte is an estimated value above the calibration range.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
M-04	Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
O-21	This sample was analyzed 1 hour past the EPA recommended holding time.
Q-08	High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.
R-03	The RPD is not applicable for result below the reporting limit (either ND or J value).
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Work Orders: 8K29062

Report Date: 1/21/2019

Project: Nursery Growers Association #178

Received Date: 11/29/2018

Turnaround Time: Normal

Phones: (805) 933-1770

Fax:

Attn: Scott Jordan

P.O. #:

Client: Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Billing Code:

ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH # • ISO 17025 #L2457.01 • LACSD #10143 •
NELAP-CA #04229CA • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Scott Jordan,

Enclosed are the results of analyses for samples received 11/29/18 with the Chain-of-Custody document. The samples were received in good condition, at 5.5 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Chris Samatmanakit
Project Manager





Certificate of Analysis

FINAL REPORT

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Project Number: Nursery Growers Association #178

Reported:
01/21/2019 11:03

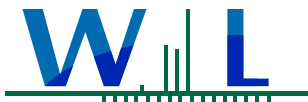
Project Manager: Scott Jordan

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
LAILG-NGA-EB	Scott Jordan	8K29062-01	Water	11/29/18 05:00	
LAILG-NGA-178-5	Scott Jordan	8K29062-02	Water	11/29/18 05:55	
LAILG-NGA-124-10	Scott Jordan	8K29062-03	Water	11/29/18 07:25	
LAILG-NGA-158-2	Scott Jordan	8K29062-04	Water	11/29/18 08:20	
LAILG-NGA-FB	Scott Jordan	8K29062-05	Water	11/29/18 10:00	
LAILG-NGA-202-3	Scott Jordan	8K29062-06	Water	11/29/18 10:35	
LAILG-NGA-DUP	Scott Jordan	8K29062-07	Water	11/29/18 00:00	

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	By ANAB
EPA 8270M in Water			
Dichloran	99-30-9	✓	
Tefluthrin	79538-32-2	✓	
Pendimethalin	40487-42-1	✓	
Allethrin	584-79-2	✓	
Prallethrin	23031-36-9	✓	
Bifenthrin	82657-04-3	✓	
Sumithrin (Phenothrin)	26002-80-2	✓	
L-Cyhalothrin	91465-08-6	✓	
Permethrin	52645-53-1	✓	
Cyfluthrin	68359-37-5	✓	
Cypermethrin	52315-07-8	✓	
Fenvalerate/Esfenvalerate	51630-58-1	✓	
Deltamethrin/Tralomethrin	52820-00-5	✓	
Fenpropathrin (Danitol)	39515-41-8	✓	
Triphenyl phosphate	115-86-6	✓	
Perylene-d12	1520-96-3	✓	



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

Sample: LAILG-NGA-EB
8K29062-01 (Water)

Sampled: 11/29/18 5:00 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Anions by IC, EPA Method 300.0

Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan	
Chloride, Total	ND	0.50	mg/l	1	11/30/18 11:59
NO2+NO3 as N	ND	0.11	mg/l	1	11/30/18 11:59
Sulfate as SO4	ND	0.50	mg/l	1	11/30/18 11:59

Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm	
2,4'-DDD	ND	5.0	ng/l	1	12/27/18 03:06
2,4'-DDE	ND	5.0	ng/l	1	12/27/18 03:06
2,4'-DDT	ND	5.0	ng/l	1	12/27/18 03:06
4,4'-DDD	ND	5.0	ng/l	1	12/27/18 03:06
4,4'-DDE	ND	5.0	ng/l	1	12/27/18 03:06
4,4'-DDT	ND	5.0	ng/l	1	12/27/18 03:06
Aldrin	ND	5.0	ng/l	1	12/27/18 03:06
alpha-BHC	ND	5.0	ng/l	1	12/27/18 03:06
alpha-Chlordane	ND	5.0	ng/l	1	12/27/18 03:06
Aroclor 1016	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1221	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1232	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1242	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1248	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1254	ND	100	ng/l	1	12/27/18 03:06
Aroclor 1260	ND	100	ng/l	1	12/27/18 03:06
beta-BHC	ND	5.0	ng/l	1	12/27/18 03:06
Chlordane (tech)	ND	100	ng/l	1	12/27/18 03:06
cis-Nonachlor	ND	5.0	ng/l	1	12/27/18 03:06
delta-BHC	ND	5.0	ng/l	1	12/27/18 03:06
Dieldrin	ND	5.0	ng/l	1	12/27/18 03:06
Endosulfan I	ND	5.0	ng/l	1	12/27/18 03:06
Endosulfan II	ND	5.0	ng/l	1	12/27/18 03:06
Endosulfan sulfate	ND	5.0	ng/l	1	12/27/18 03:06
Endrin	ND	5.0	ng/l	1	12/27/18 03:06
Endrin aldehyde	ND	5.0	ng/l	1	12/27/18 03:06
gamma-BHC (Lindane)	ND	5.0	ng/l	1	12/27/18 03:06
gamma-Chlordane	ND	5.0	ng/l	1	12/27/18 03:06
Heptachlor	ND	5.0	ng/l	1	12/27/18 03:06
Heptachlor epoxide	ND	5.0	ng/l	1	12/27/18 03:06
Methoxychlor	ND	5.0	ng/l	1	12/27/18 03:06



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-EB
8K29062-01 (Water) Sampled: 11/29/18 5:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm	
Mirex	ND	5.0	ng/l	1 12/27/18 03:06	
Toxaphene	ND	500	ng/l	1 12/27/18 03:06	
trans-Nonachlor	ND	5.0	ng/l	1 12/27/18 03:06	
<i>Surrogate(s)</i>					
Decachlorobiphenyl	38% Conc: 37.6	34-125		12/27/18 03:06	
Tetrachloro-meta-xylene	36% Conc: 35.9	35-111		12/27/18 03:06	

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

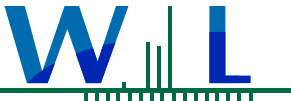
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18	Analyst: mcs
Ammonia as N	ND	0.10	mg/l	1 12/06/18 18:08
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19	Analyst: YMT
o-Phosphate as P	ND	0.0020	mg/l	1 11/30/18 13:04 *
o-Phosphate as P, dissolved	ND	2.0	ug/l	1 11/30/18 13:05 *
Method: EPA 365.1	Batch ID: W8K1598	Instr: AA01	Prepared: 11/30/18 14:30	Analyst: YMT
Phosphorus, Dissolved	ND	0.010	mg/l	1 12/18/18 18:45
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22	Analyst: YMT
Phosphorus as P, Total	ND	0.010	mg/l	1 12/19/18 18:15
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03	Analyst: nll
Total Dissolved Solids	19	10	mg/l	1 12/05/18 15:14
Method: SM 2540D	Batch ID: W8K1505	Instr: OVEN11	Prepared: 11/29/18 13:40	Analyst: sar
Total Suspended Solids	ND	5	mg/l	1 12/01/18 17:50

Metals by EPA 200 Series Methods

Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19	Analyst: JCK
Calcium Hardness as CaCO3	0.372	0.250	mg/l	1 12/05/18 17:48
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19	Analyst: JCK
Calcium, Total	0.149	0.100	mg/l	1 12/05/18 17:48
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16	Analyst: rrl
Copper, Total	1.4	0.50	ug/l	1 12/10/18 16:28

Pyrethroid Pesticides by EPA 8270M

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC
Allethrin	ND	2.0	ng/l	1 01/07/19 21:18
Bifenthrin	3.0	2.0	ng/l	1 01/07/19 21:18
Cyfluthrin	ND	2.0	ng/l	1 01/07/19 21:18
Cypermethrin	ND	2.0	ng/l	1 01/07/19 21:18
Deltamethrin/Tralomethrin	ND	2.0	ng/l	1 01/07/19 21:18
Dichloran	ND	2.0	ng/l	1 01/07/19 21:18
Fenpropathrin (Danitol)	ND	2.0	ng/l	1 01/07/19 21:18



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-EB
8K29062-01 (Water)

Sampled: 11/29/18 5:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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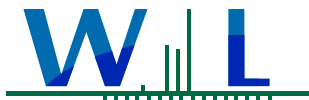
Pyrethroid Pesticides by EPA 8270M (Continued)

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC	
Fenvalerate/Esfenvalerate	ND	2.0	ng/l	1	01/07/19 21:18
L-Cyhalothrin	ND	2.0	ng/l	1	01/07/19 21:18
Pendimethalin	ND	2.0	ng/l	1	01/07/19 21:18
Permethrin	ND	5.0	ng/l	1	01/07/19 21:18
Prallethrin	ND	2.0	ng/l	1	01/07/19 21:18
Sumithrin (Phenothrin)	ND	10	ng/l	1	01/07/19 21:18
Tefluthrin	ND	2.0	ng/l	1	01/07/19 21:18

Surrogate(s)	Result	MRL	Units	Dil	Analyzed	Qualifier
Perylene-d12	196% Conc: 489	2-205			01/07/19 21:18	
Triphenyl phosphate	191% Conc: 477	6-222			01/07/19 21:18	

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC	
Azinphos methyl (Guthion)	ND	10	ng/l	1	12/19/18 16:19
Bolstar	ND	10	ng/l	1	12/19/18 16:19
Chlorpyrifos	ND	10	ng/l	1	12/19/18 16:19
Coumaphos	ND	10	ng/l	1	12/19/18 16:19
Demeton-o	ND	10	ng/l	1	12/19/18 16:19
Demeton-s	ND	10	ng/l	1	12/19/18 16:19
Diazinon	ND	10	ng/l	1	12/19/18 16:19
Dichlorvos	ND	10	ng/l	1	12/19/18 16:19
Dimethoate	ND	10	ng/l	1	12/19/18 16:19
Disulfoton	ND	10	ng/l	1	12/19/18 16:19
Ethoprop	ND	10	ng/l	1	12/19/18 16:19
Ethyl parathion	ND	10	ng/l	1	12/19/18 16:19
Fensulfothion	ND	10	ng/l	1	12/19/18 16:19
Fenthion	ND	10	ng/l	1	12/19/18 16:19
Malathion	ND	10	ng/l	1	12/19/18 16:19
Merphos	ND	10	ng/l	1	12/19/18 16:19
Methyl parathion	ND	10	ng/l	1	12/19/18 16:19
Mevinphos	ND	10	ng/l	1	12/19/18 16:19
Naled	ND	10	ng/l	1	12/19/18 16:19
Phorate	ND	10	ng/l	1	12/19/18 16:19
Ronnel	ND	10	ng/l	1	12/19/18 16:19
Stirophos	ND	10	ng/l	1	12/19/18 16:19
Tokuthion (Prothiofos)	ND	10	ng/l	1	12/19/18 16:19
Trichloronate	ND	10	ng/l	1	12/19/18 16:19



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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-EB
8K29062-01 (Water)

Sampled: 11/29/18 5:00 by Scott Jordan

(Continued)

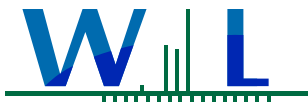
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M **Batch ID:** W8L0876 **Instr:** GCMS13 **Prepared:** 12/13/18 08:33 **Analyst:** EFC

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	92%	Conc: 458	76-128		12/19/18 16:19	
Triphenyl phosphate	109%	Conc: 545	40-163		12/19/18 16:19	



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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

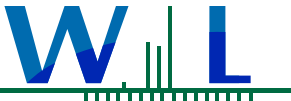
Sample: LAILG-NGA-178-5
8K29062-02 (Water)

Sampled: 11/29/18 5:55 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan		
Chloride, Total	290	1.5	mg/l	3	11/30/18 18:53	
NO2+NO3 as N	17	0.34	mg/l	3	11/30/18 18:53	
Sulfate as SO4	250	1.5	mg/l	3	11/30/18 18:53	

Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
2,4'-DDD	ND	50	ng/l	10	12/27/18 03:36	M-04
2,4'-DDE	ND	50	ng/l	10	12/27/18 03:36	M-04
2,4'-DDT	ND	50	ng/l	10	12/27/18 03:36	M-04
4,4'-DDD	ND	50	ng/l	10	12/27/18 03:36	M-04
4,4'-DDE	ND	50	ng/l	10	12/27/18 03:36	M-04
4,4'-DDT	ND	50	ng/l	10	12/27/18 03:36	M-04
Aldrin	ND	50	ng/l	10	12/27/18 03:36	M-04
alpha-BHC	ND	50	ng/l	10	12/27/18 03:36	M-04
alpha-Chlordane	ND	50	ng/l	10	12/27/18 03:36	M-04
Aroclor 1016	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1221	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1232	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1242	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1248	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1254	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
Aroclor 1260	ND	5000	ng/l	10	12/27/18 03:36	M-04, R-01
beta-BHC	ND	50	ng/l	10	12/27/18 03:36	M-04
Chlordane (tech)	ND	1000	ng/l	10	12/27/18 03:36	M-04
cis-Nonachlor	ND	50	ng/l	10	12/27/18 03:36	M-04
delta-BHC	ND	50	ng/l	10	12/27/18 03:36	M-04
Dieldrin	ND	50	ng/l	10	12/27/18 03:36	M-04
Endosulfan I	ND	50	ng/l	10	12/27/18 03:36	M-04
Endosulfan II	ND	50	ng/l	10	12/27/18 03:36	M-04
Endosulfan sulfate	ND	50	ng/l	10	12/27/18 03:36	M-04
Endrin	ND	50	ng/l	10	12/27/18 03:36	M-04
Endrin aldehyde	ND	50	ng/l	10	12/27/18 03:36	M-04
gamma-BHC (Lindane)	ND	50	ng/l	10	12/27/18 03:36	M-04
gamma-Chlordane	ND	50	ng/l	10	12/27/18 03:36	M-04
Heptachlor	ND	50	ng/l	10	12/27/18 03:36	M-04
Heptachlor epoxide	ND	50	ng/l	10	12/27/18 03:36	M-04
Methoxychlor	ND	50	ng/l	10	12/27/18 03:36	M-04



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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-178-5
8K29062-02 (Water) Sampled: 11/29/18 5:55 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
Mirex	ND	50	ng/l	10	12/27/18 03:36	M-04
Toxaphene	ND	5000	ng/l	10	12/27/18 03:36	M-04
trans-Nonachlor	ND	50	ng/l	10	12/27/18 03:36	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	44% Conc: 44.4	34-125			12/27/18 03:36	M-04
Tetrachloro-meta-xylene	61% Conc: 61.1	35-111			12/27/18 03:36	M-04

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

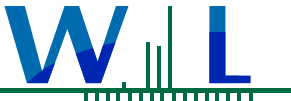
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18	Analyst: mcs		
Ammonia as N	3.6	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19	Analyst: YMT		
o-Phosphate as P	2.3	0.040	mg/l	20	11/30/18 13:15	*
o-Phosphate as P, dissolved	2300	40	ug/l	20	11/30/18 13:28	*
Method: EPA 365.1	Batch ID: W8K1598	Instr: AA01	Prepared: 11/30/18 14:30	Analyst: YMT		
Phosphorus, Dissolved	2.4	0.25	mg/l	5	12/18/18 19:19	
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22	Analyst: YMT		
Phosphorus as P, Total	2.8	0.25	mg/l	5	12/19/18 18:16	M-06
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03	Analyst: nll		
Total Dissolved Solids	1300	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8K1505	Instr: OVEN11	Prepared: 11/29/18 13:40	Analyst: sar		
Total Suspended Solids	160	5	mg/l	1	12/01/18 17:50	

Metals by EPA 200 Series Methods

Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium Hardness as CaCO3	242	0.250	mg/l	1	12/05/18 17:51	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium, Total	96.8	0.100	mg/l	1	12/05/18 17:51	
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16	Analyst: rrl		
Copper, Total	42	0.50	ug/l	1	12/10/18 16:33	

Pyrethroid Pesticides by EPA 8270M

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Allethrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Bifenthrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Cyfluthrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Cypermethrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Deltamethrin/Tralomethrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Dichloran	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Fenpropathrin (Danitol)	ND	4.0	ng/l	2	01/07/19 21:46	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-178-5
8K29062-02 (Water)

Sampled: 11/29/18 5:55 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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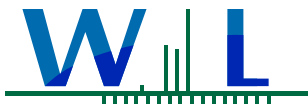
Pyrethroid Pesticides by EPA 8270M (Continued)

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Fenvalerate/Esfenvalerate	ND	4.0	ng/l	2	01/07/19 21:46	M-04
L-Cyhalothrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Pendimethalin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Permethrin	ND	10	ng/l	2	01/07/19 21:46	M-04
Prallethrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04
Sumithrin (Phenothrin)	ND	20	ng/l	2	01/07/19 21:46	M-04
Tefluthrin	ND	4.0	ng/l	2	01/07/19 21:46	M-04

Surrogate(s)	Result	MRL	Units	Dil	Analyzed	Qualifier
Perylene-d12	44% Conc: 110	2-205			01/07/19 21:46	M-04
Triphenyl phosphate	52% Conc: 131	6-222			01/07/19 21:46	M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC		
Azinphos methyl (Guthion)	ND	20	ng/l	1	12/19/18 16:44	M-02
Bolstar	ND	20	ng/l	1	12/19/18 16:44	M-02
Chlorpyrifos	ND	20	ng/l	1	12/19/18 16:44	M-02
Coumaphos	ND	20	ng/l	1	12/19/18 16:44	M-02
Demeton-o	ND	20	ng/l	1	12/19/18 16:44	M-02
Demeton-s	ND	20	ng/l	1	12/19/18 16:44	M-02
Diazinon	ND	20	ng/l	1	12/19/18 16:44	M-02
Dichlorvos	ND	20	ng/l	1	12/19/18 16:44	M-02
Dimethoate	ND	20	ng/l	1	12/19/18 16:44	M-02
Disulfoton	ND	20	ng/l	1	12/19/18 16:44	M-02
Ethoprop	ND	20	ng/l	1	12/19/18 16:44	M-02
Ethyl parathion	ND	20	ng/l	1	12/19/18 16:44	M-02
Fensulfothion	ND	20	ng/l	1	12/19/18 16:44	M-02
Fenthion	ND	20	ng/l	1	12/19/18 16:44	M-02
Malathion	ND	20	ng/l	1	12/19/18 16:44	M-02
Merphos	ND	20	ng/l	1	12/19/18 16:44	M-02
Methyl parathion	ND	20	ng/l	1	12/19/18 16:44	M-02
Mevinphos	ND	20	ng/l	1	12/19/18 16:44	M-02
Naled	ND	20	ng/l	1	12/19/18 16:44	M-02
Phorate	ND	20	ng/l	1	12/19/18 16:44	M-02
Ronnel	ND	20	ng/l	1	12/19/18 16:44	M-02
Stirophos	ND	20	ng/l	1	12/19/18 16:44	M-02
Tokuthion (Prothiofos)	ND	20	ng/l	1	12/19/18 16:44	M-02
Trichloronate	ND	20	ng/l	1	12/19/18 16:44	M-02



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-178-5
8K29062-02 (Water)

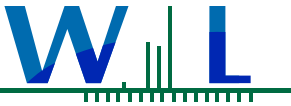
Sampled: 11/29/18 5:55 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC
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Surrogate(s)	Result	MRL	Units	Analyzed	Qualifier
1,3-Dimethyl-2-nitrobenzene	79% Conc: 794	76-128		12/19/18 16:44	M-02
Triphenyl phosphate	128% Conc: 1280	40-163		12/19/18 16:44	M-02



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Pacific Ridgeline - Ventura CA
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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-124-10
8K29062-03 (Water)

Sampled: 11/29/18 7:25 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan		
Chloride, Total	44	0.50	mg/l	1	11/30/18 12:35	
NO2+NO3 as N	28	0.56	mg/l	5	12/01/18 09:32	O-11
Sulfate as SO4	140	0.50	mg/l	1	11/30/18 12:35	

Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
2,4'-DDD	ND	100	ng/l	20	12/27/18 04:07	M-04
2,4'-DDE	ND	100	ng/l	20	12/27/18 04:07	M-04
2,4'-DDT	ND	100	ng/l	20	12/27/18 04:07	M-04
4,4'-DDD	ND	100	ng/l	20	12/27/18 04:07	M-04
4,4'-DDE	ND	100	ng/l	20	12/27/18 04:07	M-04
4,4'-DDT	ND	100	ng/l	20	12/27/18 04:07	M-04
Aldrin	ND	100	ng/l	20	12/27/18 04:07	M-04
alpha-BHC	ND	100	ng/l	20	12/27/18 04:07	M-04
alpha-Chlordane	ND	100	ng/l	20	12/27/18 04:07	M-04
Aroclor 1016	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1221	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1232	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1242	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1248	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1254	ND	2000	ng/l	20	12/27/18 04:07	M-04
Aroclor 1260	ND	2000	ng/l	20	12/27/18 04:07	M-04
beta-BHC	ND	100	ng/l	20	12/27/18 04:07	M-04
Chlordane (tech)	ND	2000	ng/l	20	12/27/18 04:07	M-04
cis-Nonachlor	ND	100	ng/l	20	12/27/18 04:07	M-04
delta-BHC	ND	100	ng/l	20	12/27/18 04:07	M-04
Dieldrin	ND	100	ng/l	20	12/27/18 04:07	M-04
Endosulfan I	ND	100	ng/l	20	12/27/18 04:07	M-04
Endosulfan II	ND	100	ng/l	20	12/27/18 04:07	M-04
Endosulfan sulfate	ND	100	ng/l	20	12/27/18 04:07	M-04
Endrin	ND	100	ng/l	20	12/27/18 04:07	M-04
Endrin aldehyde	ND	100	ng/l	20	12/27/18 04:07	M-04
gamma-BHC (Lindane)	ND	100	ng/l	20	12/27/18 04:07	M-04
gamma-Chlordane	ND	100	ng/l	20	12/27/18 04:07	M-04
Heptachlor	ND	100	ng/l	20	12/27/18 04:07	M-04
Heptachlor epoxide	ND	100	ng/l	20	12/27/18 04:07	M-04
Methoxychlor	ND	100	ng/l	20	12/27/18 04:07	M-04

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-124-10
8K29062-03 (Water)

Sampled: 11/29/18 7:25 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54		Analyst: adm	
Mirex	ND	100	ng/l	20	12/27/18 04:07	M-04
Toxaphene	ND	10000	ng/l	20	12/27/18 04:07	M-04
trans-Nonachlor	ND	100	ng/l	20	12/27/18 04:07	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	36% Conc: 36.1	34-125			12/27/18 04:07	M-04
Tetrachloro-meta-xylene	47% Conc: 47.1	35-111			12/27/18 04:07	M-04

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

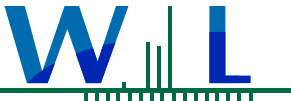
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18		Analyst: mcs	
Ammonia as N	1.1	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19		Analyst: YMT	
o-Phosphate as P	1.8	0.020	mg/l	10	11/30/18 14:12	*
o-Phosphate as P, dissolved	1800	20	ug/l	10	11/30/18 14:13	*
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22		Analyst: YMT	
Phosphorus as P, Total	0.28	0.040	mg/l	4	12/19/18 18:17	M-06
Method: EPA 365.1	Batch ID: W8L1378	Instr: AA01	Prepared: 12/20/18 15:20		Analyst: YMT	
Phosphorus, Dissolved	1.9	0.10	mg/l	1	12/26/18 12:52	M-06
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03		Analyst: nll	
Total Dissolved Solids	610	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8L0075	Instr: OVEN11	Prepared: 12/03/18 14:19		Analyst: sar	
Total Suspended Solids	420	5	mg/l	1	12/03/18 18:38	

Metals by EPA 200 Series Methods

Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium Hardness as CaCO3	186	0.250	mg/l	1	12/05/18 17:54	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium, Total	74.7	0.100	mg/l	1	12/05/18 17:54	
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16		Analyst: rrl	
Copper, Total	120	1.0	ug/l	2	12/10/18 18:39	

Pyrethroid Pesticides by EPA 8270M

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58		Analyst: EFC	
Allethrin	ND	40	ng/l	20	01/07/19 22:13	M-04
Bifenthrin	1700	40	ng/l	20	01/07/19 22:13	M-04
Cyfluthrin	110	40	ng/l	20	01/07/19 22:13	M-04
Cypermethrin	ND	40	ng/l	20	01/07/19 22:13	M-04
Deltamethrin/Tralomethrin	ND	40	ng/l	20	01/07/19 22:13	M-04
Dichloran	ND	40	ng/l	20	01/07/19 22:13	M-04
Fenpropathrin (Danitol)	ND	40	ng/l	20	01/07/19 22:13	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-124-10
8K29062-03 (Water)

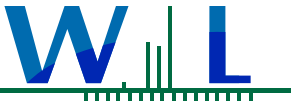
Sampled: 11/29/18 7:25 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Fenvalerate/Esfenvalerate	ND	40	ng/l	20	01/07/19 22:13	M-04
L-Cyhalothrin	ND	40	ng/l	20	01/07/19 22:13	M-04
Pendimethalin	85	40	ng/l	20	01/07/19 22:13	M-04
Permethrin	ND	100	ng/l	20	01/07/19 22:13	M-04
Prallethrin	ND	40	ng/l	20	01/07/19 22:13	M-04
Sumithrin (Phenothrin)	ND	200	ng/l	20	01/07/19 22:13	M-04
Tefluthrin	ND	40	ng/l	20	01/07/19 22:13	M-04
<i>Surrogate(s)</i>						
Perylene-d12	106% Conc: 265	2-205			01/07/19 22:13	M-04
Triphenyl phosphate	107% Conc: 268	6-222			01/07/19 22:13	M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC		
Azinphos methyl (Guthion)	ND	20	ng/l	1	12/20/18 10:36	I-05, M-02
Bolstar	ND	20	ng/l	1	12/20/18 10:36	I-05, M-02
Chlorpyrifos	ND	20	ng/l	1	12/20/18 10:36	M-02
Coumaphos	ND	20	ng/l	1	12/20/18 10:36	I-05, M-02
Demeton-o	ND	20	ng/l	1	12/20/18 10:36	M-02
Demeton-s	ND	20	ng/l	1	12/20/18 10:36	M-02
Diazinon	ND	20	ng/l	1	12/20/18 10:36	M-02
Dichlorvos	ND	20	ng/l	1	12/20/18 10:36	M-02
Dimethoate	ND	20	ng/l	1	12/20/18 10:36	M-02
Disulfoton	ND	20	ng/l	1	12/20/18 10:36	M-02
Ethoprop	ND	20	ng/l	1	12/20/18 10:36	M-02
Ethyl parathion	ND	20	ng/l	1	12/20/18 10:36	M-02
Fensulfothion	ND	20	ng/l	1	12/20/18 10:36	I-05, M-02
Fenthion	ND	20	ng/l	1	12/20/18 10:36	M-02
Malathion	ND	20	ng/l	1	12/20/18 10:36	M-02
Merphos	ND	20	ng/l	1	12/20/18 10:36	I-05, M-02
Methyl parathion	ND	20	ng/l	1	12/20/18 10:36	M-02
Mevinphos	ND	20	ng/l	1	12/20/18 10:36	M-02
Naled	ND	20	ng/l	1	12/20/18 10:36	M-02
Phorate	ND	20	ng/l	1	12/20/18 10:36	M-02
Ronnel	ND	20	ng/l	1	12/20/18 10:36	M-02
Stirophos	ND	20	ng/l	1	12/20/18 10:36	M-02
Tokuthion (Prothiofos)	ND	20	ng/l	1	12/20/18 10:36	M-02, I-05
Trichloronate	ND	20	ng/l	1	12/20/18 10:36	M-02



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-124-10
8K29062-03 (Water)

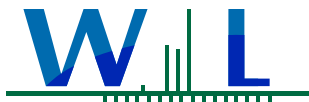
Sampled: 11/29/18 7:25 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M **Batch ID:** W8L0876 **Instr:** GCMS13 **Prepared:** 12/13/18 08:33 **Analyst:** EFC

Surrogate(s)						
1,3-Dimethyl-2-nitrobenzene	79%	Conc: 791	76-128		12/20/18 10:36	M-02
Triphenyl phosphate	127%	Conc: 1270	40-163		12/20/18 10:36	M-02



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

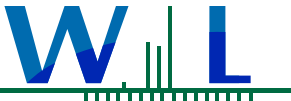
Sample: LAILG-NGA-158-2
8K29062-04 (Water)

Sampled: 11/29/18 8:20 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan		
Chloride, Total	13	0.50	mg/l	1	11/30/18 12:53	
NO2+NO3 as N	8.0	0.11	mg/l	1	11/30/18 12:53	
Sulfate as SO4	74	0.50	mg/l	1	11/30/18 12:53	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 608						
Batch ID: W8K1553						
Instr: GC07						
Prepared: 11/30/18 08:54						
Analyst: adm						
2,4'-DDD	ND	100	ng/l	20	12/27/18 04:38	M-04
2,4'-DDE	ND	100	ng/l	20	12/27/18 04:38	M-04
2,4'-DDT	ND	100	ng/l	20	12/27/18 04:38	M-04
4,4'-DDD	ND	100	ng/l	20	12/27/18 04:38	M-04
4,4'-DDE	ND	100	ng/l	20	12/27/18 04:38	M-04
4,4'-DDT	ND	100	ng/l	20	12/27/18 04:38	M-04
Aldrin	ND	100	ng/l	20	12/27/18 04:38	M-04
alpha-BHC	ND	100	ng/l	20	12/27/18 04:38	M-04
alpha-Chlordane	ND	100	ng/l	20	12/27/18 04:38	M-04
Aroclor 1016	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1221	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1232	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1242	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1248	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1254	ND	2000	ng/l	20	12/27/18 04:38	M-04
Aroclor 1260	ND	2000	ng/l	20	12/27/18 04:38	M-04
beta-BHC	ND	100	ng/l	20	12/27/18 04:38	M-04
Chlordane (tech)	ND	2000	ng/l	20	12/27/18 04:38	M-04
cis-Nonachlor	ND	100	ng/l	20	12/27/18 04:38	M-04
delta-BHC	ND	100	ng/l	20	12/27/18 04:38	M-04
Dieldrin	ND	100	ng/l	20	12/27/18 04:38	M-04
Endosulfan I	ND	100	ng/l	20	12/27/18 04:38	M-04
Endosulfan II	ND	100	ng/l	20	12/27/18 04:38	M-04
Endosulfan sulfate	ND	100	ng/l	20	12/27/18 04:38	M-04
Endrin	ND	100	ng/l	20	12/27/18 04:38	M-04
Endrin aldehyde	ND	100	ng/l	20	12/27/18 04:38	M-04
gamma-BHC (Lindane)	ND	100	ng/l	20	12/27/18 04:38	M-04
gamma-Chlordane	ND	100	ng/l	20	12/27/18 04:38	M-04
Heptachlor	ND	100	ng/l	20	12/27/18 04:38	M-04
Heptachlor epoxide	ND	100	ng/l	20	12/27/18 04:38	M-04
Methoxychlor	ND	100	ng/l	20	12/27/18 04:38	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

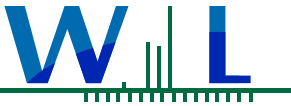
Sample Results

(Continued)

Sample: LAILG-NGA-158-2
8K29062-04 (Water)

Sampled: 11/29/18 8:20 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54		Analyst: adm	
Mirex	ND	100	ng/l	20	12/27/18 04:38	M-04
Toxaphene	ND	10000	ng/l	20	12/27/18 04:38	M-04
trans-Nonachlor	ND	100	ng/l	20	12/27/18 04:38	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	32% Conc: 31.9	34-125			12/27/18 04:38	M-04
Tetrachloro-meta-xylene	55% Conc: 55.4	35-111			12/27/18 04:38	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18		Analyst: mcs	
Ammonia as N	0.67	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19		Analyst: YMT	
o-Phosphate as P	0.59	0.020	mg/l	10	11/30/18 13:36	*
o-Phosphate as P, dissolved	610	20	ug/l	10	11/30/18 13:37	*
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22		Analyst: YMT	
Phosphorus as P, Total	1.4	0.16	mg/l	4	12/19/18 18:19	M-06
Method: EPA 365.1	Batch ID: W8L1378	Instr: AA01	Prepared: 12/20/18 15:20		Analyst: YMT	
Phosphorus, Dissolved	0.68	0.080	mg/l	1	12/26/18 12:54	M-06
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03		Analyst: nll	
Total Dissolved Solids	190	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8L0171	Instr: OVEN11	Prepared: 12/04/18 12:46		Analyst: sar	
Total Suspended Solids	300	5	mg/l	1	12/04/18 20:22	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium Hardness as CaCO3	90	0.499	mg/l	1	12/05/18 17:57	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium, Total	36.0	0.200	mg/l	1	12/05/18 17:57	M-02
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16		Analyst: rrl	
Copper, Total	96	1.0	ug/l	1	12/10/18 17:52	M-02
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58		Analyst: EFC	
Allethrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Bifenthrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Cyfluthrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Cypermethrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Deltamethrin/Tralomethrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Dichloran	ND	100	ng/l	50	01/07/19 22:41	M-04
Fenpropathrin (Danitol)	ND	100	ng/l	50	01/07/19 22:41	M-04



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Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-158-2
8K29062-04 (Water)

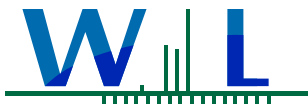
Sampled: 11/29/18 8:20 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Fenvalerate/Esfenvalerate	ND	100	ng/l	50	01/07/19 22:41	M-04
L-Cyhalothrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Pendimethalin	ND	100	ng/l	50	01/07/19 22:41	M-04
Permethrin	ND	250	ng/l	50	01/07/19 22:41	M-04
Prallethrin	ND	100	ng/l	50	01/07/19 22:41	M-04
Sumithrin (Phenothrin)	ND	500	ng/l	50	01/07/19 22:41	M-04
Tefluthrin	ND	100	ng/l	50	01/07/19 22:41	M-04
<i>Surrogate(s)</i>						
Perylene-d12	113% Conc: 283	2-205			01/07/19 22:41	M-04
Triphenyl phosphate	169% Conc: 424	6-222			01/07/19 22:41	M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC		
Azinphos methyl (Guthion)	ND	20	ng/l	1	12/19/18 17:35	M-02
Bolstar	ND	20	ng/l	1	12/19/18 17:35	M-02
Chlorpyrifos	ND	20	ng/l	1	12/19/18 17:35	M-02
Coumaphos	ND	20	ng/l	1	12/19/18 17:35	M-02
Demeton-o	ND	20	ng/l	1	12/19/18 17:35	M-02
Demeton-s	ND	20	ng/l	1	12/19/18 17:35	M-02
Diazinon	150	20	ng/l	1	12/19/18 17:35	M-02
Dichlorvos	ND	20	ng/l	1	12/19/18 17:35	M-02
Dimethoate	ND	20	ng/l	1	12/19/18 17:35	M-02
Disulfoton	ND	20	ng/l	1	12/19/18 17:35	M-02
Ethoprop	ND	20	ng/l	1	12/19/18 17:35	M-02
Ethyl parathion	ND	20	ng/l	1	12/19/18 17:35	M-02
Fensulfothion	ND	20	ng/l	1	12/19/18 17:35	M-02
Fenthion	ND	20	ng/l	1	12/19/18 17:35	M-02
Malathion	ND	20	ng/l	1	12/19/18 17:35	M-02
Merphos	ND	20	ng/l	1	12/19/18 17:35	M-02
Methyl parathion	ND	20	ng/l	1	12/19/18 17:35	M-02
Mevinphos	ND	20	ng/l	1	12/19/18 17:35	M-02
Naled	ND	20	ng/l	1	12/19/18 17:35	M-02
Phorate	ND	20	ng/l	1	12/19/18 17:35	M-02
Ronnel	ND	20	ng/l	1	12/19/18 17:35	M-02
Stirophos	ND	20	ng/l	1	12/19/18 17:35	M-02
Tokuthion (Prothiofos)	ND	20	ng/l	1	12/19/18 17:35	M-02
Trichloronate	ND	20	ng/l	1	12/19/18 17:35	M-02



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FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-158-2
8K29062-04 (Water)

Sampled: 11/29/18 8:20 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC
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Surrogate(s)						
1,3-Dimethyl-2-nitrobenzene	87%	Conc: 869	76-128		12/19/18 17:35	M-02
Triphenyl phosphate	113%	Conc: 1130	40-163		12/19/18 17:35	M-02



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-FB
8K29062-05 (Water)

Sampled: 11/29/18 10:00 by Scott Jordan

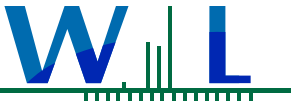
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Anions by IC, EPA Method 300.0

Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan	
Chloride, Total	ND	0.50	mg/l	1	11/30/18 13:11
NO2+NO3 as N	ND	0.11	mg/l	1	11/30/18 13:11
Sulfate as SO4	ND	0.50	mg/l	1	11/30/18 13:11

Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm	
2,4'-DDD	ND	5.0	ng/l	1	12/27/18 05:08
2,4'-DDE	ND	5.0	ng/l	1	12/27/18 05:08
2,4'-DDT	ND	5.0	ng/l	1	12/27/18 05:08
4,4'-DDD	ND	5.0	ng/l	1	12/27/18 05:08
4,4'-DDE	ND	5.0	ng/l	1	12/27/18 05:08
4,4'-DDT	ND	5.0	ng/l	1	12/27/18 05:08
Aldrin	ND	5.0	ng/l	1	12/27/18 05:08
alpha-BHC	ND	5.0	ng/l	1	12/27/18 05:08
alpha-Chlordane	ND	5.0	ng/l	1	12/27/18 05:08
Aroclor 1016	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1221	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1232	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1242	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1248	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1254	ND	100	ng/l	1	12/27/18 05:08
Aroclor 1260	ND	100	ng/l	1	12/27/18 05:08
beta-BHC	ND	5.0	ng/l	1	12/27/18 05:08
Chlordane (tech)	ND	100	ng/l	1	12/27/18 05:08
cis-Nonachlor	ND	5.0	ng/l	1	12/27/18 05:08
delta-BHC	ND	5.0	ng/l	1	12/27/18 05:08
Dieldrin	ND	5.0	ng/l	1	12/27/18 05:08
Endosulfan I	ND	5.0	ng/l	1	12/27/18 05:08
Endosulfan II	ND	5.0	ng/l	1	12/27/18 05:08
Endosulfan sulfate	ND	5.0	ng/l	1	12/27/18 05:08
Endrin	ND	5.0	ng/l	1	12/27/18 05:08
Endrin aldehyde	ND	5.0	ng/l	1	12/27/18 05:08
gamma-BHC (Lindane)	ND	5.0	ng/l	1	12/27/18 05:08
gamma-Chlordane	ND	5.0	ng/l	1	12/27/18 05:08
Heptachlor	ND	5.0	ng/l	1	12/27/18 05:08
Heptachlor epoxide	ND	5.0	ng/l	1	12/27/18 05:08
Methoxychlor	ND	5.0	ng/l	1	12/27/18 05:08



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Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

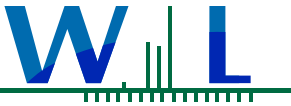
Sample Results

(Continued)

Sample: LAILG-NGA-FB
8K29062-05 (Water)

Sampled: 11/29/18 10:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
Mirex	ND	5.0	ng/l	1	12/27/18 05:08	
Toxaphene	ND	500	ng/l	1	12/27/18 05:08	
trans-Nonachlor	ND	5.0	ng/l	1	12/27/18 05:08	
<i>Surrogate(s)</i>						
Decachlorobiphenyl	36% Conc: 35.8	34-125			12/27/18 05:08	
Tetrachloro-meta-xylene	51% Conc: 50.8	35-111			12/27/18 05:08	
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18	Analyst: mcs		
Ammonia as N	ND	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19	Analyst: YMT		
o-Phosphate as P	ND	0.0020	mg/l	1	11/30/18 12:56	*
o-Phosphate as P, dissolved	ND	2.0	ug/l	1	11/30/18 12:56	*
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22	Analyst: YMT		
Phosphorus as P, Total	ND	0.010	mg/l	1	12/19/18 18:25	
Method: EPA 365.1	Batch ID: W8L1378	Instr: AA01	Prepared: 12/20/18 15:20	Analyst: YMT		
Phosphorus, Dissolved	ND	0.010	mg/l	1	12/26/18 12:41	
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03	Analyst: nll		
Total Dissolved Solids	ND	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8L0337	Instr: OVEN11	Prepared: 12/05/18 18:02	Analyst: sar		
Total Suspended Solids	ND	5	mg/l	1	12/06/18 17:06	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium Hardness as CaCO3	ND	0.250	mg/l	1	12/05/18 18:00	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium, Total	ND	0.100	mg/l	1	12/05/18 18:00	
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16	Analyst: rrl		
Copper, Total	0.60	0.50	ug/l	1	12/10/18 17:31	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Allethrin	ND	2.0	ng/l	1	01/07/19 23:08	
Bifenthrin	9.7	2.0	ng/l	1	01/07/19 23:08	
Cyfluthrin	ND	2.0	ng/l	1	01/07/19 23:08	
Cypermethrin	ND	2.0	ng/l	1	01/07/19 23:08	
Deltamethrin/Tralomethrin	ND	2.0	ng/l	1	01/07/19 23:08	
Dichloran	ND	2.0	ng/l	1	01/07/19 23:08	
Fenpropathrin (Danitol)	ND	2.0	ng/l	1	01/07/19 23:08	



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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-FB
8K29062-05 (Water)

Sampled: 11/29/18 10:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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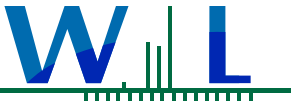
Pyrethroid Pesticides by EPA 8270M (Continued)

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC	
Fenvalerate/Esfenvalerate	ND	2.0	ng/l	1	01/07/19 23:08
L-Cyhalothrin	ND	2.0	ng/l	1	01/07/19 23:08
Pendimethalin	ND	2.0	ng/l	1	01/07/19 23:08
Permethrin	ND	5.0	ng/l	1	01/07/19 23:08
Prallethrin	ND	2.0	ng/l	1	01/07/19 23:08
Sumithrin (Phenothrin)	ND	10	ng/l	1	01/07/19 23:08
Tefluthrin	ND	2.0	ng/l	1	01/07/19 23:08

Surrogate(s)	Conc	MRL	Analyzed
Perylene-d12	168% Conc: 420	2-205	01/07/19 23:08
Triphenyl phosphate	166% Conc: 414	6-222	01/07/19 23:08

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC	
Azinphos methyl (Guthion)	ND	10	ng/l	1	12/19/18 18:00
Bolstar	ND	10	ng/l	1	12/19/18 18:00
Chlorpyrifos	ND	10	ng/l	1	12/19/18 18:00
Coumaphos	ND	10	ng/l	1	12/19/18 18:00
Demeton-o	ND	10	ng/l	1	12/19/18 18:00
Demeton-s	ND	10	ng/l	1	12/19/18 18:00
Diazinon	ND	10	ng/l	1	12/19/18 18:00
Dichlorvos	ND	10	ng/l	1	12/19/18 18:00
Dimethoate	ND	10	ng/l	1	12/19/18 18:00
Disulfoton	ND	10	ng/l	1	12/19/18 18:00
Ethoprop	ND	10	ng/l	1	12/19/18 18:00
Ethyl parathion	ND	10	ng/l	1	12/19/18 18:00
Fensulfothion	ND	10	ng/l	1	12/19/18 18:00
Fenthion	ND	10	ng/l	1	12/19/18 18:00
Malathion	ND	10	ng/l	1	12/19/18 18:00
Merphos	ND	10	ng/l	1	12/19/18 18:00
Methyl parathion	ND	10	ng/l	1	12/19/18 18:00
Mevinphos	ND	10	ng/l	1	12/19/18 18:00
Naled	ND	10	ng/l	1	12/19/18 18:00
Phorate	ND	10	ng/l	1	12/19/18 18:00
Ronnel	ND	10	ng/l	1	12/19/18 18:00
Stirophos	ND	10	ng/l	1	12/19/18 18:00
Tokuthion (Prothiofos)	ND	10	ng/l	1	12/19/18 18:00
Trichloronate	ND	10	ng/l	1	12/19/18 18:00



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Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-FB
8K29062-05 (Water)

Sampled: 11/29/18 10:00 by Scott Jordan

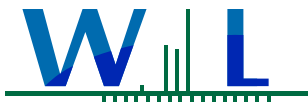
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Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC
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Surrogate(s)	Result	MRL	Units	Analyzed
1,3-Dimethyl-2-nitrobenzene	90% Conc: 449	76-128		12/19/18 18:00
Triphenyl phosphate	109% Conc: 543	40-163		12/19/18 18:00



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

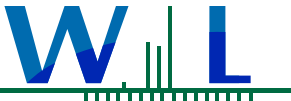
Sample: LAILG-NGA-202-3
8K29062-06 (Water)

Sampled: 11/29/18 10:35 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan		
Chloride, Total	37	0.50	mg/l	1	11/30/18 13:29	
NO2+NO3 as N	8.5	0.11	mg/l	1	11/30/18 13:29	
Sulfate as SO4	56	0.50	mg/l	1	11/30/18 13:29	

Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
2,4'-DDD	ND	50	ng/l	10	12/27/18 10:14	M-04
2,4'-DDE	ND	50	ng/l	10	12/27/18 10:14	M-04
2,4'-DDT	ND	50	ng/l	10	12/27/18 10:14	M-04
4,4'-DDD	ND	50	ng/l	10	12/27/18 10:14	M-04
4,4'-DDE	ND	50	ng/l	10	12/27/18 10:14	M-04
4,4'-DDT	ND	50	ng/l	10	12/27/18 10:14	M-04
Aldrin	ND	50	ng/l	10	12/27/18 10:14	M-04
alpha-BHC	ND	50	ng/l	10	12/27/18 10:14	M-04
alpha-Chlordane	ND	50	ng/l	10	12/27/18 10:14	M-04
Aroclor 1016	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1221	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1232	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1242	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1248	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1254	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
Aroclor 1260	ND	5000	ng/l	10	12/27/18 10:14	M-04, R-01
beta-BHC	ND	50	ng/l	10	12/27/18 10:14	M-04
Chlordane (tech)	ND	1000	ng/l	10	12/27/18 10:14	M-04
cis-Nonachlor	ND	50	ng/l	10	12/27/18 10:14	M-04
delta-BHC	ND	50	ng/l	10	12/27/18 10:14	M-04
Dieldrin	ND	50	ng/l	10	12/27/18 10:14	M-04
Endosulfan I	ND	50	ng/l	10	12/27/18 10:14	M-04
Endosulfan II	ND	50	ng/l	10	12/27/18 10:14	M-04
Endosulfan sulfate	ND	50	ng/l	10	12/27/18 10:14	M-04
Endrin	ND	50	ng/l	10	12/27/18 10:14	M-04
Endrin aldehyde	ND	50	ng/l	10	12/27/18 10:14	M-04
gamma-BHC (Lindane)	ND	50	ng/l	10	12/27/18 10:14	M-04
gamma-Chlordane	ND	50	ng/l	10	12/27/18 10:14	M-04
Heptachlor	ND	50	ng/l	10	12/27/18 10:14	M-04
Heptachlor epoxide	ND	50	ng/l	10	12/27/18 10:14	M-04
Methoxychlor	ND	50	ng/l	10	12/27/18 10:14	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

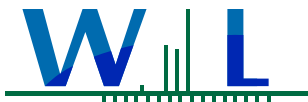
Sample Results

(Continued)

Sample: LAILG-NGA-202-3
8K29062-06 (Water)

Sampled: 11/29/18 10:35 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54		Analyst: adm	
Mirex	ND	50	ng/l	10	12/27/18 10:14	M-04
Toxaphene	ND	5000	ng/l	10	12/27/18 10:14	M-04
trans-Nonachlor	ND	50	ng/l	10	12/27/18 10:14	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	37% Conc: 37.1	34-125			12/27/18 10:14	M-04
Tetrachloro-meta-xylene	57% Conc: 57.2	35-111			12/27/18 10:14	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18		Analyst: mcs	
Ammonia as N	0.22	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19		Analyst: YMT	
o-Phosphate as P	1.2	0.020	mg/l	10	11/30/18 13:47	*
o-Phosphate as P, dissolved	1200	20	ug/l	10	11/30/18 13:46	*
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22		Analyst: YMT	
Phosphorus as P, Total	1.4	0.20	mg/l	4	12/19/18 18:26	M-06
Method: EPA 365.1	Batch ID: W8L1378	Instr: AA01	Prepared: 12/20/18 15:20		Analyst: YMT	
Phosphorus, Dissolved	1.3	0.10	mg/l	1	12/26/18 12:55	M-06
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03		Analyst: nll	
Total Dissolved Solids	300	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8L0337	Instr: OVEN11	Prepared: 12/05/18 18:02		Analyst: sar	
Total Suspended Solids	87	5	mg/l	1	12/06/18 17:06	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium Hardness as CaCO3	83.8	0.250	mg/l	1	12/05/18 18:03	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19		Analyst: JCK	
Calcium, Total	33.5	0.100	mg/l	1	12/05/18 18:03	
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16		Analyst: rrl	
Copper, Total	56	0.50	ug/l	1	12/10/18 17:36	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58		Analyst: EFC	
Allethrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Bifenthrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Cyfluthrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Cypermethrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Deltamethrin/Tralomethrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Dichloran	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Fenpropathrin (Danitol)	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-202-3
8K29062-06 (Water)

Sampled: 11/29/18 10:35 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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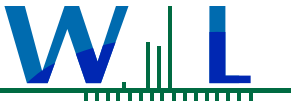
Pyrethroid Pesticides by EPA 8270M (Continued)

Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Fenvalerate/Esfenvalerate	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
L-Cyhalothrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Pendimethalin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Permethrin	ND	50	ng/l	5	01/07/19 23:35	M-02, M-04
Prallethrin	ND	20	ng/l	5	01/07/19 23:35	M-02, M-04
Sumithrin (Phenothrin)	ND	100	ng/l	5	01/07/19 23:35	M-02, M-04
Tefluthrin	ND	20	ng/l	5	01/07/19 23:35	M-04, M-02

Surrogate(s)	Result	MRL	Units	Dil	Analyzed	Qualifier
Perylene-d12	66% Conc: 328	2-205			01/07/19 23:35	M-02, M-04
Triphenyl phosphate	72% Conc: 362	6-222			01/07/19 23:35	M-02, M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC		
Azinphos methyl (Guthion)	ND	20	ng/l	1	12/19/18 18:26	M-02
Bolstar	ND	20	ng/l	1	12/19/18 18:26	M-02
Chlorpyrifos	ND	20	ng/l	1	12/19/18 18:26	M-02
Coumaphos	ND	20	ng/l	1	12/19/18 18:26	M-02
Demeton-o	ND	20	ng/l	1	12/19/18 18:26	M-02
Demeton-s	ND	20	ng/l	1	12/19/18 18:26	M-02
Diazinon	ND	20	ng/l	1	12/19/18 18:26	M-02
Dichlorvos	ND	20	ng/l	1	12/19/18 18:26	M-02
Dimethoate	ND	20	ng/l	1	12/19/18 18:26	M-02
Disulfoton	ND	20	ng/l	1	12/19/18 18:26	M-02
Ethoprop	ND	20	ng/l	1	12/19/18 18:26	M-02
Ethyl parathion	ND	20	ng/l	1	12/19/18 18:26	M-02
Fensulfothion	ND	20	ng/l	1	12/19/18 18:26	M-02
Fenthion	ND	20	ng/l	1	12/19/18 18:26	M-02
Malathion	ND	20	ng/l	1	12/19/18 18:26	M-02
Merphos	ND	20	ng/l	1	12/19/18 18:26	M-02
Methyl parathion	ND	20	ng/l	1	12/19/18 18:26	M-02
Mevinphos	ND	20	ng/l	1	12/19/18 18:26	M-02
Naled	ND	20	ng/l	1	12/19/18 18:26	M-02
Phorate	ND	20	ng/l	1	12/19/18 18:26	M-02
Ronnel	ND	20	ng/l	1	12/19/18 18:26	M-02
Stirophos	ND	20	ng/l	1	12/19/18 18:26	M-02
Tokuthion (Prothiofos)	ND	20	ng/l	1	12/19/18 18:26	M-02
Trichloronate	ND	20	ng/l	1	12/19/18 18:26	M-02



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Certificate of Analysis

FINAL REPORT

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Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-202-3
8K29062-06 (Water)

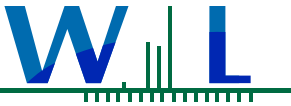
Sampled: 11/29/18 10:35 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M **Batch ID:** W8L0876 **Instr:** GCMS13 **Prepared:** 12/13/18 08:33 **Analyst:** EFC

Surrogate(s)						
1,3-Dimethyl-2-nitrobenzene	96%	Conc: 956	76-128		12/19/18 18:26	M-02
Triphenyl phosphate	120%	Conc: 1200	40-163		12/19/18 18:26	M-02



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Reported:

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Project Manager: Scott Jordan

Sample Results

(Continued)

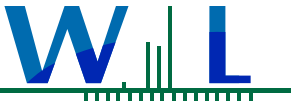
Sample: LAILG-NGA-DUP
8K29062-07 (Water)

Sampled: 11/29/18 0:00 by Scott Jordan

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0						
Method: EPA 300.0	Batch ID: W8K1546	Instr: LC12	Prepared: 11/30/18 08:07	Analyst: jan		
Chloride, Total	38	0.50	mg/l	1	11/30/18 13:47	
NO2+NO3 as N	8.7	0.11	mg/l	1	11/30/18 13:47	
Sulfate as SO4	58	0.50	mg/l	1	11/30/18 13:47	

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
2,4'-DDD	ND	50	ng/l	10	12/27/18 10:45	M-04
2,4'-DDE	ND	50	ng/l	10	12/27/18 10:45	M-04
2,4'-DDT	ND	50	ng/l	10	12/27/18 10:45	M-04
4,4'-DDD	ND	50	ng/l	10	12/27/18 10:45	M-04
4,4'-DDE	ND	50	ng/l	10	12/27/18 10:45	M-04
4,4'-DDT	ND	50	ng/l	10	12/27/18 10:45	M-04
Aldrin	ND	50	ng/l	10	12/27/18 10:45	M-04
alpha-BHC	ND	50	ng/l	10	12/27/18 10:45	M-04
alpha-Chlordane	ND	50	ng/l	10	12/27/18 10:45	M-04
Aroclor 1016	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1221	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1232	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1242	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1248	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1254	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
Aroclor 1260	ND	5000	ng/l	10	12/27/18 10:45	M-04, R-01
beta-BHC	ND	50	ng/l	10	12/27/18 10:45	M-04
Chlordane (tech)	ND	1000	ng/l	10	12/27/18 10:45	M-04
cis-Nonachlor	ND	50	ng/l	10	12/27/18 10:45	M-04
delta-BHC	ND	50	ng/l	10	12/27/18 10:45	M-04
Dieldrin	ND	50	ng/l	10	12/27/18 10:45	M-04
Endosulfan I	ND	50	ng/l	10	12/27/18 10:45	M-04
Endosulfan II	ND	50	ng/l	10	12/27/18 10:45	M-04
Endosulfan sulfate	ND	50	ng/l	10	12/27/18 10:45	M-04
Endrin	ND	50	ng/l	10	12/27/18 10:45	M-04
Endrin aldehyde	ND	50	ng/l	10	12/27/18 10:45	M-04
gamma-BHC (Lindane)	ND	50	ng/l	10	12/27/18 10:45	M-04
gamma-Chlordane	ND	50	ng/l	10	12/27/18 10:45	M-04
Heptachlor	ND	50	ng/l	10	12/27/18 10:45	M-04
Heptachlor epoxide	ND	50	ng/l	10	12/27/18 10:45	M-04
Methoxychlor	ND	50	ng/l	10	12/27/18 10:45	M-04



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
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Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

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Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

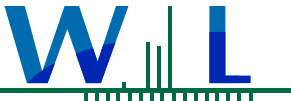
Sample Results

(Continued)

Sample: LAILG-NGA-DUP
8K29062-07 (Water)

Sampled: 11/29/18 0:00 by Scott Jordan
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608	Batch ID: W8K1553	Instr: GC07	Prepared: 11/30/18 08:54	Analyst: adm		
Mirex	ND	50	ng/l	10	12/27/18 10:45	M-04
Toxaphene	ND	5000	ng/l	10	12/27/18 10:45	M-04
trans-Nonachlor	ND	50	ng/l	10	12/27/18 10:45	M-04
<i>Surrogate(s)</i>						
Decachlorobiphenyl	55% Conc: 55.0	34-125			12/27/18 10:45	M-04
Tetrachloro-meta-xylene	69% Conc: 68.7	35-111			12/27/18 10:45	M-04
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods						
Method: EPA 350.1	Batch ID: W8L0237	Instr: AA06	Prepared: 12/04/18 20:18	Analyst: mcs		
Ammonia as N	0.22	0.10	mg/l	1	12/06/18 18:08	
Method: EPA 365.1	Batch ID: W8K1558	Instr: AA01	Prepared: 11/30/18 09:19	Analyst: YMT		
o-Phosphate as P	1.3	0.020	mg/l	10	11/30/18 14:03	*
o-Phosphate as P, dissolved	1300	20	ug/l	10	11/30/18 14:04	*
Method: EPA 365.1	Batch ID: W8K1598	Instr: AA01	Prepared: 11/30/18 14:30	Analyst: YMT		
Phosphorus, Dissolved	1.2	0.10	mg/l	5	12/18/18 19:21	
Method: EPA 365.1	Batch ID: W8L0512	Instr: AA01	Prepared: 12/07/18 16:22	Analyst: YMT		
Phosphorus as P, Total	1.3	0.20	mg/l	4	12/19/18 18:28	M-06
Method: SM 2540C	Batch ID: W8L0176	Instr: OVEN01	Prepared: 12/04/18 13:03	Analyst: nll		
Total Dissolved Solids	310	10	mg/l	1	12/05/18 15:14	
Method: SM 2540D	Batch ID: W8K1505	Instr: OVEN11	Prepared: 11/29/18 13:40	Analyst: sar		
Total Suspended Solids	77	5	mg/l	1	12/01/18 17:50	
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium Hardness as CaCO3	85.9	0.250	mg/l	1	12/05/18 18:06	
Method: EPA 200.7	Batch ID: W8L0051	Instr: ICP03	Prepared: 12/03/18 10:19	Analyst: JCK		
Calcium, Total	34.4	0.100	mg/l	1	12/05/18 18:06	
Method: EPA 200.8	Batch ID: W8L0050	Instr: ICPMS04	Prepared: 12/03/18 10:16	Analyst: rrl		
Copper, Total	56	0.50	ug/l	1	12/10/18 17:56	
Pyrethroid Pesticides by EPA 8270M						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Allethrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Bifenthrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Cyfluthrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Cypermethrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Deltamethrin/Tralomethrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Dichloran	ND	20	ng/l	10	01/08/19 00:02	M-04
Fenpropathrin (Danitol)	ND	20	ng/l	10	01/08/19 00:02	M-04



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Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-DUP
8K29062-07 (Water)

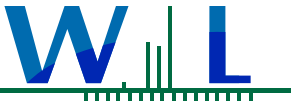
Sampled: 11/29/18 0:00 by Scott Jordan

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Pyrethroid Pesticides by EPA 8270M (Continued)						
Method: EPA 8270M	Batch ID: W8L0358	Instr: GCMS13	Prepared: 12/06/18 08:58	Analyst: EFC		
Fenvalerate/Esfenvalerate	ND	20	ng/l	10	01/08/19 00:02	M-04
L-Cyhalothrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Pendimethalin	ND	20	ng/l	10	01/08/19 00:02	M-04
Permethrin	ND	50	ng/l	10	01/08/19 00:02	M-04
Prallethrin	ND	20	ng/l	10	01/08/19 00:02	M-04
Sumithrin (Phenothrin)	ND	100	ng/l	10	01/08/19 00:02	M-04
Tefluthrin	ND	20	ng/l	10	01/08/19 00:02	M-04
<i>Surrogate(s)</i>						
Perylene-d12	120% Conc: 300	2-205			01/08/19 00:02	M-04
Triphenyl phosphate	138% Conc: 344	6-222			01/08/19 00:02	M-04

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M	Batch ID: W8L0876	Instr: GCMS13	Prepared: 12/13/18 08:33	Analyst: EFC		
Azinphos methyl (Guthion)	ND	20	ng/l	1	12/19/18 18:52	M-02
Bolstar	ND	20	ng/l	1	12/19/18 18:52	M-02
Chlorpyrifos	ND	20	ng/l	1	12/19/18 18:52	M-02
Coumaphos	ND	20	ng/l	1	12/19/18 18:52	M-02
Demeton-o	ND	20	ng/l	1	12/19/18 18:52	M-02
Demeton-s	ND	20	ng/l	1	12/19/18 18:52	M-02
Diazinon	ND	20	ng/l	1	12/19/18 18:52	M-02
Dichlorvos	ND	20	ng/l	1	12/19/18 18:52	M-02
Dimethoate	ND	20	ng/l	1	12/19/18 18:52	M-02
Disulfoton	ND	20	ng/l	1	12/19/18 18:52	M-02
Ethoprop	ND	20	ng/l	1	12/19/18 18:52	M-02
Ethyl parathion	ND	20	ng/l	1	12/19/18 18:52	M-02
Fensulfothion	ND	20	ng/l	1	12/19/18 18:52	M-02
Fenthion	ND	20	ng/l	1	12/19/18 18:52	M-02
Malathion	ND	20	ng/l	1	12/19/18 18:52	M-02
Merphos	ND	20	ng/l	1	12/19/18 18:52	M-02
Methyl parathion	ND	20	ng/l	1	12/19/18 18:52	M-02
Mevinphos	ND	20	ng/l	1	12/19/18 18:52	M-02
Naled	ND	20	ng/l	1	12/19/18 18:52	M-02
Phorate	ND	20	ng/l	1	12/19/18 18:52	M-02
Ronnel	ND	20	ng/l	1	12/19/18 18:52	M-02
Stirophos	ND	20	ng/l	1	12/19/18 18:52	M-02
Tokuthion (Prothiofos)	ND	20	ng/l	1	12/19/18 18:52	M-02
Trichloronate	ND	20	ng/l	1	12/19/18 18:52	M-02



WECK LABORATORIES, INC.

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Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Sample Results

(Continued)

Sample: LAILG-NGA-DUP
8K29062-07 (Water)

Sampled: 11/29/18 0:00 by Scott Jordan

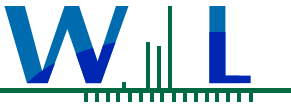
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 525.2M **Batch ID:** W8L0876 **Instr:** GCMS13 **Prepared:** 12/13/18 08:33 **Analyst:** EFC

<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	90%	Conc: 902	76-128		12/19/18 18:52	M-02
Triphenyl phosphate	124%	Conc: 1240	40-163		12/19/18 18:52	M-02



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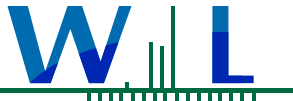
01/21/2019 11:03

Project Manager: Scott Jordan

Quality Control Results

Anions by IC, EPA Method 300.0

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1546 - EPA 300.0										
Blank (W8K1546-BLK1)				Prepared & Analyzed: 11/30/18						
Chloride, Total	ND	0.50	mg/l							
NO2+NO3 as N	ND	0.11	mg/l							
Sulfate as SO4	ND	0.50	mg/l							B-07
LCS (W8K1546-BS1)				Prepared & Analyzed: 11/30/18						
Chloride, Total	20.6	0.50	mg/l	20.0		103	90-110			
NO2+NO3 as N	4.20	0.11	mg/l	4.00		105	90-110			
Sulfate as SO4	21.0	0.50	mg/l	20.0		105	90-110			
Matrix Spike (W8K1546-MS1)				Source: 8K29070-01			Prepared & Analyzed: 11/30/18			
Chloride, Total	534	5.0	mg/l	200	331	101	76-118			
NO2+NO3 as N	42.8	1.1	mg/l	40.0	ND	107	84-115			
Sulfate as SO4	290	5.0	mg/l	200	77.5	106	78-111			
Matrix Spike (W8K1546-MS2)				Source: 8K29072-01			Prepared & Analyzed: 11/30/18			
Chloride, Total	207	5.0	mg/l	200	2.25	102	76-118			
NO2+NO3 as N	43.9	1.1	mg/l	40.0	0.981	107	84-115			
Sulfate as SO4	212	5.0	mg/l	200	2.76	105	78-111			
Matrix Spike Dup (W8K1546-MSD1)				Source: 8K29070-01			Prepared & Analyzed: 11/30/18			
Chloride, Total	534	5.0	mg/l	200	331	101	76-118	0.03	20	
NO2+NO3 as N	42.8	1.1	mg/l	40.0	ND	107	84-115	0.1	20	
Sulfate as SO4	289	5.0	mg/l	200	77.5	106	78-111	0.2	20	
Matrix Spike Dup (W8K1546-MSD2)				Source: 8K29072-01			Prepared & Analyzed: 11/30/18			
Chloride, Total	207	5.0	mg/l	200	2.25	102	76-118	0.1	20	
NO2+NO3 as N	44.0	1.1	mg/l	40.0	0.981	108	84-115	0.3	20	
Sulfate as SO4	213	5.0	mg/l	200	2.76	105	78-111	0.3	20	



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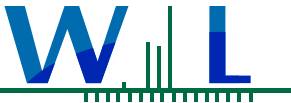
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608										
Blank (W8K1553-BLK1)				Prepared: 11/30/18 Analyzed: 12/26/18						
2,4'-DDD	ND	5.0	ng/l							
2,4'-DDE	ND	5.0	ng/l							
2,4'-DDT	ND	5.0	ng/l							
4,4'-DDD	ND	5.0	ng/l							
4,4'-DDE	ND	5.0	ng/l							
4,4'-DDT	ND	5.0	ng/l							
Aldrin	ND	5.0	ng/l							
alpha-BHC	ND	5.0	ng/l							
alpha-Chlordane	ND	5.0	ng/l							
Aroclor 1016	ND	100	ng/l							
Aroclor 1221	ND	100	ng/l							
Aroclor 1232	ND	100	ng/l							
Aroclor 1242	ND	100	ng/l							
Aroclor 1248	ND	100	ng/l							
Aroclor 1254	ND	100	ng/l							
Aroclor 1260	ND	100	ng/l							
beta-BHC	ND	5.0	ng/l							
Chlordane (tech)	ND	100	ng/l							
cis-Nonachlor	ND	5.0	ng/l							
delta-BHC	ND	5.0	ng/l							
Dieldrin	ND	5.0	ng/l							
Endosulfan I	ND	5.0	ng/l							
Endosulfan II	ND	5.0	ng/l							
Endosulfan sulfate	ND	5.0	ng/l							
Endrin	ND	5.0	ng/l							
Endrin aldehyde	ND	5.0	ng/l							
gamma-BHC (Lindane)	ND	5.0	ng/l							
gamma-Chlordane	ND	5.0	ng/l							
Heptachlor	ND	5.0	ng/l							
Heptachlor epoxide	ND	5.0	ng/l							
Methoxychlor	ND	5.0	ng/l							
Mirex	ND	5.0	ng/l							
Oxychlordane	ND	5.0	ng/l							
Toxaphene	ND	500	ng/l							
trans-Nonachlor	ND	5.0	ng/l							
<i>Surrogate(s)</i>										
Decachlorobiphenyl	62.5		ng/l	100		62	34-125			
Tetrachloro-meta-xylene	49.7		ng/l	100		50	35-111			
Blank (W8K1553-BLK2)				Prepared: 11/30/18 Analyzed: 01/14/19						



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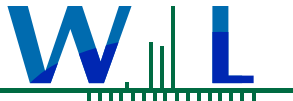
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608 (Continued)										
Blank (W8K1553-BLK2)				Prepared: 11/30/18 Analyzed: 01/14/19						
2,4'-DDD	ND	5.0	ng/l							
2,4'-DDE	ND	5.0	ng/l							
2,4'-DDT	ND	5.0	ng/l							
4,4'-DDD	ND	5.0	ng/l							
4,4'-DDE	ND	5.0	ng/l							
4,4'-DDT	ND	5.0	ng/l							
Aldrin	ND	5.0	ng/l							
alpha-BHC	ND	5.0	ng/l							
alpha-Chlordane	ND	5.0	ng/l							
Aroclor 1016	ND	100	ng/l							
Aroclor 1221	ND	100	ng/l							
Aroclor 1232	ND	100	ng/l							
Aroclor 1242	ND	100	ng/l							
Aroclor 1248	ND	100	ng/l							
Aroclor 1254	ND	100	ng/l							
Aroclor 1260	ND	100	ng/l							
beta-BHC	ND	5.0	ng/l							
Chlordane (tech)	ND	100	ng/l							
cis-Nonachlor	ND	5.0	ng/l							
delta-BHC	ND	5.0	ng/l							
Dieldrin	ND	5.0	ng/l							
Endosulfan I	ND	5.0	ng/l							
Endosulfan II	ND	5.0	ng/l							
Endosulfan sulfate	ND	5.0	ng/l							
Endrin	ND	5.0	ng/l							
Endrin aldehyde	ND	5.0	ng/l							
gamma-BHC (Lindane)	ND	5.0	ng/l							
gamma-Chlordane	ND	5.0	ng/l							
Heptachlor	ND	5.0	ng/l							
Heptachlor epoxide	ND	5.0	ng/l							
Methoxychlor	ND	5.0	ng/l							
Mirex	ND	5.0	ng/l							
Toxaphene	ND	500	ng/l							
trans-Nonachlor	ND	5.0	ng/l							
<i>Surrogate(s)</i>										
Decachlorobiphenyl	0.00		ng/l	100			34-125			
Tetrachloro-meta-xylene	0.00		ng/l	100			35-111			
LCS (W8K1553-BS1)				Prepared: 11/30/18 Analyzed: 12/26/18						
4,4'-DDD	76.2	5.0	ng/l	100		76	42-133			



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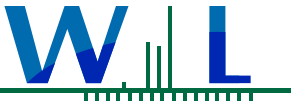
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608 (Continued)										
LCS (W8K1553-BS1)				Prepared: 11/30/18 Analyzed: 12/26/18						
4,4'-DDE	74.1	5.0	ng/l	100		74	33-126			
4,4'-DDT	73.1	5.0	ng/l	100		73	35-147			
Aldrin	53.3	5.0	ng/l	100		53	18-117			
alpha-BHC	53.8	5.0	ng/l	100		54	47-119			
beta-BHC	61.1	5.0	ng/l	100		61	53-123			
delta-BHC	71.4	5.0	ng/l	100		71	51-123			
Dieldrin	76.7	5.0	ng/l	100		77	48-123			
Endosulfan I	70.5	5.0	ng/l	100		71	14-131			
Endosulfan II	75.3	5.0	ng/l	100		75	40-121			
Endosulfan sulfate	73.8	5.0	ng/l	100		74	44-140			
Endrin	62.3	5.0	ng/l	100		62	40-143			
Endrin aldehyde	85.6	5.0	ng/l	100		86	18-136			
gamma-BHC (Lindane)	56.1	5.0	ng/l	100		56	49-117			
Heptachlor	61.6	5.0	ng/l	100		62	31-130			
Heptachlor epoxide	73.4	5.0	ng/l	100		73	49-122			
<i>Surrogate(s)</i>										
Decachlorobiphenyl	68.3		ng/l	100		68	34-125			
Tetrachloro-meta-xylene	48.2		ng/l	100		48	35-111			
LCS (W8K1553-BS2)				Prepared: 11/30/18 Analyzed: 01/14/19						
4,4'-DDD	ND	5.0	ng/l	100			42-133			
4,4'-DDE	ND	5.0	ng/l	100			33-126			
4,4'-DDT	ND	5.0	ng/l	100			35-147			
Aldrin	ND	5.0	ng/l	100			18-117			
alpha-BHC	ND	5.0	ng/l	100			47-119			
beta-BHC	ND	5.0	ng/l	100			53-123			
delta-BHC	ND	5.0	ng/l	100			51-123			
Dieldrin	ND	5.0	ng/l	100			48-123			
Endosulfan I	ND	5.0	ng/l	100			14-131			
Endosulfan II	ND	5.0	ng/l	100			40-121			
Endosulfan sulfate	ND	5.0	ng/l	100			44-140			
Endrin	ND	5.0	ng/l	100			40-143			
Endrin aldehyde	ND	5.0	ng/l	100			18-136			
gamma-BHC (Lindane)	ND	5.0	ng/l	100			49-117			
Heptachlor	ND	5.0	ng/l	100			31-130			
Heptachlor epoxide	ND	5.0	ng/l	100			49-122			
<i>Surrogate(s)</i>										
Decachlorobiphenyl	0.00		ng/l	100			34-125			
Tetrachloro-meta-xylene	0.00		ng/l	100			35-111			
Matrix Spike (W8K1553-MS1)				Source: 8K29062-01			Prepared: 11/30/18 Analyzed: 12/26/18			



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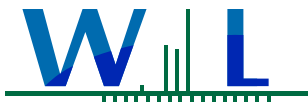
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608 (Continued)										
Matrix Spike (W8K1553-MS1)			Source: 8K29062-01			Prepared: 11/30/18 Analyzed: 12/26/18				
4,4'-DDD	64.6	5.0	ng/l	100	ND	65	23-124			
4,4'-DDE	64.3	5.0	ng/l	100	ND	64	30-114			
4,4'-DDT	63.5	5.0	ng/l	100	ND	64	11-151			
Aldrin	47.9	5.0	ng/l	100	ND	48	18-110			
alpha-BHC	50.1	5.0	ng/l	100	ND	50	43-114			
beta-BHC	54.4	5.0	ng/l	100	ND	54	24-135			
delta-BHC	64.1	5.0	ng/l	100	ND	64	37-122			
Dieldrin	66.5	5.0	ng/l	100	ND	66	27-132			
Endosulfan I	60.9	5.0	ng/l	100	ND	61	0.1-140			
Endosulfan II	63.6	5.0	ng/l	100	ND	64	17-122			
Endosulfan sulfate	63.0	5.0	ng/l	100	ND	63	37-131			
Endrin	57.2	5.0	ng/l	100	ND	57	42-144			
Endrin aldehyde	62.3	5.0	ng/l	100	ND	62	11-113			
gamma-BHC (Lindane)	52.4	5.0	ng/l	100	ND	52	33-112			
Heptachlor	80.1	5.0	ng/l	100	ND	80	28-131			
Heptachlor epoxide	64.7	5.0	ng/l	100	ND	65	36-117			
<i>Surrogate(s)</i>										
Decachlorobiphenyl	52.3		ng/l	100		52	34-125			
Tetrachloro-meta-xylene	44.5		ng/l	100		44	35-111			
Matrix Spike (W8K1553-MS2)										
Source: 8K29205-08			Prepared: 11/30/18 Analyzed: 12/26/18							
4,4'-DDD	23.1	100	ng/l	100	ND	23	23-124			M-04
4,4'-DDE	33.2	100	ng/l	100	ND	33	30-114			M-04
4,4'-DDT	52.9	100	ng/l	100	ND	53	11-151			M-04
Aldrin	58.5	100	ng/l	100	ND	58	18-110			M-04
alpha-BHC	54.3	100	ng/l	100	ND	54	43-114			M-04
beta-BHC	1900	100	ng/l	100	ND	NR	24-135			M-04
delta-BHC	58.7	100	ng/l	100	ND	59	37-122			M-04
Dieldrin	19.1	100	ng/l	100	ND	19	27-132			M-04, MS-05
Endosulfan I	39.3	100	ng/l	100	ND	39	0.1-140			M-04
Endosulfan II	19.7	100	ng/l	100	ND	20	17-122			M-04
Endosulfan sulfate	65.4	100	ng/l	100	ND	65	37-131			M-04
Endrin	30.8	100	ng/l	100	ND	31	42-144			M-04, MS-05
Endrin aldehyde	32.4	100	ng/l	100	ND	32	11-113			M-04
gamma-BHC (Lindane)	54.8	100	ng/l	100	ND	55	33-112			M-04
Heptachlor	15.1	100	ng/l	100	ND	15	28-131			M-04, MS-05
Heptachlor epoxide	16.5	100	ng/l	100	ND	16	36-117			M-04, MS-05
<i>Surrogate(s)</i>										
Decachlorobiphenyl	53.7		ng/l	100		54	34-125			M-04



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Project Manager: Scott Jordan

Quality Control Results

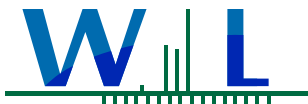
(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608 (Continued)										
Matrix Spike (W8K1553-MS2)		Source: 8K29205-08			Prepared: 11/30/18 Analyzed: 12/26/18					
<i>Surrogate(s)</i>										
Tetrachloro-meta-xylene	65.1		ng/l	100		65	35-111			M-04
Matrix Spike Dup (W8K1553-MSD1)		Source: 8K29062-01			Prepared: 11/30/18 Analyzed: 12/26/18					
4,4'-DDD	56.5	5.0	ng/l	100	ND	57	23-124	13	30	
4,4'-DDE	57.3	5.0	ng/l	100	ND	57	30-114	12	30	
4,4'-DDT	55.4	5.0	ng/l	100	ND	55	11-151	14	30	
Aldrin	40.9	5.0	ng/l	100	ND	41	18-110	16	30	
alpha-BHC	41.8	5.0	ng/l	100	ND	42	43-114	18	30	MS-05
beta-BHC	46.8	5.0	ng/l	100	ND	47	24-135	15	30	
delta-BHC	55.7	5.0	ng/l	100	ND	56	37-122	14	30	
Dieldrin	57.4	5.0	ng/l	100	ND	57	27-132	15	30	
Endosulfan I	52.8	5.0	ng/l	100	ND	53	0.1-140	14	30	
Endosulfan II	57.2	5.0	ng/l	100	ND	57	17-122	11	30	
Endosulfan sulfate	56.2	5.0	ng/l	100	ND	56	37-131	11	30	
Endrin	48.7	5.0	ng/l	100	ND	49	42-144	16	30	
Endrin aldehyde	53.4	5.0	ng/l	100	ND	53	11-113	16	30	
gamma-BHC (Lindane)	44.5	5.0	ng/l	100	ND	44	33-112	16	30	
Heptachlor	70.4	5.0	ng/l	100	ND	70	28-131	13	30	
Heptachlor epoxide	56.1	5.0	ng/l	100	ND	56	36-117	14	30	
<i>Surrogate(s)</i>										
Decachlorobiphenyl	41.4		ng/l	100		41	34-125			
Tetrachloro-meta-xylene	40.8		ng/l	100		41	35-111			
Matrix Spike Dup (W8K1553-MSD2)		Source: 8K29205-08			Prepared: 11/30/18 Analyzed: 12/27/18					
4,4'-DDD	25.4	100	ng/l	100	ND	25	23-124	200	30	M-04
4,4'-DDE	31.8	100	ng/l	100	ND	32	30-114	200	30	M-04
4,4'-DDT	50.6	100	ng/l	100	ND	51	11-151	200	30	M-04
Aldrin	54.9	100	ng/l	100	ND	55	18-110	6	30	M-04
alpha-BHC	51.0	100	ng/l	100	ND	51	43-114	6	30	M-04
beta-BHC	60.2	100	ng/l	100	ND	60	24-135	188	30	M-04, MS-05
delta-BHC	57.6	100	ng/l	100	ND	58	37-122	2	30	M-04
Dieldrin	20.1	100	ng/l	100	ND	20	27-132	200	30	M-04, MS-05
Endosulfan I	39.3	100	ng/l	100	ND	39	0.1-140	0.1	30	M-04
Endosulfan II	22.7	100	ng/l	100	ND	23	17-122	200	30	M-04
Endosulfan sulfate	63.7	100	ng/l	100	ND	64	37-131	200	30	M-04
Endrin	24.8	100	ng/l	100	ND	25	42-144	200	30	M-04, MS-05
Endrin aldehyde	29.3	100	ng/l	100	ND	29	11-113	200	30	M-04
gamma-BHC (Lindane)	57.1	100	ng/l	100	ND	57	33-112	4	30	M-04
Heptachlor	10.9	100	ng/l	100	ND	11	28-131	200	30	M-04, MS-05

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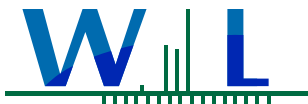
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1553 - EPA 608 (Continued)										
Matrix Spike Dup (W8K1553-MSD2)										
Source: 8K29205-08										
Prepared: 11/30/18 Analyzed: 12/27/18										
Heptachlor epoxide	15.9	100	ng/l	100	ND	16	36-117	200	30	M-04, MS-05
<i>Surrogate(s)</i>										
Decachlorobiphenyl	46.6		ng/l	100		47	34-125			M-04
Tetrachloro-meta-xylene	63.3		ng/l	100		63	35-111			M-04



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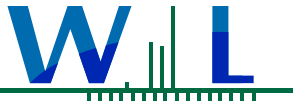
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8K1505 - SM 2540D										
Blank (W8K1505-BLK1)										
Total Suspended Solids	ND	5	mg/l							
				Prepared: 11/29/18 Analyzed: 12/01/18						
LCS (W8K1505-BS1)										
Total Suspended Solids	63.0	5	mg/l	57.8		109	90-110			
				Prepared: 11/29/18 Analyzed: 12/01/18						
Duplicate (W8K1505-DUP1)										
Total Suspended Solids	304	5	mg/l		324			6	20	
				Prepared: 11/29/18 Analyzed: 12/01/18						
Duplicate (W8K1505-DUP2)										
Total Suspended Solids	3.00	5	mg/l		3.00			0	20	
				Prepared: 11/29/18 Analyzed: 12/01/18						
Batch: W8K1558 - EPA 365.1										
Blank (W8K1558-BLK1)										
o-Phosphate as P	ND	0.0020	mg/l							
o-Phosphate as P, dissolved	ND	2.0	ug/l							
				Prepared & Analyzed: 11/30/18						
LCS (W8K1558-BS1)										
o-Phosphate as P	0.0543	0.0020	mg/l	0.0500		109	90-110			
o-Phosphate as P, dissolved	54.3	2.0	ug/l	50.0		109	90-110			
				Prepared & Analyzed: 11/30/18						
Matrix Spike (W8K1558-MS1)										
o-Phosphate as P	0.0554	0.0020	mg/l	0.0500	0.000658	109	90-110			
o-Phosphate as P, dissolved	55.4	2.0	ug/l	50.0	0.789	109	90-110			
				Prepared & Analyzed: 11/30/18						
Matrix Spike Dup (W8K1558-MSD1)										
o-Phosphate as P	0.0554	0.0020	mg/l	0.0500	0.000658	109	90-110	0	20	
o-Phosphate as P, dissolved	55.4	2.0	ug/l	50.0	0.789	109	90-110	0	20	
				Prepared & Analyzed: 11/30/18						
Batch: W8K1598 - EPA 365.1										
Blank (W8K1598-BLK1)										
Phosphorus, Dissolved	ND	0.010	mg/l							
				Prepared: 11/30/18 Analyzed: 12/18/18						
LCS (W8K1598-BS1)										
Phosphorus, Dissolved	0.0481	0.010	mg/l	0.0500		96	90-110			
				Prepared: 11/30/18 Analyzed: 12/18/18						
Matrix Spike (W8K1598-MS1)										
Phosphorus, Dissolved	0.0713	0.010	mg/l	0.0500	0.0260	91	90-110			
				Prepared: 11/30/18 Analyzed: 12/18/18						
Matrix Spike (W8K1598-MS2)										
Phosphorus, Dissolved	0.0611	0.010	mg/l	0.0500	0.0102	102	90-110			
				Prepared: 11/30/18 Analyzed: 12/18/18						
Matrix Spike Dup (W8K1598-MSD1)										
Phosphorus, Dissolved	0.0299	0.010	mg/l	0.0500	0.0260	8	90-110	82	20	A-01
				Prepared: 11/30/18 Analyzed: 12/18/18						
Matrix Spike Dup (W8K1598-MSD2)										
Phosphorus, Dissolved	0.0601	0.010	mg/l	0.0500	0.0102	100	90-110	2	20	
				Prepared: 11/30/18 Analyzed: 12/18/18						
Batch: W8L0075 - SM 2540D										
Blank (W8L0075-BLK1)										
Total Suspended Solids	ND	5	mg/l							
				Prepared & Analyzed: 12/03/18						
LCS (W8L0075-BS1)										
				Prepared & Analyzed: 12/03/18						



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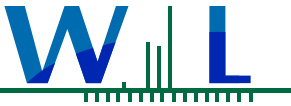
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0075 - SM 2540D (Continued)										
LCS (W8L0075-BS1)										
Total Suspended Solids	60.0	5	mg/l	57.7		104	90-110			
Prepared & Analyzed: 12/03/18										
Duplicate (W8L0075-DUP1)										
Total Suspended Solids	7.00	5	mg/l		6.00			15	20	
Source: 8K30019-02 Prepared & Analyzed: 12/03/18										
Duplicate (W8L0075-DUP2)										
Total Suspended Solids	13.0	5	mg/l		13.0			0	20	
Source: 8K30052-01 Prepared & Analyzed: 12/03/18										
Batch: W8L0171 - SM 2540D										
Blank (W8L0171-BLK1)										
Total Suspended Solids	ND	5	mg/l							
Prepared & Analyzed: 12/04/18										
LCS (W8L0171-BS1)										
Total Suspended Solids	58.0	5	mg/l	57.1		102	90-110			
Prepared & Analyzed: 12/04/18										
Duplicate (W8L0171-DUP1)										
Total Suspended Solids	22.0	5	mg/l		24.0			9	20	
Source: 8K30111-01 Prepared & Analyzed: 12/04/18										
Duplicate (W8L0171-DUP2)										
Total Suspended Solids	14.0	5	mg/l		13.0			7	20	
Source: 8K30146-01 Prepared & Analyzed: 12/04/18										
Batch: W8L0176 - SM 2540C										
Blank (W8L0176-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
Prepared: 12/04/18 Analyzed: 12/05/18										
Blank (W8L0176-BLK2)										
Total Dissolved Solids	ND	10	mg/l							
Prepared: 12/04/18 Analyzed: 01/08/19										
Blank (W8L0176-BLK3)										
Total Dissolved Solids	ND	10	mg/l							
Prepared: 12/04/18 Analyzed: 01/08/19										
LCS (W8L0176-BS1)										
Total Dissolved Solids	827	10	mg/l	824		100	96-102			
Prepared: 12/04/18 Analyzed: 12/05/18										
LCS (W8L0176-BS2)										
Total Dissolved Solids	819	10	mg/l	824		99	96-102			
Prepared: 12/04/18 Analyzed: 01/08/19										
LCS (W8L0176-BS3)										
Total Dissolved Solids	836	10	mg/l	824		101	96-102			
Prepared: 12/04/18 Analyzed: 01/08/19										
Duplicate (W8L0176-DUP1)										
Total Dissolved Solids	1370	10	mg/l		1330			3	10	
Source: 8K29062-02 Prepared: 12/04/18 Analyzed: 12/05/18										
Duplicate (W8L0176-DUP2)										
Total Dissolved Solids	59600	10	mg/l		59300			0.5	10	
Source: 8K29194-14 Prepared: 12/04/18 Analyzed: 12/27/18										
Batch: W8L0237 - EPA 350.1										
Blank (W8L0237-BLK1)										
Ammonia as N	ND	0.10	mg/l							
Prepared: 12/04/18 Analyzed: 12/06/18										
Blank (W8L0237-BLK2)										
Ammonia as N	ND	0.10	mg/l							
Prepared: 12/04/18 Analyzed: 12/06/18										
LCS (W8L0237-BS1)										
Prepared: 12/04/18 Analyzed: 12/06/18										



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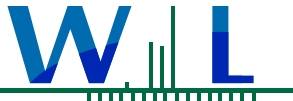
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0237 - EPA 350.1 (Continued)										
LCS (W8L0237-BS1)										
Ammonia as N	0.252	0.10	mg/l				90-110			
				Prepared: 12/04/18 Analyzed: 12/06/18						
LCS (W8L0237-BS2)										
Ammonia as N	0.251	0.10	mg/l				90-110			
				Prepared: 12/04/18 Analyzed: 12/06/18						
Matrix Spike (W8L0237-MS1)										
Ammonia as N	0.264	0.10	mg/l		ND		90-110			
				Source: 8K29062-01 Prepared: 12/04/18 Analyzed: 12/06/18						
Matrix Spike (W8L0237-MS2)										
Ammonia as N	0.260	0.10	mg/l		ND		90-110			
				Source: 8K29062-05 Prepared: 12/04/18 Analyzed: 12/06/18						
Matrix Spike Dup (W8L0237-MSD1)										
Ammonia as N	0.269	0.10	mg/l		ND		90-110	2	15	
				Source: 8K29062-01 Prepared: 12/04/18 Analyzed: 12/06/18						
Matrix Spike Dup (W8L0237-MSD2)										
Ammonia as N	0.263	0.10	mg/l		ND		90-110	1	15	
				Source: 8K29062-05 Prepared: 12/04/18 Analyzed: 12/06/18						
Batch: W8L0337 - SM 2540D										
Blank (W8L0337-BLK1)										
Total Suspended Solids	ND	5	mg/l							
				Prepared: 12/05/18 Analyzed: 12/06/18						
LCS (W8L0337-BS1)										
Total Suspended Solids	54.0	5	mg/l	54.0		100	90-110			
				Prepared: 12/05/18 Analyzed: 12/06/18						
Duplicate (W8L0337-DUP1)										
Total Suspended Solids	272	5	mg/l		258			5	20	
				Source: 8K29204-01 Prepared: 12/05/18 Analyzed: 12/06/18						
Duplicate (W8L0337-DUP2)										
Total Suspended Solids	616	5	mg/l		614			0.3	20	
				Source: 8K29206-02 Prepared: 12/05/18 Analyzed: 12/06/18						
Batch: W8L0512 - EPA 365.1										
Blank (W8L0512-BLK1)										
Phosphorus as P, Total	ND	0.010	mg/l							
				Prepared: 12/07/18 Analyzed: 12/19/18						
LCS (W8L0512-BS1)										
Phosphorus as P, Total	0.0499	0.010	mg/l	0.0500		100	90-110			
				Prepared: 12/07/18 Analyzed: 12/19/18						
Matrix Spike (W8L0512-MS1)										
Phosphorus as P, Total	0.0620	0.010	mg/l	0.0500	0.0110	102	90-110			
				Source: 8K27014-01 Prepared: 12/07/18 Analyzed: 12/19/18						
Matrix Spike (W8L0512-MS2)										
Phosphorus as P, Total	0.0622	0.010	mg/l	0.0500	0.0121	100	90-110			
				Source: 8K27014-02 Prepared: 12/07/18 Analyzed: 12/19/18						
Matrix Spike Dup (W8L0512-MSD1)										
Phosphorus as P, Total	0.0610	0.010	mg/l	0.0500	0.0110	100	90-110	2	20	
				Source: 8K27014-01 Prepared: 12/07/18 Analyzed: 12/19/18						
Matrix Spike Dup (W8L0512-MSD2)										
Phosphorus as P, Total	0.0627	0.010	mg/l	0.0500	0.0121	101	90-110	0.8	20	
				Source: 8K27014-02 Prepared: 12/07/18 Analyzed: 12/19/18						
Batch: W8L1378 - EPA 365.1										
Blank (W8L1378-BLK1)										
Phosphorus, Dissolved	ND	0.010	mg/l							
				Prepared: 12/20/18 Analyzed: 12/26/18						
LCS (W8L1378-BS1)										
				Prepared: 12/20/18 Analyzed: 12/26/18						



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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

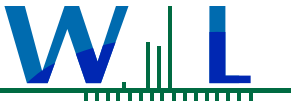
Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L1378 - EPA 365.1 (Continued)										
LCS (W8L1378-BS1)										
Phosphorus, Dissolved	0.0535	0.010	mg/l	0.0500		107	90-110			
Prepared: 12/20/18 Analyzed: 12/26/18										
Matrix Spike (W8L1378-MS1)										
Phosphorus, Dissolved	0.0550	0.010	mg/l	0.0500	0.00257	105	90-110			
Source: 8K29062-05 Prepared: 12/20/18 Analyzed: 12/26/18										
Matrix Spike (W8L1378-MS2)										
Phosphorus, Dissolved	0.192	0.020	mg/l	0.100	0.0756	116	90-110			MS-01
Source: 8K30011-03 Prepared: 12/20/18 Analyzed: 12/26/18										
Matrix Spike Dup (W8L1378-MSD1)										
Phosphorus, Dissolved	0.0525	0.010	mg/l	0.0500	0.00257	100	90-110	5	20	
Source: 8K29062-05 Prepared: 12/20/18 Analyzed: 12/26/18										
Matrix Spike Dup (W8L1378-MSD2)										
Phosphorus, Dissolved	0.179	0.020	mg/l	0.100	0.0756	103	90-110	7	20	
Source: 8K30011-03 Prepared: 12/20/18 Analyzed: 12/26/18										

Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0050 - EPA 200.8										
Blank (W8L0050-BLK1)										
Copper, Total	ND	0.50	ug/l							
Prepared: 12/03/18 Analyzed: 12/10/18										
LCS (W8L0050-BS1)										
Copper, Total	53.7	0.50	ug/l	50.0		107	85-115			
Prepared: 12/03/18 Analyzed: 12/10/18										
Matrix Spike (W8L0050-MS1)										
Copper, Total	70.9	0.50	ug/l	50.0	16.9	108	70-130			
Source: 8K29005-01 Prepared: 12/03/18 Analyzed: 12/10/18										
Matrix Spike (W8L0050-MS2)										
Copper, Total	79.1	0.50	ug/l	50.0	25.2	108	70-130			
Source: 8K29005-02 Prepared: 12/03/18 Analyzed: 12/10/18										
Matrix Spike Dup (W8L0050-MSD1)										
Copper, Total	69.3	0.50	ug/l	50.0	16.9	105	70-130	2	30	
Source: 8K29005-01 Prepared: 12/03/18 Analyzed: 12/10/18										
Matrix Spike Dup (W8L0050-MSD2)										
Copper, Total	78.1	0.50	ug/l	50.0	25.2	106	70-130	1	30	
Source: 8K29005-02 Prepared: 12/03/18 Analyzed: 12/10/18										
Batch: W8L0051 - EPA 200.7										
Blank (W8L0051-BLK1)										
Calcium, Total	ND	0.100	mg/l							
Prepared: 12/03/18 Analyzed: 12/05/18										
LCS (W8L0051-BS1)										
Calcium, Total	48.9	0.100	mg/l	50.2		97	85-115			
Prepared: 12/03/18 Analyzed: 12/05/18										
Matrix Spike (W8L0051-MS1)										
Calcium, Total	51.2	0.100	mg/l	50.2	1.88	98	70-130			
Source: 8K29005-03 Prepared: 12/03/18 Analyzed: 12/05/18										
Matrix Spike Dup (W8L0051-MSD1)										
Calcium, Total	50.0	0.100	mg/l	50.2	1.88	96	70-130	2	30	
Source: 8K29005-03 Prepared: 12/03/18 Analyzed: 12/05/18										



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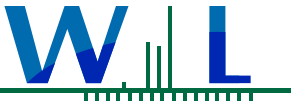
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Pyrethroid Pesticides by EPA 8270M

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0358 - EPA 8270M										
Blank (W8L0358-BLK1)				Prepared: 12/06/18 Analyzed: 01/07/19						
Allethrin	ND	2.0	ng/l							
Bifenthrin	ND	2.0	ng/l							
Cyfluthrin	ND	2.0	ng/l							
Cypermethrin	ND	2.0	ng/l							
Deltamethrin/Tralomethrin	ND	2.0	ng/l							
Dichloran	ND	2.0	ng/l							
Fenpropathrin (Danitol)	ND	2.0	ng/l							
Fenvalerate/Esfenvalerate	ND	2.0	ng/l							
Fipronil	ND	2.0	ng/l							
Fipronil sulfide	ND	2.0	ng/l							
Fipronil sulfone	ND	2.0	ng/l							
L-Cyhalothrin	ND	2.0	ng/l							
Pendimethalin	ND	2.0	ng/l							
Permethrin	ND	5.0	ng/l							
Prallethrin	ND	2.0	ng/l							
Sumithrin (Phenothrin)	ND	10	ng/l							
Tefluthrin	ND	2.0	ng/l							
<i>Surrogate(s)</i>										
Perylene-d12	476		ng/l	250		190	2-205			
Triphenyl phosphate	470		ng/l	250		188	6-222			
LCS (W8L0358-BS1)				Prepared: 12/06/18 Analyzed: 01/07/19						
Allethrin	49.1	2.0	ng/l	50.0		98	50-150			
Bifenthrin	42.1	2.0	ng/l	50.0		84	50-150			
Cyfluthrin	36.3	2.0	ng/l	50.0		73	50-150			
Cypermethrin	40.2	2.0	ng/l	50.0		80	50-150			
Deltamethrin/Tralomethrin	32.1	2.0	ng/l	50.0		64	50-150			
Dichloran	49.4	2.0	ng/l	50.0		99	50-150			
Fenpropathrin (Danitol)	43.2	2.0	ng/l	50.0		86	50-150			
Fenvalerate/Esfenvalerate	46.0	2.0	ng/l	50.0		92	50-150			
Fipronil	67.6	2.0	ng/l	50.0		135	50-150			
Fipronil sulfide	51.9	2.0	ng/l	50.0		104	50-150			
Fipronil sulfone	53.1	2.0	ng/l	50.0		106	50-150			
L-Cyhalothrin	33.9	2.0	ng/l	50.0		68	50-150			
Pendimethalin	48.8	2.0	ng/l	50.0		98	50-150			
Permethrin	44.1	5.0	ng/l	50.0		88	50-150			
Prallethrin	50.4	2.0	ng/l	50.0		101	50-150			
Sumithrin (Phenothrin)	43.6	10	ng/l	50.0		87	50-150			
Tefluthrin	40.3	2.0	ng/l	50.0		81	50-150			
<i>Surrogate(s)</i>										



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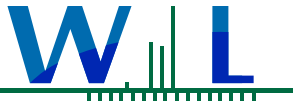
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Pyrethroid Pesticides by EPA 8270M (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0358 - EPA 8270M (Continued)										
LCS (W8L0358-BS1)										
Prepared: 12/06/18 Analyzed: 01/07/19										
<i>Surrogate(s)</i>										
Perylene-d12	447		ng/l	250		179	2-205			
Triphenyl phosphate	459		ng/l	250		183	6-222			
LCS Dup (W8L0358-BSD1)										
Prepared: 12/06/18 Analyzed: 01/07/19										
Allethrin	49.1	2.0	ng/l	50.0		98	50-150	0.02	50	
Bifenthrin	43.1	2.0	ng/l	50.0		86	50-150	2	50	
Cyfluthrin	37.3	2.0	ng/l	50.0		75	50-150	3	50	
Cypermethrin	41.4	2.0	ng/l	50.0		83	50-150	3	50	
Deltamethrin/Tralomethrin	46.3	2.0	ng/l	50.0		93	50-150	36	50	
Dichloran	43.4	2.0	ng/l	50.0		87	50-150	13	50	
Fenpropathrin (Danitol)	44.1	2.0	ng/l	50.0		88	50-150	2	50	
Fenvalerate/Esfenvalerate	47.5	2.0	ng/l	50.0		95	50-150	3	50	
Fipronil	69.1	2.0	ng/l	50.0		138	50-150	2	50	
Fipronil sulfide	53.2	2.0	ng/l	50.0		106	50-150	3	50	
Fipronil sulfone	55.3	2.0	ng/l	50.0		111	50-150	4	50	
L-Cyhalothrin	34.6	2.0	ng/l	50.0		69	50-150	2	50	
Pendimethalin	47.4	2.0	ng/l	50.0		95	50-150	3	50	
Permethrin	45.6	5.0	ng/l	50.0		91	50-150	3	50	
Prallethrin	51.1	2.0	ng/l	50.0		102	50-150	1	50	
Sumithrin (Phenothrin)	46.4	10	ng/l	50.0		93	50-150	6	50	
Tefluthrin	35.4	2.0	ng/l	50.0		71	50-150	13	50	
<i>Surrogate(s)</i>										
Perylene-d12	427		ng/l	250		171	2-205			
Triphenyl phosphate	464		ng/l	250		186	6-222			



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

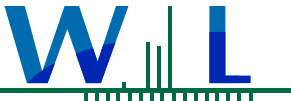
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0876 - EPA 525.2M										
Blank (W8L0876-BLK1)										
Prepared: 12/13/18 Analyzed: 12/19/18										
Azinphos methyl (Guthion)	ND	10	ng/l							
Bolstar	ND	10	ng/l							
Chlorpyrifos	ND	10	ng/l							
Coumaphos	ND	10	ng/l							
Demeton-o	ND	10	ng/l							
Demeton-s	ND	10	ng/l							
Diazinon	ND	10	ng/l							
Dichlorvos	ND	10	ng/l							
Dimethoate	ND	10	ng/l							
Disulfoton	ND	10	ng/l							
Ethoprop	ND	10	ng/l							
Ethyl parathion	ND	10	ng/l							
Fensulfothion	ND	10	ng/l							
Fenthion	ND	10	ng/l							
Malathion	ND	10	ng/l							
Merphos	ND	10	ng/l							
Methyl parathion	ND	10	ng/l							
Mevinphos	ND	10	ng/l							
Naled	ND	10	ng/l							
Phorate	ND	10	ng/l							
Ronnel	ND	10	ng/l							
Stirophos	ND	10	ng/l							
Tokuthion (Prothiofos)	ND	10	ng/l							
Trichloronate	ND	10	ng/l							
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	461		ng/l	500		92	76-128			
Triphenyl phosphate	527		ng/l	500		105	40-163			
LCS (W8L0876-BS1)										
Prepared: 12/13/18 Analyzed: 12/19/18										
Azinphos methyl (Guthion)	50.4	10	ng/l	50.0		101	0.1-188			
Bolstar	35.2	10	ng/l	50.0		70	11-166			
Chlorpyrifos	52.0	10	ng/l	50.0		104	37-169			
Coumaphos	44.9	10	ng/l	50.0		90	0.1-225			
Demeton-o	27.3	10	ng/l	50.0		55	0.1-211			
Demeton-s	57.7	10	ng/l	50.0		115	0.1-213			
Diazinon	46.7	10	ng/l	50.0		93	43-152			
Dichlorvos	49.2	10	ng/l	50.0		98	46-133			
Dimethoate	37.2	10	ng/l	50.0		74	10-234			
Disulfoton	46.0	10	ng/l	50.0		92	0.1-212			
Ethoprop	44.1	10	ng/l	50.0		88	53-163			



WECK LABORATORIES, INC.

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FINAL REPORT

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Reported:

01/21/2019 11:03

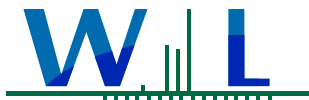
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8L0876 - EPA 525.2M (Continued)										
LCS (W8L0876-BS1)				Prepared: 12/13/18 Analyzed: 12/19/18						
Ethyl parathion	47.0	10	ng/l	50.0		94	7-230			
Fensulfothion	49.8	10	ng/l	50.0		100	0.1-265			
Fenthion	51.4	10	ng/l	50.0		103	20-177			
Malathion	50.3	10	ng/l	50.0		101	14-175			
Merphos	33.7	10	ng/l	50.0		67	28-181			
Methyl parathion	49.7	10	ng/l	50.0		99	0.1-252			
Mevinphos	32.2	10	ng/l	50.0		64	14-202			
Naled	21.3	10	ng/l	50.0		43	0.1-240			
Phorate	45.5	10	ng/l	50.0		91	26-180			
Ronnel	49.2	10	ng/l	50.0		98	34-154			
Stirophos	60.8	10	ng/l	50.0		122	0.1-188			
Tokuthion (Prothiofos)	37.3	10	ng/l	50.0		75	23-159			
Trichloronate	48.4	10	ng/l	50.0		97	34-153			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	442		ng/l	500		88	76-128			
Triphenyl phosphate	499		ng/l	500		100	40-163			
Matrix Spike (W8L0876-MS1)				Source: 8K29062-01			Prepared: 12/13/18 Analyzed: 12/19/18			
Azinphos methyl (Guthion)	49.9	10	ng/l	50.0	ND	100	0.1-154			
Bolstar	36.2	10	ng/l	50.0	ND	72	4-184			
Chlorpyrifos	47.6	10	ng/l	50.0	ND	95	37-168			
Coumaphos	38.0	10	ng/l	50.0	ND	76	0.1-203			
Demeton-o	26.8	10	ng/l	50.0	ND	54	0.1-208			
Demeton-s	58.3	10	ng/l	50.0	ND	117	0.1-207			
Diazinon	44.6	10	ng/l	50.0	ND	89	36-153			
Dichlorvos	50.4	10	ng/l	50.0	ND	101	42-137			
Dimethoate	26.9	10	ng/l	50.0	ND	54	4-222			
Disulfoton	43.7	10	ng/l	50.0	ND	87	12-199			
Ethoprop	46.7	10	ng/l	50.0	ND	93	51-167			
Ethyl parathion	44.4	10	ng/l	50.0	ND	89	5-229			
Fensulfothion	46.2	10	ng/l	50.0	ND	92	0.1-316			
Fenthion	48.0	10	ng/l	50.0	ND	96	23-169			
Malathion	46.8	10	ng/l	50.0	ND	94	6-184			
Merphos	33.4	10	ng/l	50.0	ND	67	3-210			
Methyl parathion	45.8	10	ng/l	50.0	ND	92	0.1-249			
Mevinphos	33.9	10	ng/l	50.0	ND	68	25-189			
Naled	38.7	10	ng/l	50.0	ND	77	0.1-242			
Phorate	47.1	10	ng/l	50.0	ND	94	31-181			
Ronnel	45.5	10	ng/l	50.0	ND	91	29-153			
Stirophos	58.8	10	ng/l	50.0	ND	118	0.1-167			



WECK LABORATORIES, INC.

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Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

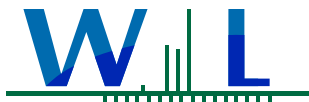
Project Manager: Scott Jordan

Quality Control Results

(Continued)

Semivolatle Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8L0876 - EPA 525.2M (Continued)										
Matrix Spike (W8L0876-MS1)			Source: 8K29062-01			Prepared: 12/13/18 Analyzed: 12/19/18				
Tokuthion (Prothiofos)	37.0	10	ng/l	50.0	ND	74	27-160			
Trichloronate	42.7	10	ng/l	50.0	ND	85	40-150			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	491		ng/l	500		98	76-128			
Triphenyl phosphate	511		ng/l	500		102	40-163			
Matrix Spike Dup (W8L0876-MSD1)			Source: 8K29062-01			Prepared: 12/13/18 Analyzed: 12/19/18				
Azinphos methyl (Guthion)	55.2	10	ng/l	50.0	ND	110	0.1-154	10	30	
Bolstar	32.4	10	ng/l	50.0	ND	65	4-184	11	30	
Chlorpyrifos	47.3	10	ng/l	50.0	ND	95	37-168	0.6	30	
Coumaphos	42.6	10	ng/l	50.0	ND	85	0.1-203	12	30	
Demeton-o	28.3	10	ng/l	50.0	ND	57	0.1-208	5	30	
Demeton-s	60.5	10	ng/l	50.0	ND	121	0.1-207	4	30	
Diazinon	40.1	10	ng/l	50.0	ND	80	36-153	11	30	
Dichlorvos	51.9	10	ng/l	50.0	ND	104	42-137	3	30	
Dimethoate	37.7	10	ng/l	50.0	ND	75	4-222	33	30	MS-05
Disulfoton	43.9	10	ng/l	50.0	ND	88	12-199	0.3	30	
Ethoprop	42.9	10	ng/l	50.0	ND	86	51-167	8	30	
Ethyl parathion	48.6	10	ng/l	50.0	ND	97	5-229	9	30	
Fensulfothion	53.9	10	ng/l	50.0	ND	108	0.1-316	15	30	
Fenthion	52.2	10	ng/l	50.0	ND	104	23-169	8	30	
Malathion	48.4	10	ng/l	50.0	ND	97	6-184	4	30	
Merphos	28.2	10	ng/l	50.0	ND	56	3-210	17	30	
Methyl parathion	49.6	10	ng/l	50.0	ND	99	0.1-249	8	30	
Mevinphos	36.3	10	ng/l	50.0	ND	73	25-189	7	30	
Naled	26.4	10	ng/l	50.0	ND	53	0.1-242	38	30	MS-05
Phorate	46.2	10	ng/l	50.0	ND	92	31-181	2	30	
Ronnel	47.6	10	ng/l	50.0	ND	95	29-153	4	30	
Stirophos	68.4	10	ng/l	50.0	ND	137	0.1-167	15	30	
Tokuthion (Prothiofos)	30.8	10	ng/l	50.0	ND	62	27-160	18	30	
Trichloronate	42.5	10	ng/l	50.0	ND	85	40-150	0.5	30	
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene	475		ng/l	500		95	76-128			
Triphenyl phosphate	479		ng/l	500		96	40-163			



WECK LABORATORIES, INC.

Pacific Ridgeline - Ventura CA
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Certificate of Analysis

FINAL REPORT

Project Number: Nursery Growers Association #178

Reported:

01/21/2019 11:03

Project Manager: Scott Jordan

Notes and Definitions

Item	Definition
*	The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
A-01	Analyst did not spike into the sample.
B-07	This analyte was found in the method blank at levels above the MDL but below the reporting limit.
I-05	Low internal standard recovery possibly due to matrix interference. The result is suspect.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
M-04	Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
O-11	The sample was originally analyzed within holding time. However, it required a dilution and the re-analysis was performed after the recommended holding time had expired.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.



December 20, 2018

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-178-5
DATE RECEIVED:	30 Nov -18
ABC LAB. NO.:	PRI1118.297

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	EC25 =	N/A
	EC50 =	N/A %

REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 19 Dec-18 13:05 (p 1 of 1)
Test Code: PRI1118.297 | 03-3509-8822

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 15-3922-7277	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:45	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:36	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 16-5650-4071	Code: PRI1118.297	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 05:55	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 34h (14 °C)	Station: LAILG-NGA-178-5	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
00-9158-0713	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
16-5317-2976	Reproduction	Wilcoxon Rank Sum Two-Sample Test	0.9980	100% passed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
00-9158-0713	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
16-5317-2976	Reproduction	Control Resp	24.1	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	24.1	21.46	26.74	19	30	1.169	3.695	15.33%	0.00%
100		10	36.2	26.24	46.16	3	49	4.404	13.93	38.47%	-50.21%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	26	30	24	23	22	24	30	19	23
100		38	49	38	29	38	45	48	3	47	27

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 19 Dec-18 13:05 (p 1 of 2)
 Test Code: PRI1118.297 | 03-3509-8822

Ceriodaphnia 7-d Survival and Reproduction Test			Aquatic Bioassay & Consulting Labs, Inc.		
Analysis ID: 16-5317-2976	Endpoint: Reproduction	CETIS Version: CETISv1.9.2			
Analyzed: 19 Dec-18 13:04	Analysis: Nonparametric-Two Sample	Official Results: Yes			
Batch ID: 15-3922-7277	Test Type: Reproduction-Survival (7d)	Analyst:			
Start Date: 30 Nov-18 15:45	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water			
Ending Date: 07 Dec-18 14:36	Species: Ceriodaphnia dubia	Brine: Not Applicable			
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:			
Sample ID: 16-5650-4071	Code: PRI1118.297	Client: Pacific Ridgeline, Inc.			
Sample Date: 29 Nov-18 05:55	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG			
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report				
Sample Age: 34h (14 °C)	Station: LAILG-NGA-178-5				

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	32.78%

Wilcoxon Rank Sum Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	141	n/a	0	18	Exact	0.9980	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	24.1	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	732.05	732.05	1	7.052	0.0161	Significant Effect
Error	1868.5	103.806	18			
Total	2600.55		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	5.733	8.285	0.0278	Equal Variances
Variances	Mod Levene Equality of Variance Test	3.86	8.285	0.0651	Equal Variances
Variances	Variance Ratio F Test	14.2	6.541	5.2E-04	Unequal Variances
Distribution	Anderson-Darling A2 Normality Test	1.025	3.878	0.0108	Normal Distribution
Distribution	D'Agostino Kurtosis Test	3.106	2.576	0.0019	Non-Normal Distribution
Distribution	D'Agostino Skewness Test	3.24	2.576	0.0012	Non-Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	20.15	9.21	4.2E-05	Non-Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1661	0.2235	0.1566	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.8309	0.866	0.0026	Non-Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	24.1	21.46	26.74	23.5	19	30	1.169	15.33%	0.00%
100		10	36.2	26.24	46.16	38	3	49	4.404	38.47%	-50.21%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	26	30	24	23	22	24	30	19	23
100		38	49	38	29	38	45	48	3	47	27

CETIS Analytical Report

Report Date: 19 Dec-18 13:05 (p 1 of 1)
 Test Code: PRI1118.297 | 03-3509-8822

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 00-9158-0713	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:04	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 15-3922-7277	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:45	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:36	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 16-5650-4071	Code: PRI1118.297	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 05:55	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 34h (14 °C)	Station: LAILG-NGA-178-5	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

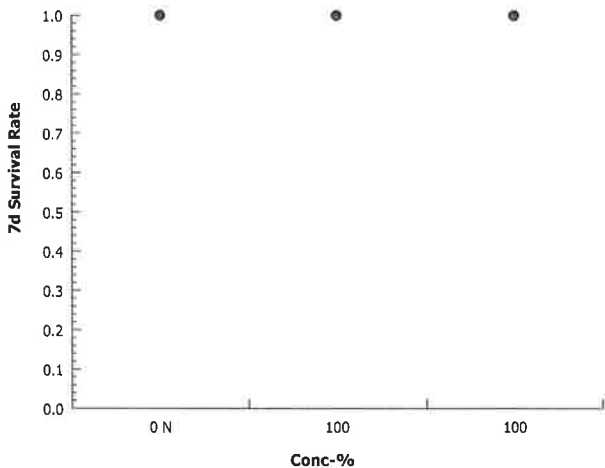
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 19 Dec-18 13:05 (p 1 of 2)
 Test Code: PRI1118.297 | 03-3509-8822

Ceriodaphnia 7-d Survival and Reproduction Test						Aquatic Bioassay & Consulting Labs, Inc.					
Batch ID: 15-3922-7277	Test Type: Reproduction-Survival (7d)					Analyst:					
Start Date: 30 Nov-18 15:45	Protocol: EPA/821/R-02-013 (2002)					Diluent: Laboratory Water					
Ending Date: 07 Dec-18 14:36	Species: Ceriodaphnia dubia					Brine: Not Applicable					
Duration: 6d 23h	Source: Aquatic Biosystems, CO					Age:					
Sample ID: 16-5650-4071	Code: PRI1118.297					Client: Pacific Ridgeline, Inc.					
Sample Date: 29 Nov-18 05:55	Material: Sample Water					Project: LA Irrigated Lands Group (LAILG)-NG					
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report										
Sample Age: 34h (14 °C)	Station: LAILG-NGA-178-5										
Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	64	64	64	64	64	0	0	0.0%	0
100		8	125	125	125	125	125	0	0	0.0%	0
Overall		16	94.5	77.71	111.3	64	125	7.875	31.5	33.33%	0 (0%)
Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	336.1	331.3	341	329	344	2.048	5.793	1.72%	0
100		8	1884	1859	1908	1839	1932	10.36	29.31	1.56%	0
Overall		16	1110	683.9	1536	329	1932	199.9	799.5	72.03%	0 (0%)
Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.938	7.67	8.205	7.6	8.6	0.1133	0.3204	4.04%	0
100		8	6.95	6.385	7.515	6.1	7.9	0.239	0.6761	9.73%	0
Overall		16	7.444	7.059	7.828	6.1	8.6	0.1805	0.722	9.70%	0 (0%)
Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.38	94.94	95.81	95	96	0.183	0.5175	0.54%	0
100		8	325	325	325	325	325	0	0	0.0%	0
Overall		16	210.2	147	273.4	95	325	29.64	118.6	56.42%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.85	7.702	7.998	7.6	8.2	0.06268	0.1773	2.26%	0
100		8	7.387	7.266	7.509	7.2	7.6	0.05154	0.1458	1.97%	0
Overall		16	7.619	7.467	7.771	7.2	8.2	0.07143	0.2857	3.75%	0 (0%)
Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.28	23.8	24.75	24	25.6	0.1989	0.5625	2.32%	0
100		8	24.2	23.91	24.49	24	25	0.121	0.3423	1.41%	0
Overall		16	24.24	24	24.48	24	25.6	0.1129	0.4515	1.86%	0 (0%)

CETIS Measurement Report

Report Date: 19 Dec-18 13:05 (p 2 of 2)
 Test Code: PRI1118.297 | 03-3509-8822

Ceriodaphnia 7-d Survival and Reproduction Test										Aquatic Bioassay & Consulting Labs, Inc.
Alkalinity (CaCO3)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	64	64	64	64	64	64	64	64	64
100		125	125	125	125	125	125	125	125	125
Conductivity-µmhos										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	341	331	330	336	336	342	329	344	
100		1932	1865	1872	1882	1912	1870	1898	1839	
Dissolved Oxygen-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	8.1	7.8	7.8	7.8	8.1	7.6	8.6	
100		6.1	6.5	7	7.1	7.9	7.7	7.2	6.1	
Hardness (CaCO3)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	95	95	95	95	95	96	96	96	
100		325	325	325	325	325	325	325	325	
pH-Units										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	7.9	7.9	7.8	7.8	7.9	7.6	8.2	
100		7.4	7.3	7.2	7.2	7.5	7.5	7.4	7.6	
Temperature-°C										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	25.6	24.1	24.5	24	24	24	24	24	
100		25	24.2	24.3	24.1	24	24	24	24	



December 20, 2018

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:


CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-124-10
DATE RECEIVED:	30 Nov -18
ABC LAB. NO.:	PRI1118.298

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	EC25 =	N/A
	EC50 =	N/A %

REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 19 Dec-18 13:10 (p 1 of 1)
Test Code: PRI1118.298 | 16-7687-5718

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 05-8075-1264	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:47	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:46	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 03-9060-6682	Code: PRI1118.298	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 07:25	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-124-10	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
07-4846-0878	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
19-3571-7305	Reproduction	Equal Variance t Two-Sample Test	0.7004	100% passed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
07-4846-0878	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
19-3571-7305	Reproduction	Control Resp	24.1	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	24.1	21.46	26.74	19	30	1.169	3.695	15.33%	0.00%
100		10	25.7	19.47	31.93	11	40	2.753	8.706	33.87%	-6.64%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	26	30	24	23	22	24	30	19	23
100		33	40	21	23	34	25	31	18	21	11

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 19 Dec-18 13:10 (p 1 of 2)
 Test Code: PRI1118.298 | 16-7687-5718

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 19-3571-7305	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:10	Analysis: Parametric-Two Sample	Official Results: Yes
Batch ID: 05-8075-1264	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:47	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:46	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 03-9060-6682	Code: PRI1118.298	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 07:25	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-124-10	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	21.52%

Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	-0.535	1.734	5.186	18	CDF	0.7004	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits			Decision
		Lower	Upper	Overlap	
Control Resp	24.1	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	12.8	12.8	1	0.2862	0.5992	Non-Significant Effect
Error	805	44.7222	18			
Total	817.8		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	7.102	8.285	0.0158	Equal Variances
Variances	Mod Levene Equality of Variance Test	5.503	8.285	0.0306	Equal Variances
Variances	Variance Ratio F Test	5.55	6.541	0.0177	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.3932	3.878	0.3807	Normal Distribution
Distribution	D'Agostino Kurtosis Test	0.8726	2.576	0.3829	Normal Distribution
Distribution	D'Agostino Skewness Test	0.166	2.576	0.8682	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	0.789	9.21	0.6740	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1561	0.2235	0.2272	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9707	0.866	0.7704	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	24.1	21.46	26.74	23.5	19	30	1.169	15.33%	0.00%
100		10	25.7	19.47	31.93	24	11	40	2.753	33.87%	-6.64%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	26	30	24	23	22	24	30	19	23
100		33	40	21	23	34	25	31	18	21	11

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 19-3571-7305

Endpoint: Reproduction

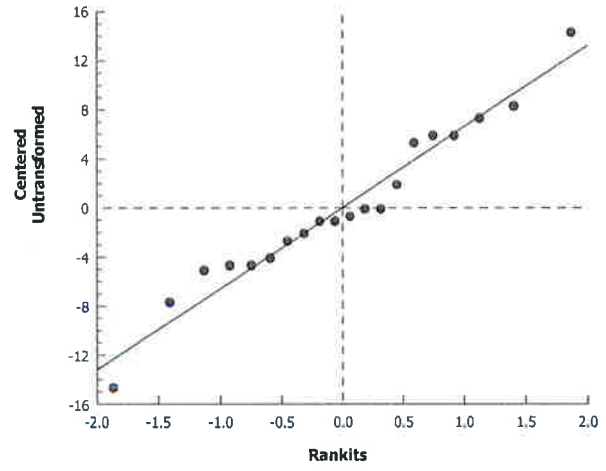
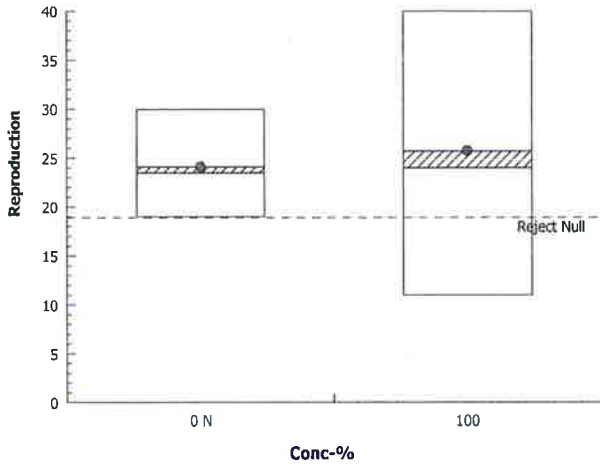
CETIS Version: CETISv1.9.2

Analyzed: 19 Dec-18 13:10

Analysis: Parametric-Two Sample

Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 19 Dec-18 13:10 (p 1 of 1)
 Test Code: PRI1118.298 | 16-7687-5718

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 07-4846-0878	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:10	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 05-8075-1264	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:47	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:46	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 03-9060-6682	Code: PRI1118.298	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 07:25	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-124-10	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

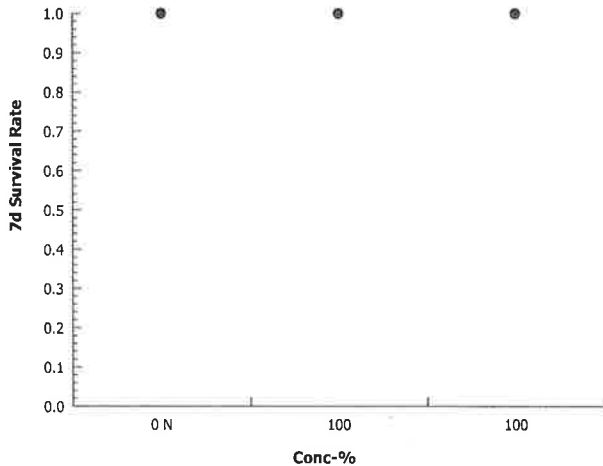
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 19 Dec-18 13:10 (p 1 of 2)
 Test Code: PRI1118.298 | 16-7687-5718

Ceriodaphnia 7-d Survival and Reproduction Test						Aquatic Bioassay & Consulting Labs, Inc.					
Batch ID: 05-8075-1264	Test Type: Reproduction-Survival (7d)					Analyst:					
Start Date: 30 Nov-18 15:47	Protocol: EPA/821/R-02-013 (2002)					Diluent: Laboratory Water					
Ending Date: 07 Dec-18 14:46	Species: Ceriodaphnia dubia					Brine: Not Applicable					
Duration: 6d 23h	Source: Aquatic Biosystems, CO					Age:					
Sample ID: 03-9060-6682	Code: PRI1118.298					Client: Pacific Ridgeline, Inc.					
Sample Date: 29 Nov-18 07:25	Material: Sample Water					Project: LA Irrigated Lands Group (LAILG)-NG					
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report										
Sample Age: 32h (14 °C)	Station: LAILG-NGA-124-10										
Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	64	64	64	64	64	0	0	0.0%	0
100		8	83	83	83	83	83	0	0	0.0%	0
Overall		16	73.5	68.27	78.73	64	83	2.453	9.812	13.35%	0 (0%)
Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	336.1	331.3	341	329	344	2.048	5.793	1.72%	0
100		8	800.5	786.4	814.6	775	830	5.973	16.89	2.11%	0
Overall		16	568.3	440.4	696.3	329	830	60.03	240.1	42.25%	0 (0%)
Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.938	7.67	8.205	7.6	8.6	0.1133	0.3204	4.04%	0
100		8	7.288	6.82	7.755	6.4	8.1	0.1977	0.5592	7.67%	0
Overall		16	7.613	7.317	7.908	6.4	8.6	0.1384	0.5536	7.27%	0 (0%)
Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.38	94.94	95.81	95	96	0.183	0.5175	0.54%	0
100		8	210	210	210	210	210	0	0	0.0%	0
Overall		16	152.7	121.1	184.2	95	210	14.8	59.19	38.77%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.85	7.702	7.998	7.6	8.2	0.06268	0.1773	2.26%	0
100		8	7.438	7.312	7.563	7.3	7.8	0.05324	0.1506	2.03%	0
Overall		16	7.644	7.502	7.785	7.3	8.2	0.06644	0.2658	3.48%	0 (0%)
Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.28	23.8	24.75	24	25.6	0.1989	0.5625	2.32%	0
100		8	24.13	23.95	24.3	24	24.6	0.075	0.2121	0.88%	0
Overall		16	24.2	23.98	24.42	24	25.6	0.1045	0.4179	1.73%	0 (0%)

CETIS Measurement Report

Report Date: 19 Dec-18 13:10 (p 2 of 2)
 Test Code: PRI1118.298 | 16-7687-5718

Ceriodaphnia 7-d Survival and Reproduction Test										Aquatic Bioassay & Consulting Labs, Inc.
Alkalinity (CaCO₃)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	64	64	64	64	64	64	64	64	64
100		83	83	83	83	83	83	83	83	83
Conductivity-µmhos										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	341	331	330	336	336	342	329	344	
100		775	806	807	804	781	798	803	830	
Dissolved Oxygen-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	8.1	7.8	7.8	7.8	8.1	7.6	8.6	
100		8.1	7.5	6.4	7.2	7.8	7.5	7.1	6.7	
Hardness (CaCO₃)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	95	95	95	95	95	96	96	96	
100		210	210	210	210	210	210	210	210	
pH-Units										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	7.9	7.9	7.8	7.8	7.9	7.6	8.2	
100		7.4	7.4	7.4	7.3	7.4	7.4	7.4	7.8	
Temperature-°C										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	25.6	24.1	24.5	24	24	24	24	24	
100		24.6	24.2	24.2	24	24	24	24	24	



December 20, 2018

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-158-2
DATE RECEIVED:	30 Nov -18
ABC LAB. NO.:	PRI1118.299

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TUc =	1.00
	EC25 =	N/A
	EC50 =	N/A %

REPRODUCTION	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 19 Dec-18 13:16 (p 1 of 1)
 Test Code: PRI1118.299 | 21-4506-8003

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 19-5363-2931	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:51	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 12-8153-4224	Code: PRI1118.299	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 08:20	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-158-2	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
02-5213-2970	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
02-3046-8468	Reproduction	Equal Variance t Two-Sample Test	0.9998	100% passed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
02-5213-2970	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
02-3046-8468	Reproduction	Control Resp	16.8	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.8	13.68	19.92	9	22	1.381	4.367	25.99%	0.00%
100		10	29.5	23.49	35.51	13	39	2.655	8.396	28.46%	-75.60%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	13	17	9	22	20	21	12	15	20	19
100		28	13	39	39	34	26	32	35	30	19

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 19 Dec-18 13:16 (p 1 of 2)
 Test Code: PRI1118.299 | 21-4506-8003

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-3046-8468	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:15	Analysis: Parametric-Two Sample	Official Results: Yes
Batch ID: 19-5363-2931	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:51	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 12-8153-4224	Code: PRI1118.299	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 08:20	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-158-2	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	30.89%

Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	-4.244	1.734	5.19	18	CDF	0.9998	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	16.8	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	806.45	806.45	1	18.01	4.9E-04	Significant Effect
Error	806.1	44.7833	18			
Total	1612.55		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	2.597	8.285	0.1245	Equal Variances
Variances	Mod Levene Equality of Variance Test	2.073	8.285	0.1671	Equal Variances
Variances	Variance Ratio F Test	3.698	6.541	0.0647	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.429	3.878	0.3142	Normal Distribution
Distribution	D'Agostino Kurtosis Test	1.019	2.576	0.3082	Normal Distribution
Distribution	D'Agostino Skewness Test	1.687	2.576	0.0916	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	3.885	9.21	0.1434	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1322	0.2235	0.4855	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9462	0.866	0.3131	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	16.8	13.68	19.92	18	9	22	1.381	25.99%	0.00%
100		10	29.5	23.49	35.51	31	13	39	2.655	28.46%	-75.60%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	13	17	9	22	20	21	12	15	20	19
100		28	13	39	39	34	26	32	35	30	19

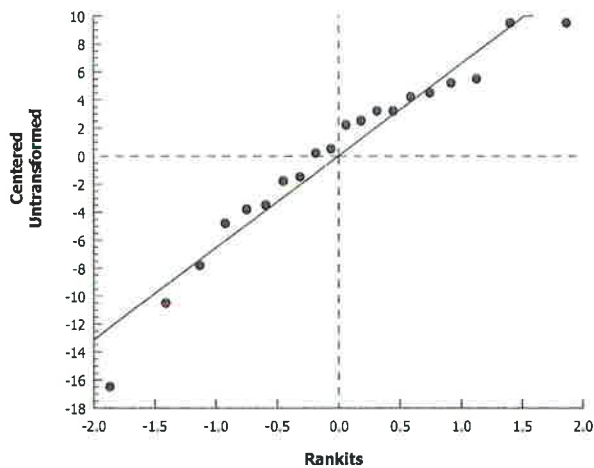
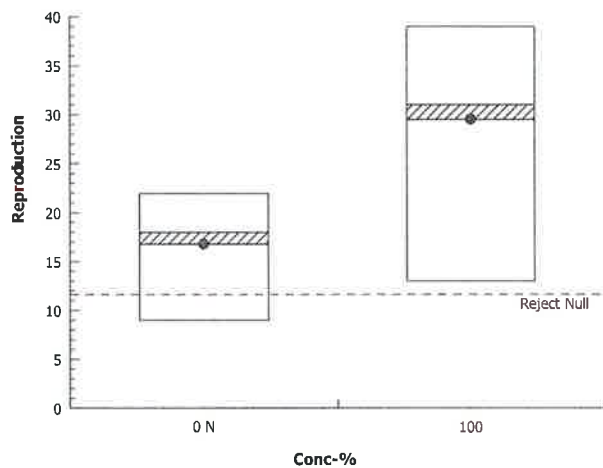
Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-3046-8468 **Endpoint:** Reproduction
Analyzed: 19 Dec-18 13:15 **Analysis:** Parametric-Two Sample

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 19 Dec-18 13:16 (p 1 of 1)
Test Code: PRI1118.299 | 21-4506-8003

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-5213-2970	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:15	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 19-5363-2931	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:51	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 12-8153-4224	Code: PRI1118.299	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 08:20	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-158-2	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

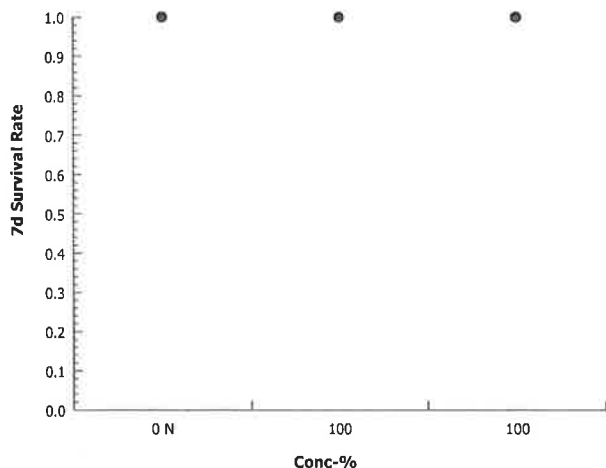
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 19 Dec-18 13:16 (p 1 of 2)

Test Code: PRI1118.299 | 21-4506-8003

Ceriodaphnia 7-d Survival and Reproduction Test **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID: 19-5363-2931	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:51	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:

Sample ID: 12-8153-4224	Code: PRI1118.299	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 08:20	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 32h (14 °C)	Station: LAILG-NGA-158-2	

Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	64	64	64	64	64	0	0	0.0%	0
100		8	19	19	19	19	19	0	0	0.0%	0
Overall		16	41.5	29.12	53.88	19	64	5.809	23.24	55.99%	0 (0%)

Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	336.1	331.3	341	329	344	2.048	5.793	1.72%	0
100		8	290.8	279.6	301.9	273	307	4.701	13.3	4.57%	0
Overall		16	313.4	299.9	327	273	344	6.36	25.44	8.12%	0 (0%)

Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.938	7.67	8.205	7.6	8.6	0.1133	0.3204	4.04%	0
100		8	7.763	7.279	8.246	6.5	8.4	0.2044	0.578	7.45%	0
Overall		16	7.85	7.605	8.095	6.5	8.6	0.1151	0.4604	5.87%	0 (0%)

Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.38	94.94	95.81	95	96	0.183	0.5175	0.54%	0
100		8	79	79	79	79	79	0	0	0.0%	0
Overall		16	87.19	82.68	91.7	79	96	2.116	8.463	9.71%	0 (0%)

pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.85	7.702	7.998	7.6	8.2	0.06268	0.1773	2.26%	0
100		8	7.225	7.093	7.357	7	7.5	0.0559	0.1581	2.19%	0
Overall		16	7.538	7.345	7.73	7	8.2	0.09031	0.3612	4.79%	0 (0%)

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.26	23.79	24.74	24	25.6	0.2008	0.5681	2.34%	0
100		8	24.12	23.94	24.31	24	24.6	0.07735	0.2188	0.91%	0
Overall		16	24.19	23.97	24.42	24	25.6	0.1055	0.4219	1.74%	0 (0%)

CETIS Measurement Report

Report Date: 19 Dec-18 13:16 (p 2 of 2)
 Test Code: PRI1118.299 | 21-4506-8003

Ceriodaphnia 7-d Survival and Reproduction Test										Aquatic Bioassay & Consulting Labs, Inc.									
Alkalinity (CaCO3)-mg/L																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
100		19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Conductivity-µmhos																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	341	331	330	336	336	342	329	344	341	331	330	336	336	342	329	344	341	331
100		273	303	307	293	277	278	292	303	273	303	307	293	277	278	292	303	273	303
Dissolved Oxygen-mg/L																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	7.7	8.1	7.8	7.8	7.8	8.1	7.6	8.6	7.7	8.1	7.8	7.8	7.8	8.1	7.6	8.6	7.7	8.1
100		8.1	7.9	7.5	7.9	8.4	8.1	7.7	6.5	8.1	7.9	7.5	7.9	8.4	8.1	7.7	6.5	8.1	7.9
Hardness (CaCO3)-mg/L																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	95	95	95	95	95	96	96	96	95	95	95	95	95	96	96	96	95	95
100		79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
pH-Units																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	7.7	7.9	7.9	7.8	7.8	7.9	7.6	8.2	7.7	7.9	7.9	7.8	7.8	7.9	7.6	8.2	7.7	7.9
100		7.1	7.3	7.3	7	7.1	7.3	7.2	7.5	7.1	7.3	7.3	7	7.1	7.3	7.2	7.5	7.1	7.3
Temperature-°C																			
Conc-%	Code	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2
0	N	25.6	24	24.5	24	24	24	24	24	25.6	24	24.5	24	24	24	24	24	25.6	24
100		24.6	24.1	24.3	24	24	24	24	24	24.6	24.1	24.3	24	24	24	24	24	24.6	24.1



December 20, 2018

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-202-3
DATE RECEIVED:	30 Nov -18
ABC LAB. NO.:	PRI1118.300

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	EC25 =	N/A
	EC50 =	N/A %

REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 19 Dec-18 13:21 (p 1 of 1)
 Test Code: PRI1118.300 | 19-8226-9491

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 12-6635-4289	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:52	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:58	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-8215-8381	Code: PRI1118.300	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 10:35	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 29h (14 °C)	Station: LAILG-NGA-202-3	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
16-0855-3942	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
10-5629-2499	Reproduction	Wilcoxon Rank Sum Two-Sample Test	1.0000	100% passed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
16-0855-3942	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
10-5629-2499	Reproduction	Control Resp	16.8	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.8	13.68	19.92	9	22	1.381	4.367	25.99%	0.00%
100		10	42.2	36.75	47.65	23	49	2.407	7.613	18.04%	-151.19%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	13	17	9	22	20	21	12	15	20	19
100		41	44	46	23	49	43	48	47	37	44

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 19 Dec-18 13:21 (p 1 of 2)
 Test Code: PRI1118.300 | 19-8226-9491

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 10-5629-2499	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:21	Analysis: Nonparametric-Two Sample	Official Results: Yes
Batch ID: 12-6635-4289	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:52	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:58	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-8215-8381	Code: PRI1118.300	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 10:35	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 29h (14 °C)	Station: LAILG-NGA-202-3	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	28.65%

Wilcoxon Rank Sum Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	155	n/a	0	18	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	16.8	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3225.8	3225.8	1	83.76	<1.0E-37	Significant Effect
Error	693.2	38.5111	18			
Total	3919		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	0.6603	8.285	0.4271	Equal Variances
Variances	Mod Levene Equality of Variance Test	0.2257	8.285	0.6405	Equal Variances
Variances	Variance Ratio F Test	3.04	6.541	0.1132	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	1.016	3.878	0.0114	Normal Distribution
Distribution	D'Agostino Kurtosis Test	2.663	2.576	0.0077	Non-Normal Distribution
Distribution	D'Agostino Skewness Test	3.139	2.576	0.0017	Non-Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	16.95	9.21	2.1E-04	Non-Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1671	0.2235	0.1506	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.842	0.866	0.0039	Non-Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	16.8	13.68	19.92	18	9	22	1.381	25.99%	0.00%
100		10	42.2	36.75	47.65	44	23	49	2.407	18.04%	-151.19%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	13	17	9	22	20	21	12	15	20	19
100		41	44	46	23	49	43	48	47	37	44

CETIS Analytical Report

Report Date: 19 Dec-18 13:21 (p 1 of 1)
 Test Code: PRI1118.300 | 19-8226-9491

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 16-0855-3942	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 19 Dec-18 13:21	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 12-6635-4289	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 30 Nov-18 15:52	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 07 Dec-18 14:58	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-8215-8381	Code: PRI1118.300	Client: Pacific Ridgeline, Inc.
Sample Date: 29 Nov-18 10:35	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report	
Sample Age: 29h (14 °C)	Station: LAILG-NGA-202-3	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

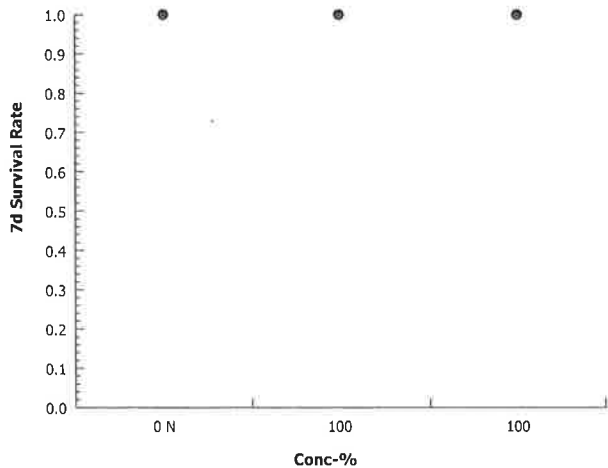
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 19 Dec-18 13:21 (p 1 of 2)
 Test Code: PRI1118.300 | 19-8226-9491

Ceriodaphnia 7-d Survival and Reproduction Test							Aquatic Bioassay & Consulting Labs, Inc.					
Batch ID: 12-6635-4289	Test Type: Reproduction-Survival (7d)			Analyst:								
Start Date: 30 Nov-18 15:52	Protocol: EPA/821/R-02-013 (2002)			Diluent: Laboratory Water								
Ending Date: 07 Dec-18 14:58	Species: Ceriodaphnia dubia			Brine: Not Applicable								
Duration: 6d 23h	Source: Aquatic Biosystems, CO			Age:								
Sample ID: 20-8215-8381	Code: PRI1118.300			Client: Pacific Ridgeline, Inc.								
Sample Date: 29 Nov-18 10:35	Material: Sample Water			Project: LA Irrigated Lands Group (LAILG)-NG								
Receipt Date: 30 Nov-18 11:35	Source: Bioassay Report											
Sample Age: 29h (14 °C)	Station: LAILG-NGA-202-3											
Alkalinity (CaCO3)-mg/L												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	64	64	64	64	64	0	0	0.0%	0	
100		8	39	39	39	39	39	0	0	0.0%	0	
Overall		16	51.5	44.62	58.38	39	64	3.227	12.91	25.07%	0 (0%)	
Conductivity-µmhos												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	336.1	331.3	341	329	344	2.048	5.793	1.72%	0	
100		8	398.5	397.7	399.3	397	400	0.3273	0.9258	0.23%	0	
Overall		16	367.3	350	384.6	329	400	8.115	32.46	8.84%	0 (0%)	
Dissolved Oxygen-mg/L												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	7.938	7.67	8.205	7.6	8.6	0.1133	0.3204	4.04%	0	
100		8	7.85	7.408	8.292	6.8	8.5	0.1871	0.5292	6.74%	0	
Overall		16	7.894	7.667	8.12	6.8	8.6	0.1063	0.425	5.38%	0 (0%)	
Hardness (CaCO3)-mg/L												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	95.38	94.94	95.81	95	96	0.183	0.5175	0.54%	0	
100		8	108	108	108	108	108	0	0	0.0%	0	
Overall		16	101.7	98.21	105.2	95	108	1.632	6.529	6.42%	0 (0%)	
pH-Units												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	7.85	7.702	7.998	7.6	8.2	0.06268	0.1773	2.26%	0	
100		8	7.312	7.218	7.407	7.2	7.5	0.03981	0.1126	1.54%	0	
Overall		16	7.581	7.415	7.748	7.2	8.2	0.07811	0.3125	4.12%	0 (0%)	
Temperature-°C												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	8	24.26	23.79	24.74	24	25.6	0.2008	0.5681	2.34%	0	
100		8	24.26	23.8	24.72	24	25.6	0.1945	0.5502	2.27%	0	
Overall		16	24.26	23.97	24.55	24	25.6	0.1351	0.5402	2.23%	0 (0%)	

CETIS Measurement Report

Report Date: 19 Dec-18 13:21 (p 2 of 2)
 Test Code: PRI1118.300 | 19-8226-9491

Ceriodaphnia 7-d Survival and Reproduction Test										Aquatic Bioassay & Consulting Labs, Inc.
Alkalinity (CaCO3)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	64	64	64	64	64	64	64	64	64
100		39	39	39	39	39	39	39	39	39
Conductivity-µmhos										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	341	331	330	336	336	342	329	344	
100		400	399	399	398	399	397	398	398	
Dissolved Oxygen-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	8.1	7.8	7.8	7.8	8.1	7.6	8.6	
100		8.5	8.1	7.7	8.1	8.3	7.7	7.6	6.8	
Hardness (CaCO3)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	95	95	95	95	95	96	96	96	
100		108	108	108	108	108	108	108	108	
pH-Units										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.7	7.9	7.9	7.8	7.8	7.9	7.6	8.2	
100		7.4	7.3	7.3	7.2	7.2	7.4	7.2	7.5	
Temperature-°C										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	25.6	24	24.5	24	24	24	24	24	
100		25.6	24	24.3	24.1	24.1	24	24	24	



1891 Goodyear Ave., Suite 621
Ventura, CA 93003
Tel 855-682-1802 • www.pacrl.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

CLIENT NAME / BILL TO:

PROJECT:

ANALYSES REQUESTED

SPECIAL HANDLING

Pacific Ridgeline
ADDRESS:

LA Irrigated Lands Group (LAILG) - NGA
ADDRESS:

1891 Goodyear Ave., Suite 621
Ventura Ca, 93003

PO#:

- STANDARD
- 24 Hour Rush
- 48-72 Hour Rush
- 4 - 5 Day Rush
- EDF

PHONE: (855) 682-1802 Ext. 101
EMAIL: bryn@pacrl.com

PROJECT MANAGER:

SAMPLER:

COMMENTS:

Bryn Home

Scott Jordan

SAMPLE ID#	DATE SAMPLED	TIME SAMPLED	SAMPL TYPE	SAMPLE DESCRIPTION/SITE LOCATION	# OF CONT.	ANALYSES REQUESTED				COMMENTS:		
LAILG-NGA-178-5	11/29/18	5:55	RW	Driveway on Malay	2	X						
" 124-10		7:25		Rac Courses of Site		X						
158-2		8:20		Main Gate		X						
267-3		10:35		Entrance Gate		X						
				Temp. deg. C			297		298		299	300
				Chlorine (mg/L)			14		14		14	
				NH3 (mg/L)			5.0		2.0		60.1	60.1

RELINQUISHED BY:

DATE / TIME:

RECEIVED BY:

SAMPLE CONDITION:

SAMPLE TYPE CODE:

RELINQUISHED BY:

DATE / TIME:

RECEIVED BY:

Actual Temperature:

RELINQUISHED BY:

DATE / TIME:

RECEIVED BY:

Received On Ice Preserved

Y / N

Evidence Seals Present

Y / N

Container Attacked

Y / N

Preserved at Lab

Y / N

AA=Aqueous NA= Non Aqueous SL = Sludge DW = Drinking Water WW = Waste Water RW = Rain Water GW = Ground Water SO = Soil SW = Solid Waste OL = Oil OT = Other Matrix

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 6 November - 2018

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

EC25 = 15.00 ug/l

EC50 = 20.00 ug/l

ENDPOINT: REPRODUCTION

NOEC = 5.00 ug/l

IC25 = 5.70 ug/l

IC50 = 9.55 ug/l

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 20 Nov-18 12:12 (p 1 of 2)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD	✓
20-5032-8478	7d Survival Rate	Fisher Exact/Bonferroni-Holm Test	10	30	17.32		n/a	
00-1135-0834	Reproduction	Steel Many-One Rank Sum Test	5	10	7.071		15.7%	✓

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL	TU	✓
14-8175-0223	7d Survival Rate	Linear Interpolation (ICPIN)	EC5	11	11	11		
			EC10	12	12	12		
			EC15	13	13	13		
			EC20	14	14	14		
			EC25	15	15	15		
			EC40	18	18	18		
17-8284-4696	Reproduction	Linear Interpolation (ICPIN)	IC5	2.569	0.9643	5.025		✓
			IC10	3.57	1.929	5.542		✓
			IC15	4.255	2.893	6.068		✓
			IC20	4.94	3.689	6.605		✓
			IC25	5.702	4.25	7.102		✓
			IC40	8.011	6	8.95		✓
			IC50	9.551	8.523	11.37		✓

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits			Overlap	Decision
				Lower	Upper			
14-8175-0223	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria	
20-5032-8478	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria	
00-1135-0834	Reproduction	Control Resp	27.4	15	>>	Yes	Passes Criteria	
17-8284-4696	Reproduction	Control Resp	27.4	15	>>	Yes	Passes Criteria	
00-1135-0834	Reproduction	PMSD	0.1567	0.13	0.47	Yes	Passes Criteria	

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
3		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
5		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
30		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
50		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%

Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	27.4	25.88	28.92	25	31	0.67	2.119	7.73%	0.00%
3		10	25.8	22.62	28.98	18	31	1.405	4.442	17.22%	5.84%
5		10	21.8	15.84	27.76	9	32	2.636	8.337	38.24%	20.44%
10		10	12.9	10.73	15.07	10	18	0.9597	3.035	23.53%	52.92%
30		10	0.5	-0.6311	1.631	0	5	0.5	1.581	316.23%	98.18%
50		10	0.1	-0.1262	0.3262	0	1	0.1	0.3162	316.23%	99.64%

CETIS Summary Report

Report Date: 20 Nov-18 12:12 (p 2 of 2)

Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	27	25	31	30	26	30	26	26	26	27
3		26	27	23	29	28	19	30	18	31	27
5		10	15	27	28	9	24	32	27	29	17
10		14	10	15	15	18	10	10	11	10	16
30		0	0	0	0	0	0	0	0	5	0
50		0	0	0	0	1	0	0	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

CETIS Analytical Report

Report Date: 20 Nov-18 12:12 (p 1 of 2)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 00-1135-0834	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 20 Nov-18 12:11	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	C > T	5	10	7.071		15.67%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		3	101.5	75	4	18	Asymp	0.7427	Non-Significant Effect
		5	91	75	1	18	Asymp	0.3875	Non-Significant Effect
		10*	55	75	0	18	Asymp	3.8E-04	Significant Effect
		30*	55	75	0	18	Asymp	3.8E-04	Significant Effect
		50*	55	75	0	18	Asymp	3.8E-04	Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	27.4	15	>>	Yes	Passes Criteria
PMSD	0.1567	0.13	0.47	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7529.35	1505.87	5	85.61	<1.0E-37	Significant Effect
Error	949.9	17.5907	54			
Total	8479.25		59			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance Test	65.95	15.09	<1.0E-37	Unequal Variances
Variances	Levene Equality of Variance Test	17.8	3.377	<1.0E-37	Unequal Variances
Variances	Mod Levene Equality of Variance Test	7.139	3.377	3.4E-05	Unequal Variances
Distribution	Anderson-Darling A2 Normality Test	1.66	3.878	6.3E-07	Non-Normal Distribution
Distribution	D'Agostino Kurtosis Test	2.453	2.576	0.0142	Normal Distribution
Distribution	D'Agostino Skewness Test	2.168	2.576	0.0302	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	10.72	9.21	0.0047	Non-Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1671	0.1331	2.5E-04	Non-Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9309	0.9459	0.0022	Non-Normal Distribution

Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	27.4	25.88	28.92	26.5	25	31	0.67	7.73%	0.00%
3		10	25.8	22.62	28.98	27	18	31	1.405	17.22%	5.84%
5		10	21.8	15.84	27.76	25.5	9	32	2.636	38.24%	20.44%
10		10	12.9	10.73	15.07	12.5	10	18	0.9597	23.53%	52.92%
30		10	0.5	-0.6311	1.631	0	0	5	0.5	316.23%	98.18%
50		10	0.1	-0.1262	0.3262	0	0	1	0.1	316.23%	99.64%

CETIS Analytical Report

Report Date: 20 Nov-18 12:12 (p 1 of 4)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-8175-0223	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 20 Nov-18 12:11	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC5	11	11	11
EC10	12	12	12
EC15	13	13	13
EC20	14	14	14
EC25	15	15	15
EC40	18	18	18
EC50	20	20	20

7d Survival Rate Summary

Conc-µg/L	Code	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	N	10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
3		10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
5		10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
10		10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
30		10	0.0000	0.0000	0.0000	0.0000	0.0000		100.0%	0	10
50		10	0.0000	0.0000	0.0000	0.0000	0.0000		100.0%	0	10

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

Ceriodaphnia 7-d Survival and Reproduction Test

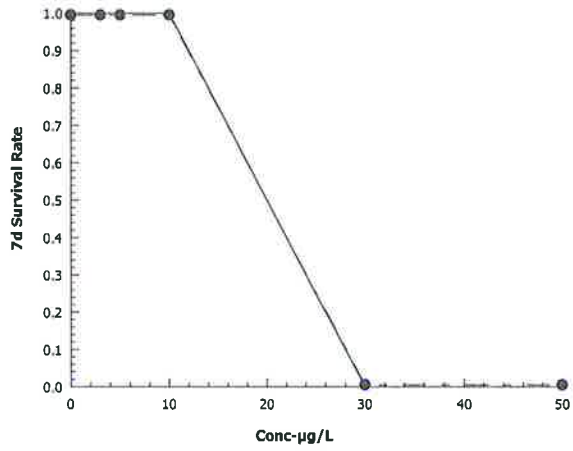
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-8175-0223
Analyzed: 20 Nov-18 12:11

Endpoint: 7d Survival Rate
Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 20 Nov-18 12:12 (p 3 of 4)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 17-8284-4696	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 20 Nov-18 12:11	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	27.4	15	>>	Yes	Passes Criteria

Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	2.569	0.9643	5.025
IC10	3.57	1.929	5.542
IC15	4.255	2.893	6.068
IC20	4.94	3.689	6.605
IC25	5.702	4.25	7.102
IC40	8.011	6	8.95
IC50	9.551	8.523	11.37

Reproduction Summary

Conc-µg/L	Code	Count	Calculated Variate						
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	27.4	25	31	0.67	2.119	7.73%	0.0%
3		10	25.8	18	31	1.405	4.442	17.22%	5.84%
5		10	21.8	9	32	2.636	8.337	38.24%	20.44%
10		10	12.9	10	18	0.9597	3.035	23.53%	52.92%
30		10	0.5	0	5	0.5	1.581	316.20%	98.18%
50		10	0.1	0	1	0.1	0.3162	316.20%	99.64%

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	27	25	31	30	26	30	26	26	26	27
3		26	27	23	29	28	19	30	18	31	27
5		10	15	27	28	9	24	32	27	29	17
10		14	10	15	15	18	10	10	11	10	16
30		0	0	0	0	0	0	0	0	5	0
50		0	0	0	0	1	0	0	0	0	0

CETIS Analytical Report

Report Date: 20 Nov-18 12:12 (p 1 of 2)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 20-5032-8478	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 20 Nov-18 12:11	Analysis: STP 2xK Contingency Tables	Official Results: Yes
Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	10	30	17.32	

Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		3	1.0000	Exact	1.0000	Non-Significant Effect
		5	1.0000	Exact	1.0000	Non-Significant Effect
		10	1.0000	Exact	1.0000	Non-Significant Effect
		30*	0.0000	Exact	2.7E-05	Significant Effect
		50*	0.0000	Exact	2.7E-05	Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-µg/L	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
3		10	0	10	1	0	0.0%
5		10	0	10	1	0	0.0%
10		10	0	10	1	0	0.0%
30		0	10	10	0	1	100.0%
50		0	10	10	0	1	100.0%

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

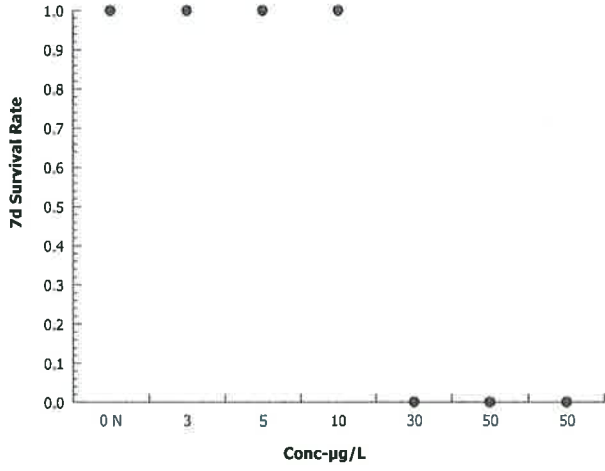
Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 20-5032-8478 Endpoint: 7d Survival Rate
Analyzed: 20 Nov-18 12:11 Analysis: STP 2xK Contingency Tables

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Measurement Report

Report Date: 20 Nov-18 12:12 (p 1 of 2)
Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Batch ID: 19-9880-0979	Test Type: Reproduction-Survival (7d)	Analyst:					
Start Date: 06 Nov-18 15:31	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water					
Ending Date: 13 Nov-18 14:35	Species: Ceriodaphnia dubia	Brine: Not Applicable					
Duration: 6d 23h	Source: Aquatic Biosystems, CO	Age:					
Sample ID: 08-2510-6729	Code: CER110618	Client: ABC Labs					
Sample Date: 06 Nov-18 15:31	Material: Copper chloride	Project: REF TOX					
Receipt Date:	Source: Reference Toxicant						
Sample Age: n/a	Station: REF TOX						

Alkalinity (CaCO3)-mg/L											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.25	59.66	60.84	60	62	0.25	0.7071	1.17%	0
50		8	59	59	59	59	59	0	0	0.0%	0
Overall		16	59.62	59.2	60.05	59	62	0.2016	0.8062	1.35%	0 (0%)

Conductivity-µmhos											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	341.8	332	351.5	330	359	4.118	11.65	3.41%	0
3		8	337.8	332.7	342.8	331	345	2.119	5.994	1.78%	0
5		8	334.1	330.2	338.1	327	341	1.663	4.704	1.41%	0
10		8	329.5	325.5	333.5	324	338	1.701	4.811	1.46%	0
30		7	332.1	330.2	334.1	330	335	0.7997	2.116	0.64%	0
50		7	326.1	320.8	331.5	320	334	2.198	5.815	1.78%	0
Overall		46	333.8	331.4	336.2	320	359	1.195	8.105	2.43%	0 (0%)

Dissolved Oxygen-mg/L											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.8	7.659	7.941	7.6	8.1	0.05976	0.169	2.17%	0
3		8	8.013	7.821	8.204	7.8	8.5	0.08115	0.2295	2.87%	0
5		8	8.013	7.81	8.215	7.8	8.5	0.08543	0.2416	3.02%	0
10		8	8.038	7.843	8.232	7.8	8.4	0.08224	0.2326	2.89%	0
30		7	7.871	7.491	8.252	7.1	8.3	0.1554	0.4112	5.22%	0
50		6	7.85	7.341	8.359	7.1	8.3	0.1979	0.4848	6.18%	0
Overall		45	7.936	7.846	8.025	7.1	8.5	0.04463	0.2994	3.77%	0 (0%)

Hardness (CaCO3)-mg/L											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	89.38	88.49	90.26	89	92	0.375	1.061	1.19%	0
50		8	92	92	92	92	92	0	0	0.0%	0
Overall		16	90.69	89.87	91.51	89	92	0.3843	1.537	1.70%	0 (0%)

pH-Units											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.837	7.729	7.946	7.7	8	0.04605	0.1302	1.66%	0
3		8	7.888	7.805	7.97	7.7	8	0.03504	0.0991	1.26%	0
5		8	7.838	7.738	7.937	7.6	8	0.04199	0.1188	1.52%	0
10		8	7.813	7.708	7.917	7.6	8	0.04407	0.1246	1.6%	0
30		7	7.814	7.715	7.913	7.7	8	0.04041	0.1069	1.37%	0
50		6	7.8	7.706	7.894	7.7	7.9	0.03651	0.08944	1.15%	0
Overall		45	7.833	7.8	7.867	7.6	8	0.01651	0.1108	1.41%	0 (0%)

CETIS Measurement Report

Report Date: 20 Nov-18 12:12 (p 2 of 2)
 Test Code: CER110618 | 20-7893-3599

Ceriodaphnia 7-d Survival and Reproduction Test							Aquatic Bioassay & Consulting Labs, Inc.				
Temperature-°C											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.04	23.95	24.13	24	24.3	0.03751	0.1061	0.44%	0
3		8	24.05	23.96	24.14	24	24.3	0.0378	0.1069	0.44%	0
5		8	24.08	23.98	24.17	24	24.3	0.04118	0.1165	0.48%	0
10		8	24.06	23.99	24.14	24	24.2	0.03237	0.09156	0.38%	0
30		7	24.09	23.99	24.18	24	24.2	0.04039	0.1069	0.44%	0
50		6	24.12	24.01	24.22	24	24.2	0.0401	0.09823	0.41%	0
Overall		45	24.07	24.04	24.1	24	24.3	0.01518	0.1019	0.42%	0 (0%)
Alkalinity (CaCO3)-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	62	60	60	60	60	60	60	60		
50		59	59	59	59	59	59	59	59		
Conductivity-µmhos											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	359	342	343	331	330	337	333	359		
3		333	331	333	342	344	345	332	342		
5		331	330	341	334	338	338	327	334		
10		324	325	338	329	330	332	325	333		
30		330	330	332	332	331	335	335			
50		320	320	331	331	322	325	334			
Dissolved Oxygen-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	7.6	8.1	7.9	7.6	7.8	7.7	7.8	7.9		
3		8.1	8.1	7.8	8.5	7.9	7.8	7.9	8		
5		8.1	7.9	7.9	8.5	7.8	7.8	7.9	8.2		
10		8.2	7.8	7.9	8.3	7.9	7.8	8	8.4		
30		8.3	7.7	8	8.3	7.9	7.8	7.1			
50		8.2	7.4	8.1	8.3	8	7.1				
Hardness (CaCO3)-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	92	89	89	89	89	89	89	89		
50		92	92	92	92	92	92	92	92		
pH-Units											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	7.9	7.9	7.8	7.7	7.7	7.7	8	8		
3		7.8	7.9	7.9	8	7.9	7.7	7.9	8		
5		7.8	7.6	7.9	7.9	7.8	7.8	7.9	8		
10		7.7	7.6	8	7.8	7.8	7.8	7.9	7.9		
30		7.7	7.7	8	7.8	7.8	7.8	7.9			
50		7.7	7.7	7.9	7.8	7.8	7.9				
Temperature-°C											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	24	24	24	24.3	24	24	24	24		
3		24	24.1	24	24.3	24	24	24	24		
5		24	24.2	24	24.3	24.1	24	24	24		
10		24	24.2	24	24.2	24.1	24	24	24		
30		24	24.2	24	24.2	24.2	24	24			
50		24	24.2	24.1	24.2	24.2	24				



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STANDARD **9A14144**

Page 1 Of 1

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Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

CLIENT NAME: Pacific Ridgeline					PROJECT: Nursery Growers Association					ANALYSES REQUESTED								SPECIAL HANDLING																					
ADDRESS: 1891 Goodyear Ave., Suite 621 Ventura, CA 93003					PHONE: 855-682-1802					<table border="1"> <tr> <td>TDS-SM2540C / TSS-SM2540D</td> <td>Cl, SO4, NO3+NO2-N - EPA 300.0</td> <td>Ammonia-N EPA350.1</td> <td>Copper EPA200.8</td> <td>Hardness 200.7</td> <td>OPP low level EPA 525.2</td> <td>Organo Pesti/PCBs low IV EPA608</td> <td>Pyrethroid Pest by GC/MS NCI-SIM</td> <td>Ortho-P and P dissolved EPA365.1</td> <td>Ortho-P and P total as P EPA365.3</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>								TDS-SM2540C / TSS-SM2540D	Cl, SO4, NO3+NO2-N - EPA 300.0	Ammonia-N EPA350.1	Copper EPA200.8	Hardness 200.7	OPP low level EPA 525.2	Organo Pesti/PCBs low IV EPA608	Pyrethroid Pest by GC/MS NCI-SIM	Ortho-P and P dissolved EPA365.1	Ortho-P and P total as P EPA365.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Same Day Rush 160% <input type="checkbox"/> 24 Hour Rush 100% <input type="checkbox"/> 48-72 Hour Rush 75% <input type="checkbox"/> 4 - 6 Day Rush 30% <input type="checkbox"/> Rush Extractions 50% <input checked="" type="checkbox"/> 10 - 15 Business Days <input checked="" type="checkbox"/> QA/QC Data Package	
TDS-SM2540C / TSS-SM2540D	Cl, SO4, NO3+NO2-N - EPA 300.0	Ammonia-N EPA350.1	Copper EPA200.8	Hardness 200.7	OPP low level EPA 525.2	Organo Pesti/PCBs low IV EPA608	Pyrethroid Pest by GC/MS NCI-SIM	Ortho-P and P dissolved EPA365.1	Ortho-P and P total as P EPA365.3																														
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																														
PROJECT MANAGER Bryn Home					SAMPLER <i>S. Jordan</i>													Charges will apply for weekends/holidays																					
										Method of Shipment:		COMMENTS																											
ID# (For Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	TDS-SM2540C / TSS-SM2540D	Cl, SO4, NO3+NO2-N - EPA 300.0	Ammonia-N EPA350.1	Copper EPA200.8	Hardness 200.7	OPP low level EPA 525.2	Organo Pesti/PCBs low IV EPA608	Pyrethroid Pest by GC/MS NCI-SIM	Ortho-P and P dissolved EPA365.1	Ortho-P and P total as P EPA365.3																								
	1/14/19	07:30	RW	LAILG-NGA-19-10	12	X	X	X	X	X	X	X	X	X	X																								
		11:00	RW	LAILG-NGA-168-10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓																								
		12:05	RW	LAILG-NGA-64-6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓																								
		12:45	RW	LAILG-NGA-4-10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓																								

RELINQUISHED BY <i>[Signature]</i>	DATE / TIME 1/14/19 @ 15:35	RECEIVED BY <i>Jamadhan</i>	DATE / TIME 1/14/19 1535	SAMPLE CONDITION: Actual Temperature: 10.5°C <input type="checkbox"/> Received On Ice <input type="checkbox"/> Preserved <input type="checkbox"/> Evidence Seals Present <input type="checkbox"/> Container Attacked <input type="checkbox"/> Preserved at Lab	SAMPLE TYPE CODE: AQ=Aqueous NA= Non Aqueous SL = Sludge DW = Drinking Water WW = Waste Water RW = Rain Water GW = Ground Water SO = Soil SW = Solid Waste OL = Oil OT = Other Matrix
RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME		
RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME		

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS
Client agrees to Terms & Conditions at: www.wecklabs.com

SPECIAL REQUIREMENTS / BILLING INFORMATION

COC version 942707

February 14, 2019

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT: Pacific Ridgeline
SAMPLE I.D.: LAILG-NGA-19-10
DATE RECEIVED: 15 Jan -19
ABC LAB. NO.: PRI0119.064

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %
TU_c = 1.00
EC25 = N/A
EC50 = N/A

REPRODUCTION NOEC = 100.00 %
TU_c = 1.00
IC25 = N/A
IC50 = N/A

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 12 Feb-19 16:22 (p 1 of 1)
 Test Code: PRI0119.064 | 12-6629-2403

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Batch ID:	16-2636-8423	Test Type:	Reproduction-Survival (7d)	Analyst:			
Start Date:	15 Jan-19 13:00	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water		
Ending Date:	22 Jan-19 14:10	Species:	Ceriodaphnia dubia	Brine:	Not Applicable		
Duration:	7d 1h	Source:	Aquatic Biosystems, CO	Age:			
Sample ID:	04-6838-5783	Code:	PRI0119.064	Client:	Pacific Ridgeline, Inc.		
Sample Date:	14 Jan-19 07:30	Material:	Sample Water	Project:	LA Irrigated Lands Group (LAILG)-NG		
Receipt Date:	15 Jan-19 09:25	Source:	Bioassay Report				
Sample Age:	29h (10.3 °C)	Station:	LAILG-NGA-19-10				

Single Comparison Summary				
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
03-5894-8186	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
10-7411-1199	Reproduction	Equal Variance t Two-Sample Test	0.9859	100% passed reproduction

Test Acceptability		TAC Limits					
Analysis ID	Endpoint	Attribute	Test Stat	Lower	Upper	Overlap	Decision
03-5894-8186	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
10-7411-1199	Reproduction	Control Resp	15.3	15	>>	Yes	Passes Criteria

7d Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	15.3	10.49	20.11	3	25	2.124	6.717	43.90%	0.00%
100		10	21.8	17.94	25.66	15	31	1.705	5.391	24.73%	-42.48%

7d Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	21	19	25	18	3	13	7	15	12
100		15	21	21	22	27	31	18	28	15	20

7d Survival Rate Binomials											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 12 Feb-19 16:22 (p 1 of 2)
 Test Code: PRI0119.064 | 12-6629-2403

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Analysis ID: 10-7411-1199	Endpoint: Reproduction	CETIS Version: CETISv1.9.2		Analyzed: 12 Feb-19 16:21	Analysis: Parametric-Two Sample	Official Results: Yes	
Batch ID: 16-2636-8423	Test Type: Reproduction-Survival (7d)	Analyst:		Start Date: 15 Jan-19 13:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water	
Ending Date: 22 Jan-19 14:10	Species: Ceriodaphnia dubia	Brine: Not Applicable		Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:	
Sample ID: 04-6838-5783	Code: PRI0119.064	Client: Pacific Ridgeline, Inc.		Sample Date: 14 Jan-19 07:30	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG	
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report			Sample Age: 29h (10.3 °C)	Station: LAILG-NGA-19-10		

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	30.87%

Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	-2.386	1.734	4.723	18	CDF	0.9859	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	15.3	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	211.25	211.25	1	5.695	0.0282	Significant Effect
Error	667.7	37.0944	18			
Total	878.95		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	0.5472	8.285	0.4690	Equal Variances
Variances	Mod Levene Equality of Variance Test	0.6143	8.285	0.4434	Equal Variances
Variances	Variance Ratio F Test	1.552	6.541	0.5227	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.213	3.878	0.8908	Normal Distribution
Distribution	D'Agostino Kurtosis Test	0.3683	2.576	0.7127	Normal Distribution
Distribution	D'Agostino Skewness Test	0.4306	2.576	0.6668	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	0.321	9.21	0.8517	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.08654	0.2235	1.0000	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9767	0.866	0.8852	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	15.3	10.49	20.11	16.5	3	25	2.124	43.90%	0.00%
100		10	21.8	17.94	25.66	21	15	31	1.705	24.73%	-42.48%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	21	19	25	18	3	13	7	15	12
100		15	21	21	22	27	31	18	28	15	20

Ceriodaphnia 7-d Survival and Reproduction Test

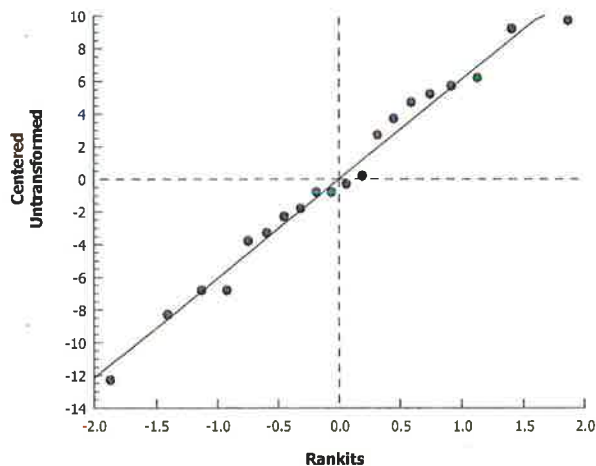
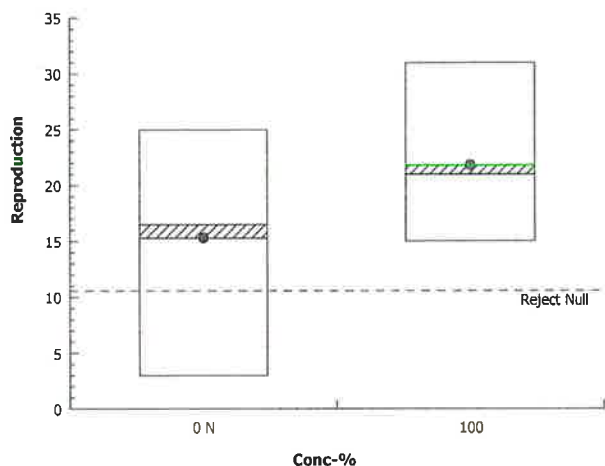
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 10-7411-1199
Analyzed: 12 Feb-19 16:21

Endpoint: Reproduction
Analysis: Parametric-Two Sample

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 12 Feb-19 16:22 (p 1 of 1)
 Test Code: PRI0119.064 | 12-6629-2403

Ceriodaphnia 7-d Survival and Reproduction Test		Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID: 03-5894-8186	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2	
Analyzed: 12 Feb-19 16:21	Analysis: Single 2x2 Contingency Table	Official Results: Yes	
Batch ID: 16-2636-8423	Test Type: Reproduction-Survival (7d)	Analyst:	
Start Date: 15 Jan-19 13:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water	
Ending Date: 22 Jan-19 14:10	Species: Ceriodaphnia dubia	Brine: Not Applicable	
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:	
Sample ID: 04-6838-5783	Code: PRI0119.064	Client: Pacific Ridgeline, Inc.	
Sample Date: 14 Jan-19 07:30	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG	
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report		
Sample Age: 29h (10.3 °C)	Station: LAILG-NGA-19-10		

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

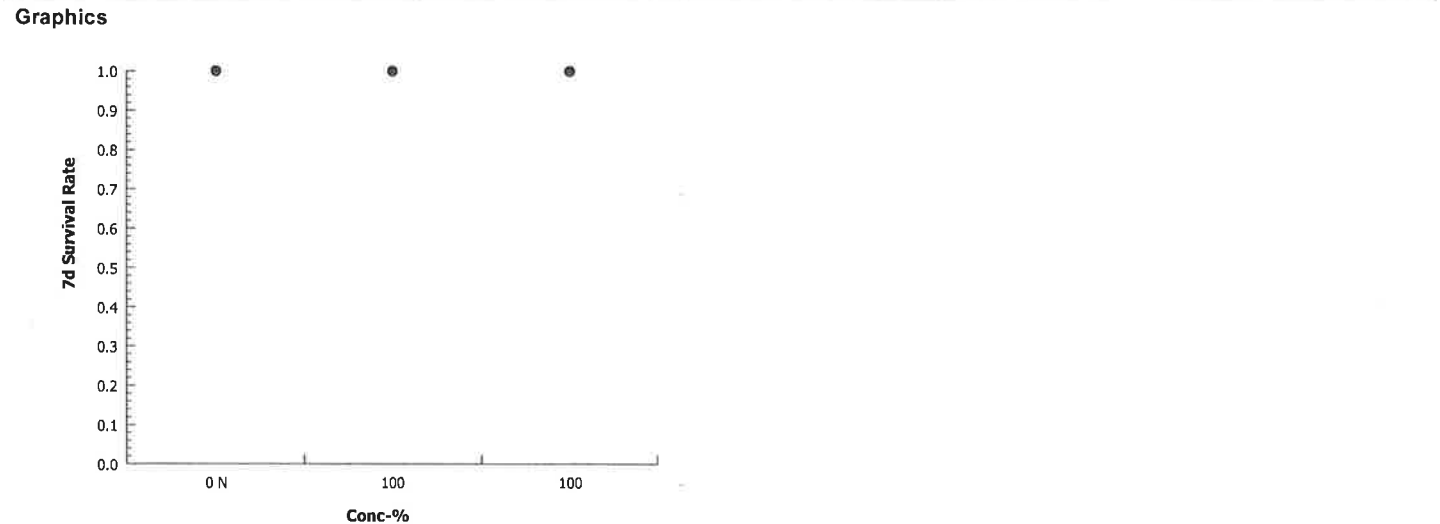
Fisher Exact Test						
Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria		TAC Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary							
Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

7d Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1



CETIS Measurement Report

Report Date: 12 Feb-19 16:22 (p 1 of 2)
 Test Code: PRI0119.064 | 12-6629-2403

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Batch ID: 16-2636-8423	Test Type: Reproduction-Survival (7d)	Analyst:					
Start Date: 15 Jan-19 13:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water					
Ending Date: 22 Jan-19 14:10	Species: Ceriodaphnia dubia	Brine: Not Applicable					
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:					
Sample ID: 04-6838-5783	Code: PRI0119.064	Client: Pacific Ridgeline, Inc.					
Sample Date: 14 Jan-19 07:30	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG					
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report						
Sample Age: 29h (10.3 °C)	Station: LAILG-NGA-19-10						

Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60	60	60	60	60	0	0	0.0%	0
100		8	30	30	30	30	30	0	0	0.0%	0
Overall		16	45	36.74	53.26	30	60	3.873	15.49	34.43%	0 (0%)
Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	345.2	332	358.5	335	375	5.586	15.8	4.58%	0
100		8	747.6	728.3	766.9	730	798	8.155	23.06	3.09%	0
Overall		16	546.4	435.2	657.6	335	798	52.17	208.7	38.19%	0 (0%)
Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.013	7.754	8.271	7.6	8.3	0.1093	0.3091	3.86%	0
100		8	8.138	7.746	8.529	7.5	8.9	0.1658	0.4689	5.76%	0
Overall		16	8.075	7.868	8.282	7.5	8.9	0.09725	0.389	4.82%	0 (0%)
Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.0%	0
100		8	252	252	252	252	252	0	0	0.0%	0
Overall		16	173	129.5	216.5	94	252	20.4	81.59	47.16%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.925	7.818	8.032	7.7	8.1	0.04532	0.1282	1.62%	0
100		8	7.65	7.502	7.798	7.4	8	0.06268	0.1773	2.32%	0
Overall		16	7.788	7.678	7.897	7.4	8.1	0.05154	0.2062	2.65%	0 (0%)
Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.08	23.98	24.17	24	24.3	0.04118	0.1165	0.48%	0
100		8	24.16	23.97	24.35	24	24.6	0.08004	0.2264	0.94%	0
Overall		16	24.12	24.02	24.21	24	24.6	0.04492	0.1797	0.75%	0 (0%)

CETIS Measurement Report

Report Date: 12 Feb-19 16:22 (p 2 of 2)
 Test Code: PRI0119.064 | 12-6629-2403

Ceriodaphnia 7-d Survival and Reproduction Test		Aquatic Bioassay & Consulting Labs, Inc.							
Alkalinity (CaCO3)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	60	60	60	60	60	60	60	60
100		30	30	30	30	30	30	30	30
Conductivity-µmhos									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	335	337	337	338	336	338	366	375
100		730	735	736	733	765	798	741	743
Dissolved Oxygen-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.8	7.6	8.3	8.2	8.3	8	7.6	8.3
100		8.9	8.3	8.1	8	8.6	7.5	8.1	7.6
Hardness (CaCO3)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	94	94	94	94	94	94	94	94
100		252	252	252	252	252	252	252	252
pH-Units									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.9	7.7	7.9	7.9	7.9	7.9	8.1	8.1
100		7.7	7.4	7.7	7.7	8	7.5	7.6	7.6
Temperature-°C									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	24	24	24.1	24	24.2	24	24.3	24
100		24	24	24.1	24	24.4	24.6	24.2	24

February 14, 2019

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT: Pacific Ridgeline
SAMPLE I.D.: LAILG-NGA-168-10
DATE RECEIVED: 15 Jan -19
ABC LAB. NO.: PRI0119.065

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %
 TU_c = 1.00
 EC25 = N/A
 EC50 = N/A

REPRODUCTION NOEC = 100.00 %
 TU_c = 1.00
 IC25 = N/A
 IC50 = N/A

Yours very truly,



Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 12 Feb-19 16:27 (p 1 of 1)
 Test Code: PRI0119.065 | 00-4668-0057

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 17-2106-3102	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:01	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:20	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-6855-6452	Code: PRI0119.065	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 11:00	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 26h (11.3 °C)	Station: LAILG-NGA-168-10	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
18-5557-3560	7d Survival Rate	Fisher Exact Test	0.2368	100% passed 7d survival rate
16-8652-4578	Reproduction	Equal Variance t Two-Sample Test	0.8590	100% passed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
18-5557-3560	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
16-8652-4578	Reproduction	Control Resp	15.3	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	0.8000	0.4984	1.0000	0.0000	1.0000	0.1333	0.4216	52.70%	20.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	15.3	10.49	20.11	3	25	2.124	6.717	43.90%	0.00%
100		10	21	10.41	31.59	2	51	4.681	14.8	70.49%	-37.25%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	21	19	25	18	3	13	7	15	12
100		33	23	25	51	30	16	3	2	12	15

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1	1/1

CETIS Analytical Report

Report Date: 12 Feb-19 16:27 (p 1 of 2)
 Test Code: PRI0119.065 | 00-4668-0057

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 16-8652-4578	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 12 Feb-19 16:26	Analysis: Parametric-Two Sample	Official Results: Yes
Batch ID: 17-2106-3102	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:01	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:20	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-6855-6452	Code: PRI0119.065	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 11:00	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 26h (11.3 °C)	Station: LAILG-NGA-168-10	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	58.26%

Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	-1.109	1.734	8.914	18	CDF	0.8590	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits			Decision
		Lower	Upper	Overlap	
Control Resp	15.3	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	162.45	162.45	1	1.23	0.2821	Non-Significant Effect
Error	2378.1	132.117	18			
Total	2540.55		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	4.199	8.285	0.0553	Equal Variances
Variances	Mod Levene Equality of Variance Test	4.013	8.285	0.0604	Equal Variances
Variances	Variance Ratio F Test	4.856	6.541	0.0276	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.3173	3.878	0.5623	Normal Distribution
Distribution	D'Agostino Kurtosis Test	1.518	2.576	0.1290	Normal Distribution
Distribution	D'Agostino Skewness Test	1.225	2.576	0.2206	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	3.805	9.21	0.1492	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.1052	0.2235	0.9195	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9555	0.866	0.4579	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	15.3	10.49	20.11	16.5	3	25	2.124	43.90%	0.00%
100		10	21	10.41	31.59	19.5	2	51	4.681	70.49%	-37.25%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	20	21	19	25	18	3	13	7	15	12
100		33	23	25	51	30	16	3	2	12	15

Ceriodaphnia 7-d Survival and Reproduction Test

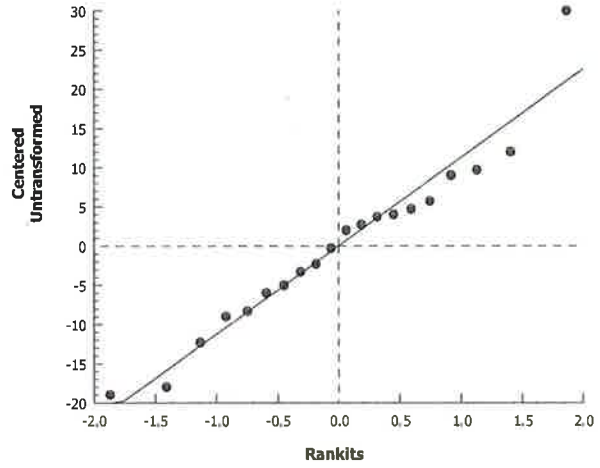
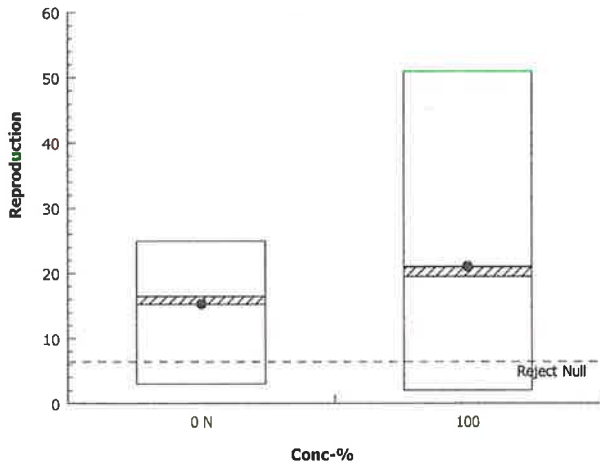
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 16-8652-4578
Analyzed: 12 Feb-19 16:26

Endpoint: Reproduction
Analysis: Parametric-Two Sample

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 12 Feb-19 16:27 (p 1 of 1)
Test Code: PRI0119.065 | 00-4668-0057

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 18-5557-3560	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 12 Feb-19 16:26	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 17-2106-3102	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:01	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:20	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 20-6855-6452	Code: PRI0119.065	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 11:00	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 26h (11.3 °C)	Station: LAILG-NGA-168-10	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α :5%)
Negative Control		100	0.2368	Exact	0.2368	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
100		8	2	10	0.8	0.2	20.0%

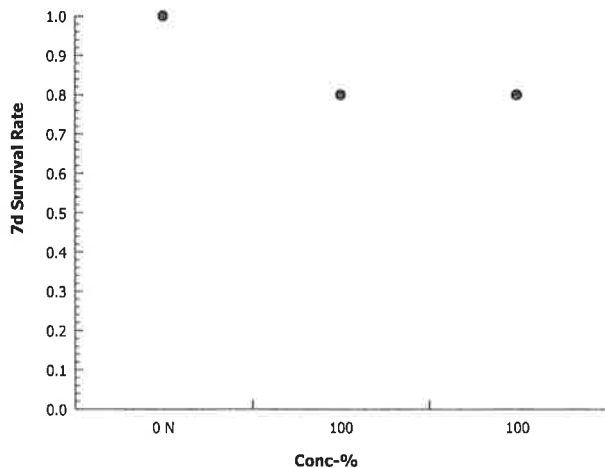
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 12 Feb-19 16:27 (p 1 of 2)
 Test Code: PRI0119.065 | 00-4668-0057

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.							
Batch ID: 17-2106-3102	Test Type: Reproduction-Survival (7d)			Analyst:							
Start Date: 15 Jan-19 13:01	Protocol: EPA/821/R-02-013 (2002)			Diluent: Laboratory Water							
Ending Date: 22 Jan-19 14:20	Species: Ceriodaphnia dubia			Brine: Not Applicable							
Duration: 7d 1h	Source: Aquatic Biosystems, CO			Age:							
Sample ID: 20-6855-6452	Code: PRI0119.065			Client: Pacific Ridgeline, Inc.							
Sample Date: 14 Jan-19 11:00	Material: Sample Water			Project: LA Irrigated Lands Group (LAILG)-NG							
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report										
Sample Age: 26h (11.3 °C)	Station: LAILG-NGA-168-10										
Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60	60	60	60	60	0	0	0.0%	0
100		8	35	35	35	35	35	0	0	0.0%	0
Overall		16	47.5	40.62	54.38	35	60	3.227	12.91	27.18%	0 (0%)
Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	345.2	332	358.5	335	375	5.586	15.8	4.58%	0
100		8	375.1	368.1	382.2	361	387	2.991	8.459	2.26%	0
Overall		16	360.2	349.7	370.7	335	387	4.924	19.7	5.47%	0 (0%)
Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.013	7.754	8.271	7.6	8.3	0.1093	0.3091	3.86%	0
100		8	8.112	7.737	8.488	7.7	8.8	0.1586	0.4486	5.53%	0
Overall		16	8.062	7.862	8.263	7.6	8.8	0.09393	0.3757	4.66%	0 (0%)
Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.0%	0
100		8	120	120	120	120	120	0	0	0.0%	0
Overall		16	107	99.85	114.2	94	120	3.357	13.43	12.55%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.925	7.818	8.032	7.7	8.1	0.04532	0.1282	1.62%	0
100		8	7.725	7.601	7.849	7.5	7.9	0.05261	0.1488	1.93%	0
Overall		16	7.825	7.735	7.915	7.5	8.1	0.04233	0.1693	2.16%	0 (0%)
Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.06	23.96	24.16	24	24.3	0.04199	0.1188	0.49%	0
100		8	24.21	23.91	24.51	24	25	0.1274	0.3603	1.49%	0
Overall		16	24.14	23.99	24.28	24	25	0.06762	0.2705	1.12%	0 (0%)

CETIS Measurement Report

Report Date: 12 Feb-19 16:27 (p 2 of 2)
 Test Code: PRI0119.065 | 00-4668-0057

Ceriodaphnia 7-d Survival and Reproduction Test										Aquatic Bioassay & Consulting Labs, Inc.
Alkalinity (CaCO₃)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	60	60	60	60	60	60	60	60	60
100		35	35	35	35	35	35	35	35	35
Conductivity-µmhos										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	335	337	337	338	336	338	366	375	
100		361	373	370	370	384	387	376	380	
Dissolved Oxygen-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.8	7.6	8.3	8.2	8.3	8	7.6	8.3	
100		8.8	7.7	7.7	7.8	8.4	7.7	8.2	8.6	
Hardness (CaCO₃)-mg/L										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	94	94	94	94	94	94	94	94	
100		120	120	120	120	120	120	120	120	
pH-Units										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	7.9	7.7	7.9	7.9	7.9	7.9	8.1	8.1	
100		7.9	7.5	7.6	7.7	7.9	7.6	7.8	7.8	
Temperature-°C										
Conc-%	Code	1	2	3	4	5	6	7	8	
0	N	24	24	24	24	24.2	24	24.3	24	
100		24	24	24.1	24	24.5	25	24.1	24	



February 14, 2019

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-64-6
DATE RECEIVED:	15 Jan -19
ABC LAB. NO.:	PRI0119.066

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	EC25 =	N/A
	EC50 =	N/A

REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 12 Feb-19 16:32 (p 1 of 1)
 Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Batch ID:	15-2620-3083	Test Type:	Reproduction-Survival (7d)	Analyst:			
Start Date:	15 Jan-19 13:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water		
Ending Date:	22 Jan-19 14:25	Species:	Ceriodaphnia dubia	Brine:	Not Applicable		
Duration:	7d 1h	Source:	Aquatic Biosystems, CO	Age:			
Sample ID:	19-9338-2916	Code:	PRI0119.066	Client:	Pacific Ridgeline, Inc.		
Sample Date:	14 Jan-19 12:05	Material:	Sample Water	Project:	LA Irrigated Lands Group (LAILG)-NG		
Receipt Date:	15 Jan-19 09:25	Source:	Bioassay Report				
Sample Age:	25h (10.3 °C)	Station:	LAILG-NGA-64-6				

Single Comparison Summary				
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
00-3705-9545	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
01-2341-5550	Reproduction	Equal Variance t Two-Sample Test	0.8356	100% passed reproduction

Test Acceptability		TAC Limits					
Analysis ID	Endpoint	Attribute	Test Stat	Lower	Upper	Overlap	Decision
00-3705-9545	7d Survival Rate	Control Resp	0.9	0.8	>>	Yes	Passes Criteria
01-2341-5550	Reproduction	Control Resp	16.8	15	>>	Yes	Passes Criteria

7d Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	0.9000	0.6738	1.0000	0.0000	1.0000	0.1000	0.3162	35.14%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	-11.11%

Reproduction Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.8	10.72	22.88	0	26	2.687	8.496	50.57%	0.00%
100		10	20.1	15.82	24.38	11	29	1.894	5.99	29.80%	-19.64%

7d Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	22	24	26	22	23	9	11	20	0	11
100		24	19	25	23	24	17	11	18	11	29

7d Survival Rate Binomials											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 12 Feb-19 16:32 (p 1 of 2)
 Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-2341-5550	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 12 Feb-19 16:31	Analysis: Parametric-Two Sample	Official Results: Yes
Batch ID: 15-2620-3083	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:02	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 19-9338-2916	Code: PRI0119.066	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 12:05	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 25h (10.3 °C)	Station: LAILG-NGA-64-6	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% passed reproduction	33.93%

Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100	-1.004	1.734	5.7	18	CDF	0.8356	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	16.8	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	54.45	54.45	1	1.008	0.3287	Non-Significant Effect
Error	972.5	54.0278	18			
Total	1026.95		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	2.367	8.285	0.1413	Equal Variances
Variances	Mod Levene Equality of Variance Test	0.5404	8.285	0.4717	Equal Variances
Variances	Variance Ratio F Test	2.012	6.541	0.3125	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.6888	3.878	0.0721	Normal Distribution
Distribution	D'Agostino Kurtosis Test	0.04431	2.576	0.9647	Normal Distribution
Distribution	D'Agostino Skewness Test	1.428	2.576	0.1534	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	2.04	9.21	0.3606	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.2074	0.2235	0.0241	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9231	0.866	0.1138	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	16.8	10.72	22.88	21	0	26	2.687	50.57%	0.00%
100		10	20.1	15.82	24.38	21	11	29	1.894	29.80%	-19.64%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	22	24	26	22	23	9	11	20	0	11
100		24	19	25	23	24	17	11	18	11	29

CETIS Analytical Report

Report Date: 12 Feb-19 16:32 (p 2 of 2)

Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test

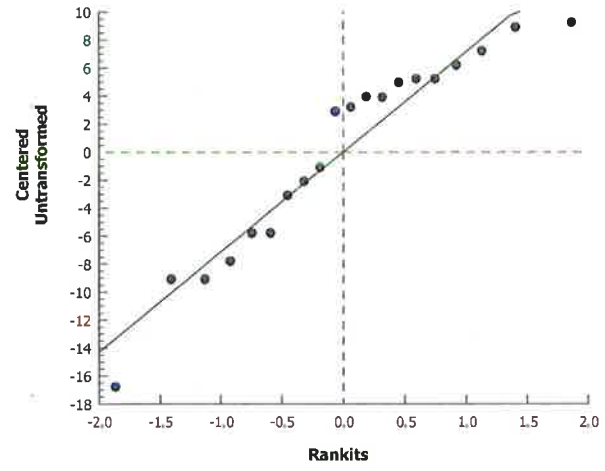
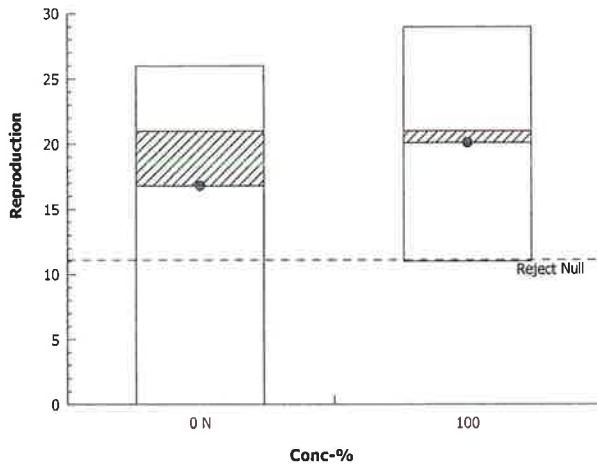
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-2341-5550
Analyzed: 12 Feb-19 16:31

Endpoint: Reproduction
Analysis: Parametric-Two Sample

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 12 Feb-19 16:32 (p 1 of 1)
Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 00-3705-9545	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 12 Feb-19 16:31	Analysis: Single 2x2 Contingency Table	Official Results: Yes
Batch ID: 15-2620-3083	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:02	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 19-9338-2916	Code: PRI0119.066	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 12:05	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 25h (10.3 °C)	Station: LAILG-NGA-64-6	

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate

Fisher Exact Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α :5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	0.9	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-%	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	9	1	10	0.9	0.1	0.0%
100		10	0	10	1	0	-11.11%

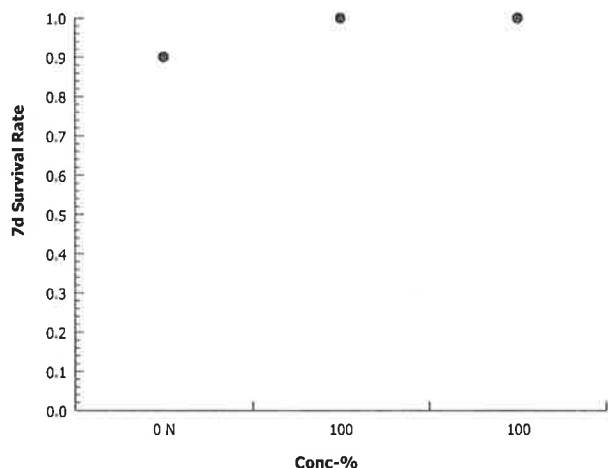
7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date: 12 Feb-19 16:32 (p 1 of 2)
 Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.			
Batch ID: 15-2620-3083	Test Type: Reproduction-Survival (7d)	Analyst:					
Start Date: 15 Jan-19 13:02	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water					
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable					
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:					
Sample ID: 19-9338-2916	Code: PRI0119.066	Client: Pacific Ridgeline, Inc.					
Sample Date: 14 Jan-19 12:05	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG					
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report						
Sample Age: 25h (10.3 °C)	Station: LAILG-NGA-64-6						

Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60	60	60	60	60	0	0	0.0%	0
100		8	25	25	25	25	25	0	0	0.0%	0
Overall		16	42.5	32.87	52.13	25	60	4.518	18.07	42.53%	0 (0%)
Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	345.2	332	358.5	335	375	5.586	15.8	4.58%	0
100		8	89.62	86.84	92.41	86	97	1.179	3.335	3.72%	0
Overall		16	217.4	146.9	288	86	375	33.12	132.5	60.92%	0 (0%)
Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.013	7.754	8.271	7.6	8.3	0.1093	0.3091	3.86%	0
100		8	8.188	7.846	8.529	7.7	8.8	0.1445	0.4086	4.99%	0
Overall		16	8.1	7.907	8.293	7.6	8.8	0.09037	0.3615	4.46%	0 (0%)
Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.0%	0
100		8	60	60	60	60	60	0	0	0.0%	0
Overall		16	77	67.64	86.36	60	94	4.389	17.56	22.80%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.925	7.818	8.032	7.7	8.1	0.04532	0.1282	1.62%	0
100		8	7.675	7.481	7.869	7.3	8	0.08183	0.2315	3.02%	0
Overall		16	7.8	7.682	7.918	7.3	8.1	0.05553	0.2221	2.85%	0 (0%)
Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.06	23.96	24.16	24	24.3	0.04199	0.1188	0.49%	0
100		8	24.16	23.87	24.45	24	25	0.1224	0.3461	1.43%	0
Overall		16	24.11	23.98	24.25	24	25	0.06382	0.2553	1.06%	0 (0%)

CETIS Measurement Report

Report Date: 12 Feb-19 16:32 (p 2 of 2)
 Test Code: PRI0119.066 | 04-9714-7656

Ceriodaphnia 7-d Survival and Reproduction Test		Aquatic Bioassay & Consulting Labs, Inc.							
Alkalinity (CaCO₃)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	60	60	60	60	60	60	60	60
100		25	25	25	25	25	25	25	25
Conductivity-µmhos									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	335	337	337	338	336	338	366	375
100		86	88	88	88	89	91	90	97
Dissolved Oxygen-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.8	7.6	8.3	8.2	8.3	8	7.6	8.3
100		8.8	8.1	8	7.7	8.6	7.7	8.5	8.1
Hardness (CaCO₃)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	94	94	94	94	94	94	94	94
100		60	60	60	60	60	60	60	60
pH-Units									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.9	7.7	7.9	7.9	7.9	7.9	8.1	8.1
100		7.7	7.3	7.7	7.7	7.9	7.4	8	7.7
Temperature-°C									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	24	24	24	24	24.2	24	24.3	24
100		24	24	24.1	24	24	25	24.2	24



February 14, 2019

Mr. Bryn Home
Pacific Ridgeline
1891 Goodyear Avenue, Suite 621
Ventura, CA 93003

Dear Mr. Home:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Pacific Ridgeline
SAMPLE I.D.:	LAILG-NGA-4-10
DATE RECEIVED:	15 Jan -19
ABC LAB. NO.:	PRI0119.067

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	<100.00 %
	TUc =	>1.00
	EC25 =	N/A
	EC50 =	N/A

REPRODUCTION	NOEC =	<100.00 %
	TUc =	>1.00
	IC25 =	N/A
	IC50 =	N/A

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 13 Feb-19 10:05 (p 1 of 1)
 Test Code: PRI0119.067 | 17-8111-6930

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 21-2249-6627	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 15 Jan-19 13:03	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 10-5608-1980	Code: PRI0119.067	Client: Pacific Ridgeline, Inc.
Sample Date: 14 Jan-19 12:45	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report	
Sample Age: 24h (11.3 °C)	Station: LAILG-NGA-4-10	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
13-8974-2655	7d Survival Rate	Fisher Exact Test	6.0E-05	100% failed 7d survival rate
05-8214-4096	Reproduction	Unequal Variance t Two-Sample Test	7.5E-05	100% failed reproduction

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
13-8974-2655	7d Survival Rate	Control Resp	0.9	0.8	>>	Yes	Passes Criteria
05-8214-4096	Reproduction	Control Resp	16.8	15	>>	Yes	Passes Criteria

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	0.9000	0.6738	1.0000	0.0000	1.0000	0.1000	0.3162	35.14%	0.00%
100		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.8	10.72	22.88	0	26	2.687	8.496	50.57%	0.00%
100		10	0	0	0	0	0	0	0		100.00%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
100		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	22	24	26	22	23	9	11	20	0	11
100		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1
100		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

CETIS Analytical Report

Report Date: 13 Feb-19 10:05 (p 1 of 2)
 Test Code: PRI0119.067 | 17-8111-6930

Ceriodaphnia 7-d Survival and Reproduction Test			Aquatic Bioassay & Consulting Labs, Inc.		
Analysis ID: 05-8214-4096	Endpoint: Reproduction	CETIS Version: CETISv1.9.2	Analyzed: 12 Feb-19 16:35	Analysis: Parametric-Two Sample	Official Results: Yes
Batch ID: 21-2249-6627	Test Type: Reproduction-Survival (7d)	Analyst:	Start Date: 15 Jan-19 13:03	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable	Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 10-5608-1980	Code: PRI0119.067	Client: Pacific Ridgeline, Inc.	Sample Date: 14 Jan-19 12:45	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report		Sample Age: 24h (11.3 °C)	Station: LAILG-NGA-4-10	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	100% failed reproduction	29.31%

Unequal Variance t Two-Sample Test

Control	vs	Control II	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		100*	6.253	1.833	4.925	9	CDF	7.5E-05	Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	16.8	15	>>	Yes	Passes Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1411.2	1411.2	1	39.1	6.7E-06	Significant Effect
Error	649.6	36.0889	18			
Total	2060.8		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	37.61	8.285	8.6E-06	Unequal Variances
Variances	Mod Levene Equality of Variance Test	10.04	8.285	0.0053	Unequal Variances
Distribution	Anderson-Darling A2 Normality Test	1.306	3.878	0.0017	Non-Normal Distribution
Distribution	D'Agostino Kurtosis Test	1.989	2.576	0.0467	Normal Distribution
Distribution	D'Agostino Skewness Test	2.162	2.576	0.0306	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	8.629	9.21	0.0134	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.3	0.2235	5.0E-05	Non-Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.8718	0.866	0.0126	Normal Distribution

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	16.8	10.72	22.88	21	0	26	2.687	50.57%	0.00%
100		10	0	0	0	0	0	0	0		100.00%

Reproduction Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	22	24	26	22	23	9	11	20	0	11
100		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia 7-d Survival and Reproduction Test

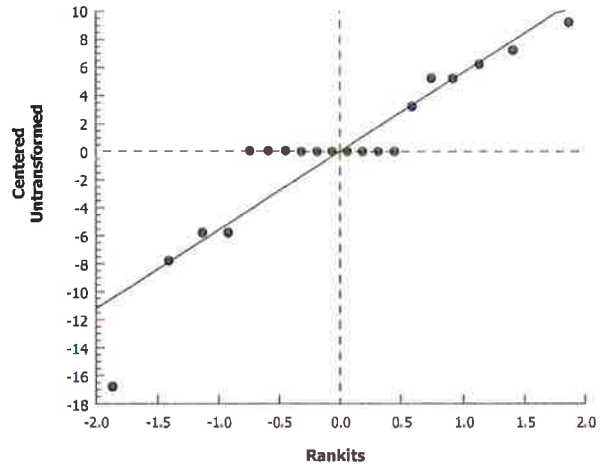
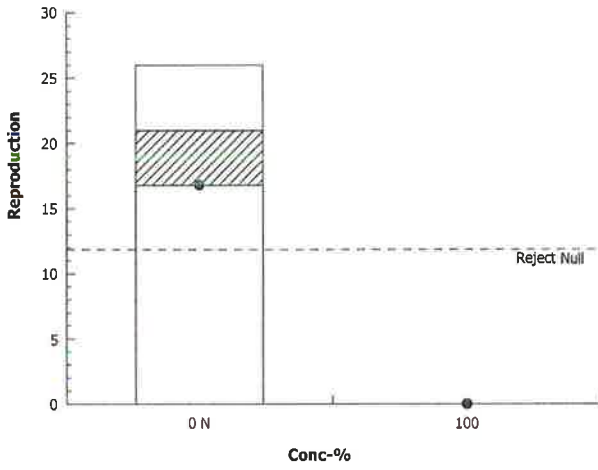
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 05-8214-4096
Analyzed: 12 Feb-19 16:35

Endpoint: Reproduction
Analysis: Parametric-Two Sample

CETIS Version: CETISv1.9.2
Official Results: Yes

Graphics



CETIS Measurement Report

Report Date: 13 Feb-19 10:05 (p 1 of 2)
 Test Code: PRI0119.067 | 17-8111-6930

Ceriodaphnia 7-d Survival and Reproduction Test **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID: 21-2249-6627	Test Type: Reproduction-Survival (7d)	Analyst:	
Start Date: 15 Jan-19 13:03	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water	
Ending Date: 22 Jan-19 14:25	Species: Ceriodaphnia dubia	Brine: Not Applicable	
Duration: 7d 1h	Source: Aquatic Biosystems, CO	Age:	

Sample ID: 10-5608-1980	Code: PRI0119.067	Client: Pacific Ridgeline, Inc.	
Sample Date: 14 Jan-19 12:45	Material: Sample Water	Project: LA Irrigated Lands Group (LAILG)-NG	
Receipt Date: 15 Jan-19 09:25	Source: Bioassay Report		
Sample Age: 24h (11.3 °C)	Station: LAILG-NGA-4-10		

Alkalinity (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60	60	60	60	60	0	0	0.0%	0
100		3	9	9	9	9	9	0	0	0.0%	0
Overall		11	46.09	30.09	62.09	9	60	7.183	23.82	51.68%	0 (0%)

Conductivity-µmhos											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	345.2	332	358.5	335	375	5.586	15.8	4.58%	0
100		3	38	35.52	40.48	37	39	0.5774	1	2.63%	0
Overall		11	261.5	164.6	358.3	37	375	43.46	144.1	55.12%	0 (0%)

Dissolved Oxygen-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.013	7.754	8.271	7.6	8.3	0.1093	0.3091	3.86%	0
100		3	8.233	5.846	10.62	7.2	9.1	0.5548	0.9609	11.67%	0
Overall		11	8.073	7.729	8.417	7.2	9.1	0.1544	0.512	6.34%	0 (0%)

Hardness (CaCO3)-mg/L											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.0%	0
100		3	9	9	9	9	9	0	0	0.0%	0
Overall		11	70.82	44.15	97.49	9	94	11.97	39.7	56.06%	0 (0%)

pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.925	7.818	8.032	7.7	8.1	0.04532	0.1282	1.62%	0
100		3	7.333	6.616	8.05	7	7.5	0.1667	0.2887	3.94%	0
Overall		11	7.764	7.546	7.981	7	8.1	0.09749	0.3233	4.17%	0 (0%)

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.06	23.96	24.16	24	24.3	0.04199	0.1188	0.49%	0
100		3	24	24	24	24	24	0	0	0.0%	0
Overall		11	24.05	23.98	24.12	24	24.3	0.03123	0.1036	0.43%	0 (0%)

CETIS Measurement Report

Report Date: 13 Feb-19 10:05 (p 2 of 2)
 Test Code: PRI0119.067 | 17-8111-6930

Ceriodaphnia 7-d Survival and Reproduction Test		Aquatic Bioassay & Consulting Labs, Inc.							
Alkalinity (CaCO₃)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	60	60	60	60	60	60	60	60
100		9	9	9					
Conductivity-µmhos									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	335	337	337	338	336	338	366	375
100		37	38	39					
Dissolved Oxygen-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.8	7.6	8.3	8.2	8.3	8	7.6	8.3
100		9.1	8.4	7.2					
Hardness (CaCO₃)-mg/L									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	94	94	94	94	94	94	94	94
100		9	9	9					
pH-Units									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	7.9	7.7	7.9	7.9	7.9	7.9	8.1	8.1
100		7.5	7	7.5					
Temperature-°C									
Conc-%	Code	1	2	3	4	5	6	7	8
0	N	24	24	24	24	24.2	24	24.3	24
100		24	24	24					



1891 Goodyear Ave., Suite 621
 Ventura, CA 93003
 Tel 855-682-1802 • www.pacr1.com

CHAIN OF CUSTODY RECORD

Page 1 Of 1

CLIENT NAME / BILL TO:

Pacific Ridgeline
 ADDRESS:

1891 Goodyear Ave., Suite 621
 Ventura Ca, 93003

PHONE: (855) 682-1802 Ext. 101

EMAIL: bryn@pacr1.com

PROJECT:

LA Irrigated Lands Group (LAILG) - NGA
 ADDRESS:

PO#:

SAMPLER:

Scott Jordan

PROJECT MANAGER:

Bryn Home

SAMPLE ID#	DATE SAMPLED	TIME SAMPLED	SMP L TYPE	SAMPLE DESCRIPTION/SITE LOCATION	# OF CONT.
------------	--------------	--------------	------------	----------------------------------	------------

LAILG-NGA-19-10	1/14/19	07:30	RW	Edge of Field Swaff	2
-----------------	---------	-------	----	---------------------	---

LAILG-NGA-18-10		11:00			
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" - 64-6		12:05			
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" - 4-10		12:45			
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ANALYSES REQUESTED

Ceriodaphnia Dubia (7Day)	Temp ~ °C	Attenuation	TH3
X	10.3	10.1	10.1
X	11.3	10.1	10.1
X	10.3	10.1	10.1
X	11.3	10.1	10.1

SPECIAL HANDLING

- STANDARD
- 24 Hour Rush
- 48-72 Hour Rush
- 4 - 5 Day Rush
- EDF

COMMENTS:

.064
 .065
 .066
 .067

RELINQUISHED BY:

[Signature]

DATE / TIME:

1/15/19 @ 09:25

RECEIVED BY:

[Signature]

RELINQUISHED BY:

DATE / TIME:

RECEIVED BY:

RELINQUISHED BY:

DATE / TIME:

RECEIVED BY:

SAMPLE CONDITION:

Actual Temperature:
 Received On Ice
 Preserved
 Evidence Seals Present
 Container Attacked
 Preserved at Lab

Y / N
 Y / N
 Y / N
 Y / N
 Y / N

SAMPLE TYPE CODE:

AQ=Aqueous
 NA= Non Aqueous
 SL = Sludge
 DW = Drinking Water
 WW = Waste Water
 RW = Rain Water
 GW = Ground Water
 SO = Soil
 SW = Solid Waste
 OL = Oil
 OT = Other Matrix

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 8 January - 2019

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 5.00 ug/l

EC25 = 5.67 ug/l

EC50 = 7.33 ug/l

ENDPOINT: REPRODUCTION

NOEC = 5.00 ug/l

IC25 = 7.17 ug/l

IC50 = 9.35 ug/l

Yours very truly,


Scott Johnson
Laboratory Director

CETIS Summary Report

Report Date: 18 Jan-19 14:29 (p 1 of 2)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 11-3163-8860	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 08 Jan-19 12:35	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 15 Jan-19 14:05	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 2h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-7678-0711	Code: CER010819	Client: ABC Labs
Sample Date: 08 Jan-19 12:35	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD	✓
11-2765-9190	7d Survival Rate	Fisher Exact/Bonferroni-Holm Test	5	10	7.071		n/a	✓
07-9716-2960	Reproduction	Dunnett Multiple Comparison Test	5	10	7.071		40.6%	✓

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL	TU	✓
01-8803-4983	7d Survival Rate	Linear Interpolation (ICPIN)	EC5	1	0.5	5.278		✓
			EC10	2	1	5.556		✓
			EC15	5	1.5	5.833		✓
			EC20	5.333	2	6.111		✓
			EC25	5.667	2.5	6.389		✓
			EC40	6.667	5.714	7.5		✓
03-2321-0152	Reproduction	Linear Interpolation (ICPIN)	IC5	5.434	1.213	5.555		
			IC10	5.869	2.426	6.111		
			IC15	6.303	3.683	6.666		
			IC20	6.738	4.167	7.222		
			IC25	7.172	4.609	7.792		
			IC40	8.476	6.52	9.565		
			IC50	9.345	7.629	12.34		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits			Overlap	Decision
				Lower	Upper			
01-8803-4983	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria	
11-2765-9190	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria	
03-2321-0152	Reproduction	Control Resp	16.9	15	>>	Yes	Passes Criteria	
07-9716-2960	Reproduction	Control Resp	16.9	15	>>	Yes	Passes Criteria	
07-9716-2960	Reproduction	PMSD	0.4059	0.13	0.47	Yes	Passes Criteria	

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
3		10	0.8000	0.4984	1.0000	0.0000	1.0000	0.1333	0.4216	52.70%	20.00%
5		10	0.9000	0.6738	1.0000	0.0000	1.0000	0.1000	0.3162	35.14%	10.00%
10		10	0.1000	0.0000	0.3262	0.0000	1.0000	0.1000	0.3162	316.23%	90.00%
30		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
50		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%

Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.9	14.41	19.39	11	22	1.1	3.479	20.58%	0.00%
3		10	17.5	11.84	23.16	0	26	2.5	7.906	45.18%	-3.55%
5		10	19.3	11.96	26.64	1	30	3.246	10.26	53.18%	-14.20%
10		10	7.6	3.887	11.31	0	16	1.641	5.19	68.29%	55.03%
30		10	0	0	0	0	0	0	0		100.00%
50		10	0	0	0	0	0	0	0		100.00%

CETIS Summary Report

Report Date: 18 Jan-19 14:29 (p 2 of 2)
Test Code: GER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
5		1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	11	12	18	17	17	21	15	22	18	18
3		26	22	15	25	23	22	0	13	17	12
5		28	26	1	30	21	4	23	17	29	14
10		3	10	10	8	11	12	1	5	0	16
30		0	0	0	0	0	0	0	0	0	0
50		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1	1/1
5		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 07-9716-2960
 Analyzed: 18 Jan-19 14:28

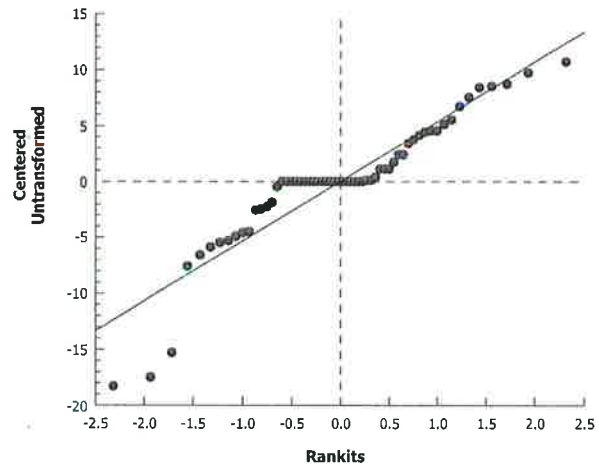
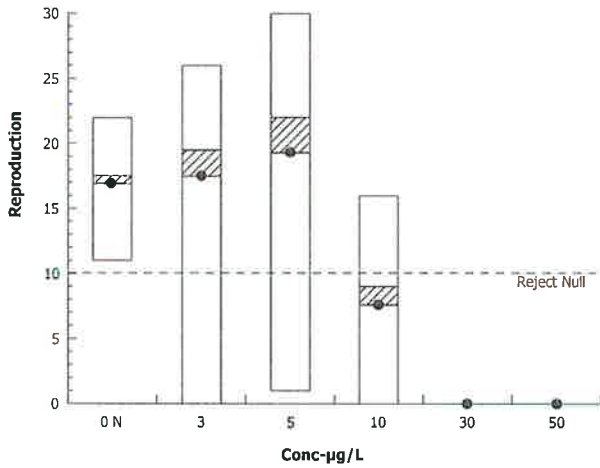
Endpoint: Reproduction
 Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.2
 Official Results: Yes

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	11	12	18	17	17	21	15	22	18	18
3		26	22	15	25	23	22	0	13	17	12
5		28	26	1	30	21	4	23	17	29	14
10		3	10	10	8	11	12	1	5	0	16
30		0	0	0	0	0	0	0	0	0	0
50		0	0	0	0	0	0	0	0	0	0

Graphics



CETIS Analytical Report

Report Date: 18 Jan-19 14:29 (p 1 of 4)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-8803-4983	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 18 Jan-19 14:28	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 11-3163-8860	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 08 Jan-19 12:35	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 15 Jan-19 14:05	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 2h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-7678-0711	Code: CER010819	Client: ABC Labs
Sample Date: 08 Jan-19 12:35	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC5	1	0.5	5.278
EC10	2	1	5.556
EC15	5	1.5	5.833
EC20	5.333	2	6.111
EC25	5.667	2.5	6.389
EC40	6.667	5.714	7.5
EC50	7.333	6.429	8.333

7d Survival Rate Summary

Conc-µg/L	Code	Count	Calculated Variate(A/B)							A	B
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect		
0	N	10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
3		10	0.8000	0.0000	1.0000	0.1333	0.4216	52.70%	20.0%	8	10
5		10	0.9000	0.0000	1.0000	0.1000	0.3162	35.14%	10.0%	9	10
10		10	0.1000	0.0000	1.0000	0.1000	0.3162	316.20%	90.0%	1	10
30		10	0.0000	0.0000	0.0000	0.0000	0.0000		100.0%	0	10
50		10	0.0000	0.0000	0.0000	0.0000	0.0000		100.0%	0	10

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
5		1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1	1/1
5		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

CETIS Analytical Report

Report Date: 18 Jan-19 14:29 (p 2 of 4)

Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-8803-4983

Endpoint: 7d Survival Rate

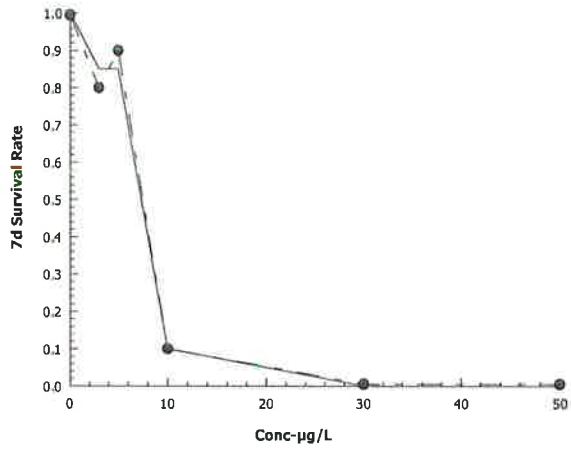
CETIS Version: CETISv1.9.2

Analyzed: 18 Jan-19 14:28

Analysis: Linear Interpolation (ICPIN)

Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 18 Jan-19 14:29 (p 3 of 4)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 03-2321-0152	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 18 Jan-19 14:28	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 11-3163-8860	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 08 Jan-19 12:35	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 15 Jan-19 14:05	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 2h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-7678-0711	Code: CER010819	Client: ABC Labs
Sample Date: 08 Jan-19 12:35	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	16.9	15	>>	Yes	Passes Criteria

Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	5.434	1.213	5.555
IC10	5.869	2.426	6.111
IC15	6.303	3.683	6.666
IC20	6.738	4.167	7.222
IC25	7.172	4.609	7.792
IC40	8.476	6.52	9.565
IC50	9.345	7.629	12.34

Reproduction Summary

Calculated Variate

Conc-µg/L	Code	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	16.9	11	22	1.1	3.479	20.58%	0.0%
3		10	17.5	0	26	2.5	7.906	45.18%	-3.55%
5		10	19.3	1	30	3.246	10.26	53.18%	-14.2%
10		10	7.6	0	16	1.641	5.19	68.29%	55.03%
30		10	0	0	0	0	0		100.0%
50		10	0	0	0	0	0		100.0%

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	11	12	18	17	17	21	15	22	18	18
3		26	22	15	25	23	22	0	13	17	12
5		28	26	1	30	21	4	23	17	29	14
10		3	10	10	8	11	12	1	5	0	16
30		0	0	0	0	0	0	0	0	0	0
50		0	0	0	0	0	0	0	0	0	0

CETIS Analytical Report

Report Date: 18 Jan-19 14:29 (p 4 of 4)

Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 03-2321-0152

Endpoint: Reproduction

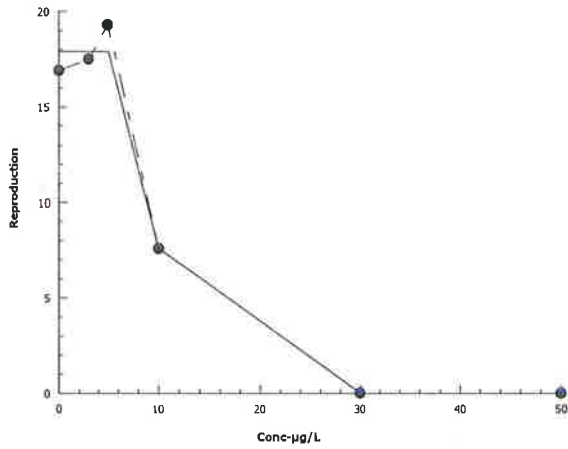
CETIS Version: CETISv1.9.2

Analyzed: 18 Jan-19 14:28

Analysis: Linear Interpolation (ICPIN)

Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 18 Jan-19 14:29 (p 1 of 2)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-2765-9190	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 18 Jan-19 14:28	Analysis: STP 2xK Contingency Tables	Official Results: Yes
Batch ID: 11-3163-8860	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 08 Jan-19 12:35	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 15 Jan-19 14:05	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 2h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-7678-0711	Code: CER010819	Client: ABC Labs
Sample Date: 08 Jan-19 12:35	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	5	10	7.071	

Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		3	0.2368	Exact	0.4737	Non-Significant Effect
		5	0.5000	Exact	0.5000	Non-Significant Effect
		10*	0.0001	Exact	1.8E-04	Significant Effect
		30*	0.0000	Exact	2.7E-05	Significant Effect
		50*	0.0000	Exact	2.7E-05	Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

Data Summary

Conc-µg/L	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
3		8	2	10	0.8	0.2	20.0%
5		9	1	10	0.9	0.1	10.0%
10		1	9	10	0.1	0.9	90.0%
30		0	10	10	0	1	100.0%
50		0	10	10	0	1	100.0%

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
5		1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1	1/1
5		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

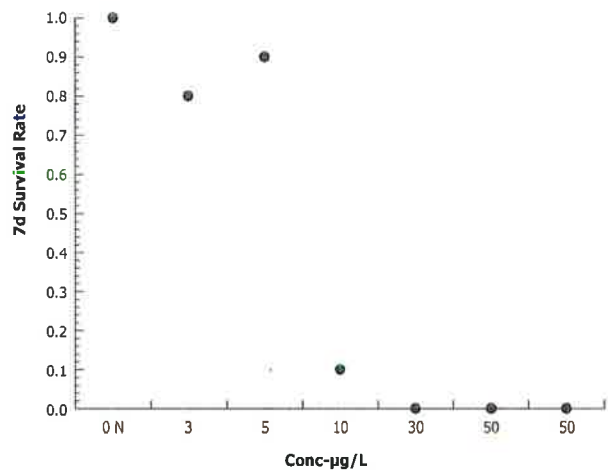
Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-2765-9190 Endpoint: 7d Survival Rate
 Analyzed: 18 Jan-19 14:28 Analysis: STP 2xK Contingency Tables

CETIS Version: CETISv1.9.2
 Official Results: Yes

Graphics



CETIS Measurement Report

Report Date: 18 Jan-19 14:29 (p 1 of 2)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID: 11-3163-8860	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 08 Jan-19 12:35	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 15 Jan-19 14:05	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 2h	Source: Aquatic Biosystems, CO	Age:

Sample ID: 14-7678-0711	Code: CER010819	Client: ABC Labs
Sample Date: 08 Jan-19 12:35	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station: REF TOX	

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60	60	60	60	60	0	0	0.0%	0
50		2	57	57	57	57	57	0	0	0.0%	0
Overall		10	59.4	58.5	60.3	57	60	0.4	1.265	2.13%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	339	333	345	330	347	2.521	7.131	2.1%	0
3		8	340	338.2	341.8	337	343	0.7559	2.138	0.63%	0
5		8	336.9	335.5	338.2	335	339	0.5806	1.642	0.49%	0
10		8	333	331.7	334.3	330	335	0.5669	1.604	0.48%	0
30		2	333	307.6	358.4	331	335	2	2.828	0.85%	0
50		2	333	320.3	345.7	332	334	1	1.414	0.42%	0
Overall		36	336.8	335.2	338.3	330	347	0.7605	4.563	1.36%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.725	7.416	8.034	7.1	8.3	0.1306	0.3694	4.78%	0
3		8	7.75	7.283	8.217	6.9	8.6	0.1973	0.5581	7.2%	0
5		8	7.825	7.353	8.297	7.2	8.8	0.1998	0.5651	7.22%	0
10		8	7.863	7.345	8.38	7.1	8.9	0.2187	0.6186	7.87%	0
30		2	7.85	-1.68	17.38	7.1	8.6	0.75	1.061	13.51%	0
50		2	7.8	-1.094	16.69	7.1	8.5	0.7	0.99	12.69%	0
Overall		36	7.794	7.611	7.978	6.9	8.9	0.09023	0.5414	6.95%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	93.5	92.32	94.68	90	94	0.5	1.414	1.51%	0
50		2	118	118	118	118	118	0	0	0.0%	0
Overall		10	98.4	90.96	105.8	90	118	3.29	10.41	10.57%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.863	7.708	8.017	7.7	8.1	0.0653	0.1847	2.35%	0
3		8	7.875	7.759	7.991	7.7	8.1	0.0491	0.1389	1.76%	0
5		8	7.875	7.788	7.962	7.8	8.1	0.0366	0.1035	1.31%	0
10		8	7.863	7.763	7.962	7.7	8.1	0.04199	0.1188	1.51%	0
30		2	7.75	7.115	8.385	7.7	7.8	0.05001	0.07072	0.91%	0
50		2	7.7	7.698	7.702	7.7	7.7	0	0	0.0%	0
Overall		36	7.853	7.807	7.898	7.7	8.1	0.02236	0.1341	1.71%	0 (0%)

CETIS Measurement Report

Report Date: 18 Jan-19 14:29 (p 2 of 2)
 Test Code: CER010819 | 19-7982-7585

Ceriodaphnia 7-d Survival and Reproduction Test											Aquatic Bioassay & Consulting Labs, Inc.
Temperature-°C											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.03	23.97	24.08	24	24.2	0.02499	0.07069	0.29%	0
3		8	24.04	23.98	24.1	24	24.2	0.02629	0.07436	0.31%	0
5		8	24.04	23.98	24.1	24	24.2	0.02629	0.07436	0.31%	0
10		8	24.05	23.99	24.11	24	24.2	0.0267	0.07553	0.31%	0
30		2	24.1	22.83	25.37	24	24.2	0.09994	0.1413	0.59%	0
50		2	24.1	22.83	25.37	24	24.2	0.09994	0.1413	0.59%	0
Overall		36	24.04	24.02	24.07	24	24.2	0.01288	0.07725	0.32%	0 (0%)
Alkalinity (CaCO3)-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	60	60	60	60	60	60	60	60		
50		57	57								
Conductivity-µmhos											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	330	345	344	331	345	338	332	347		
3		341	342	343	340	338	337	338	341		
5		336	338	339	339	335	336	337	335		
10		330	332	333	333	333	333	335	335		
30		331	335								
50		332	334								
Dissolved Oxygen-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	7.8	7.9	7.8	7.8	7.8	7.1	7.3	8.3		
3		8.4	7.8	7.7	7.7	7.7	6.9	7.2	8.6		
5		8.5	7.7	7.7	7.7	7.8	7.2	7.2	8.8		
10		8.6	7.7	7.8	7.8	7.8	7.2	7.1	8.9		
30		8.6	7.1								
50		8.5	7.1								
Hardness (CaCO3)-mg/L											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	90	94	94	94	94	94	94	94		
50		118	118								
pH-Units											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	7.7	8.1	8	7.7	7.7	7.9	7.7	8.1		
3		7.8	8	8	7.8	7.8	7.8	7.7	8.1		
5		7.8	7.9	7.9	7.9	7.8	7.8	7.8	8.1		
10		7.8	7.9	7.9	7.9	7.8	7.8	7.7	8.1		
30		7.8	7.7								
50		7.7	7.7								
Temperature-°C											
Conc-µg/L	Code	1	2	3	4	5	6	7	8		
0	N	24.2	24	24	24	24	24	24	24		
3		24.2	24	24.1	24	24	24	24	24		
5		24.2	24	24.1	24	24	24	24	24		
10		24.2	24	24.1	24	24.1	24	24	24		
30		24.2	24								
50		24.2	24								