NURSERY GROWERS ASSOCIATION

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January 16, 2017

Mr. Samuel Unger
Executive Officer
State Regional Water Quality Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Nursery Growers Association
Los Angeles County Irrigated Lands Group
Conditional Waiver for Irrigated Lands
ANNUAL MONITORING REPORT-YEAR ONE UNDER ORDER # R4-2016-0143 (THROUGH OCTOBER 15, 2016)

Dear Mr. Unger:

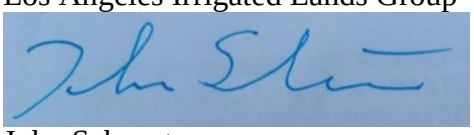
Pacific Ridgeline prepared this *Annual Monitoring Report* on behalf of Nursery Growers Association, Los Angeles County Irrigated Lands Group (LAILG). Monitoring and reporting was conducted in accordance with the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (CWIL;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

One sampling event was conducted during the final wet season of the previous CWIL and two sampling events were conducted during first dry season under the current CWIL (sampling through October 15, 2016). A total of two samples were collected at the five sites visited during the wet season sampling events. No samples were collected during the dry season.

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-
YEAR ONE UNDER ORDER # R4-2016-0143
(THROUGH OCTOBER 15, 2016)

NURSERY GROWERS ASSOCIATION
LOS ANGELES COUNTY
IRRIGATED LANDS GROUP

January 16, 2017

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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 OCTOBER 15, 2016)

NURSERY GROWERS ASSOCIATION
LOS ANGELES COUNTY 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 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, Order #R4-2010-0186. PacRL was contracted by NGA to manage the technical aspect of the LAILG.

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.

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 typically 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. AMRs submitted by the LAILG during the original CWIL term reported runoff water quality that exceeded established water quality benchmarks.

On October 7, 2010, the LARWQCB adopted a second CWIL for the Los Angeles Region (Order No. R4-2010-0186). This CWIIL was extended for an additional year under Order R4-2015-0202. Order R4-2016-0134, adopted on May 19, 2016, slightly revised the program and extended water quality monitoring throughout the Los Angeles Region. Exceedances are to be dealt with by implementing a WQMP that establishes procedures to reduce or eliminate pollutant loading into receiving waters. The goal of this program is to protect and improve water quality, and to attain water quality objectives in the receiving water bodies.

The objective of this AMR is to evaluate compliance with water quality benchmarks established by the various CWILs throughout the life of the program, and to report findings to the LARWQCB as specified in the MRP. This AMR describes the monitoring efforts and results that have been undertaken by the NGA for compliance with the CWIL through October 15, 2016, along with presenting historical data collected throughout the life of the program.

Implementation and results from the WQMP will be presented in a standalone WQMP update report, and are not included in this document.

2.0 BACKGROUND AND SAMPLING METHODOLOGY

As of December 2016, the LAILG is comprised of 271 sites and an estimated 1,853 irrigated acres. A complete list of current group members in good standing with the LAILG is included in Appendix A.

Until additional information is gathered from the group in order to apply the most recent WQMP, LAILG has been operating under the MRP developed for the previous CWIL. As outlined in the last MRP, dated April 7, 2011, the LAILG collects water quality data at 20 sampling sites throughout each year. All enrolled growers are segregated into four distinct sampling regions (Group 1 - Group 4) based on their geographic location. The majority of the sampling sites were continued from the last CWIL period and the sampling region boundaries were established to ensure that each group contained 4 of the 16 established fixed sampling sites and approximately the same number of total enrolled growers. Refer to Appendix A for all LAILG enrolled growers and sampling regions. An updated map of enrolled members is currently being prepared, and will be submitted to the LARWQCB upon completion.

A rotating sampling schedule was implemented for the 16 fixed sampling sites; 4 sites are sampled during each distinct sampling event. The sampling groups are cycled throughout the year, ensuring that each fixed sample site is visited at least once per year (Table 1). The approved sampling schedule ensures each sampling group collects a sample during each possible event (first or second, wet and dry) throughout the previous CWIL period.

Table 1 - Sampling Schedule, CWIL R4-2010-0186

Table 1 Sampling Schedule

YEAR	DRY SEASON MAY 15-OCTOBER 14		WET SEASON OCTOBER 15-MAY 14	
	EVENT #1	EVENT #2	EVENT #1	EVENT #2
1 (MAY 15, 2011-MAY 14, 2012)	GROUP 1	GROUP 2	GROUP 3	GROUP 4
2 (MAY 15, 2012-MAY 14, 2013)	GROUP 2	GROUP 3	GROUP 4	GROUP 1
3 (MAY 15, 2013-MAY 14, 2014)	GROUP 3	GROUP 4	GROUP 1	GROUP 2
4 (MAY 15, 2014-MAY 14, 2015)	GROUP 4	GROUP 1	GROUP 2	GROUP 3
5 (MAY 15, 2016-OCTOBER 15, 2016)	GROUP 1	GROUP 2	GROUP 3	GROUP 4

A single revolving sampling site was added to the four fixed sampling sites for each sampling event. Five sites were chosen for each sampling group region to serve as potential revolving sampling sites. Revolving sampling sites have been chosen using the criteria listed above. Fixed and revolving sampling sites are presented on Table 2 in Section 3.

For each sampling event, the revolving sampling site is selected from the list of potential revolving sampling sites for each sampling group region. The revolving site sampled is selected from the sampling group region scheduled for a particular sampling event.

If an exceedance is detected in a revolving sampling site, that site was re-visited and re-sampled when the particular sampling group region is scheduled for the following years sampling event. If no exceedance is detected, or samples are not collected, a new revolving site is selected for the following years sampling event.

In the interim of CWIL Order R4-2016-0143, sampling was conducted as outlined in Section 3.0 for the dry and wet season. Dry season sampling has already occurred, and is included in this report.

3.0 CURRENT EVENTS

An updated WQMP was submitted to the LARWQCB on August 21, 2015. LAILG will continue to operate under the existing WQMP until enough data is collected to update to a new MRP and WQMP as required by the new CWIL. LAILG will also be operating under the existing MRP until a new MRP is developed, which is pending collection of data from growers and is anticipated to be in the second quarter of 2017.

Since the previous AMR, a number of fixed and rotating sites have also been lost, but were not replaced in anticipation of preparing a new MRP under the new CWIL. The updated site list with redacted sampling locations is presented on Table 2. Appendix A presents the most recent list of enrolled members, and Figures 1 through 1.5 presents the most recent maps of members enrolled in the program.

For the interim period under Order R4-2016-0143 and until a new MRP is developed, LAILG will be sampling the sites presented on Table 3 during the wet season of 2016-2017. The sites presented on Table 3 for the dry season have been visited and are presented in this report. These sites were chosen in the interim due to ease of access, the need for additional and/or new data, and/or a high likelihood of being able to collect stormwater samples.

Table 2 - Fixed Sampling Locations, Historical

NAME	SITE #	APPROXIMATE GPS LOCATION	ADDRESS	ACRES IRRIGATED	CROP TYPE
GROUP 1					
Boething Treeland Farms, Inc.	19	N 34° 09' 51.1" W 118° 38' 20.7"	23475 Long Valley Road Woodsland Hills, CA	14.68	General Ornamentals
Norman's Nursery	125	N 34° 05' 42.3" W 118° 04' 53.5"	8550 E Broadway San Gabriel, CA	7.00	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 Farms
GROUP 2					
Acosta Growers, Inc.	11	N 34° 06' 38.0" W 117° 54' 19.9"	669 S. Azusa Ave Azusa, CA	7.50	General Ornamentals
Glendora Gardens	110	N 34° 07' 05.5" W 117° 52' 19.8"	1132 S Grand Avenue Glendora, CA	3.75	Retail / Multiple
Colorama Wholesale Nursery	150	N 34° 08' 27.5" W 117° 55' 35.9"	1025 N. Todd Ave. Asuza, CA	15.30	Color Plants
~~West Covina Wholesale~~	~~189~~	~~N 34° 06' 58.1" W 117° 47' 05.1"~~	~~3425 Damien Ave La Verne, CA~~	~~1.25~~	~~General Ornamentals~~
GROUP 3					
~~Coiner Nursery~~	~~31~~	~~N 34° 02' 19.1" W 118° 01' 28.4"~~	~~285 San Fidel La Puente, CA~~	~~48.00~~	~~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
Centeno's Nursery and Landscaping	81	N 33° 52' 46.9" W 118° 09' 20.7"	6850 Paramount Blvd Long Beach , CA	3.00	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
GROUP 4					
ABC Nursery, Inc.	4	N 33° 52' 55.7" W 118° 16' 06.0"	424 E. Gardena Boulevard Gardina, CA	11.51	General Ornamentals
New West Growers	53	N 33° 52' 51.1" W 118° 12' 56.3"	1601 S. Santa Fe Ave Compton, CA	1.70	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
Hevadu	210	N 34° 01' 10.0" W 118° 49' 05.6"	6415 Busch Drive Malibu, CA	2.75	Vineyard

Table 2 - Rotating Sampling Locations, Historical

NAME	SITE #	APPROXIMATE GPS LOCATION	ADDRESS	ACRES IRRIGATED	CROP TYPE
GROUP 1					
Canyon Way Nursery	26	N 34° 12' 04.9" W 118° 13' 22.3"	11745 Sherman Way Studio City, CA	4.25	General Ornamentals
Live Art Plantscapes, Inc.	105	N 34° 14' 34.3" W 118° 32' 36.1"	18809 Plummer St Northridge, CA	1.80	Greenhouse
Green Landscape Nursery	143	N 34° 23' 01.2" W 118° 31' 34.1"	22216 1/2 Placerita Canyon Rd Newhall, CA	4.00	General Ornamentals
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
Worldwide Exotics Inc.	204	N 34° 16' 23.8" W 118° 22' 06.1"	11157 Orcas Avenue Lake Terrace, CA	2.00	General Ornamentals
GROUP 2					
~~Coiner Nursery~~	~~32~~	~~N 34° 6' 25.9" W 117°46' 19.7"~~	~~3000 B Street La Verne, CA~~	~~15.00~~	~~General Ornamentals~~
West Covina Wholesale	188	N 34° 05' 38.0" W 117° 47' 31.3"	West end of Puddingstone La Verne, CA	15.25	General Ornamentals
El Nativo Growers, Inc.	202	N 34° 06' 34.8" W 117°56' 29.8"	200 S. Peckham Azusa, CA	7.00	General Ornamentals
Choji Matsushita	226	N 34° 06' 52.9" W 117°48' 41.1"	724 N. Cataract Avenue San Dimas, CA	1.70	Cutflower
~~Organicado~~	~~255~~	~~N 34° 08' 55.0" W 117°58' 24.4"~~	~~460 Old ranch Road Bradbury, CA~~	~~1.00~~	~~Orchard~~
GROUP 3					
Carreon Nursery	50	N 34° 03' 10.6" W 118° 05' 48.5"	7900 La Merced Road Rosemead, CA	6.00	General Ornamentals
Humedo Nursery	70	N 33° 55' 00.5" W 118° 06' 44.3"	10040 Imperial Highway Downey, CA	2.20	General Ornamentals
~~San Gabriel Nursery & Florist~~	~~162~~	~~N 34° 02' 27.4" W 118° 06' 20.5"~~	~~2015 Potrero Grande Monterey Park, CA~~	~~6.00~~	~~General Ornamentals~~
Lam Farms	212	N 33° 53' 34.5" W 118° 08' 49.9"	8600 Jefferson Street Paramount, CA	1.00	Row Crop
~~ABC Rhubarb Farms~~	~~261~~	~~N 33° 57' 44.0" W 118° 09' 19.3"~~	~~6208 Clara Street Bell Gardens, CA~~	~~5.00~~	~~Row Crop~~
GROUP 4					
Color Spot Nurseries, Inc.	33	N 33° 48' 28.6" W 118° 16' 59.9"	321 W. Sepulveda Blvd Carson, CA	18.50	Color Plants
International Plant Growers, Inc.	73	N 33° 47' 55.4" W 118° 17' 26.0"	24500 Vermont Ave Harbor City, CA	5.00	Color Plants
~~Toro Nursery Inc.~~	~~170~~	~~N 33° 52' 15.3" W 118° 19' 35.9"~~	~~17585 Crenshaw Blvd Torrance, CA~~	~~15.78~~	~~Color Plants~~
The Malibu Vineyard	221	N 34° 02' 36.5" W 118° 38' 47.5"	3222 Rambla Pacifico Malibu, CA	2.00	Vineyards
~~Schoelkopf Vineyard~~	~~224~~	~~N 34° 02' 19.6" W 118° 51' 36.9"~~	~~31499 Pacific Coast Hwy Malibu, CA~~	~~0.80~~	~~Vineyards~~

Table 3 – Interim Sampling Locations

NAME	SITE #	APPROXIMATE GPS LOCATION	ADDRESS	SAMPLE SEASON	ACRES IRRIGATED	CROP TYPE
ABC Nursery, Inc.	4	N 33° 52' 55.7" W 118° 16' 06.0"	424 E. Gardena Boulevard Gardina, CA	DRY / WET	11.51	General Ornamentals
Boething Treeland Farms, Inc.	19	N 34° 09' 51.1" W 118° 38' 20.7"	23475 Long Valley Road Woodsland Hills, CA	DRY / WET	14.68	General Ornamentals
Canyon Way Nursery	26	N 34° 12' 04.9" W 118° 13' 22.3"	11745 Sherman Way Studio City, CA	WET	4.25	General Ornamentals
Norman's Nursery	125	N 34° 05' 42.3" W 118° 04' 53.5"	8550 E Broadway San Gabriel, CA	DRY / WET	7.00	General Ornamentals
Colorama Wholesale Nursery	150	N 34° 08' 27.5" W 117° 55' 35.9"	1025 N. Todd Ave. Asuza, CA	DRY / WET	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	DRY / WET	6.89	General Ornamentals
SY Nursery Inc.	168	N 33° 50' 59.2" W 118° 04' 36.0"	19900 S Pioneer Blvd Cerritos, CA	DRY / WET	4.75	General Ornamentals
T-Y Nursery	176	N 33° 51' 18.7" W 118° 23' 10.9"	Between Flagler/Paulina Redondo Beach, CA	DRY / WET	7.50	General Ornamentals
Ultra Greens Nursery	178	N 34° 17' 57.4" W 118° 25' 06.5"	13102 Maclay Street Sylmar, CA	DRY / WET	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	DRY	36.00	Sod
West Covina Wholesale	188	N 34° 05' 38.0" W 117° 47' 31.3"	West end of Puddingstone La Verne, CA	WET	15.25	General Ornamentals
El Nativo Growers	202	N 34° 06' 38.2" W 117° 56' 26.4"	200 S. Peckham Azusa, CA	DRY	7.00	General Ornamentals

4.0 SAMPLING EVENTS

During the wet season of this reporting period, which lasted from October 15, 2015 through May 14, 2016, fixed and rotating sampling sites from Group #3 (Table 2) were visited on January 15, 2016. There was insufficient precipitation to initiate a second sampling event. During the sampling event for Group #3 a total of two of the five sites had sufficient runoff to conduct sampling.

During the dry season of this reporting period, which lasted from May 15, 2016 through October 14, 2016, the interim sites listed in Table 3 were visited on September 9 and September 20, 2016. All sampling 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 are included in Section 6.

A total of 74 samples have been collected by LAILG during the life of the program. The majority of the samples were collected during the first two years of the CWIL, prior to the suspension of the monitoring group. Samples were primarily from storm water runoff during the wet season; irrigated runoff from the dry season has not been encountered since 2008. This is in part due to a concerted effort by LAILG to educate growers on field conditions that were observed during sampling events, to eliminate dry season runoff. A summarized history of collected samples is presented on Table 4. A complete history of collected samples in presented in Appendix B.

Table 4 - 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	
Number of Samples Collected	5	3	14	8	2	1	8	11	0	ns*	0	ns*	52
Total Number of 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		
	March 2011	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	
Samples Collected	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]		
	Dry Season		
	Event #1	Event #2	
Samples Collected	0	0	0
Sites Visited	5	5	10

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

5.0 WATER QUALITY BENCHMARKS

Samples were collected and analyzed as presented in the MRP and QAPP. Table 5 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
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 sufate, 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
TUc	chronic toxic unit
NTU	nephalitic turbidity units

5.1 Water Quality Benchmarks

The following tables present water quality benchmarks that apply to this program. They are derived from language included in Appendix 1 and Appendix 2 of the 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*, dated June 13, 1994. 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 6 outlines the site-specific water quality objectives and associated fixed sampling sites used to evaluate general chemistry results for this report. Rotating sites are evaluated on a case-by-case basis.

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:									
Between Figueroa and Willow St.	53, 81	a)	1,500	350	150	8	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Above Figueroa St.	19, 184	a)	950	300	150	8	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Rio Hondo above Santa Ana Freeway	125	a)	750	300	150	8	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Pacoima Wash above Pacoima spreading grounds	178	a)	250	30	10	MUN	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
San Gabriel River:									
Between Firestone Blvd. and San Gabriel River Estuary	168, 64	a)	MUN				—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Between Ramona and Firestone Blvd.	11, 31, 189, 110	a)	750	300	150	8	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Between Morris Dam and Ramona Blvd.	150	a)	450	100	100	8	—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Dominguez Channel	4	a)	MUN				—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
Santa Monica Bay	176, 210	a)	MUN				—	$CCC=0.960e^{[(0.8545(\ln(\text{hardness}))+(-1.702)]}$	—
USEPA Municipal Drinking Water Standard		a)	500	250	400	10	—	1.3 (mg/L)	—

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

a) Limit varies as a factor of temperature and pH. Objectives based on corresponding field readings for WARM water (One-hour average concentration), as outlined in the 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 7 presents pesticide benchmarks outlined in the Waiver. Table 8 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

C O N S T I T U E N T	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 9 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

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	0.055	0.08	0.036	—	—	—	—
Coumaphos	10	56-72-4	140	11.7	0.037	0.0337	—	—	—	—
Dichlovos (DDVP)		62-73-7	91.50	5.200	0.035	0.0058	14,000	—	—	—
Dimethoate	9	60-51-5	3100	430	21.5	0.5	84	—	—	—
Disulfoton	9	298-04-4	19.5	4	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	16.5	8.6	0.295	0.035	2,400	>9,630	—	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	9.5	—	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	0.091	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	0.105	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	0.0106	0.0014	68	—	—	—
Prallethrin		23031-36-9	6	3	3.1	0.65	—	—	—	—
Sumithrin		26002-80-2	7.9	1.1	2.2	0.47	—	—	—	—
Telfluthrin		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 was conducted for *Pimephales promelas* (fathead minnow), *Ceriodaphnia* (water flea), and *Selenastrum capricornutum* (green algae).

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.

Field Monitoring

For field monitoring results, the Basin Plan for the Los Angeles Region contains narrative objectives for certain chemicals, most notably: biostimulatory substances, temperature, pH, turbidity, and Total Suspended Solids. Table 10 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.	$6.5 \leq pH \leq 8.5$ 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: $\leq 80°F$ 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 determintation shall be less than 5 mg/L, except when natural conditions cause lesser concentrations.	≥ 5 mg/L
	The dissolved owygen 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 owygen 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 contrallable 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 smbient waters outside mixing zones.	≤ 1.0 Tuc[3]
Biostimulatory Substances	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growwth to the extent that such growth causes nuisance or adversely affect benficial 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 muneric benchmarks.

6.0 INDIVIDUAL SAMPLING SITE RESULTS

6.1 SAMPLING SITES

This section presents current and historical sampling events on a site by site basis for sampling sites chosen for this program. Information includes: a summary of detected constituents from water quality sampling, photographs from visits conducted during the third year of the current program, site maps, and basic site information. All permanent sampling sites are included, along with the rotating sampling sites that were visited this sampling year. Samples collected from sampling sites that are no longer operating or from rotating sampling sites not visited this quarter are evaluated in Section 7 and included 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.

6.1.1 GROUP 1

NGA SITE #19

Sampling Group: Group 1
Sampling Frequency - Fixed
Total / Irrigated Acres: 32.0/14.7 Acres
Sample site GPS location: N 34º 09' 51.1" W 118º 38' 2.07"

September 2, 2016, 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 - Seven samples collected to date. This site was visited during the first dry season sampling event during this sampling year; no runoff was observed.

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

Aerial photography of the site is presented on Figure 2.

Table 2 - Summary of samples collected, NGA #19

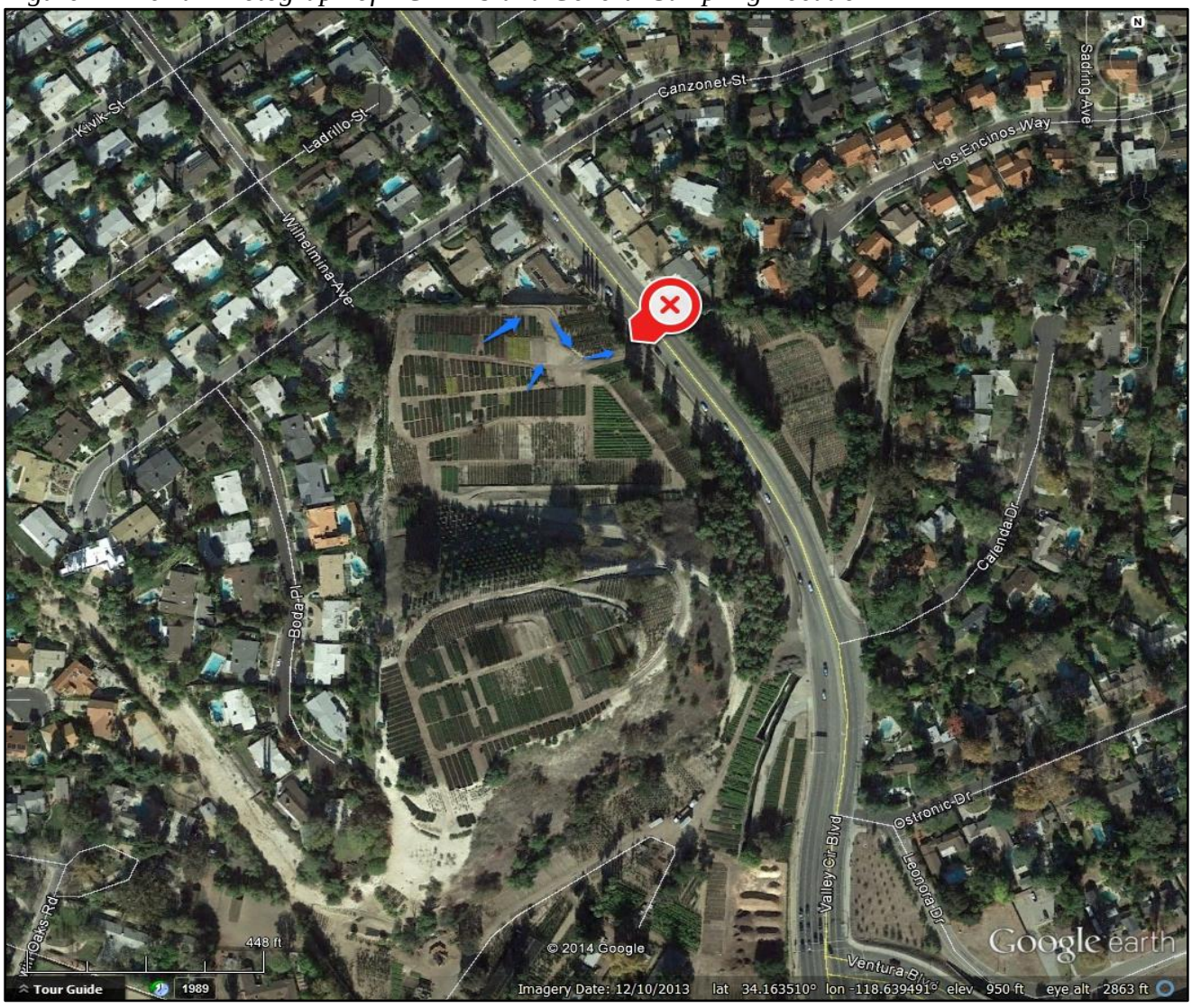
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #19	NGA-#19-LAILG-1	8/13/07	1	108.57	2.2882	**10.84**	118.85	2.68	772	4.62	5.09	568	na	na	na
NGA #19	LAILG-NGA#19-2	12/18/07	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	1/5/08	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	8/12/08	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	11/26/08	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	3/23/11	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	2/28/14	1.4	120	2.400**	**53**	160	2.8	**1,000**	2.4**	4.7	650	319	128	0.056

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	8/13/07	nd	nd	nd	nd	nd	0
NGA #19	LAILG-NGA#19-2	12/18/07	nd	**2.4**	nd	15	2,291.3	1,814
NGA #19	LAILG-NGA19-3	1/5/08	**5.6**	**14**	nd	nd	nd	6.8
NGA #19	LAILG-NGA 19-4	8/12/08	nd	**1.3**	nd	nd	nd	91.8
NGA #19	LAILG-NGA 19-5	11/26/08	**24.7**	**6.6**	**130.1**	32.6	nd	2,236.2
NGA #19	LAILG-NGA 19-6	3/23/11	nd	nd	**25**	nd	nd	29
NGA #19	LAILG-NGA 19-7	2/28/14	nd	nd	**22**	nd	nd	30

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

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



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #124/125

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

September 20, 2016, 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 - Seven samples collected to date. This site was visited during the second dry season sampling event during this sampling year; no runoff was observed.

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

Aerial photography of the site is presented on Figure 3.

Table 3 - Summary of samples collected, NGA #124

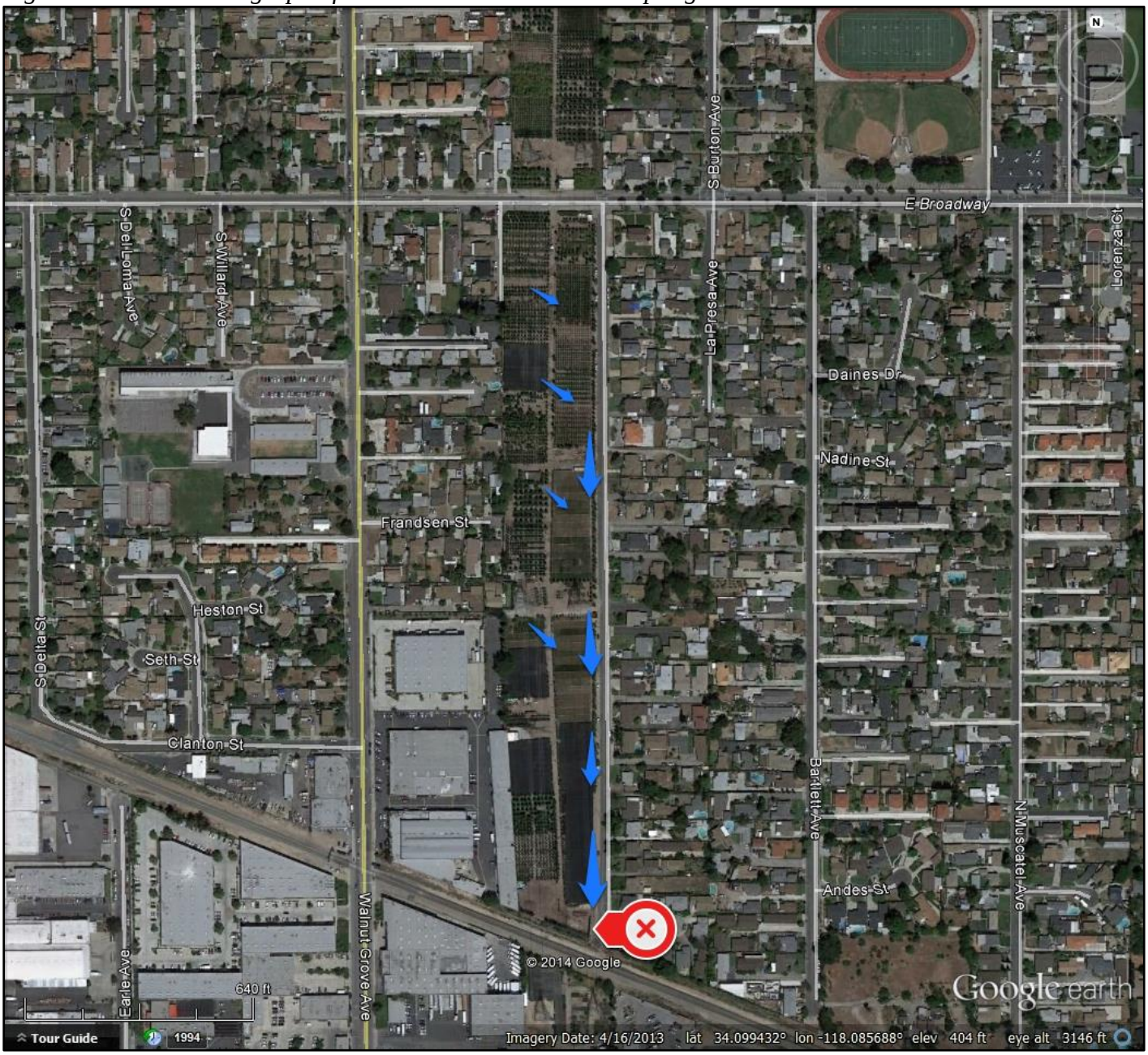
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #124	NGA-#124-LAILG-1	8/13/07	9.8	69.23	3.5006	**72.48**	206.25	4.31	**1,002**	3.96	4.627	99.5	na	na	na
NGA #124	NGA-#124-LAILG-2	12/7/07	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	1/5/08	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	11/26/08	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	12/15/08	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	3/21/11	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	2/28/14	4.5	21	1.200**	**13**	100	1.5	420	1.2	2.2	160	125	50.2	0.049

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	8/13/07	**51.5**	na	**34**	nd	nd	136.9
NGA #124	NGA-#124-LAILG-2	12/7/07	**37.4**	na	**11.4**	nd	nd	3,704.3
NGA #124	LAILG-NGA#124-3	1/5/08	nd	na	**17.1**	nd	nd	1,898.6
NGA #124	LAILG-NGA#124-4	11/26/08	**19.3**	na	**8.2**	nd	nd	7,536.1
NGA #124	LAILG-NGA 124-5	12/15/08	**10.4**	na	**13.6**	nd	85.3	19,281.3
NGA #124	LAILG-NGA 124-6	3/21/11	nd	**33**	nd	10	nd	169.8
NGA #124	LAILG-NGA 124-7	2/28/14	nd	nd	nd	17	13	3,916

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

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



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #178

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

September 20, 2016, 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 - Two samples collected to date. This site was visited during the second dry season sampling event during this sampling year; not enough runoff was observed to collect a sample.

Historical sampling results for this site are presented in Table 13.

Aerial photography of the site is presented on Figure 4.

Table 4 - Summary of samples collected, NGA #178

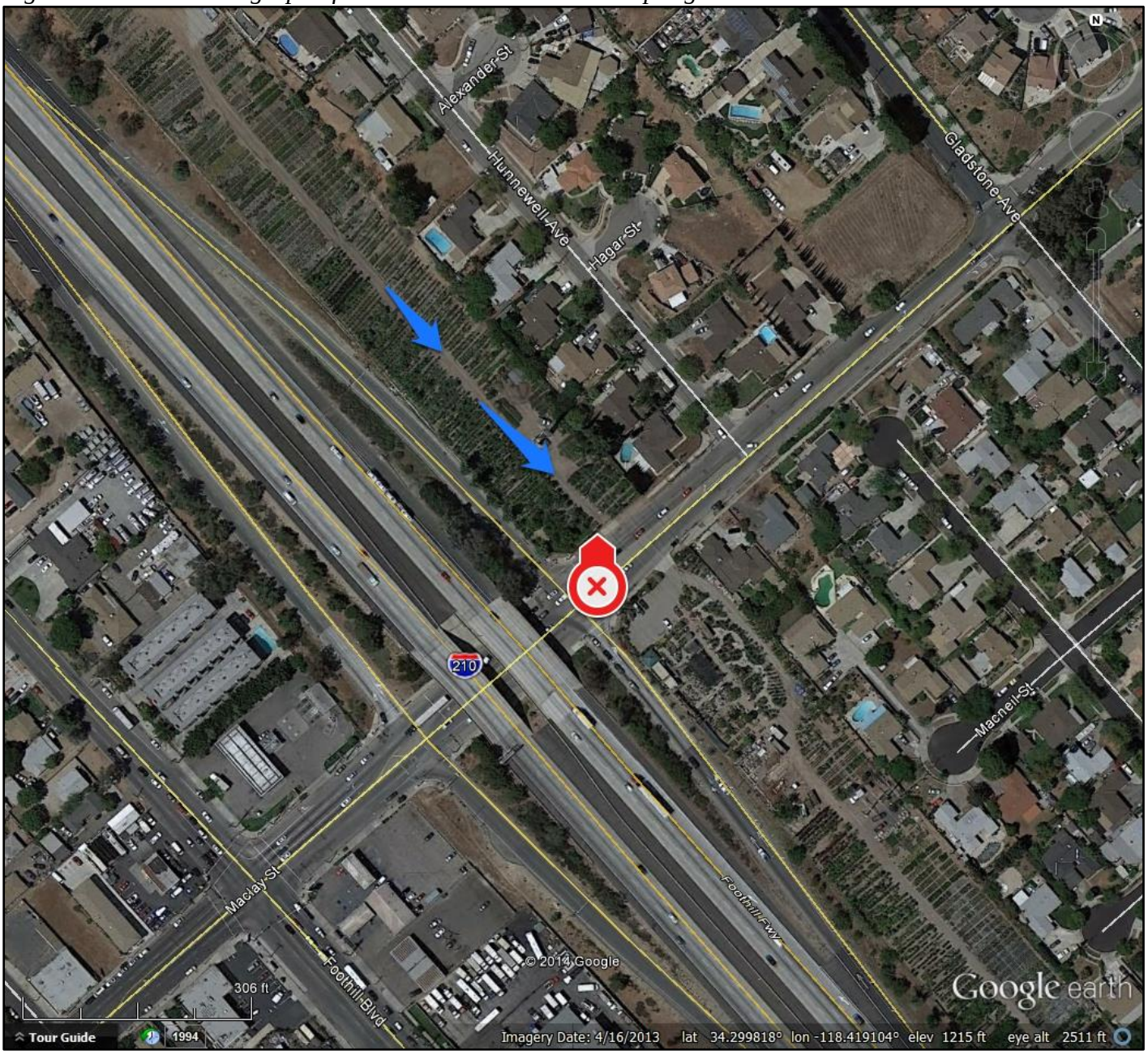
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA # 178	LAILG-NGA 178-1	12/15/08	0.81	**85.04**	2.4077	**12.99**	**148.27**	2.648	**462**	2.64	2.934	72.7	na	na	na
NGA # 178	LAILG-NGA 178-2	2/28/14	0.87	**120**	2.200**	**10**	**370**	2.4	**940**	2.2	3.6	270	324	130	0.030

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	12/15/08	**25.3**		4.9
NGA # 178	LAILG-NGA 178-2	2/28/14	nd		40

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

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



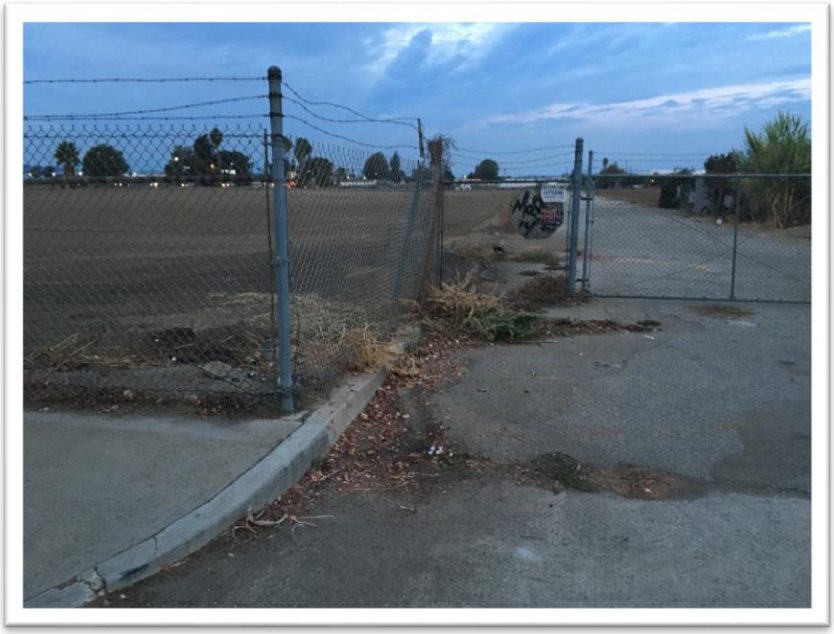
General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #184

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

September 20, 2016, 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 - Three samples collected to date. This site was visited during the second dry season sampling event during this sampling year; no runoff was observed.

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

Aerial photography of the site is presented on Figure 5.

Table 5 - Summary of samples collected, NGA #184

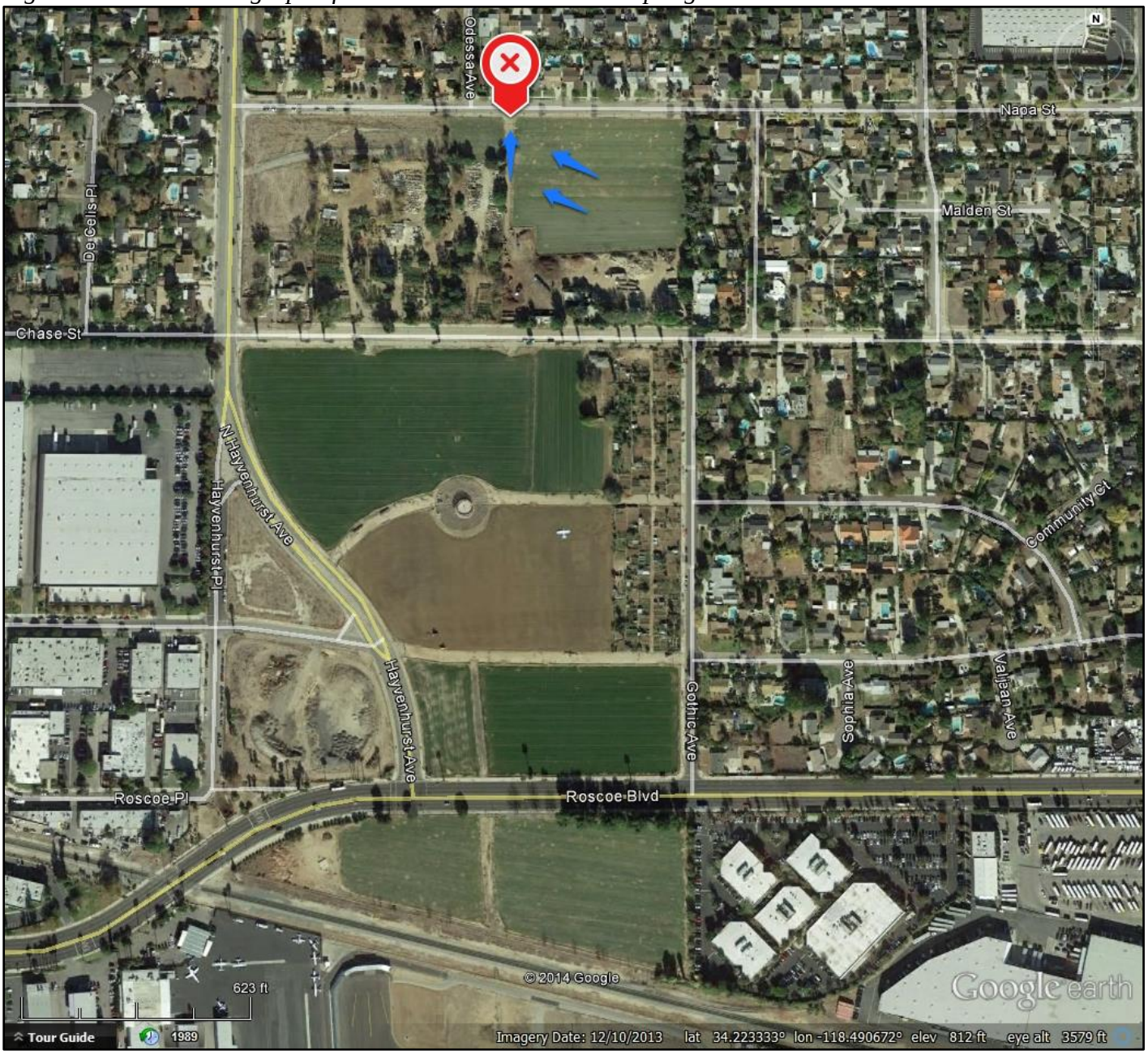
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #184	LAILG-NGA 184-1	11/26/08	0.46	31.44	0.609	3.12	17.92	0.643	206	0.88	1.3	129.5	na	na	na
NGA #184	LAILG-NGA 184-2	12/15/08	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

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

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

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



General Sampling Location

General Surface Flow to Sampling Location

6.1.2 GROUP 2

NGA SITE #11

Sampling Group: Group 2
Sampling Frequency - Fixed
Total/Irrigated Acres: 10/7.5 Acres
Sample site GPS location: N 34º 06' 38.4" W 117º 54' 41.5"

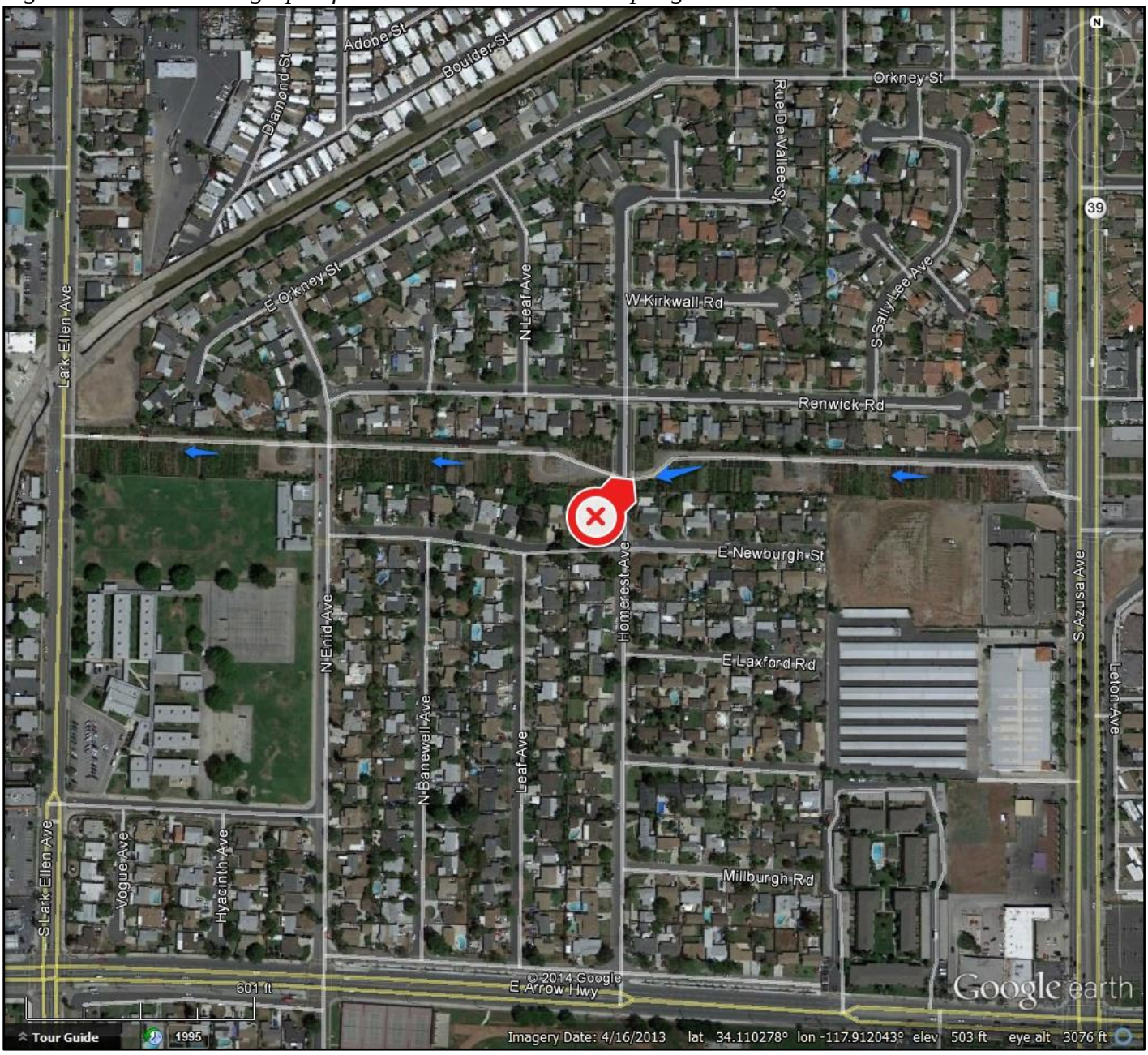
Site Drainage - The topography is relatively flat, and drains west as surface flow. Based on drainage properties and site access, the western gate of the eastern property was chosen as the most likely sampling location.

Sampling - No samples collected to date. This site was not visited during this sampling year.

There are no historical sampling results for this site.

Aerial photography of the site is presented on Figure 6.

Figure 6 – Aerial Photograph of NGA #11 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #109/110

Sampling Group: Group 2
Sampling Frequency - Fixed
Total/Irrigated Acres: 1.8/1.0 Acres
Sample site GPS location: N 34º 07' 4.8" W 117º 52' 22.8"

Site Drainage - The site drains southward into a dirt road and eventually to Big Dalton Wash. Based on drainage and runoff indicators, the southern edge of the property exhibiting the most flow will be chosen as the sampling location.

Sampling - Two samples collected to date. No samples have been collected since 2008, after BMP improvements were implemented. This site was not visited during this sampling year.

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

Aerial photography of the site is presented on Figure 7.

Table 6 - Summary of samples collected, NGA #109/110

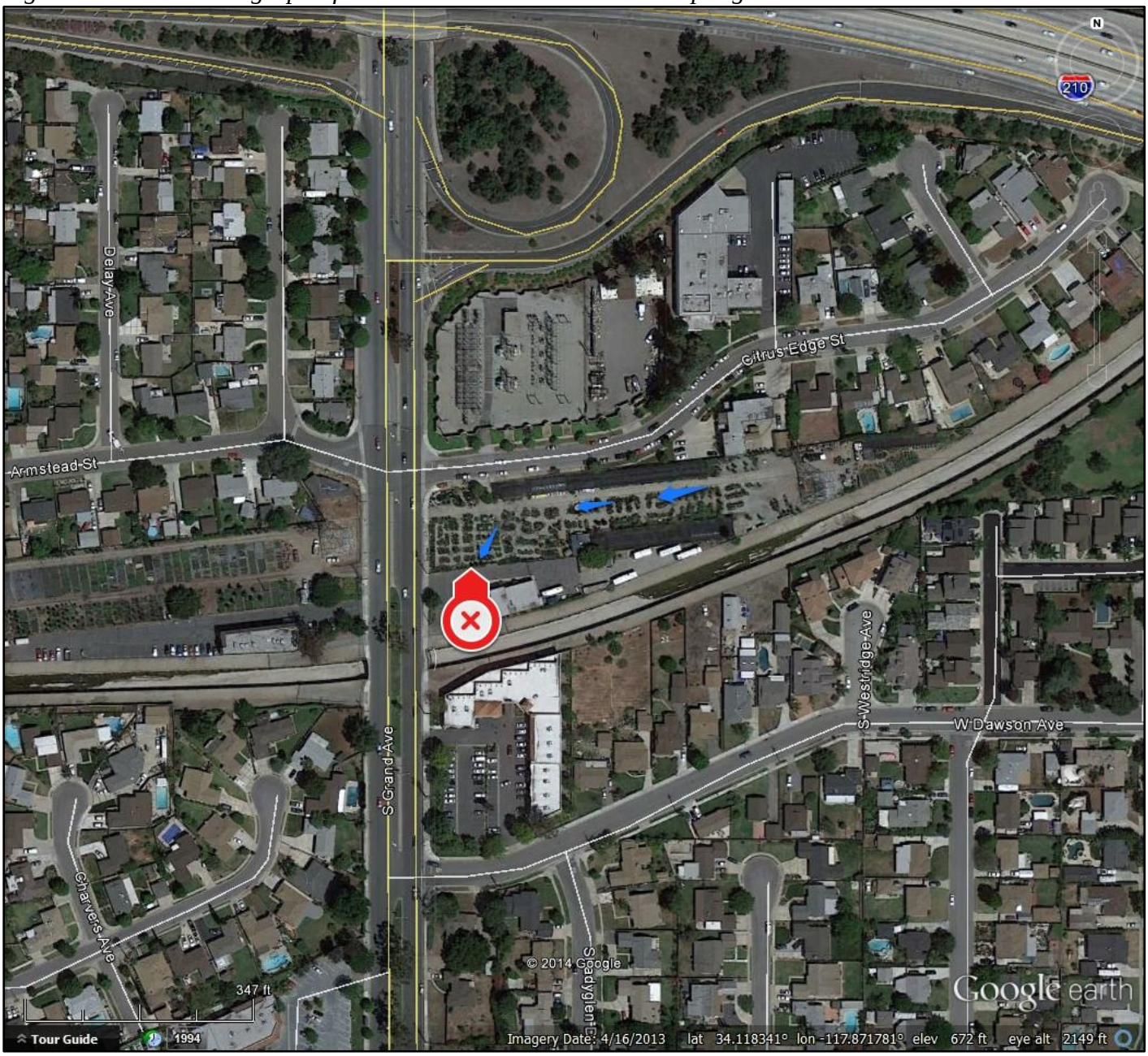
Site	Sample #	Date	General Chemistry (mg/L)									
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS
NGA #110	LAILG-NGA110-1	1/4/08	0.41	10.65	1.3052	2.36	18.22	1.74	162	1.81	2.033	24
NGA # 110	LAILG-NGA 110-2	12/15/08	0.31	28.59	1.186	**8.48**	50.87	1.469	328	1.6	1.868	93

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)		Pyd Pesticides (ng/L)
			Total DDT and Derivatives	No Detected Chlordanes	Chlorpyrifos	Diazinon	Total DDT and Derivatives
NGA #110	LAILG-NGA110-1	1/4/08	nd		**88.5**	**534.8**	0
NGA # 110	LAILG-NGA 110-2	12/15/08	**6.2**		nd	79.8	67.2

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 7 – Aerial Photograph of NGA #109/110 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #150

Sampling Group: Group 2
Sampling Frequency - Fixed
Total/Irrigated Acres: 26.0/15.3 Acres
Sample site GPS location: N 34º 08’27.3” W 117º 55’ 33.8”

September 20, 2016, dry season, no sample collected

Site Drainage – The majority of the growing areas of the site drain to the center, where there is a sump pump which catches and re-routs all the irrigation and storm runoff from the site into two collection ponds for reuse. The portion of the property that was formerly the sampling location has been sold to the neighbor, and no longer has any irrigated lands. Based on the new site layout, there are concrete gutters that drain the paved portions of the site where temporary plant storage is located for shipping. The end if the gutter was chosen as the sampling location, prior to comingling with the neighboring property and entering the storm drain.

Sampling - Six samples collected to date. This site was visited during the first wet season sampling event during this sampling year; not enough runoff was observed to collect a sample.

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

Updated aerial photography of the site is presented on Figure 8.

Table 7 - Summary of samples collected, NGA #150

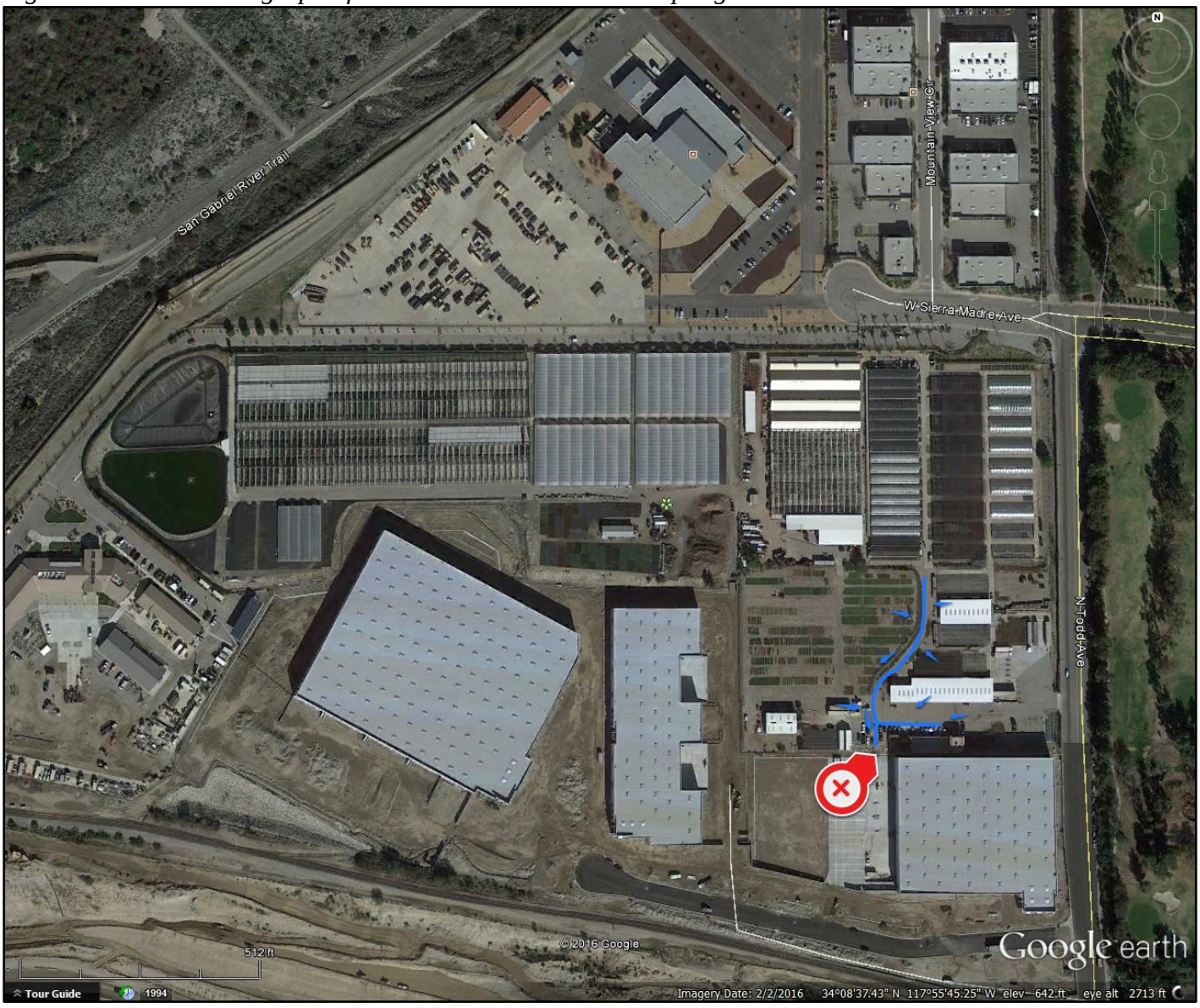
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #150	NGA-#150-LAILG	9/25/07	**52.4**	95.9	26.84	**355.6**	87	22.5	**2279**	23	24	57	na	na	na
NGA #150	NGA #150-LAILG-2	12/7/07	2.9	27.34	14.0243	**80.89**	56.59	9.43	**780**	8.89	9.445	40	na	na	na
NGA # 150	LAILG-NGA 150-3	11/26/08	**32.2**	65.92	31.579	**114.76**	**258.65**	49.896	**2,446**	37.69	48.048	45.5	na	na	na
NGA # 150	LAILG-NGA 150-4	12/15/08	15.75	47.27	26.0911	**268.53**	**125.27**	24.935	**1,704**	2.94	24.75	333.5	na	na	na
NGA # 150	LAILG-NGA 150-5	3/21/11	3.7	28	12	**120**	60	32	**1,200**	12.00	32	110	300	120	0.031
NGA # 150	LAILG-NGA-150-6	12/2/14	0.41	60	2.4**	**13**	**130**	2.6	**530**	2.5**	3.7	240	179	71.8	0.095

Site	Sample #	Date	OC Pesticides (ng/L)			OP Pesticides (ng/L)		Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Aldrin	Total Chlordane	Chlorpyrifos	Malathion	Total sum of all detected Pyrethroids
NGA #150	NGA-#150-LAILG	9/25/07	nd	nd	nd	nd	nd	41,733.0
NGA #150	NGA #150-LAILG-2	12/7/07	nd	**35.2**	nd	nd	nd	40,296.5
NGA # 150	LAILG-NGA 150-3	11/26/08	nd	nd	nd	nd	nd	42,355.2
NGA # 150	LAILG-NGA 150-4	12/15/08	nd	nd	nd	**90.2**	nd	41,952.4
NGA # 150	LAILG-NGA 150-5	3/21/11	nd	nd	nd	**33**	nd	528
NGA # 150	LAILG-NGA-150-6	12/2/14	nd	nd	nd	nd	nd	5,370

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 8 – Aerial Photograph of NGA #150 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #189

Sampling Group: Group 2
Sampling Frequency - Fixed
Total/Irrigated Area: 1.5/1.25 Acres
Sample site GPS location: N 34º 06' 59.1" W 117º 47' 03.9"

Site Drainage - The western end of the site drains westward into a grass field that borders the edge of the property. The eastern half drains eastward towards Damien Avenue as sheet flow. Based on drainage properties, the eastern edge of the property along Damien Avenue was identified as the anticipated sampling location.

Sampling - Two samples collected to date. No samples have been collected since 2008, after BMP improvements were implemented. This site was not visited during this sampling year.

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

Aerial photography of the site is presented on Figure 9.

Table 8 - Summary of samples collected, NGA #189

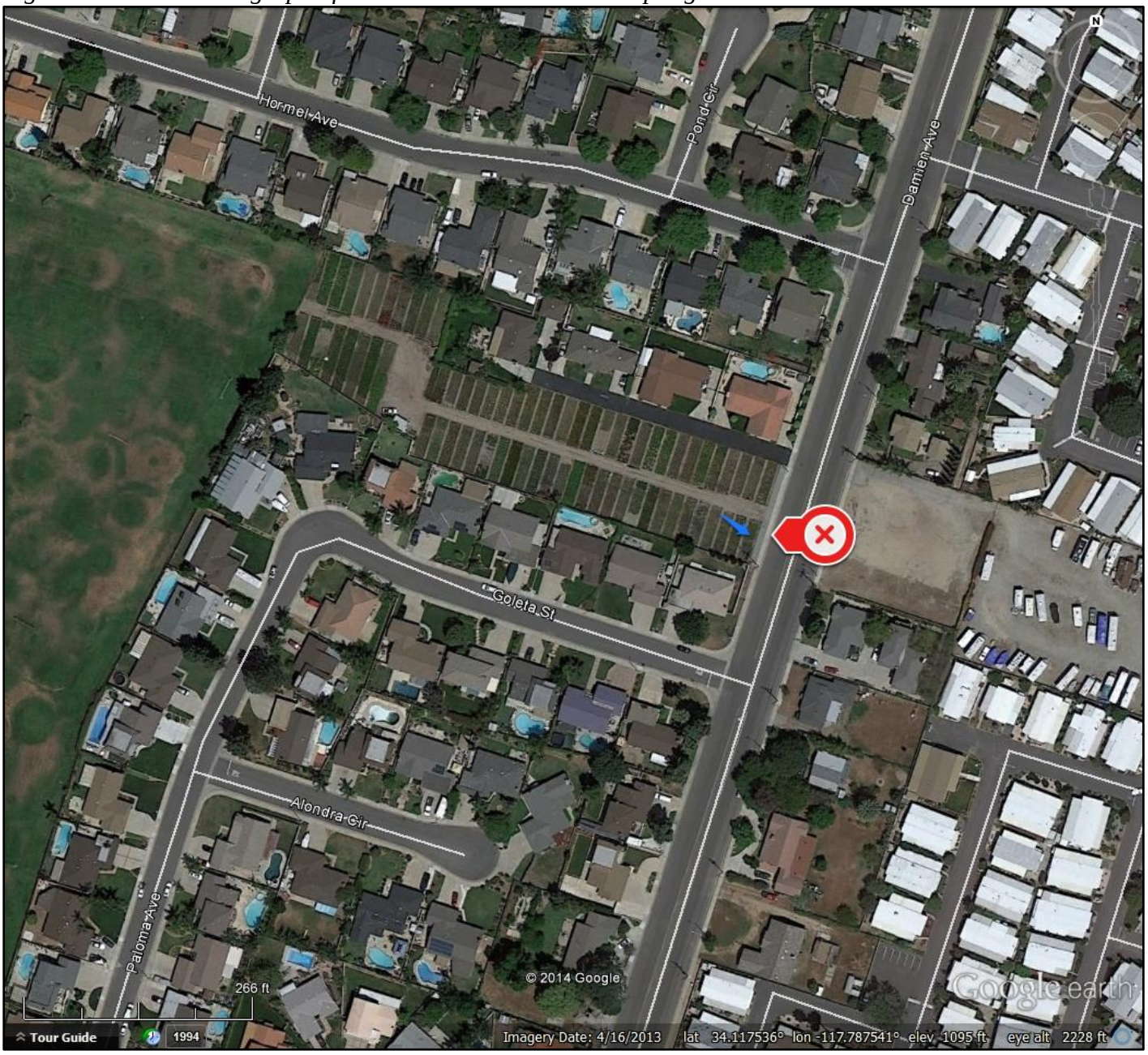
Site	Sample #	Date	General Chemistry (mg/L)									
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS
NGA # 189	LAILG-NGA189-1	1/4/08	0.59	7.29	0.6851	1.83	26.43	1.33	192	1.8	2.475	20
NGA # 189	LAILG-NGA 189-2	12/15/08	0.54	31.28	0.6795	**9.87**	41.27	0.813	220	0.99	1.261	111.3

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 # 189	LAILG-NGA189-1	1/4/08	**22.5**	**14.9**	26.9	0
NGA # 189	LAILG-NGA 189-2	12/15/08	nd	nd	nd	6.1

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 9 – Aerial Photograph of NGA #189 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

6.1.3 GROUP 3

NGA SITE #31

Sampling Group: Group 3
Sampling Frequency - Fixed
Total/Irrigated Acres: 62.0/62.0 Acres
Sample site GPS location: N 33º 3' 0" W 118º 0' 14.4"

January 15, 2015, wet season, no sample collected

Site Drainage - The site drains southwest, trough ditches that ultimately enter a a catch basin. The site has implemented a number of BMPs, including re-directing runoff from the 605 Freeway away from growing operations at the site. All operations at the site discharge to the main catch basin. Based on site improvements, sampling would only take place if the catch basin overflows and releases water through additional BMPs to the storm drains on the northwest corner of the property.

Sampling - Four samples collected to date. This site was visited during the first wet season sampling event during this sampling year. Water was discharging from the freeway through the property, but no runoff was observed from the property catch basin.

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

Aerial photography of the site is presented on Figure 10.

Table 9 - Summary of samples collected, NGA #31

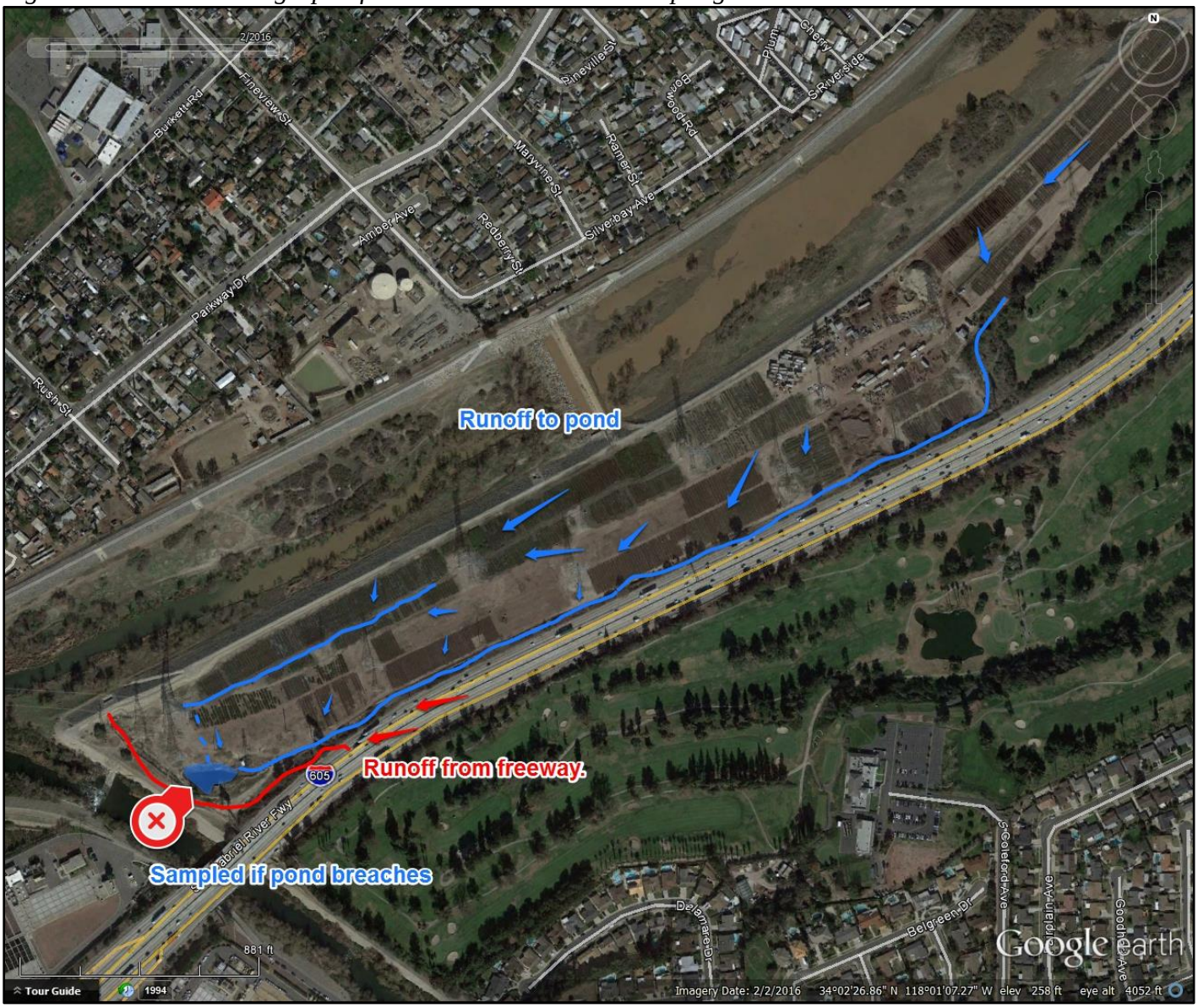
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA # 31	LAILG-NGA 31-1	9/23/08	0.13	82.13	1.562	**17.3**	134.93	1.472	602	2.34	1.813	162	na	na	na
NGA # 31	LAILG-NGA 31-2	11/26/08	0.76	6.12	0.474	3.6	14.84	0.497	104	1.63	1.94	353	na	na	na
NGA # 31	LAILG-NGA 31-3	12/15/08	4.32	36.98	3.0228	**12.14**	57.58	2.148	364	2.87	3.155	85.5	na	na	na
NGA # 31	LAILG-NGA 31-4	3/17/12	1.1	55	1.0	**12**	160	0.90	520	1.0	2.0	81	240	95	0.027

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)		Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Total Chlordane	Chlorpyrifos	Malathion	Total sum of all detected Pyrethroids
NGA # 31	LAILG-NGA 31-1	9/23/08	**13.5**	**15.2**	nd	nd	78.6
NGA # 31	LAILG-NGA 31-2	11/26/08	nd	**17.9**	nd	nd	460.2
NGA # 31	LAILG-NGA 31-3	12/15/08	nd	nd	**44.5**	**3,433.9**	52.6
NGA # 31	LAILG-NGA 31-4	3/17/12	nd	nd	nd	nd	35.9

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 10 – Aerial Photograph of NGA #31 and General Sampling Location



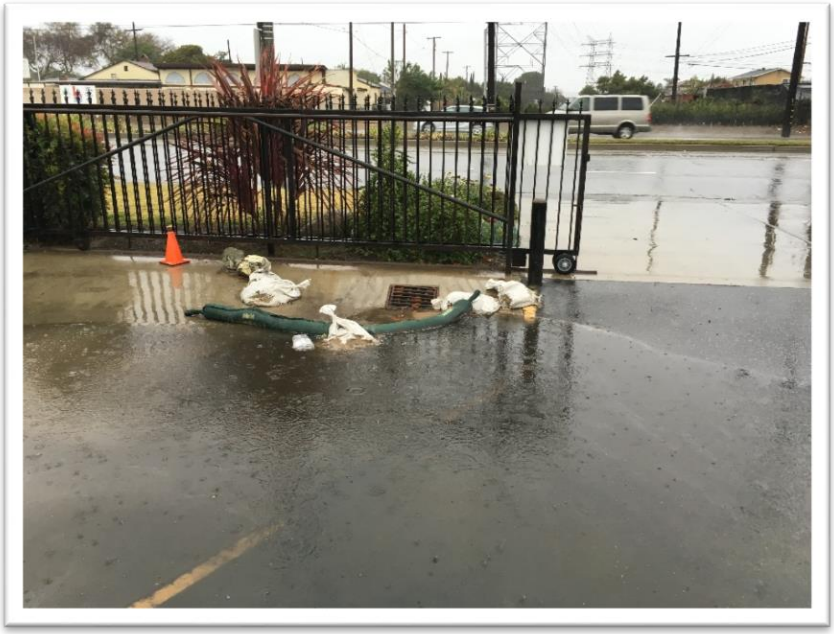
General Sampling Location

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 33º 52’ 05.9” W 118º 08’ 32.3”

January 5, 2016, wet season, 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 - Four samples collected to date. This site was visited during the first wet season sampling event during this sampling year; a sample was collected on January 5, 2016.

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

Aerial photography of the site is presented on Figure 11.

Table 10 - Summary of samples collected, NGA #64

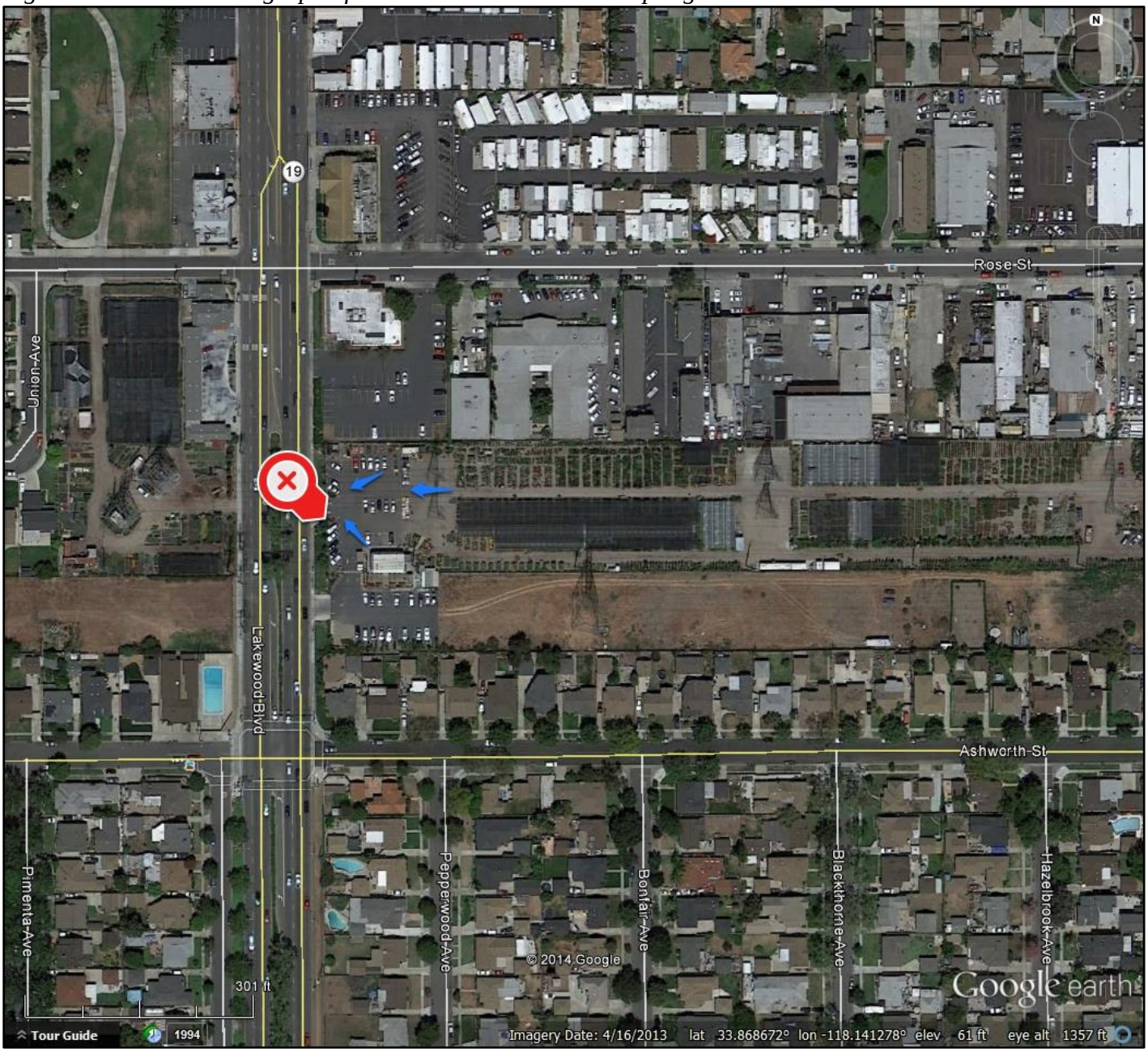
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #64	LAILG-NGA-64-1	1/23/08	0.2	3.82	0.2818	3.83	101.1	0.3	nd	0.46	0.393	76	na	na	na
NGA #64	LAILG-NGA-64-2	12/15/08	1.15	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	3/17/12	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	1/5/16	0.63	3.9	0.15	0.70	7.2	0.17	45	0.16	0.5	190	28.3	11.3	0.027

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			Total DDT and Derivatives	Toxaphene	No OP Pesticides Detected	Total sum of all detected Pyrethroids
NGA #64	LAILG-NGA-64-1	1/23/08	0	0		47.4
NGA #64	LAILG-NGA-64-2	12/15/08	**43.3**	**666**		110
NGA #64	LAILG-NGA-64-3	3/17/12	**28**	nd		22
NGA #64	LAILG-NGA-64-4	1/5/16	nd	nd		7.3

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

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



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #81

Sampling Group: Group 3
Sampling Frequency - Fixed
Total/Irrigated Acres: 4.7/3.0 Acres
Sample site GPS location: N 33º 52’ 46.9” W 118º 09’ 20.7”

January 5, 2016, wet season, no sample collected

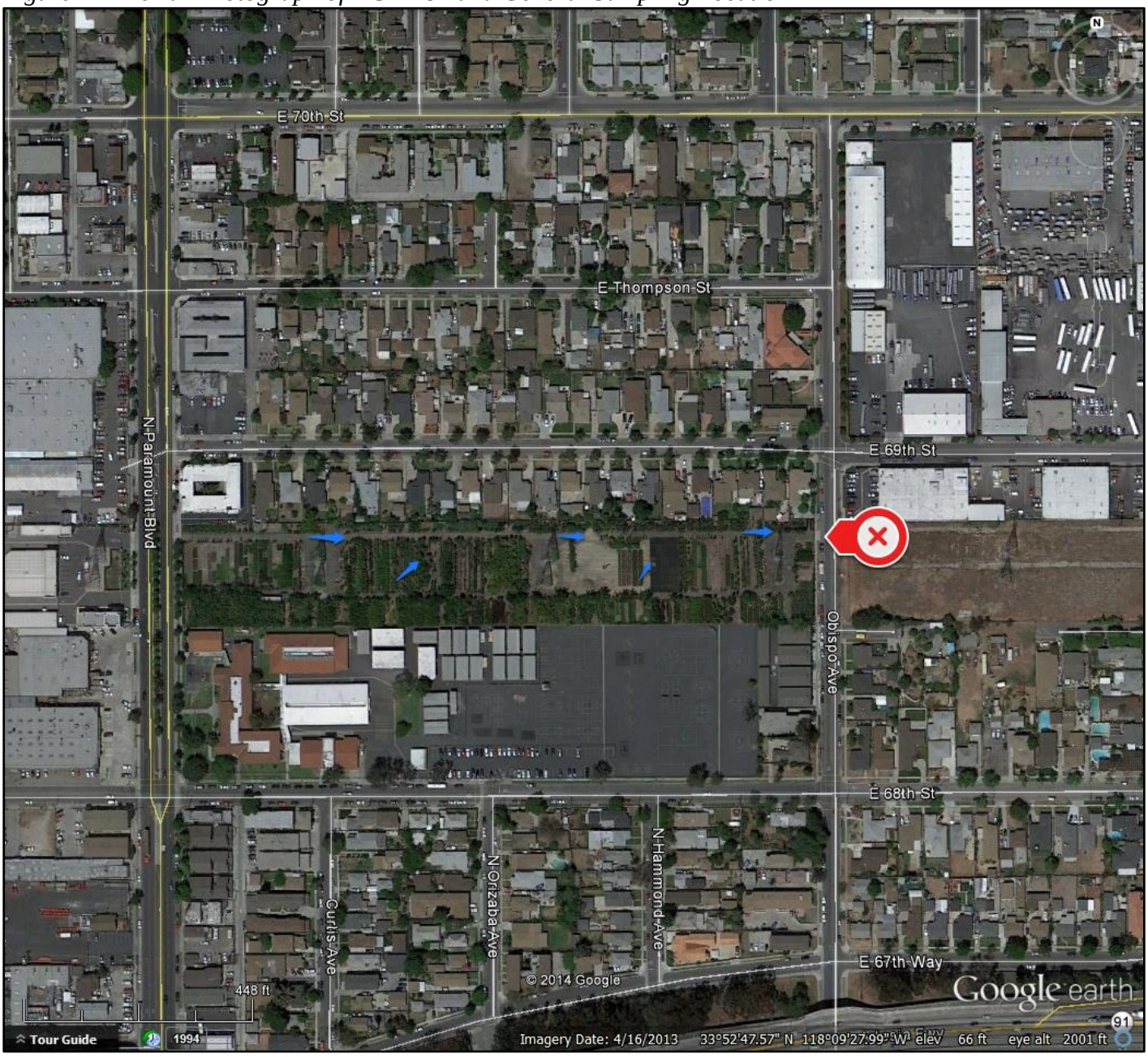
Site Drainage – The site drains to the east as sheet flow towards Obispo Avenue. The site is relatively flat with a small surface gradient.

Sampling - No samples collected to date. This site was visited during the first wet season sampling event during this sampling year; no runoff was observed.

There are no historical sampling results for this site.

Aerial photography of the site is presented on Figure 12

Figure 12– Aerial Photograph of NGA #81 and General Sampling Location



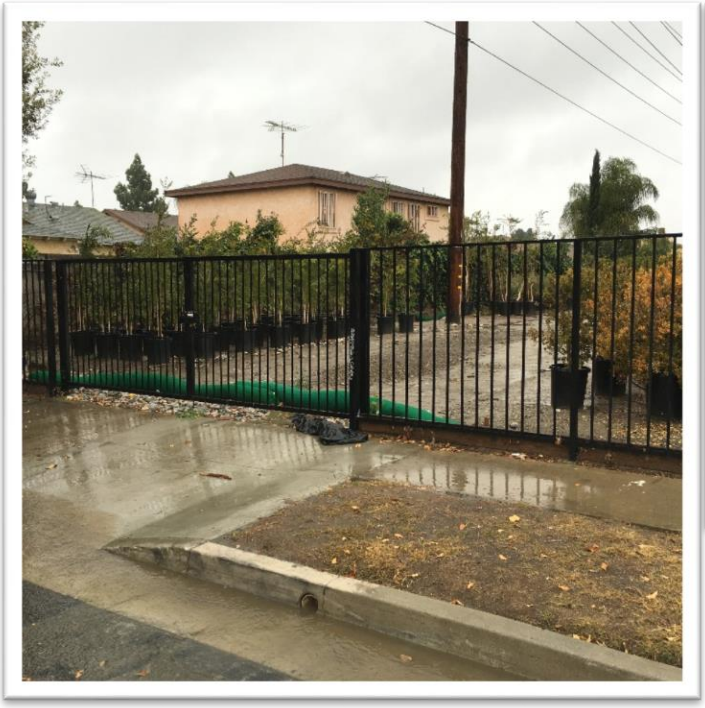
General Sampling Location

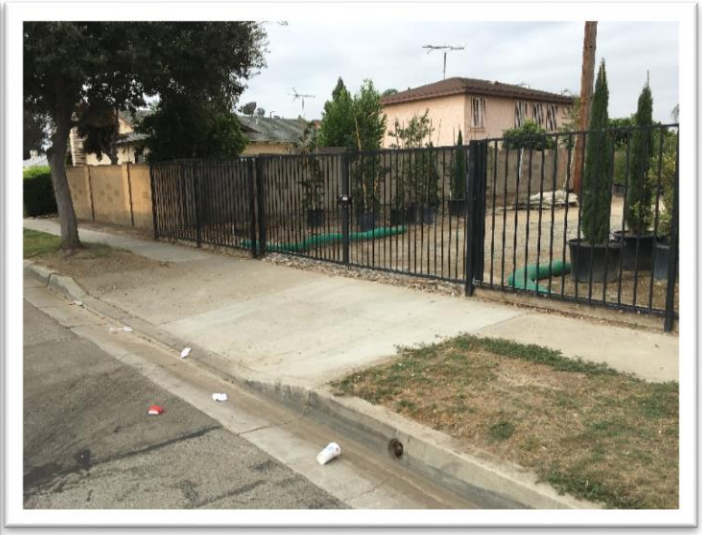
General Surface Flow to Sampling Location

NGA SITE #168

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

January 5, 2016, wet season, sample collected *September 2, 2016, 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 - Eight 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; a sample was collected on January 5, 2016.

Historical sampling results for this site are presented in Table 20.

Aerial photography of the site is presented on Figure 13.

Table 11 - Summary of samples collected, NGA #168

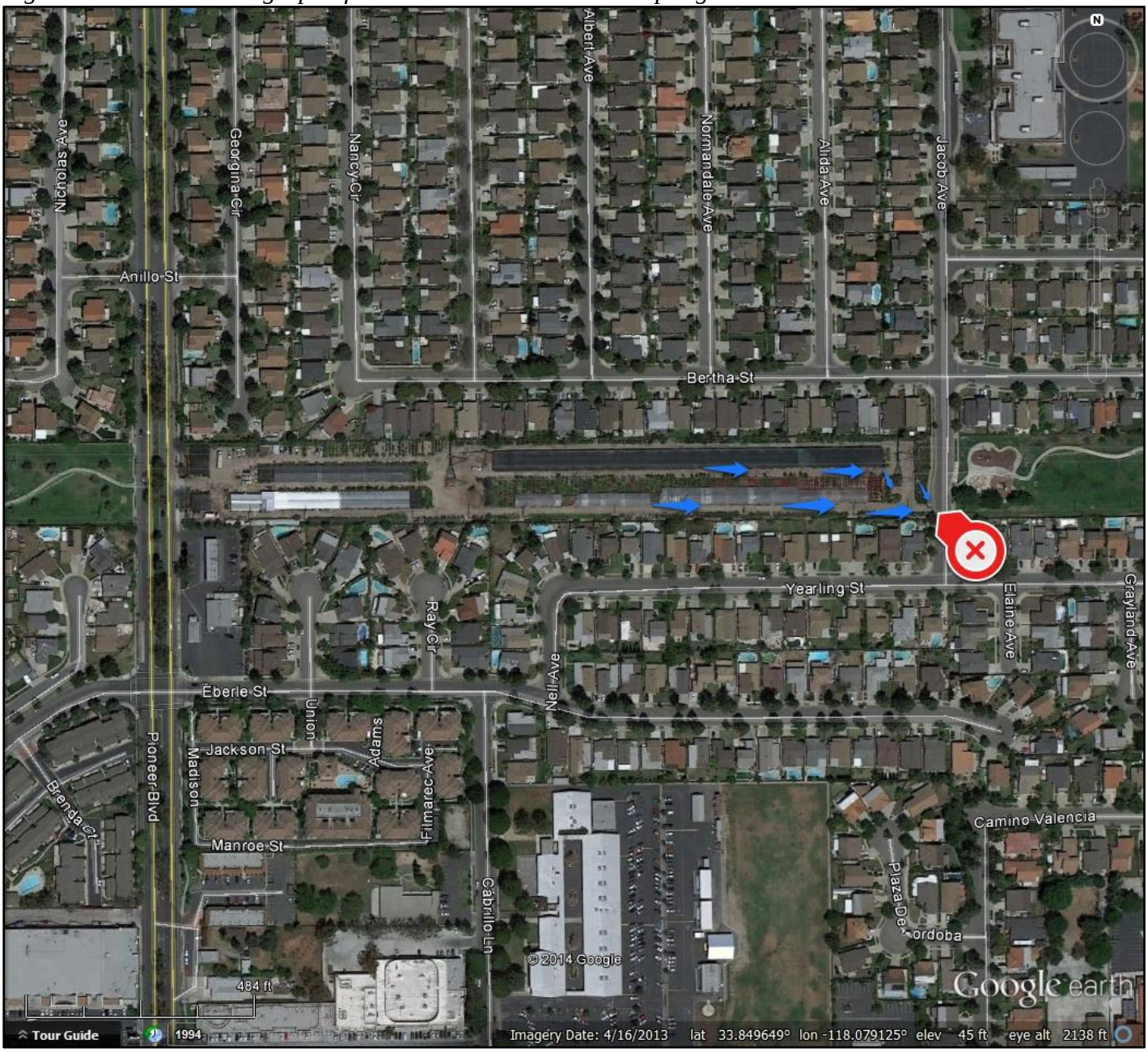
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #168	NGA-#168-LAILG-1	8/13/07	0.4	81.85	1.977	4.93	131.16	2.28	**664**	2.13	3.243	122	na	na	na
NGA #168	ILGNGA-#168-2	9/28/07	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	11/30/07	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	1/25/08	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	12/15/08	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	3/17/12	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	5/15/15	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	1/5/16	0.36	41	0.32	**15**	160	0.45	410	0.32	0.80	140	162	64.9	0.036

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	8/13/07	nd	nd	nd	1,379.1
NGA #168	ILGNGA-#168-2	9/28/07	118	nd	nd	964.0
NGA #168	NGA-#168-LAILG-3	11/30/07	2.7	2.8	8.9	466.1
NGA #168	LAILG-NGA-168-4	1/25/08	19.2	nd	nd	187.9
NGA #168	LAILG-NGA-168-5	12/15/08	11.8	nd	38.9	1,375.9
NGA #168	LAILG-NGA-168-6	3/17/12	nd	nd	nd	72
NGA #168	LAILG-NGA-168-7	5/15/15	nd	nd	nd	484.3
NGA #168	LAILG-NGA-168-8	1/5/16	nd	nd	nd	379

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 13 – Aerial Photograph of NGA #168 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

6.1.4 GROUP 4

NGA SITE #4

Sampling Group: Group 4
Sampling Frequency - Fixed
Total / Irrigated Acres: 19.2 / 11.5
Sample site GPS location: N 33º 52’ 55.5” W 118º 16’ 06.1”

September 2, 2016, 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 – Six samples collected to date. This site was visited during the first dry season sampling event during this sampling year; no runoff was observed.

Historical sampling results for this site are presented in Table 21.

Aerial photography of the site is presented on Figure 14.

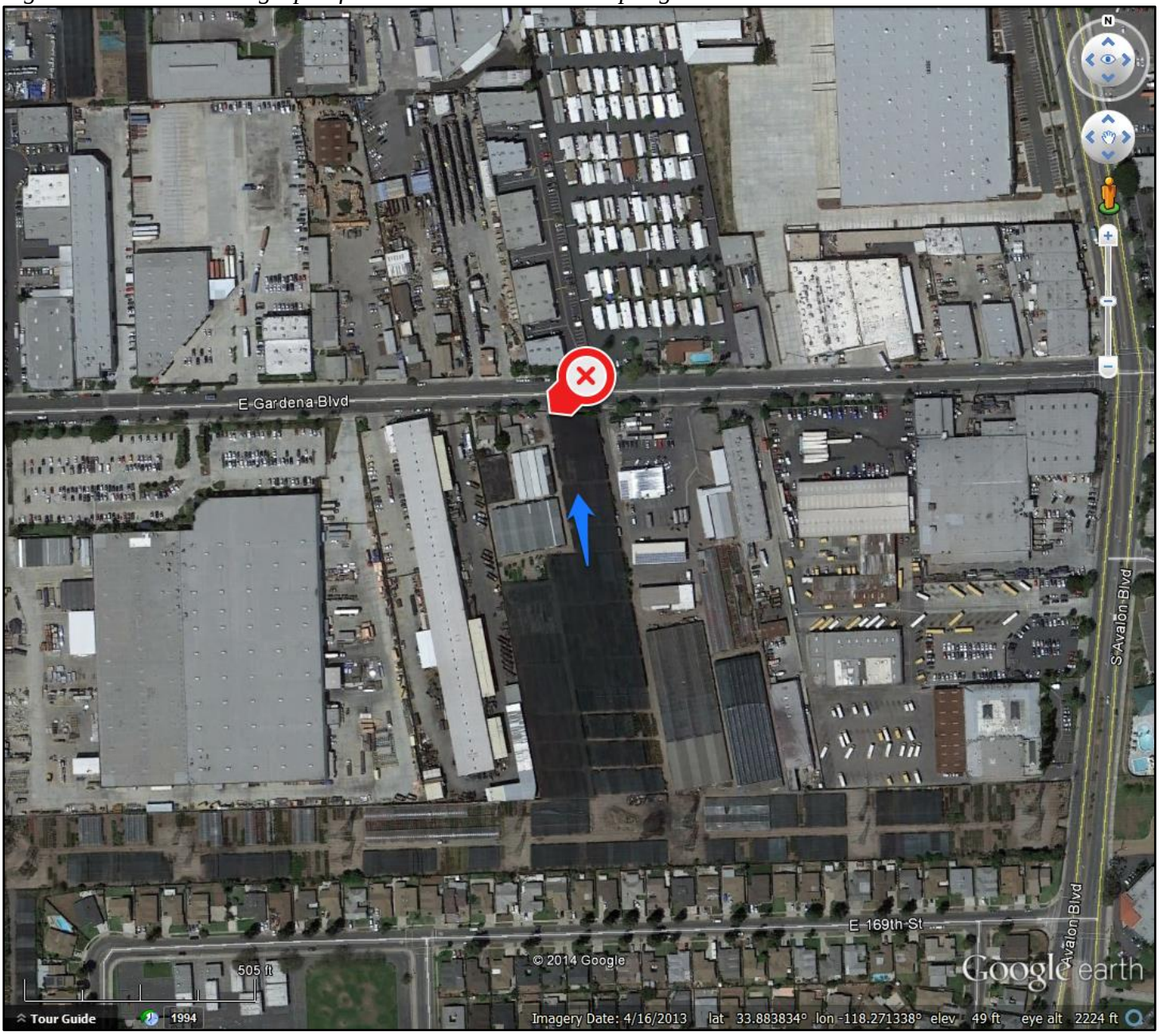
Table 12 - Summary of samples collected, NGA #4

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	12/7/07	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	1/23/08	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	8/13/08	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	12/15/08	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	3/21/11	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	3/25/12	na	69	1.1	**17**	52	1.0	320	1.1	1.4	34	100	42	0.051

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	12/7/07	nd	nd	nd	**1,122.6**	**175.2**	11.3	nd	2,107.5
NGA #4	LAILG-NGA4-2	1/23/08	nd	nd	nd	**153.8**	**2,212.1**	nd	**15,453.2**	1,389.4
NGA # 4	LAILG-NGA 4-3	8/13/08	485.7	nd	**38.8**	nd	**6,058.9**	nd	**1,148,630**	26,753.7
NGA # 4	LAILG-NGA 4-4	12/15/08	nd	nd	**99.5**	**590.9**	**859**	nd	**102,357.2**	96,588.0
NGA # 4	LAILG-NGA 4-5	3/21/11	na	**38**	**39.6**	**11,000**	**1,000**	nd	**7,300**	1,625.3
NGA # 4	LAILG-NGA 4-6	3/25/12	nd	nd	nd	**44,000**	nd	nd	**2,100**	109.7

Results above CWIL Limits are presented in **BOLD.**	
mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 14 – Aerial Photograph of NGA #4 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #53

Sampling Group: Group 4
Sampling Frequency - Fixed
Total/Irrigated Acres: 3.5/1.7 Acres
Sample site GPS location: N 33º 52’ 51.1” W 118º 12’ 56.3”

Site Drainage - The site drains into a small ditch that runs eastward into Santa Fe Avenue. Based on site topography, the eastern edge of the property by the drainage ditch was identified as the anticipated sampling location.

Sampling – Two samples collected to date. No samples have been collected since 2008, after BMP improvements were implemented. This site was not visited during this sampling year.

Historical sampling results for this site are presented in Table 22.

Aerial photography of the site is presented on Figure 15.

Table 13 - Summary of samples collected, NGA #53

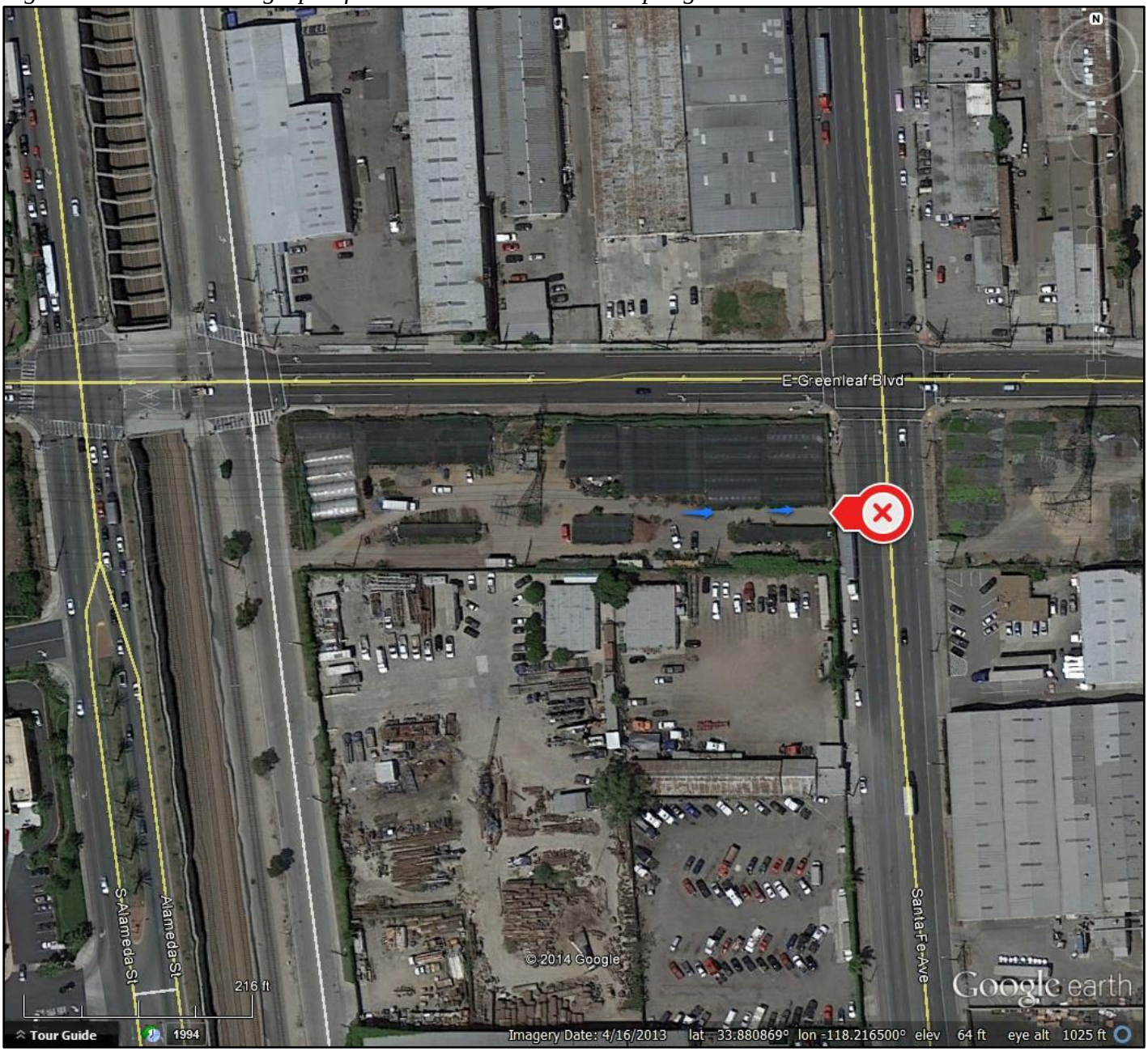
Site	Sample #	Date	General Chemistry (mg/L)									
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS
NGA #53	LAILG-NGA#53-1	12/18/07	0.7	4.72	0.2973	0.49	12.51	0.57	132	0.75	1.188	124
NGA #53	LAILG-NGA#53-2	1/23/08	0.31	2.19	0.6425	0.76	14.92	0.82	nd	0.68	1.993	516

Site	Sample #	Date	OC Pesticides (ng/L)		OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			No Detected DDT and Derivatives	No Detected Chlordanes	No OP Pesticides Detected	Total sum of all detected Pyrethroids
NGA #53	LAILG-NGA#53-1	12/18/07				11.5
NGA #53	LAILG-NGA#53-2	1/23/08				0

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 15 – Aerial Photograph of NGA #53 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #176

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

September 2, 2016, 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 – Two samples collected to date. This site was visited during the first dry season sampling event during this sampling year; no runoff was observed.

Historical sampling results for this site are presented in Table 23.

Aerial photography of the site is presented on Figure 16.

Table 14 - Summary of samples collected, NGA #176

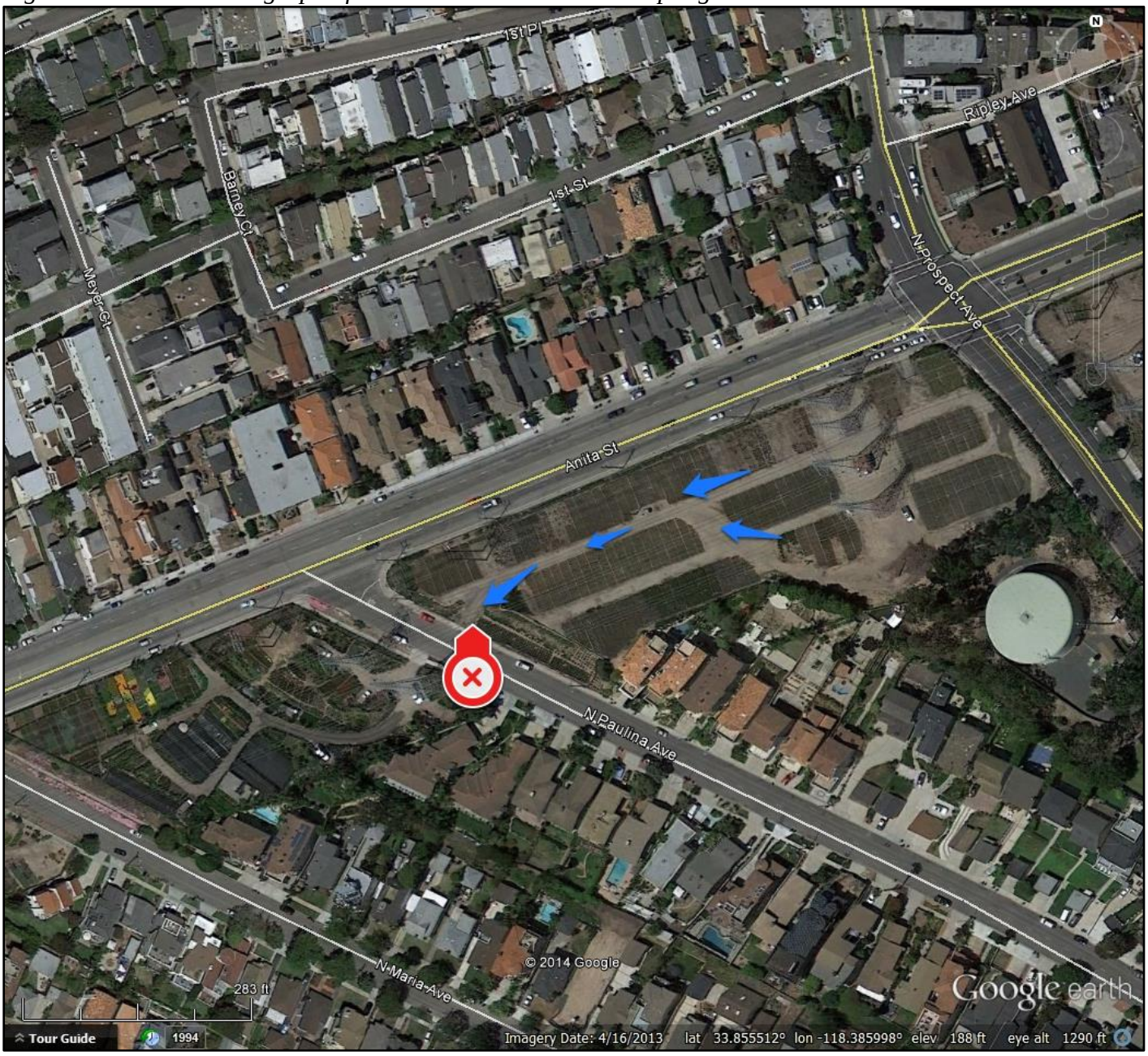
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA #176	NGA-#176-LAILG-1	12/18/07	5.5	56.82	0.7145	3.85	**293.12**	0.54	**680**	12.21	3.447	6,168	na	na	na
NGA #176	NGA-#176-LAILG-2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

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			873.9
NGA #176	NGA-#176-LAILG-2	3/25/12			305

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 16 – Aerial Photograph of NGA #176 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE #210

Sampling Group: Group 4
Sampling Frequency - Fixed
Total/Irrigated Area: 2.0/1.4 Acres
Approximate sample site GPS location: N 34º 01' 11.59" W 118º 49' 10.89"

Site Drainage - The vineyard is located on the northwestern section of the site. A series of concrete channels collect surface water and direct it towards the southern gate. Based on drainage properties, the area immediately outside the southern gate was chosen as the sampling location.

Sampling – Two samples collected to date. This site was not visited during this sampling year.

Historical sampling results for this site are presented in Table 24.

Aerial photography of the site is presented on Figure 17.

Table 15 - Summary of samples collected, NGA #210

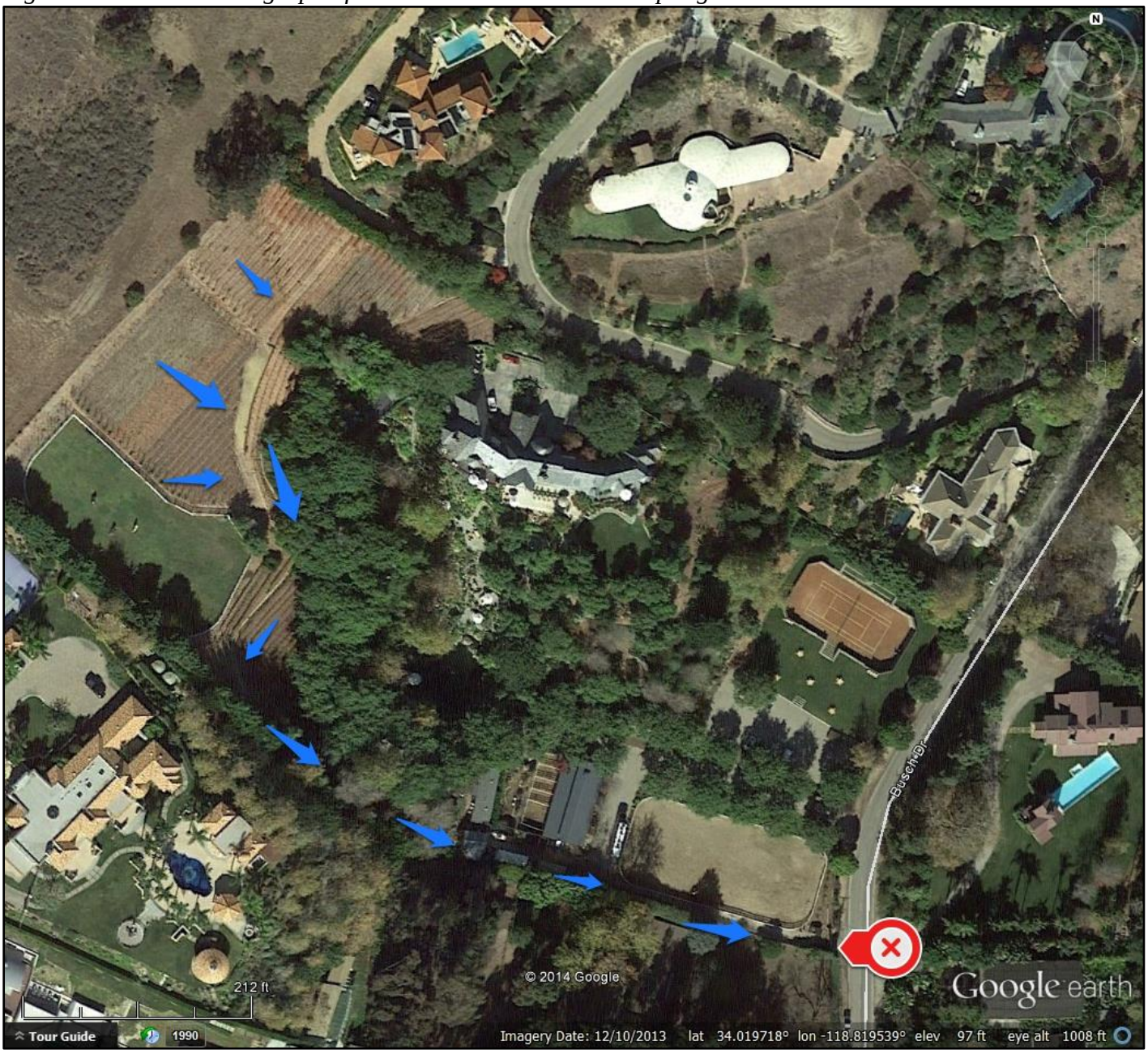
Site	Sample #	Date	General Chemistry (mg/L)												
			Ammonia	Chloride	Diss Ortho	Nitrate	Sulfate	Total Diss Phos	TDS	Total Ortho	Total Phos	TSS	CA Hardness, as CaCO3	Ca	Cu
NGA # 210	LAILG-NGA 210-1	11/26/08	0.11	155.92	1.892	0.92	**336.78**	2.185	**884**	3.23	3.722	542	na	na	na
NGA # 210	LAILG-NGA 210-2	3/25/12	0.20	110	1.4	0.57	**250**	1.3	**700**	1.4	2.8	86	270	110	0.0060

Site	Sample #	Date	OC Pesticides (ng/L)	OP Pesticides (ng/L)	Pyd Pesticides (ng/L)
			No OP Pesticides Detected	Malathion	Total sum of all detected Pyrethroids
NGA # 210	LAILG-NGA 210-1	11/26/08		56.4	279.8
NGA # 210	LAILG-NGA 210-2	3/25/12		41	82.7

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

mg/L	milligrams per liter
ng/L	nanograms per liter
OC	Organochlorinated Pesticide
OP	Organophosphorus Pesticide
Pyd	Pyrethroid Pesticide
na	Constituent not analyzed
nd	Constituent not detected

Figure 17 – Aerial Photograph of NGA #210 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

6.2 VISITED REVOLVING SAMPLING SITES

NGA SITE # 158 (Sakaida)

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

September 20, 2016, dry season, no sample collected

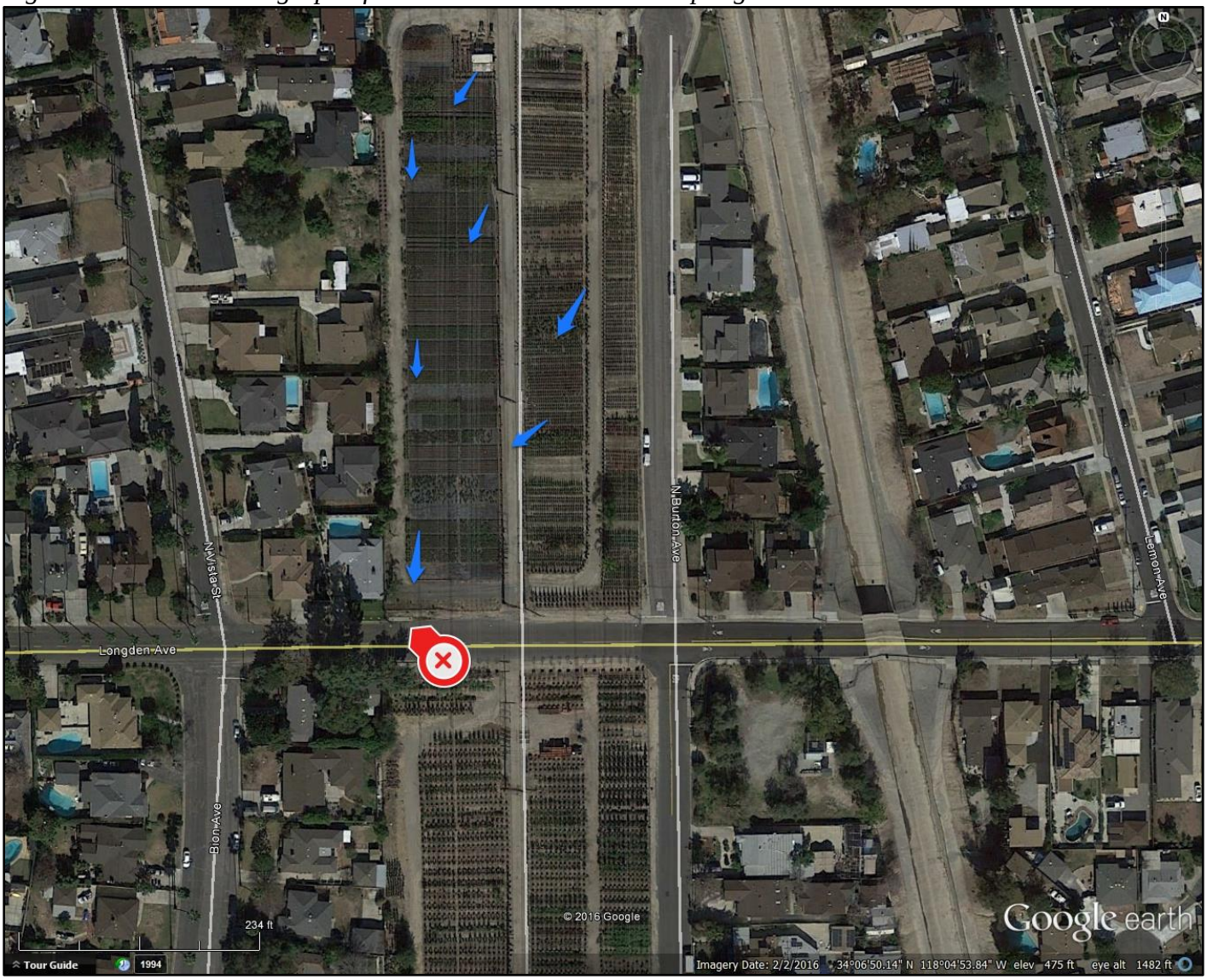
Site Drainage – The topography is relatively flat, and drains as surface flow. Based on drainage properties and site access, the southwestern corner of property to the north of Longden Avenue was chosen as the sampling location.

Sampling – One visit to date with no samples collected. This site was visited during the second dry season sampling event during this sampling year; no runoff was observed.

There are no historical sampling results for this site.

Aerial photography of the site is presented on Figure 18.

Figure 18 – Aerial Photograph of NGA #158 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE # 202 (El Nativo)

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

September 2, 2016, dry season, no sample collected

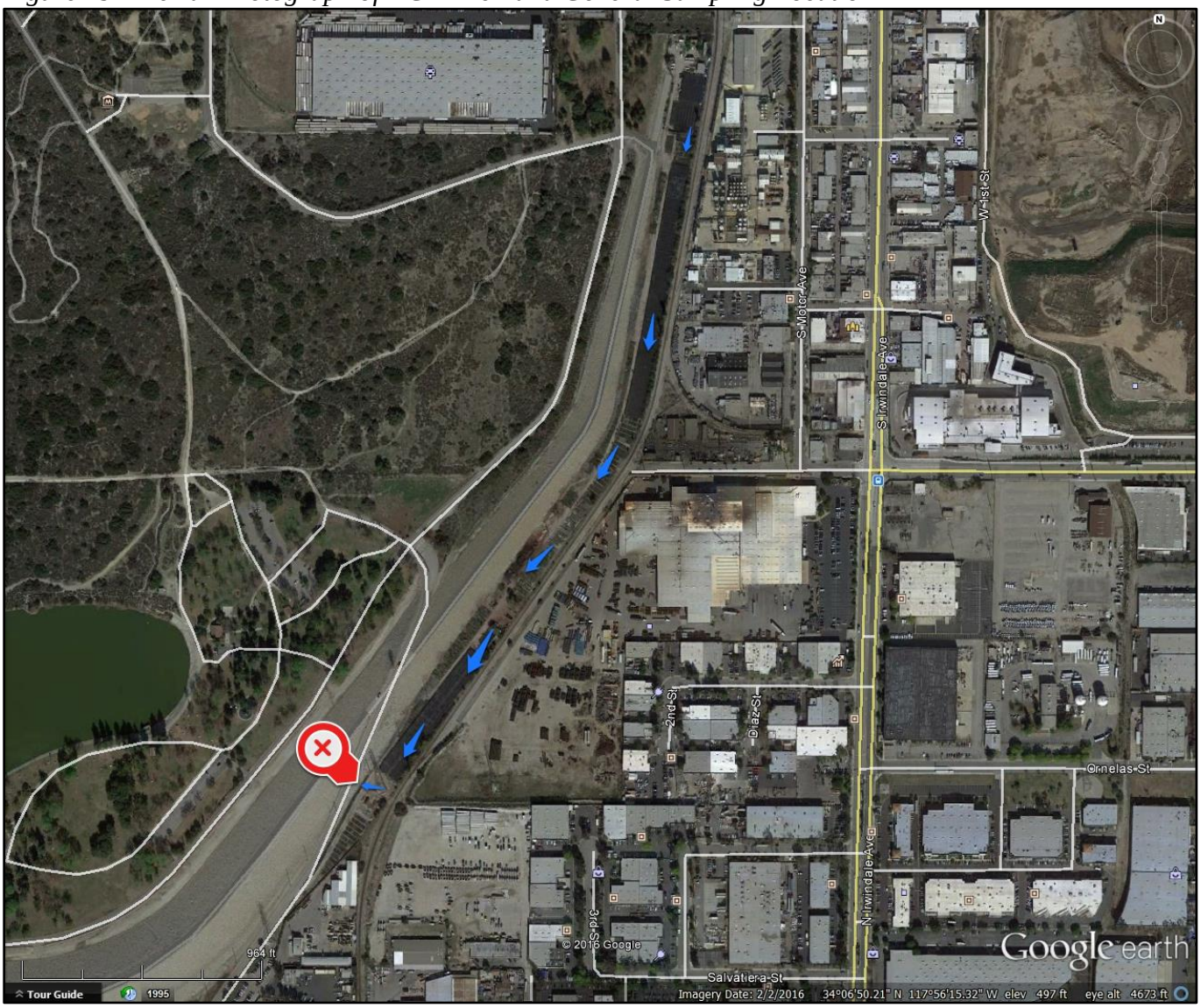
Site Drainage – The site lies in a valley, with the surrounding area a couple feet above grade. Natural grade drains from north to south. The estimated discharge will be the southern-most access gate on the property.

Sampling – One visit to date with no samples collected. This site was visited during the first dry season sampling event during this sampling year; no runoff was observed.

There are no historical sampling results for this site.

Aerial photography of the site is presented on Figure 19.

Figure 19 – Aerial Photograph of NGA #202 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

NGA SITE # 212 (Lam Farms)

Sampling Group: Group 3
Sampling Frequency - Rotating
Total / Irrigated Acres: 2.0 / 2.0
Sample site GPS location: N 34º 02’ 36.5” W 118º 38’ 47.8”

January 5, 2016, wet season, no sample collected

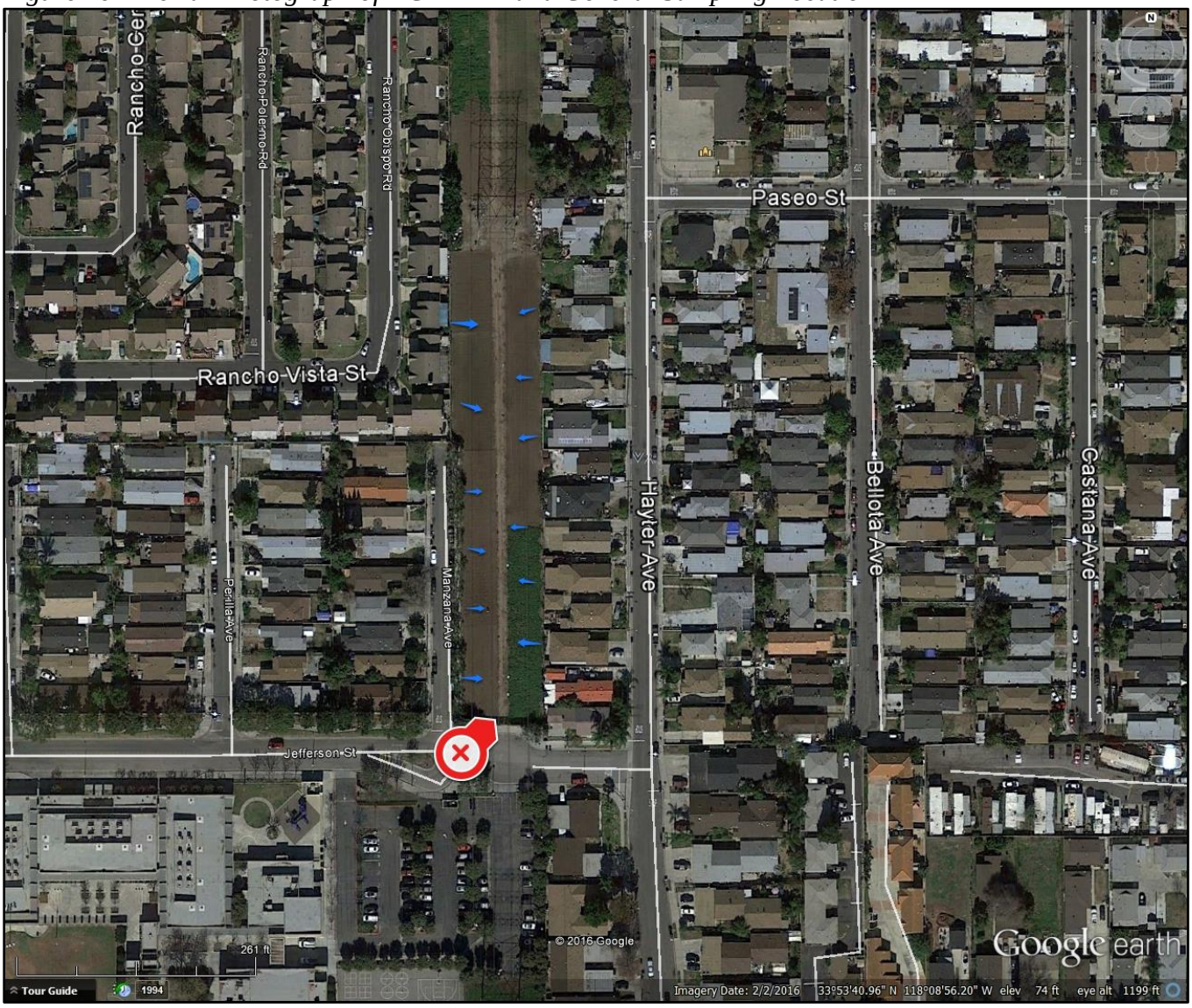
Site Drainage – The site is almost entirely flat and drains towards the center, and will most likely only discharge during flooding conditions. In that case, it would drain towards the south.

Sampling – One visit to date with no samples collected. This site was visited during the first wet season sampling event during this sampling year; no runoff was observed.

There are no historical sampling results for this site.

Aerial photography of the site is presented on Figure 20.

Figure 20 – Aerial Photograph of NGA #212 and General Sampling Location



General Sampling Location

General Surface Flow to Sampling Location

7.0 SUMMARY OF SAMPLING SITE RESULTS

7.1 WATER QUALITY BENCHMARK EXCEENDANCES

A total of 74 samples have been collected since the inception of the program. During this sampling year, a total of two samples were collected over one sampling event. A second sampling event was not conducted, due to lack of sufficient precipitation.

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 5. 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.

7.1.1 General Chemistry

Based on laboratory analytical results, WQBs were exceeded for one general chemistry constituents in samples collected at one of the two sites sampled during this sampling year (Year 5 under Order No. R4-2010-0186). Table 26 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 did not report TDS exceedances in any samples collected during this sampling period. Twenty-seven of the 74 total samples (36.5 %) collected throughout the life of the program have reported exceedances of TDS.

Chloride

Laboratory results did not report Chloride exceedances in any samples collected during this sampling period. Six of the 74 total samples (8.11 %) collected throughout the life of the program have reported exceedances of Chloride.

Sulfate

Laboratory results did not report Sulfate exceedances in any samples collected during this sampling period. Ten of the 74 total samples (13.5 %) collected throughout the life of the program have reported exceedances of Sulfate.

Nutrients (Nitrate/Ammonia/Phosphorus)

Laboratory results reported Nitrogen as Nitrate exceedances in one of the two samples during this sampling period, and 41 of the 74 total samples (55.4 %) 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 74 total samples (5.41 %) collected throughout the life of the program have reported exceedances of Ammonia. WQBs for Phosphate have not been established.

Table 26 - 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		
	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	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

7.1.2 Pesticides

Based on laboratory analytical results, no WQBs were exceeded for pesticides in samples collected during this sampling year (Year 5 under Order No. R4-2010-0186). Table 27 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 two samples collected this sampling year. There have been 58 individual constituent exceedances in the 74 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 previous waiver period (CWIL Order #R4-2005-0080).

OP Pesticides

Laboratory results did not report OP Pesticide exceedances in the two samples collected this sampling year. There have been 25 individual constituent exceedances in the 74 total samples collected throughout the life of the program.

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

Pyrethroids

Laboratory results did not report Pyrethroid Pesticide exceedances in the two samples collected this sampling year. There have been 91 individual constituent exceedances in the 74 total samples collected throughout the life of the program.

Table 27 - 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														
Clordane	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**	

ni Not included in laboratory analytical suite during this Waiver period

ns Program suspended, no sample collected

Table 27 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	Event #1			
Waiver Limitations																					
OC Pesticides																					
Clordane	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**	**1**	--	--	--	--	--	**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)	–	--	--	ni	ni	--	--	--	--	--	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**	--	--	**1**	**1**	--	--	--	--	--	**3**	--	--	**3**	**0**	--	--	**0**		**10**	
Total # of Exceedances	**11**	--	--	**2**	**4**	--	--	--	--	--	**4**	--	--	**3**	**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**	

ni Not included in laboratory analytical suite during this Waiver period
-- No samples collected

7.1.3 Toxicity

Based on laboratory analytical results, toxicity was not significant enough to initiate a TIE in either of the two samples collected this sampling year. A total of 15 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.

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.

7.1.4 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 did not exceed Basin Plan objectives at any site sampled during the Waiver Period. 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.

7.2 QUALITY ASSURANCE AND QUALITY CONTROL

QA/QC of data collected during Year 5 under CWIL Order No. R4-2010-0186 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. Field blanks and equipment blanks collected by PacRL did not report any concentrations above laboratory MRLs, except for Heptachlor in the equipment blank, which was not detected in any other sample. 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. The precision of field duplicates were acceptable for all constituents this reporting period. 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.

8.0 DISCUSSION / CONCLUSION

A total of two sampling event were conducted during the dry season of the first year of CWIL Order No. R4-2016-0143 and one sampling event was conducted during the wet season during the fifth year of CWIL Order No. R4-2010-0186. No runoff was observed or sampled during the dry season, and two of the five sites visited were sampled during the wet season.

WQB exceedances was observed for Nitrogen in one of the collected samples. The LAILG will continue with the current WQMP and MRP until group information is gathered to prepare an updated MRP under Order R4-2016-0143.

FIGURE 1 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

LOS ANGELES REGIONAL WATERSHEDS

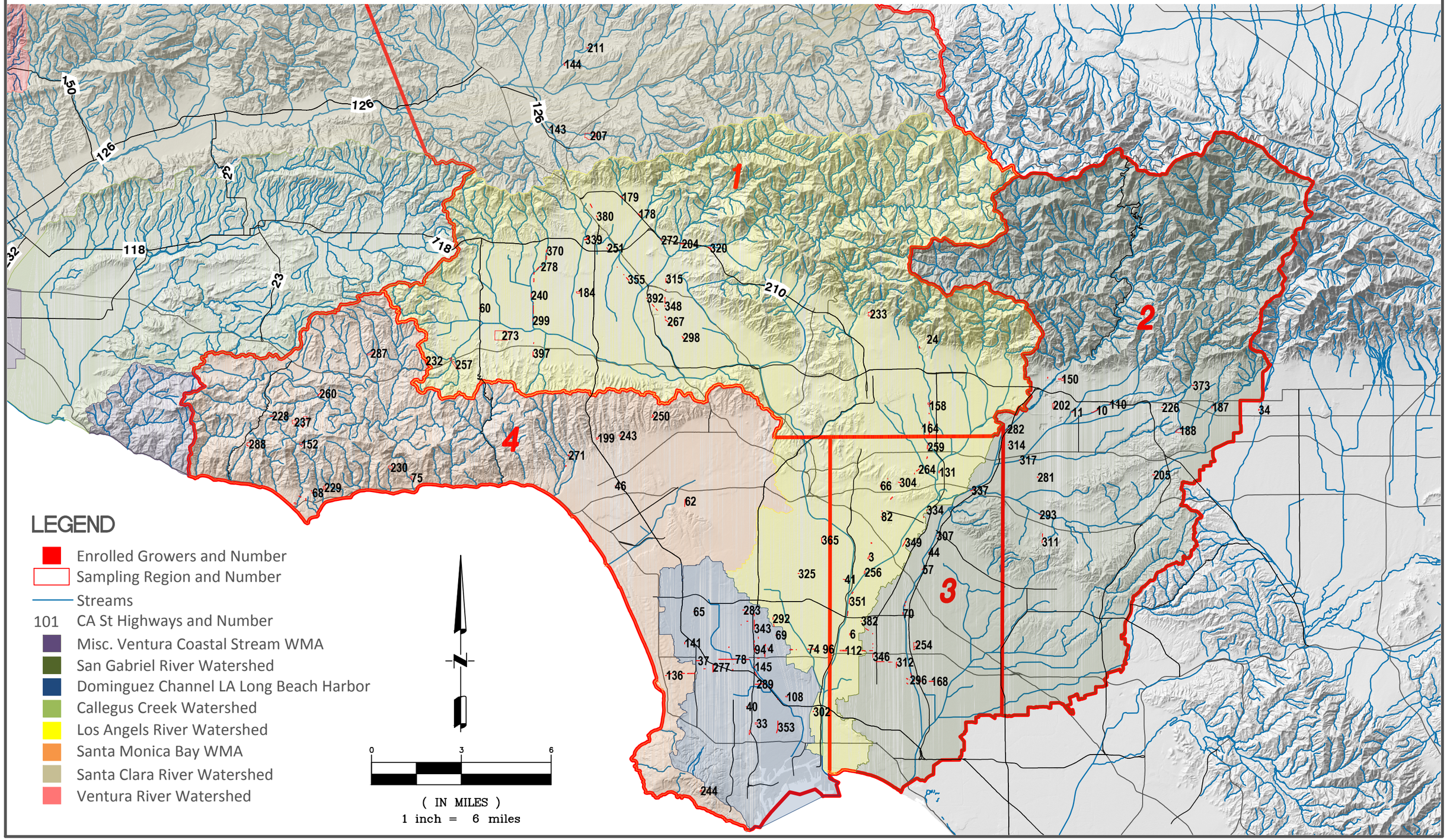
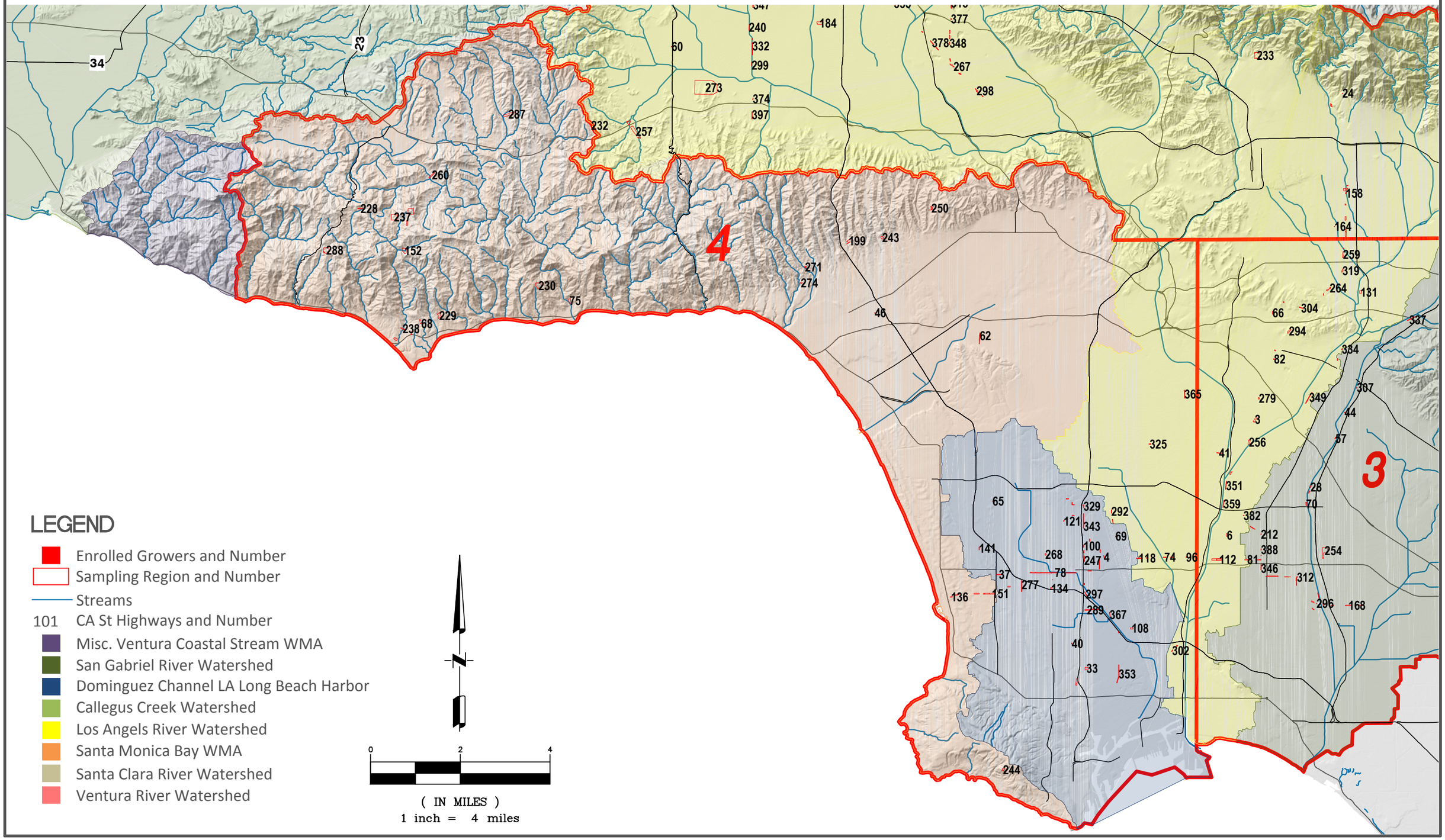


FIGURE 1.1 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

SANTA MONICA BAY WMA



LEGEND

- Enrolled Growers and Number
- Sampling Region and Number
- Streams
- 101 CA St Highways and Number
- Misc. Ventura Coastal Stream WMA
- San Gabriel River Watershed
- Dominguez Channel LA Long Beach Harbor
- Callegus Creek Watershed
- Los Angels River Watershed
- Santa Monica Bay WMA
- Santa Clara River Watershed
- Ventura River Watershed

0 2 4

(IN MILES)

1 inch = 4 miles

FIGURE 1.2 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

SANTA CLARA RIVER WATERSHED

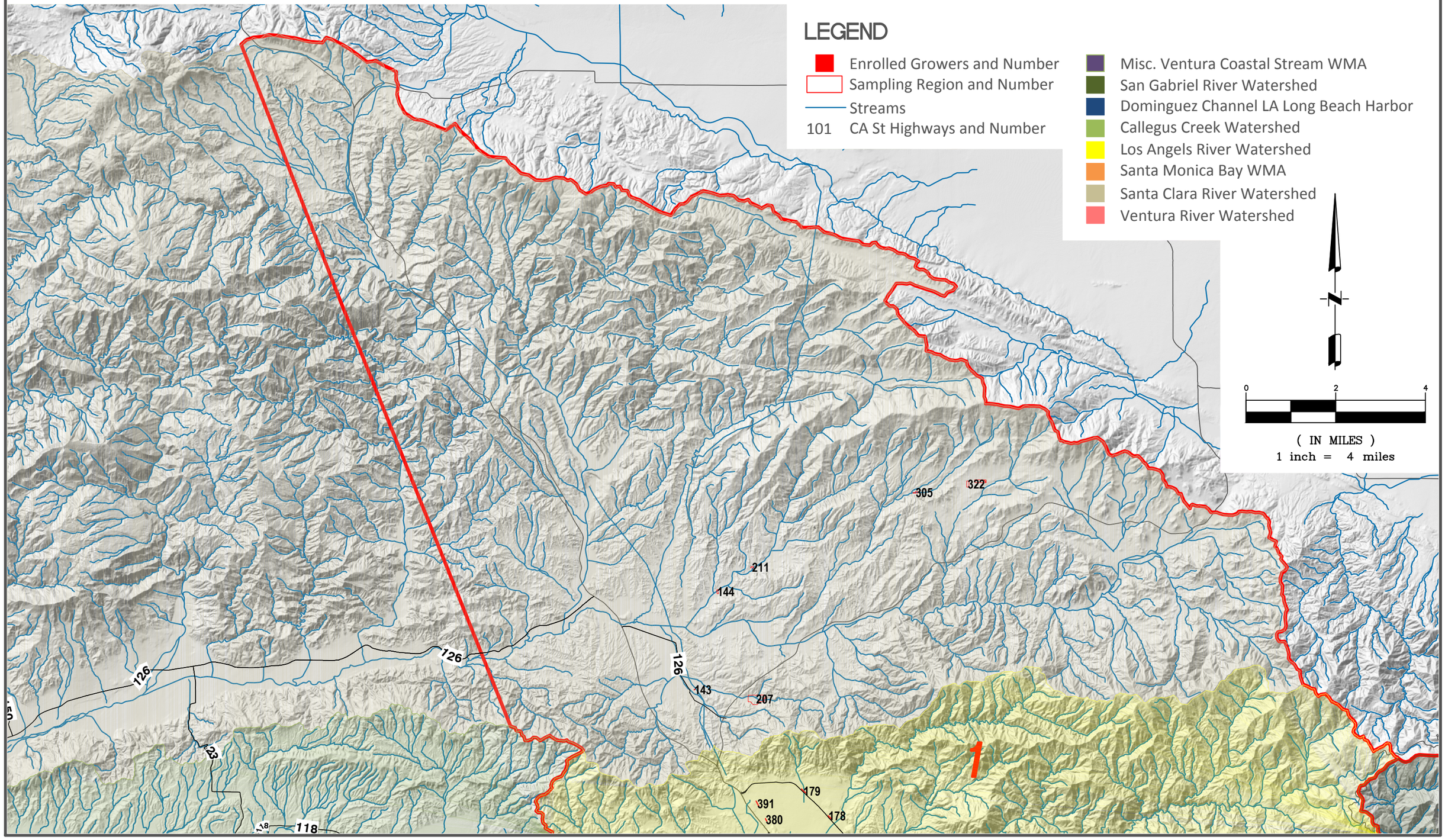


FIGURE 1.3 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

LOS ANGELES RIVER WATERSHED

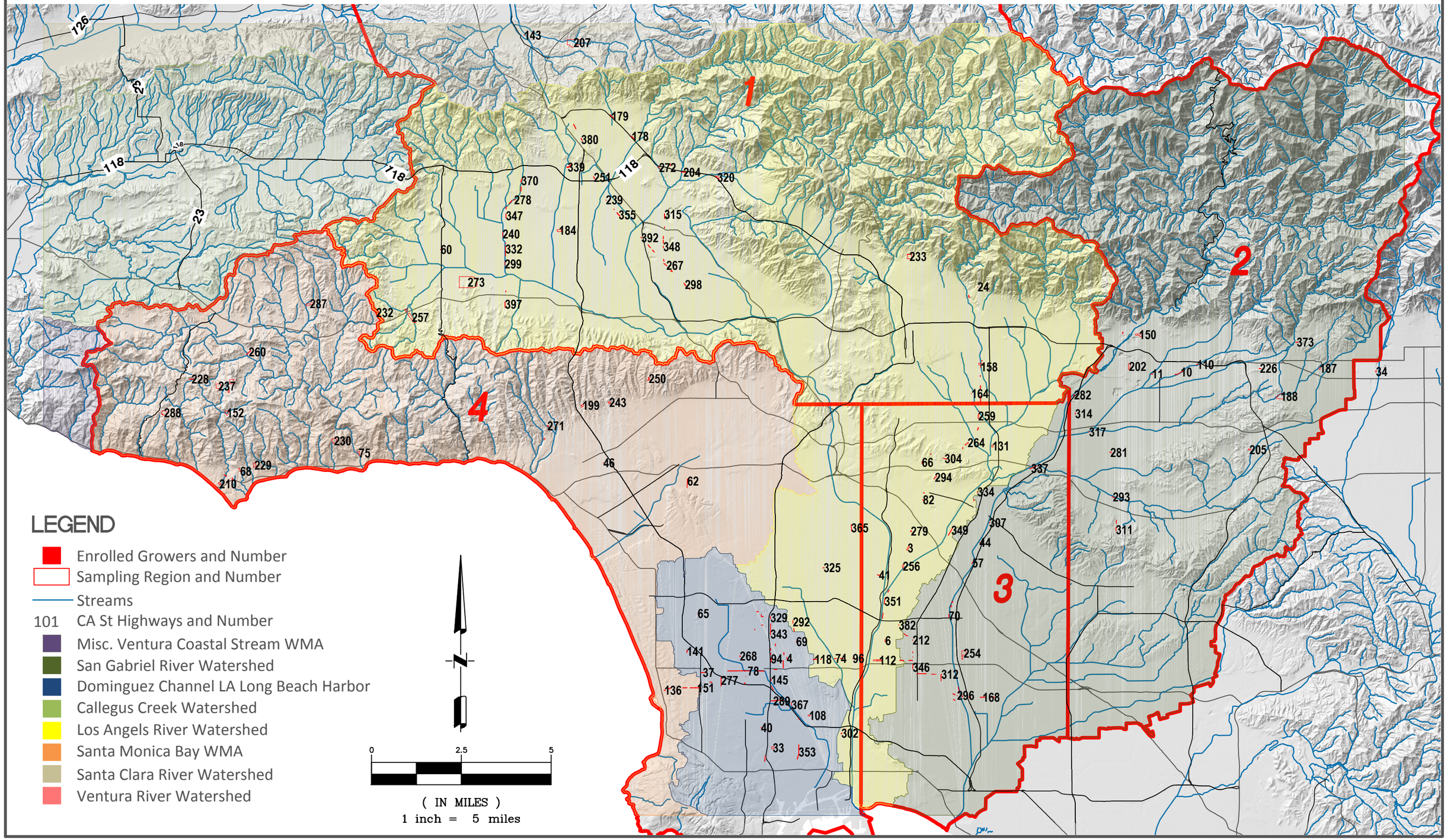
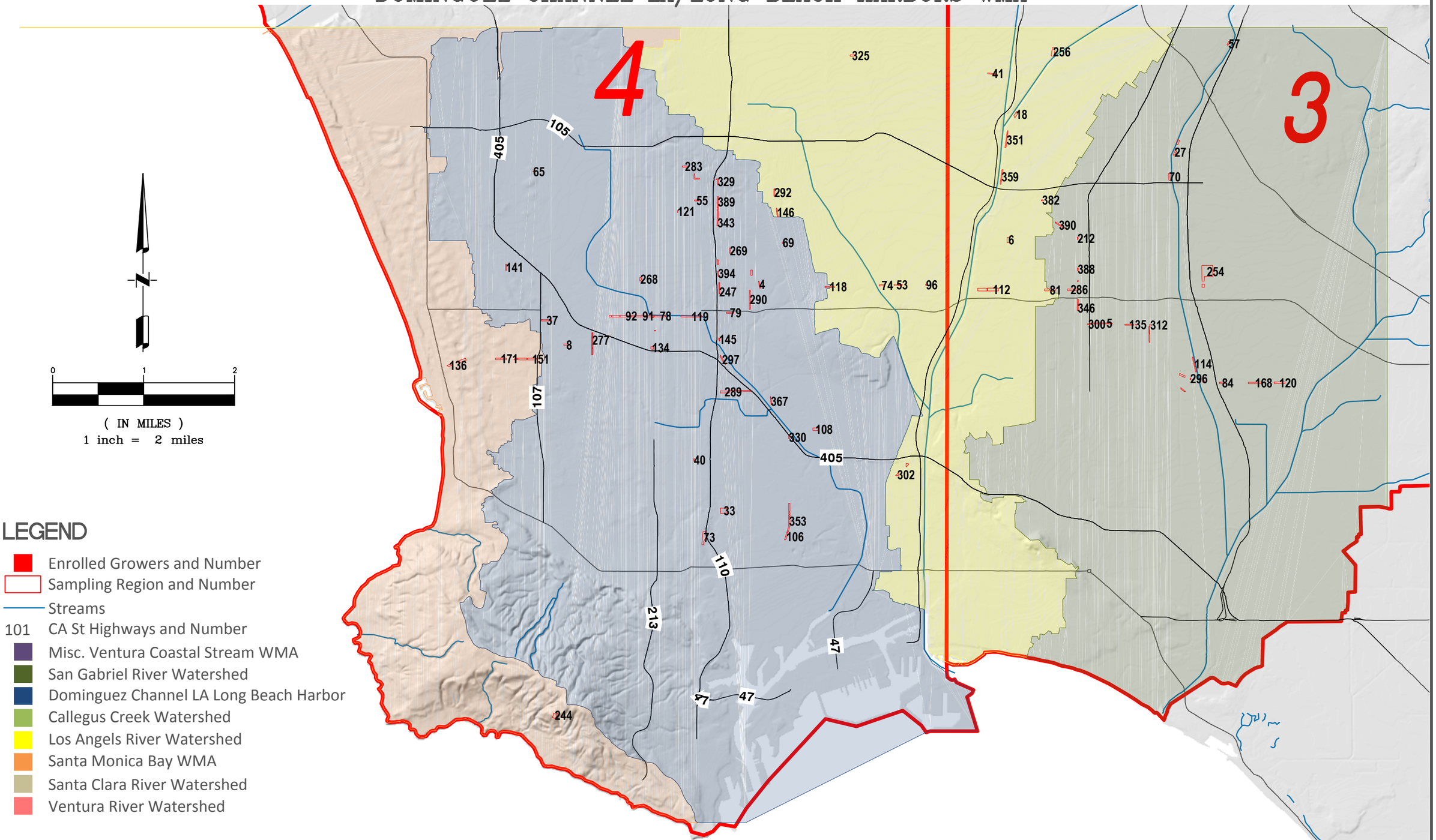


FIGURE 1.4 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

DOMINGUEZ CHANNEL LA/LONG BEACH HARBORS WMA

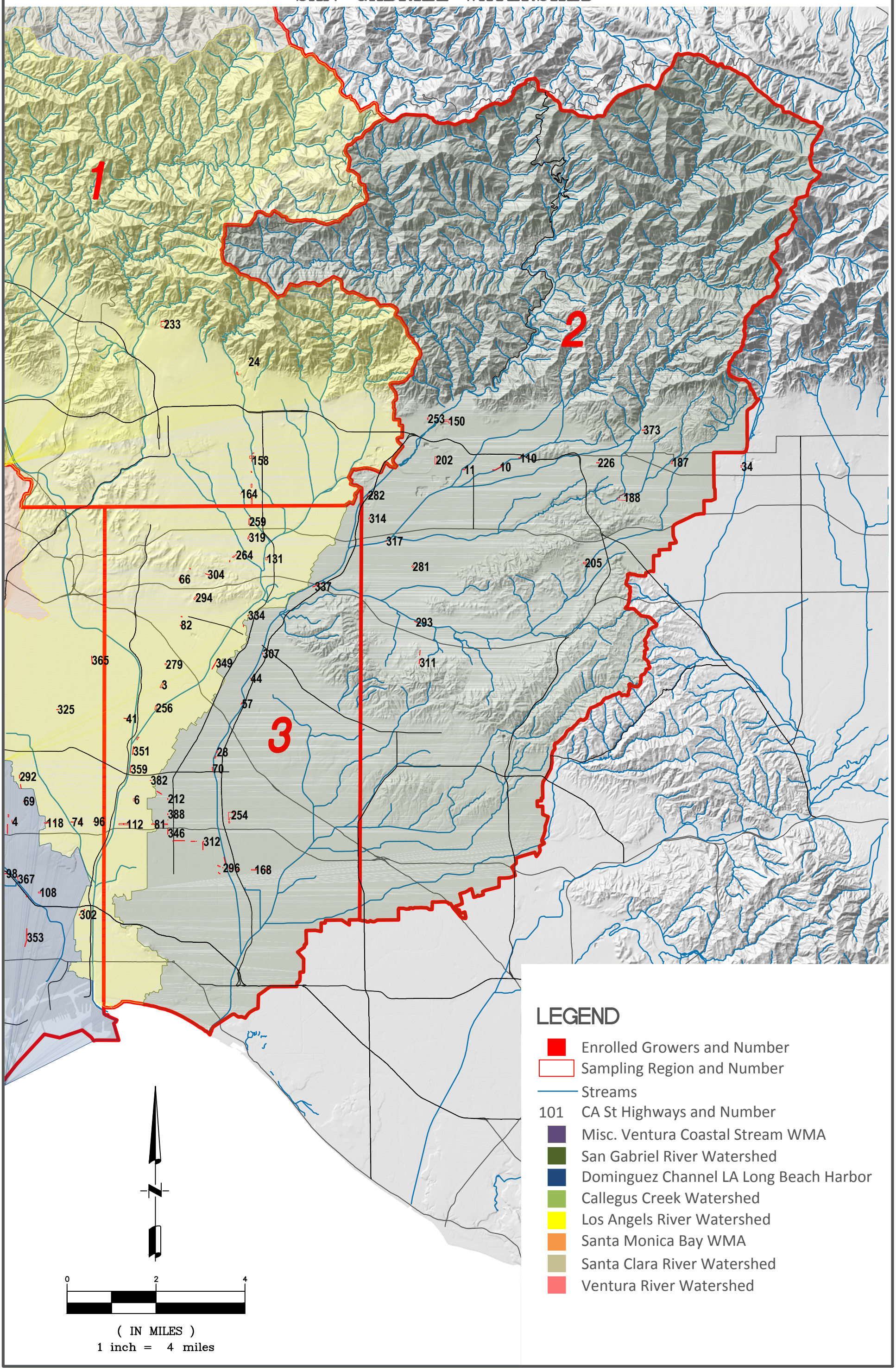


LEGEND

- Enrolled Growers and Number
- Sampling Region and Number
- Streams
- 101 CA St Highways and Number
- Misc. Ventura Coastal Stream WMA
- San Gabriel River Watershed
- Dominguez Channel LA Long Beach Harbor
- Callegus Creek Watershed
- Los Angels River Watershed
- Santa Monica Bay WMA
- Santa Clara River Watershed
- Ventura River Watershed

FIGURE 1.5 LOS ANGELES COUNTY IRRIGATED LANDS GROUP

SAN GABRIEL WATERSHED



APPENDIX A

UPDATED LIST OF LOS ANGELES COUNTY IRRIGATED LANDS GROUP, AS OF DECEMBER, 2016

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
323	3 Pinos Nursery	Bartolo Lopez S.	2126001901 2126014900	Sherman Way and Wilbur Ave.	Reseda	8427 Shirley Ave.	Reseda	CA	91324	IP	IP	1.8	1.8
324	90-90 Nursery	Jose Salazar	IP	14667 Tupper St.	Panorama City	14667 Tupper St.	Panorama City	CA	91402	IP	IP	1	0.86
276	AJ Nursery, Inc.	Juan Ramos / Augustin Cazarez	7318001802 7318001801	1600 S. Wilmington Ave	Compton	1600 S. Wilmington Ave	Compton	CA	90220	GO	D	6.50	5.00
18	AY Nursery, Inc.	Hugo Ayon	6233003803 6233003802 6233003800 6232016801 6232016800 6232016802 6232017804 6232017803	10115 South Garfield Ave	South Gate	P. O. Box 4115	Riverside	CA	92514	GO	LA	4.5	3.50
206	A & R Nursery, Inc.	Adrian Lopez	5284023801	7950 Graves Ave	Rosemead	7950 Graves Ave	Rosemead	CA	91770	GO	LA	2.50	0.80
3	ABC Nursery, Inc.	Eric Yonemura	6329001800 6329001801 6330019801 6330019800	6800 Darwell Avenue	Bell Gardens	424 East Gardena Blvd.	Gardena	CA	90248	GO	LA	22.21	10.20
4	ABC Nursery, Inc.	Eric Yonemura	6126011028 6126011029 6126011035 6126011036 6126011800	424 E. Gardena Boulevard	Gardena	424 East Gardena Blvd.	Gardena	CA	90248	GO	D	19.19	11.51
5	ABC Nursery, Inc.	Eric Yonemura	7168034800 7168034801 7168034281 7168034285 7168034270 7168034289 7168034276 7168034278 7168034272 7168034280 7168034273 7168034274	6221 Clark Avenue	Lakewood	424 East Gardena Blvd.	Gardena	CA	90248	GO	SG	6.40	2.70
6	ABC Nursery, Inc.	Eric Yonemura	6240008800 6240008801 6240008802	7132 Somerset Boulevard	Paramount	424 East Gardena Blvd.	Gardena	CA	90248	GO	LA	9.52	4.87
7	ABC Nursery, Inc.	Eric Yonemura	7049021800 7049021801 7049021802 7049021803 7049021802 7049021800	20200 Studebaker	Cerritos	424 East Gardena Blvd.	Gardena	CA	90248	GO	LA	13.84	8.30

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
8	ABC Nursery, Inc.	Eric Yonemura	4089009800, 4089016802, 4089016800, 4089011801, 4089011800, 4089010800, 4089009800 4089010800 4089011800 4089011801 4089017800 4089016802 4089016800	18601 Yukon Avenue	Torrance	424 East Gardena Blvd.	Gardena	CA	90248	GO	D	21.97	10.20
277	Abeja Nursery	Marlene / Dimas Carbajal Abeja	4089016802	18601 Ermanita Ave.	Torrance	18601 Ermanita Ave.	Torrance	CA	90504	GO	D	4.00	3.00
9	Acosta Growers Inc.	Eddie Acosta / Carlos Acosta	8622022270 8622012271 8622013270 8622022006	5359 Citrus Ave	Azusa	18012 E. Alford St.	Azusa	CA	91702	GO	SG	3.00	2.25
10	Acosta Growers Inc.	Eddie Acosta / Carlos Acosta	8630008274 8629002270	1050 E Gladstone St	Azusa	18012 E. Alford St.	Azusa	CA	91702	GO	SG	7.00	5.25
11	Acosta Growers Inc.	Eddie Acosta / Carlos Acosta	8620022270 8620015270 8620015272 8620005271 8620024273 8620024272 8621025271 8621025270 8621015270 8621016272 8620015270 8620015272 8620022270 8620024272	669 S Azusa Ave	Azusa	18012 E. Alford St.	Azusa	CA	91702	GO	SG	10.00	7.50
308	Agua Dulce Winery	Judy Kajama	3213014051 ?	9640 sierra highway	Agua Dulce	9640 Sierra Hwy	Agua Dulce	CA	91390	V	SC	75.00	62.00
305	Alonso Vineyard	Juan Alonso	3214043017 3214043027 3214020064 3214020044	12625 Sierra Hwy	Santa Clarita	9124 E. Gallatin Rd.	Pico Rivera	CA	90660	V	IP	39.00	6.50
309	Alvarez Nursery	Elias Alvarez	2666003901	11362 Woodley Ave.	Granada Hills	IP	IP	CA	91344	GO	LA	6.19	5.00
326	American Growers Plus, Inc.	Nick A. Gomez	2103012901	18830 Strathem St.	Reseda	18436 E. Section Center St.	Covina	CA	91722	IP	LA	1.05	1.05
327	American Sprinkler & Cardanali Nursery	IP	IP	23429 Erwin St.	Woodland Hills	23429 Erwin St.	Woodland Hills	CA	91367	IP	LA	2.05	2.05
236	Amigos Nursery, LLC	Sergio Vasquez	6049008278 6049009282 6049018292 6049009285	1420 E. 92nd Street	Los Angeles	P.O. Box 927	Downey	CA	90241	GO	LA	9.00	7.00

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
330	Amy's Garden	Amy Gonzales	7337005273	South of the 405 Fwy & North of Carson St.	Carson	3650 Pine Ave.	Long Beach	CA	90807	IP	D	1.19	1.19
328	Andres Ramirez Mendoza Nursery	Juan Ramirez	IP	14715 S. Vermont Ave.	Gardena	898 E. Deloras Dr	Carson	CA	90745	IP	D	3.01	3.01
329	Arnulfo Hernandez Nursery	Lucilla Gil	6132003900 6132004900	East of the 110 Freeway, between 130th Stand 135th St, Los Angeles	Los Angeles	PO Box 609	Lawndale	CA	90260	IP	LA	4.60	4.60
337	Arturo Carbajal Nursery	Arturo Carbajal	8125001901	Southeast of the 60 Fwy and North of Pellisier Rd.	Whittier	1215 N. Stimson Ave.	La Puente	CA	91744	IP	SG	2.40	2.40
2	Ayon Nursery	Adriana Ayon - Jesus Ayon	8207019801 8207019802	16448 Haliburton Rd	Hacienda Heights	16448 Haliburton Rd	Hacienda Heights	CA	91745	GO	SG	6.00	5.00
211	Barranquilla Nursery	Rosealina Malta	2812005016	28920 Bouquet Canyon Road	Saugus	28920 Boquet Canyon Road	Saugus	CA	91390	GO	SC	2.50	2.00
332	Ben-Chetrit, Shimon/Ramy's Nursery	IP	2103015903	East of Wilbur Ave. between Blythe St. and Elkwood St.	IP	5926 Calvin Ave.	Tarzana	CA	91356	IP	IP	3.60	3.60
264	Ben K Bonsai	Young Min / Edward Min	5284020801	2301 Kelburn Ave	Rosemead	2301 Kelburn Ave	Rosemead	CA	91770	GO	LA	1.00	0.50
278	Bertha's Gardens/Western Gardens	Paul Diehl	2731024901 2729024901	18451 Lassen St.	Northridge	18451 Lassen St.	Northridge	CA	91325	GO	LA	2.50	2.50
333	Billy Lee Nursery	Billy Lee	IP	13213 Essex Pl.	Cerritos	6319 California St.	Long Beach	CA	90805	IP	LA	2.84	2.84
334	Bird of Paradise Nursery	Rogelio Garhlo	5272009277	4112 Paramount Blvd.	Pico Rivera	4112 Paramount Blvd.	Pico Rivera	CA	90660	IP	LA	0.70	0.70
19	Boething Treeland Farms, Inc.	Bruce Pherson	2047001004 2047001001 2047001005 2047001002 2044020022 2047001001 2047001002 2047001004 2047001005	23475 Long Valley Road	Woodland Hills	23475 Long Valley Road	Woodland Hills	CA	91367	GO	LA	32.00	14.68
75	Bridgeman Ranch	Jackie Bridgeman / Bob Tobias (Main contact)	4452014006	3415 Cross Creek Rd	Malibu	3415 Crosscreek Rd.	Malibu	CA	90265	O	SM	5.00	3.00
200	C & S Nursery, Inc.	Santiago Rosales II	5025006900	3615 Hauser Bl	Los Angeles	P.O. Box 642179	Los Angeles	CA	90064	GO	LA	2.50	2.00
118	C Stars Nursery, Inc.	Armida Torres or Norma Gonzales	7319002806	1400 West Greenleaf Boulevard	Compton	P O Box 342	Gardena	CA	90247	C	D	4.50	2.50
119	C Stars Nursery, Inc.	Armida Torres or Norma Gonzales	6111023800	17654 South Normandie Avenue	Gardena	P O Box 342	Gardena	CA	90247	C	D	8.00	4.00

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
239	California Nurseries	Jose Gutierrez	2647023903 2644002905 2644002904 2644002900 2644004900 2644004902 2644004903 2644004901 2647025902 2647025901 2647025900	14301 Van Nuys Blvd	Arleta	P.O. Box 2778	North Hills	CA	91393	GO	LA	7.50	7.50
240	California Nurseries	Jose Gutierrez	2784009902	18955 Roscoe Blvd	Northridge	P.O. Box 2778	North Hills	CA	91393	GO	LA	1.50	1.50
205	California State Polytechnic University	Duncan McKee/Dave Matias	8709023908 8709023907 8709023910	3801 W. Temple	Pomona	3801 W. Temple Ave.	Pomona	CA	91768	M	SG	1,200.00	336.00
24	Calscape Growers	Chester (Dan) Robinson	5860004004	2103 Villa Heights Rd	Pasadena	2103 Villa Heights Rd	Pasadena	CA	91104	GO	LA	0.25	0.20
26	Canyon Way Nursery	Mark Wurzel	2317019900 2317018900 2317017900 2317018900 2317019900	11745 Sherman Way	North Hollywood	3214 Oakdell Road	Studio City	CA	91604	GO	LA	4.98	4.25
335	Carlos Mejia Nursery C&Y Nursery	Carlos Mejia	2310008900	11811 Strathern St.	North Hollywood	11811 Strathern St.	North Hollywood	CA	91605	IP	LA	3.00	3.00
50	Carreon Nursery	Guadalupe Carreon / Adriana Carreon	5277023802 5277023803 5277023804 5277023805	7900 La Merced Road	Rosemead	472 Giano Avenue	La Puente	CA	91744	GO	LA	6.00	6.00
279	Castaneda Nursery	Salud Castaneda	6332018818 6332018815 6332018809 6332018811	6270 Slauson Ave	Commerce	11500 Blanding St.	Whittier	CA	90606	GO	LA	8.50	5.00
280	Castaneda Nursery	Salud Castaneda	5263037804 5263037801 5263037802 5263037805	1690 Isabella Ave.	Monterey Park	11500 Blanding St.	Whittier	CA	90606	GO	LA	5.00	4.00
78	Centeno's Nursery & Landscaping	Jose Centeno / Rene Centeno	6106013800	17600 S. Western Ave	Gardena	17514 S. Figueroa St.	Gardena	CA	90248	GO	D	4.39	3.00
79	Centeno's Nursery & Landscaping	Jose Centeno / Rene Centeno	7339006800 7339002803 7339003801 7339003800 7339007802	17514 S. Figueroa Street	Gardena	17514 S. Figueroa St.	Gardena	CA	90248	GO	D	7.70	6.00
81	Centeno's Nursery & Landscaping	Jose Centeno / Rene Centeno	7113014800	6850 N. Paramount Blvd	Long Beach	17514 S. Figueroa St.	Gardena	CA	90248	GO	SG	4.70	3.00
145	Centeno's Nursery & Landscaping	Jose Centeno / Rene Centeno	7339008913 7339008911 7339007901	565 W. 189th Street	Gardena	17514 S. Figueroa St.	Gardena	CA	90248	GO	D	4.67	3.00
84	Cerritos Growers	Jose de Jesus Gallo / Maria Silva	7050005800 7050005801	19805 Gridley Rd	Cerritos	4943 Buffington Rd	El Monte	CA	91732	GO	SG	3.5	3.00
120	Cerritos Nursery, LLC	Ken Zhang/Bailey Yang	7056013800	19820 Norwalk Blvd	Cerritos	19820 Norwalk Blvd.	Cerritos	CA	90703	GO	SG	4.50	4.50

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
27	Certified Plant Growers, Inc.	Tom Miesen	8021020800 8021008806 8021008802 8021008801 8021008902	10400 Downey/Norwalk Rd	Norwalk	P.O. Box 1696	Temecula	CA	92593	C	SG	10.00	6.50
28	Certified Plant Growers, Inc.	Tom Miesen	8021005915 8021004801 8021004800 8021004805 8021004804	10524 E Firestone Blvd	Norwalk	P.O. Box 1696	Temecula	CA	92593	C	SG	2.50	1.50
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	1.50	1.00
265	Chikugo-En Bonsai Nursery	Gary Ishii	6106019064 6106019063 6106019062	18110 S Western Ave	Gardena	18110 S Western Ave	Gardena	CA	90248	M	D	1.00	0.75
226	Choji Matsushita	Richard Matsushita	8392014036 8392014035	724 N. Cataract Avenue	San Dimas	724 N. Cataract Ave	San Dimas	CA	91773	F	SG	3.80	1.70
304	Chuy's Nursery	Jesus Martinez	5265001808	1996 S. Orange Ave	Monterey Park	9124 E. Gallatin Rd.	Pico Rivera	CA	90660	GO	LA	3.00	2.00
218	Cielo Farms Vineyard	Richard Hirsh	4464008045 4464008019 4464008044 4464008032	31424 Mulholland Highway	Malibu	31424 Mulholland Highway	Malibu	CA	90265	V	LA	18.00	3.00
244	Clark Vineyard	Chris Shaver / Dave Clark	7567010026	11 Packsaddle Rd East	Rolling\ Hills	220 Avenue I East	Redondo Beach	CA	90274	V	SM	0.90	0.50
338	Classic Landscaping & Nursery	Sam Mozes	2127014006 ?	18756 Erwin St.	Tarzana	18756 Erwin St.	Tarzana	CA	91335	IP	LA	6.88	6.88
33	C Spot Nurseries, Inc.	Dixon Suzuki	7330007906 7330008902 7330009901 7330009904 7406026913 7330009909 7330009910 7330009908 7330009907 7330009905 7330009903 7330009911	321 W. Sepulveda Blvd	Carson	321 W Sepulveda Blvd.	Carson	CA	90745	C	D	32.00	18.50
150	Cama Wholesale Nursery	Richard Wilson	8617001029	1025 N. Todd Ave.	Azusa	1025 N Todd Avenue	Azusa	CA	91702	C	SG	26.00	15.30
34	Corey Nursery Co.	Jeff Corey	8307002032	1650 Monte Vista Avenue	Claremont	P. O. Box 609	Claremont	CA	91711	GO	SA	6.80	3.00
35	Cyclamen Growers Inc.(dba C Grows)	Tomoko Copon	2530003017 2530003018	11545 Kagel Canyon St	Sylmar	11545 Kagel Canyon St.	Sylmar	CA	91342	GO	LA	3.54	2.60
82	Damas Nursery	Julian Damas / Yuniva Pierce	6351036800 6351036801 6351036802 6351036803 6351036804 6351036805	6265 E. Hereford Dr.	E. Los Angeles	8210 Passons Blvd	Pico Rivera	CA	90660	GO	LA	7.00	5.00
400	Dan Needham Nursery	Dan Needham	IP	11617 Dehougne St.	Lakewood	11617 Dehougne St.	Lakewood	CA		IP	IP		

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
340	David's Nursery	David Martinez	7315037271	909 E. Sepulveda Blvd.	Carson 90745	503 Pacific St.	Carson	CA	90745	IP	D	3.10	3.10
398	David Garcia Nursery	David Garcia	IP	28367 San Canyon Rd. Spc 66	Canyon Country	28367 San Canyon Rd. Spc 66	Canyon Country	CA	91387	IP	IP	0.35	0.35
339	Daniel Velazquez Nursery	Daniel Velazquez	2666003901	11263 Woodley Ave.	Granada Hills	11208 Degarmo Ave.	Pacoima	CA	91331	IP	LA	1.64	1.64
341	Eden Nursery	Trinindad Alcaraz		11600 Berendo Ave.	Gardena	11612 Culver Blvd.	Los Angeles	CA	90066	IP	D	1.40	1.40
342	El Bajio Nursery	Benancio Queme	2642022902 2625025900	13760 Sunburst St. Areleta	Arleta	9314 Woodman Ave.	Arleta	CA	91331	IP	LA	1.64	1.64
343	El Castillo Nursery	Juan Aguilar	6119006900	555 W. 146th St.	Gardena	8009 Rose St.	Paramount	CA	90723	IP	D	1.55	1.55
360	El Dorado Nursery	Eugenia Torres	IP	Southwest of San Fernando Rd and North East of Telfair Ave.	San Fernando	PO Box 16926	North Hollywood	CA	91615	IP	LA	1.96	1.96
202	El Nativo Growers, Inc.	James Campbell	8533010909 8619002903 8533012908	200 S. Peckham	Azusa	200 South Peckham Rd.	Azusa	CA	91702	GO	SG	9.00	7.00
246	Elliott Dolin	Elliott Dolin	4467018045	5970 Cavalleri Rd	Malibu	5970 Cavalleri Rd	Malibu	CA	90265	V	SM	1.80	0.50
344	Environmental Arts	Peter Lee	IP	North Side of 152nd St.	Gardena	PO Box 157	Palos Verdes Estates	CA	90247	IP	D	1.10	1.10
41	Esequiel Nursery	Esequiel Hernandez/ Perla Hernandez	6222005273	9000 Atlantic Ave	South Gate	9000 Atlantic Ave.	South Gate	CA	90280	GO	LA	2.5	1.50
146	Estanfor Nursery	Rafael Rangel	6134039270	1130 Stanford Ave	Compton	1017 E. 150th Street	Compton	CA	90220	GO	D	1.90	1.25
345	Exotic Garden Nursery	Jimmy King	2127021900	18801 Victory Blvd.	Reseda	18801 Victory Blvd.	Reseda	CA	91335	IP	LA	2.35	2.35
346	F&A Nursery	Francisco Garcia	7162014270	8650 Artesia Blvd.	Bellflower 90706	13213 Curtis and King Rd.	Norwalk	CA	90650	IP	LA	1.32	1.32
349	Francisco Garcia Nursery	Francisco Garcia	6369003273 6369005900	East of Crider Ave, between Washington Blvd and the railroad tracks, Pico Rivera	Norwalk	13213 Curtis and King Rd.	Norwalk	CA	90650	IP	LA	2.40	2.40
46	F K Nursery, Inc.	Eric Kageyama	4261037001 4261037005 4261037006 4261037007 4261037004 4261037008	2027 Colby Ave	Los Angeles	2027 Colby Avenue	Los Angeles	CA	90025	GO	SM	1.46	0.92
281	Fairgrove Nursery	Reuben Martinez / Liz Martinez	8471002804 8471002805	14855 Fairgrove Ave	La Puente	14826 Fairgrove Ave	La Puente	CA	91744	GO	SG	2.50	2.00
42	Fausto's Nursery	Fausto Garcia / Eduardo Garcia	7165020270 7165020800	5759 Allington St	Lakewood	15317 McRae St.	Norwalk	CA	90650	GO	SG	5.00	4.00
348	Felix Garcia Nursery	Felix Garcia	2310023901	West of Morella Ave between Arminta St. and Stagg St. Los Angeles	Los Angeles	1314 S. Cliveden Ave.	Compton	CA	90020	IP	LA	1.68	1.68
347	Four Seasons Wholesale Nursery	Dan LaFleur	2763021900 2770001900	18840 Nordhoff St.	Northridge	1880 Sinaloa Rd.	Simi Valley	CA	93065	IP	LA	12.75	12.75
247	Fuku Bonsai Nursery	Juan Duran	6121003902 6121002901	560 W. 168th St.	Gardena	11862 Balboa Blvd, PMB 164	Grenada Hills	CA	91344	GO	D	2.20	1.75
282	Garden View Inc.	Julie Meahl	8535020902 8535020801 8535020800	12901 Lower Azusa Rd	Irwindale	114 E. Railroad Ave	Monrovia	CA	91016	GO	IP	10.00	5.00
283	Gardena Hills Nursery	Gilberto Lopez	6089023282	12597 S Budlong Ave	Los Angeles	2579 E. 219 St.	Long Beach	CA	90810	GO	IP	1.75	1.25

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94	Gardena Nursery & Landscape Maintenance	Janet Mercado	6121004901	551 W. 168th Street	Gardena	551 W. 168th St.	Gardena	CA	90248	GO	D	1.60	1.60
300	Garibaldo's Nursery	Filemon Garibaldo	7160003801 7160003800 7162007800 7162007801	8834 Rose St.	Bellflower	8834 Rose St.	Bellflower	CA	90706	GO	LA	1.80	1
350	Gil Hernandez Nursery	Gil Hernandez	6115039270	South of El Segundo Blvd and West of Vermont St, Gardena	Gardena	10607 San Antonio Ave.	South Gate	CA	90280	IP	D	2.60	2.6
266	Girasol Nursery	Angela Montoya	6373016270 6373017272 6373021270 6373016906 5272031274 5272032271 5272005271 5272005273	8555 Spruce St	Pico Rivera	PO Box 6862	Pico Rivera	CA	90661	GO	LA	9.00	2.50
110	Glendora Gardens	Melina Serrandino	8641001274 8641001273	1135 S Grand Avenue	Glendora	1132 S. Grand Avenue	Glendora	CA	91740	M	SG	4.36	3.75
207	Golden Oak Ranch	Steve Sligh	2848010020	19802 Placerita Canyon Rd	Newhall	19802 Placerita Canyon Rd	Newhall	CA	91321	M	SC	890.00	200.00
351	Gomez Calderon Nursery	Gomez Calderon	6234011274	South of Imperial Hwy and North Gardendale St.	South Gate	9956 Downey and Sanford Bridge Rd.	Downey	CA	90240	IP	LA	3.80	3.80
180	Gomez Growers (United Plant Growers/Gomez Growers)	Jose Gomez	7311013800 7311017800	3698 Caspian Avenue	Long Beach	3698 Caspian Avenue	Long Beach	CA	90810	C	LA	8.10	7.30
296	Gomez Growers (United Plant Growers/Gomez Growers)	Jose Gomez	7048015801 7048015802	5150 Knoxville Ave	Lakewood	3698 Caspian Avenue	Long Beach	CA	90810	C	SG	3.50	2.00
352	Grace Farms	Myong H. Koches	7404003278	Intersection of Bonita St. and E. Pacific St.	Carson	912 W. 11th St. #1	San Pedro	CA	90731	IP	D	0.89	0.89
353	Grace Farms	Yung L. Lee	7404004273	Realty St. and Delores Dr. (intersecting Wilmington Ave.)	Carson	912 W. 11th St. #1	San Pedro	CA	90731	IP	D	1.62	1.62
354	Green Effects Inc.	IP	2321004901	North of Vose St. between Radford Ave. and Lankershim Blvd.	Los Angeles	4248 Hilburn Ct.	Moorepark	CA	93021	IP	LA	4.10	4.10
355	Green House Nurseries, Inc.	Mark Whitten	2642021900	9400 Canterbury Ave.	Arleta	9400 Canterbury Ave.	Arleta	CA	91331	IP	LA	3.48	3.48
143	Green Landscape Nursery	Richard Green	2833001087 2833004097	22216 1/2 Placerita Canyon Rd	Santa Clarita	26191 Bouquet Canyon Rd.	Saugus	CA	91350	GO	SC	4.50	4.00
144	Green Landscape Nursery	Richard Green	2809003270	Rosedel Street	Saugus	26191 Bouquet Canyon Rd.	Saugus	CA	91350	GO	SC	4.00	2.00
44	Green Leaf Nursery	Fermin Gutierrez	8177001802 8177001801 8177001800 8177001805 8177001804	10490 Washington Blvd	Whittier	PO Box 2215	Pico Rivera	CA	90660	GO	LA	5.20	3.00
356	Green Set, Inc.	Dan Needham	2320016903	11520 Vanowen St.	North Hollywood	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	0.90	0.90

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357	Green Set, Inc.	Dan Needham	2320017901	6732 Camellia Ave.	North Hollywood	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	2.00	2.00
358	Green Set, Inc.	Dan Needham	2320009902 2320006907	11617 Dehougne St.	North Hollywood	11617 Dehougne St.	North Hollywood	CA	91605	IP	LA	2.00	2.00
361	Green Spot Nursery	Hector Hernandez	2307008900 2307007900	West of Laurel Canyon Blvd, between Saticoy and Stagg St.	Los Angeles	PO Box 16926	North Hollywood	CA	91615	IP	LA	4.13	4.13
60	Green Thumb Nursery	Frank Soriano	2012022012 2012022015 2012022011 2012022010 2012022014 2012022007	7659 Topanga Canyon Blvd	Canoga Park	7659 Topanga Cyn Blvd	Canoga Park	CA	91305	GO	LA	19	10.00
310	Green Touch Nursery	Oscar Vargas	IP	202 S. Mayo Ave.	Compton	202 S. Mayo Ave.	Compton	CA	90221	GO	IP	5.00	3.00
250	Greene - Lania Vineyard	Jeff Greene	4387028008	9505 Lania Ln.	Beverly Hills	95 N. County Rd.	Palm Beach	FL	33480	V	SM	5.00	3.00
359	Growing Nursery / La Escondida Nursery	Antonio Ayon	6236001270	East of the LA River, between Century Ave. and the 105 Fwy	Paramount	7306 Walnut Ave.	Paramount	CA	90723	IP	LA	3.84	3.84
64	H & H Nursery	Robert Reyes	7168033800 7168033801 7168033274 7168033289 7168033285	6220 Lakewood Boulevard	Lakewood	6220 Lakewood Blvd.	Lakewood	CA	90712	M	SG	5.50	2.50
307	Hana Star Farms, Inc	Hidehiko Kasahara	8174013800 8174004800	6509 Pioneer Blvd	Whittier	20646 Markham St.	Perris	CA	92570	R	IP	5.90	2.80
65	Hawthorne Nursery, Inc.	Kei Nakai	4041013015 4041013016 4041013017 4041013018 4041013019 4041013014 4041013013 4042031010 4042031009 4042031008 4042031007 4042031006 4042031005	4519 W. El Segundo Bl	Hawthorne	4519 W. El Segundo Blvd.	Hawthorne	CA	90250	GO	D	2.87	2.50
62	Hernandez Nursery	Eric Hernandez	5047014902	5501 Rodeo Rd	Los Angeles	5501 Rodeo Rd	Los Angeles	CA	90016	GO	SM	3.00	2.70
210	Hevadu	Megan Cunha	4469021032	6415 Busch Drive	Malibu	6415 Busch Drive	Malibu	CA	90265	V	LA	8.00	2.75
66	Hill Grove Nursery	Raul Mejia	5266018801 5266017802 5266017800 5262028800 5263029800	450 West Almora	Monterey Park	PO Box 92966	City of Industry	CA	91715	GO	IP	3.50	2.00
284	House of Bonsai	Victoria Lee	7048012800 7048012801 7048012802	5214 Palo Verde Avenue	Lakewood	5214 Palo Verde Avenue	Lakewood	CA	90713	GO	IP	5.00	3.00
68	Hoyt Family Vineyards	Carol & Steven Hoyt	4467018025	5929 Kanan Dume Rd	Malibu	5929 Kanan Dume Road	Malibu	CA	90265	V	SM	1.50	0.80
69	Humedo Nursery	Martin Torres	6139004271 6139004273	860 East Redondo Beach Boulevard	Compton	P.O. Box 40299	Long Beach	CA	90804	GO	D	2.00	1.39

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70	Humedo Nursery	Martin Torres	6283024801	10040 Imperial Highway	Downey	P.O. Box 40299	Long Beach	CA	90804	GO	SG	3.00	2.20
186	I.T. Nursery Inc	Wayne Tagawa	6125014003	256 East Alondra	Gardena	256 E Alondra Blvd	Gardena	CA	90248	GO	D	2.76	1.75
363	International Palm Growers	Henry Cespedes	2642021900	9312 Canterbury Ave.	Arleta	PO Box 4218	Panorama City	CA	91331	IP	LA	3.40	3.40
73	International Plant Growers, Inc.	Peter Landowski / Jeff Nakasone	7409020009	24500 Vermont Ave	Harbor City	24500 Vermont Avenue	Harbor City	CA	90710	C	D	6	5.00
364	Isaac Ortega Nursery	Isaac Ortega	IP	11925 Bromont Ave.	Pacoima	12032 Wimberly Ave.	Sylmar	CA	91342	IP	LA	2.2	2.20
365	Isaias Gonzalez Nursery	Isaias Gonzalez	6310027274	East of Alcoa Avenue, between Slauson and Randolph	Vernon	1810 Cogswell Rd.	South El Monte	CA	91733	IP	LA	1.87	1.87
267	Jackson Shrub Supply, Inc.	Gary Jackson	2320001902 2320008904 2320009902 2320006907 2320005904 2320005903	11505 Vanowen St	North Hollywood	11505 Vanowen St	North Hollywood	CA	91605	GO	LA	9.00	9.00
366	James T. Jung Nursery	James T. Jung	7404002278	East of Bonita Ave, between Lincoln St and Pacific St, Carson	Carson	6625 Montaire Pl.	La Palma	CA	90623	IP	D	0.83	0.83
98	Jauregui Nursery, LLC	Filiberto Jauregui	7336009271	20300 Main	Carson	4185 Paseo de Oro	Cypress	CA	90630	GO	D	4.80	1.50
100	Jauregui Nursery, LLC	Filiberto Jauregui	6120025900 6120024900 6120026902 6120027901	551 West Alondra	Gardena	4185 Paseo de Oro	Cypress	CA	90630	GO	D	4.00	3.00
101	Jauregui Nursery, LLC	Filiberto Jauregui	7048021271 7061008270 7061008275 7061008276	6741 Del Amo	Lakewood	4185 Paseo de Oro	Cypress	CA	90630	GO	SG	3.10	2.00
367	Javier's Nursery	Javier Hernandez	7339018902 7339018271 7339018903	610 E. Carson Plaza Dr.	Carson	337 E. 237th St.	Carson	CA	90745	IP	D	5.76	5.76
368	Jesus & Juan Munoz Nursery	Jesus Munoz	2415013901 2415014900 2415015901	East of Whitnall Hwy, between Oxnard St and Cahuenga Blvd	North Hollywood	206 W. Maple St. #E	Glendale	CA	91204	IP	LA	3.04	3.04
369	Jesus Macias Gonzalez Nursery	Jesus Macias Gonzalez	2538008900	West of Sutter Ave, between Wicks and San Fernando Rd.	Los Angeles	11064 Wicks St.	Sun Valley	CA	91352	IP	LA	1.60	1.60
74	Jorge's Nursery	Jorge Alcaraz	7318003809 7318003808 7318003811 7318003807	100 E Greenleaf Blvd	Compton	4867 Daisy Ave	Long Beach	CA	90805	GO	LA	6.50	5.00
384	Jose Munoz Nursery	Jose Munoz	8115001907 8115001905	Between the 60 and 605 Fwy	Whittier	12318 Kathleen St.	Whittier	CA	90601	IP	LA	4.00	4.00
370	Jose Vasquez Nursery	Jose Vasquez	2715012903	East of Chimineas Ave, between Tribune St and Chatsworth St.	Los Angeles	PO Box 17714	Encino	CA	91416	IP	LA	5.00	5.00
371	Juan Aguilar Nursery	Juan Aguilar	6051002900	10718 S. Stanford Ave, Los Angeles	Los Angeles	922 E. 42nd Pl.	Los Angeles	CA	90011	IP	LA	1.00	1.00

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325	Juan Gregorio Aguirre Nursery	Juan Gregorio Aguirre	6045019270 6045015271 6045015270 6045015272 6045015273	North of 92nd St, between Fir Ave and Minder St. & North of 92nd St, between Miner St and Juniper St.	Los Angeles	9806 Anzac Ave.	Los Angeles	CA	90002	IP	LA	6.73	6.73
372	Juan Otero/Junior's Nursery	Juan Otero/David Martinez	2118001901	18836 Saticoy	Reseda	6206 Burwood Ave.	Los Angeles	CA	90042	IP	LA	1.78	1.78
373	Juarez Nursery	Rolando E. Juarez	8664019270	6375 Wheeler Ave.	La Verne	8019 S. Hoover St.	Los Angeles	CA	90044	IP	SG	1.30	1.30
375	Julio Deluis Espinoza Nursery	Julio Deluis Espinoza	IP	East of Fairfax Ave, between Adams and Clyde Ave.	Los Angeles	1452 S. Ridgley Dr.	Los Angeles 90016	CA	IP	IP	LA	1.88	1.88
374	Junior's Nursery connected to Juan Otero's Nursery	David Martinez	2156021903	West of Yolanda Ave. between Hatteras and Miranda Ave.	Los Angeles	240 Robinson Rd.	Pasadena	CA	91104	IP	LA	1.08	1.08
268	K. Yuge Nursery	Steve Yuge	4066016054	2027 W 164th St	Torrance	2027 W 164th St	Torrance	CA	90504	GH	D	1.50	0.75
269	K. Yuge Nursery	Steve Yuge	6129004024	336 W Redondo Beach Blvd	Gardena	2027 W 164th St	Torrance	CA	90504	GH	D	2.00	1.50
285	Kangaru Enterprises, LLC	Steven Rusack	7480043020	1 El Rancho Escondido Rd.	Avalon	1825 Ballard Canyon Rd.	Solvang	CA	93463	V	IP	4.90	4.90
229	Katharina Hahn Vineyard (Schetter Malibu)	Katharina Hahn/Jaime Page	4467003023	5825 Murphy Way	Malibu	5825 Murphy Way	Malibu	CA	90265	V	LA	0.80	0.50
251	Kenyon Landscape	Kenny Unger	2615010901	14899 Chatsworth Dr.	North Hills	9816 Burnet Ave	Woodland Hills	CA	91343	GO	LA	2.00	1.50
91	Kobata Growers, Inc.	Jack Mayesh	4096005800 4096005801 4096005802	17622 Van Ness Avenue	Torrance	17622 Van Ness	Torrance	CA	90504	GO	D	8.00	6.50
92	Kobata Growers, Inc.	Jack Mayesh	4095001800 4095001802	17629 Van Ness Avenue	Torrance	17622 Van Ness	Torrance	CA	90504	C	D	6.50	6.50
311	LA Sanchez Nursery	Eusebio Sanchez	8294030800	16525 Circle Hill Ln	Hacienda Heights	11159 1/2 Kauffman St.	El Monte	CA	91731	GO	SG	1.50	1.00
376	La Cienega Nursery	Cirilo Gutierrez	IP	8511 Sherwood Dr.	West Hollywood	PO Box 950825	Mission Hills	CA	91395	IP	LA	3.70	3.70
228	La Vina Gomez de Malibu	Bob Tobias / David Gomez	2058014014	32720 Mulholland Hwy	Malibu	P.O. Box 577	Agoura Hills	CA	91376	V	LA	5.00	0.90
212	Lam Farms	Nhi Lam	6268017270 6268017274 6268017275	8600 Jefferson St.	Paramount	6319 California Ave	Long Beach	CA	90805	R	LA	3.00	1.00
253	Landscape Warehouse Nursery & Supply	Jose Robles/Edaena Pano	8610001800	2800 Royal Oaks Dr	Duarte	1673 E. Walnut St.	Pasadena	CA	91106	GO	SG	2.00	1.25
286	LB Palm Growers/Moon Valley	Cipriano Martinez	7107004800	17020 Downey Rd.	Bellflower	19820 N. 7th St., Suite 260	Phoenix	AZ	85024	GO	LA	4.50	4.00
105	Live Art Plantscapes, Inc.	Larry Tabeling	2763001904 2763030900	18809 Plummer St	Northridge	3351 La Cienega Place	Los Angeles	CA	90016	GH	LA	3.66	1.80
121	Lloyd's Nursery / Nakayama Nursery Inc.	Lloyd Nakayama	6115013007 6115013008 6115013009 6115013010 6115013011	1341 W. 141st Street	Gardena	1341 W 141st Street	Gardena	CA	90247	GO	D	0.75	0.75
106	Lomita Plant Growers	Mercedes Sanabria	7404030900	835 E Lomita Blvd	Wilmington	835 East Lomita Blvd.	Wilmington	CA	90744	GO	D	3.02	2.50
377	Lopez Nursery	Francisco Lopez	2631011900	11763 Rialto St.	Sun Valley	8513 Tilden Ave.	Panorama City	CA	91402	IP	LA	1.51	1.51

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331	Lorenzo Sanchez Nursery	Lorenzo Sanchez	2642001900	14001 Garber St.	Arleta	14001 Garber St.	Arleta	CA	91331	IP	LA	0.81	0.81
378	Los Pinos Nursery	Rodolfo Reynoso	2308024900	7860 Whisett Ave	North Hollywood	7860 Whisett Ave.	North Hollywood	CA	91605	IP	LA	3.15	3.15
270	Lucky Plants	Javier Lopez	7404001278	West of Bonita St. Between Sepulveda and Lincoln	Carson	902 Sepulveda Blvd	Carson	CA	90745	GO	D	1.00	0.82
37	Lucky Plants Nursery	Steven Chu	4085026800	17715 Amie Ave.	Torrance	1062 Aviation Blvd.	Hermosa Beach	CA	90254	IP	D	3.75	2.50
321	Lucky Plants Nursery	Steven Chu	IP	14515 S. Raymond Ave. Gardena, CA 90247	Gardena	1062 Aviation Blvd.	Hermosa Beach	CA	90254	IP	D	3.00	2.50
379	Lynne Vinkovic Nursery	Lynne Vinkovic	IP	1217 Oak Grove Dr.	Los Angeles	1217 Oak Grove Dr.	Los Angeles	CA	90041	IP	LA	0.28	0.28
380	Macias Nursery	Ignacio Macias	2604041903	15594 Bledsoe St.	Sylmar	14506 Bledsoe St.	Sylmar	CA	91342	IP	LA	2.24	2.24
287	Maggie's Farm	Nate Pietso / Casey Kramer	2055001032	6500 Chesboro Rd	Agoura Hillas	918 11th St #9	Santa Monica	CA	90403	R	IP	4.00	4.00
113	Magic Growers, Inc.	Bob & Leilani Underwood	5751022801 5860013800 5857035901	2795 Eaton Canyon Drive	Pasadena	2795 Eaton Canyon Drive	Pasadena	CA	91107	GO	LA	8.00	8.00
288	Malibu Organic Lemon	Mike Zacha	4472010023	1872 Encinal Canyon	Malibu	1700 Decker Canyon Rd	Malibu	CA	90265	O	LA	220.00	15.00
235	Malibu Rocky Oaks Vineyard	Howard Leight	2058017025	340 Kanan Road	Malibu	3200 Airport Ave. Suite 16	Santa Monica	CA	90405	V	LA	35.00	7.00
254	Manassero Farms	Dan Manassero	7016007906	North East corner of 166th & Studebaker Rd.	Cerritos	9925 Via La Granja	Yorba Linda	CA	92886	R	SG	4.00	3.00
108	Marcelino Contreras	Marcelino Contreras	7326019800	Vera and E 213th St.	Carson	1702 E 213th St.	Carson	CA	90745	R	D	1.00	1.00
114	Mariposa Garden	Ron Hill	7049014904	6664 South Street	Lakewood	6664 South Street	Lakewood	CA	90713	GO	SG	4.00	3.68
312	Martinez Nursery	Angel Martinez	7165019803	5761 Ashworth St	Lakewood	PO Box 1665	Bellflower	CA	90707	GO	SG	2.00	1.50
289	MB Landscaping and Nursery	Maria Martinez	7336004010	20300 S. Figueroa St	Carson	20300 S. Figueroa St.	Carson	CA	90745	GO	D	2.50	1.50
290	MB Landscaping and Nursery	Maria Martinez	6126009802	201 E Walnut Street	Carson	20300 S. Figueroa St.	Carson	CA	90745	GO	D	6.20	5.00
292	MB Landscaping and Nursery	Maria Martinez	6134008270 6134001271 6134001270	700 135th St.	Los Angeles	20300 S. Figueroa St.	Carson	CA	90745	GO	D	6.20	4.00
271	Melhill Vineyard	Tish Lehew / Jeff Lotman	4432011045	1805 Melhill Way	Los Angeles	1805 Melhill Way	Los Angeles	CA	90049	V	SM	0.30	0.30
112	Mezcala Nursery	Sergio Vargas	7116001800	6901 Orange Ave	Long Beach	7016 Sherman Way	Bell	CA	90201	GO	LA	2.00	2.00
40	Mikamo Nursery	Edith Mikamo	7344007038 7344007039	1029 W. 223 Street	Torrance	1029 W. 223 Rd St.	Torrance	CA	90502	F	D	1.00	0.75
306	Mimosa Nursery LA	Colette Guyenne	6351035804 6351035803 6351035807	6270 Allston Street	Los Angeles	6270 Allston Street	Los Angeles	CA	90022	GO	LA	3.30	2.20
383	Miyako Bonsai Nursery	Kenichiro Kawaguchi	6132006900	552 W. 140th St.	Gardena	552 W. 140th St.	Gardena	CA	90248	IP	D	2.18	2.18
55	Moneta Nursery, Inc.	Gary Ishii	6115019043 6115019044 6115019045 6115019042	13633 South Vermont Avenue	Gardena	13633 S. Vermont Avenue	Gardena	CA	90247	M	D	4.75	3.00
199	Moraga Vineyards	Scott Rich	4368005025 4368006007 4368024020 4368024025	1070 Moraga Dr.	Los Angeles	650 N. Sepulveda Blvd	Los Angeles	CA	90049	V	LA	8.00	7.00

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
61	My Hoa Farm	Han Luong	7165012282 7165013274	5760 Allington Street	Lakewood	5726 Candor St.	Lakewood	CA	90713	R	SG	5.25	2.50
293	N.K. Nursery	Kaz Kitajima	8242016810	780 S. Stimson Ave	City of Industry	780 S. Stimson Ave	City of Industry	CA	91745	GO	IP	2.00	1.00
385	New View Landscape, Inc./Green View Nursery	Michael Stell	2763002900 2763030901 2763001905	18590 Lassen St.	Northridge	24860 Calabasas Rd.	Calabasas	CA	91302	IP	LA	9.31	9.31
386	Green View Nursery/New View Landscape, Inc.	Michael Stell	2731012901	West of Lindley between San Jose and Devonshire	Northridge	17566 Chase St.	Northridge	CA	91325	IP	LA	5.10	5.10
53	New West Growers, Inc.	Grace Hernandez	7318004803	1601 S. Santa Fe Ave	Compton	1413 Kenneth Rd. #227	Glendale	CA	91201	GO	LA	3.50	1.70
54	New West Growers, Inc.	Grace Hernandez	na	110 West Greenleaf	Compton	1413 Kenneth Rd. #227	Glendale	CA	91201	GO	LA	3.00	1.00
117	Nick's Nursery	Nicolas Alvarado	2310006900 2310007900	11800 Roscoe Blvd.	Sun Valley	11800 Roscoe Blvd	Sun Valley	CA	91352	GO	LA	3.25	2.25
397	Nick Williams Nursery	Nick Williams	2161004907	West of Yoland Ave. between Linnet St. and Wells Dr.	Los Angeles	1061 Meadows End Dr.	Calabasas	CA	91302	IP	LA	0.69	0.69
125	Norman's Nursery, Inc.	Nancy Norman	5387037800 5388036800 5388036801 5388038802 5388038803 5388038800 5388038801	1150 E Broadway	San Gabriel	8665 E. Duarte Rd.	San Gabriel	CA	91775	GO	LA	10.40	7.00
129	Norman's Nursery, Inc.	Nancy Norman	5376008800 5376008801 5376008802	8633 Duarte Rd North	San Gabriel	8665 E. Duarte Rd.	San Gabriel	CA	91775	GO	LA	12.49	9.73
131	Norman's Nursery, Inc.	Nancy Norman	5282031901 5282031900 5282028904 5282028902 5282028903	1601 Loma Ave	El Monte	8665 E. Duarte Rd.	San Gabriel	CA	91775	GO	SG	9.13	7.30
132	Norman's Nursery, Inc.	Nancy Norman	5381009815 5381009814 5381009816 5381009817 5381015805	8624 Duarte Rd South	San Gabriel	8665 E. Duarte Rd.	San Gabriel	CA	91775	GO	LA	8.63	6.50
233	Nuccio's Nursery, Inc.	Julius, Tom & Jim Nuccio	5830018003	3555 Chaney Trail	Altadena	3555 Chaney Trail	Altadena	CA	91001	GO	LA	80.00	5.00
135	Okada Nursery, Inc.	Herb Okada	7167034270 7167034801 7167034800 7167033270	6239 Bellflower Blvd	Lakewood	18715 S Western Ave	Gardena	CA	90248	GO	SG	8.00	6.00
362	Oscar Hernandez Nursery	Oscar Hernandez	7165020270	East of Eastbrook Ave. between Ashworth St. and Allington St. Lakewood	Lakewood	10639 Lakefront Dr.	Norwalk	CA	90650	IP	SG	1.84	1.84
313	Pacific View Nursery	Erik Munoz	4467021002 4467021001	29081 Pacific Coast Hwy	Malibu	29081 Pacific Coast Hwy	Malibu	CA	90265	GO	SM	4.76	4.00
272	Paramount Landscape	Cecilio Cabral / Magaly Cabral	2531016801 2530006800	11944 Terra Bella St	Lake View Terrace	9848 Ramona Ave	North Hills	CA	91343	GO	LA	7.00	5.00

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
387	Pascual Aguilar Nursery	Pascual Aguilar	IP	West of Stanford Ave, between Alondra and Flower Ave.	Los Angeles	149 E. 78th St.	Los Angeles	CA	90003	IP	LA	1.18	1.18
141	Performance Nursery, Inc.	Tom Lucas	4151012800 4151013800	2501 Manhattan Beach Boulevard	Redondo Beach	6001 E Los Angeles Avenue	Somis	CA	93066	GO	D	4.78	3.00
136	Peter's Garden Center, Inc.	Peter Serrato / Teresa Serrato	7502006802 7502006803 7502004806 7502004807 7502001803 7502001804 7502001802	814 N. Pacific Coast Hwy	Redondo Beach	814 N. Pacific Coast Hwy.	Redondo Beach	CA	90277	M	SM	2.50	1.00
273	Pierce College	Paul Nieman	2149007902	6201 Winnetka Ave	Woodland Hills	6201 Winnetka Ave	Woodland Hills	CA	91371	M	LA	430.00	200.00
388	Plantasia, Inc.	Alex Colovic	7107002900 7107002272 7107002271 7107001271 7107001270	West of Lakewood Blvd., between Alondra and Flower Ave.	IP	2550 Via Tejon Suite 3F	Palos Verdes	CA	90274	IP	IP	5.57	5.57
314	Plascencia Nursery	Maria Silva	8551011270 8551011271 8556099272	12920 Ramona Blvd	Baldwin Park	PO Box 1952	Temple City	CA	91760	GO	SG	5.00	4.00
294	Premium Trees, LLC / Moon Valley	Cipriano Martinez	5268005801 5268005802	2600 W Lincoln Ave	Montebello	19820 N. 7th St., Suite 260	Phoenix	AZ	85024	GO	SG	16.50	7.00
256	Pro Growers, Inc.	Sal Mora/Juan Perez	6230023801 6230023800	8303 S. Scout Ave	Bell Gardens	8303 S. Scout Ave	Bell Gardens	CA	90201	GO	LA	13.00	8.00
391	RJ's Demolition and Disposal	IP	2604002903	West of San Fernando Rd. between Telfair and Roxford St.	Los Angeles	1213 S. Fir Ave.	Inglewood	CA	90301	IP	LA	5.24	5.24
151	Rainforest Flora Inc.	Jerry Robinson	7522006800	19121 Hawthorne Blvd	Torrance	19121 Hawthorne Blvd.	Torrance	CA	90503	GH	D	5.00	1.00
389	Ramirez Nursery	Guillermo Ramirez	6132005900	570 W. 135th St.	Gardena	570 W. 135th St.	Gardena	CA	90248	IP	D	2.96	2.96
302	Ramirez Strawberry Ranch	Rigoberto Ramirez	7317015805 7317015806	3511 Santa Fe Ave.	Long Beach	2710 Delta Ave	Long Beach	CA	90810	R	IP	2.50	2.00
152	Rancho Escondido Vineyard	George Rosenthal	4464027018 4464027013	Newton Cyn & Kanan Rd	Malibu	Raleigh Enterprises, 100 Wilshire Blvd., 8th Floor	Santa Monica	CA	90401	V	SM	25.00	25.00
230	Rancho Mar LLC	Bob Tobias	4457004048	2800 Malibu Canyon Road	Malibu	1250 4th Street	Santa Monica	CA	90401	M	LA	40.00	5.00
381	Raul Martinez Nursery	Raul Martinez	7339008913	565 189 St.	Gardena	565 189 St.	Gardena	CA	90248	IP	D	1.00	1.00
322	Reyes Winery	Robert Reyes	3213016029	10262 Sierra Hwy	Santa Clarita	1227 Buena Vista #C	Duarte	CA	91010	V	SC	16.00	14.00
56	Ricardo's Nursery	Ricardo Arrivillaga	7116016802 7116016801	6850 Atlantic Ave	Long Beach	6850 Atlantic Ave	Long Beach	CA	90805	GO	LA	9.00	7.00
390	Rio Verde Nursery	Antonio Garcia/Fidel Reyes	6241001270 6241001271	14809 Downey Ave.	Paramount	14809 Downey Ave.	Paramount	CA	90723	IP	LA	3.70	3.70
154	Rolling Hills Nursery	Esteban Villafana / Koji Shimohara	7116001800	6944 Orange Ave	Long Beach	PO Box 789	Paramount	CA	90723	GO	LA	8.00	6.00
392	Roscoe Nursery	Gustavo Ramirez	2305003900 2305002018 2305001900	12741 Cantara St. North Hollywood, CA 91605	North Hollywood	12741 Cantara St. North Hollywood, CA 91605	North Hollywood	CA	91605	IP	LA	1.86	1.86

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
96	Ruiz Nursery	Jose Ruiz	7304024802 7304024801 7304024800 7304012803 7304012804 7304012805 7304012806 7304012807 7304012808 7304012809 7318006801	7045 N. Long Beach Blvd	Long Beach	7045 N. Long Beach Blvd	Long Beach	CA	90805	GO	LA	4.16	2.00
168	S Y Nursery, Inc.	Patty Yasutake	7055008800	19900 S Pioneer Blvd	Cerritos	19900 S. Pioneer Blvd.	Cerritos	CA	90703	GO	SG	6.00	4.75
237	Saddlerock Ranch / The Semler Companies Malibu	Ronald H. Semler	2058016008 2058016022	31727 Mulholland Hwy	Malibu	32111 Mulholland Hwy	Malibu	CA	90265	M	LA	90.00	38.00
158	Sakaida Nursery, Inc.	Mike Gutierrez	5381015802 5381015806 5381015807 5381015808 5381015809	8538-8601 Longden Ave	San Gabriel	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	7.00	6.89
159	Sakaida Nursery, Inc.	Mike Gutierrez	5389005800 5389005803	8626 E Grand Ave	Rosemead	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	4.50	4.00
160	Sakaida Nursery, Inc.	Mike Gutierrez	5381011011	6544 N. Vista Street	San Gabriel	8626 E. Grand Ave.	Rosemead	CA	91770	GO	LA	4.00	3.00
161	Salco Growers	Frank Spina	7165001270 7165001011 7165001271 7165001275 7165001272 7165019270 7165001801 7165001800 7165019800 7165019801 7165019805 7165019804	6236 Bellflower Rd	Lakewood	6236 Bellflower Blvd	Lakewood	CA	90713	C	SG	4.00	2.00
274	SAM Trust- Amalfi Vineyard	Andrea Spencer	4425005032	1515 Amalfi Dr	Pacific Palisades	Breslauer, Rutman and Anderson, 11400 Olympic Blvd, Ste 550	Los Angeles	CA	90064	V	SM	1.00	1.00
315	San Antonio Nursery Corp	Rafael Macias	2538002900 2538003900 2538021901 2538022901 2538023902	11753 Wicks St.	Sun Valley	11753 Wicks St.	Sun Valley	CA	91352	GO	IP	16.10	14.00

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
164	San Gabriel Nursery & Florist	Fred Yoshimura / Mary Swanton	5373028024 5373028025 5373028026 5373028027 5373028028 5373028029 5373028036 5373028009 5373028010 5373028011 5373028012 5373028013 5373028014 5373028015 5373028016 5373028017 5373028018 5373028019 5373028020 5373028021	632 S San Gabriel Blvd	San Gabriel	632 South San Gabriel Blvd.	San Gabriel	CA	91776	M	LA	5.00	4.00
316	Saticoy Nursery	Armando Orozco Torres	IP	IP	North Hollywood	11321 Runnymede St.	Sun Valley	CA	91352	GO	LA	5.00	4.00
399	Saticoy Nursery	Armando Orozco Torres	2307015900 2307015903	West of Laurel Canyon Blvd. between Lull Ave. and Saticoy St.	Los Angeles	11321 Runnymede St.	Sun Valley	CA	91352	IP	LA	1.20	1.20
257	Scarborough Farms	Ann Stein	2068001003	23302 Mulholand Dr	Woodland Hills	PO Box 1267	Oxnard	CA	93032	R	LA	7.00	6.00
134	Sempervirens Botanical Company	John Low	4096001054	18715 S Western Ave	Gardena	18715 S Western Ave	Gardena	CA	90248	C	D	2.00	0.50
45	Shima Nursery	Frank Tsushima / Roger Tsushima	5389006807	8625 Grand Ave	Rosemead	8625 E. Grand Ave	Rosemead	CA	91770	GO	LA	2.90	1.30
258	Shima Nursery	Frank Tsushima / Roger Tsushima	5372020804 5372020801	8521 Valley Blvd.	Rosemead	8625 E. Grand Ave	Rosemead	CA	91770	GO	LA	7.80	5.00
259	Shima Nursery	Frank Tsushima / Roger Tsushima	5371010802	8524 E. Marshall	Rosemead	8625 E. Grand Ave	Rosemead	CA	91770	GO	LA	8.60	6.50
393	Sienna Arborscape Co.	IP	IP	South of Big Tujunga Canyon Rd. and North of Mt. Gleason Ave.	Los Angeles	3115 Foothill Blvd. Suite M140	La Crescenta	CA	91214	IP	LA	3.93	3.93
394	Soto Nursery	IP	6120023910 6120023908	600 W. Alondra Blvd.	Gardena 90248	1058 W. 204th St.	Torrance	CA	90502	IP	D	2.02	2.02
57	Specialized Growers	Reuben Valdez	6385005800 6385005801 6385016800 6385016801	8406 Pico Vista Dr.	Pico Rivera	8406 Pico Vista Dr.	Pico Rivera	CA	90660	GO	SG	2.70	1.50
317	Starline Nursery Company	David Mejia	8558023800 8558023801 8558023802	1233 Vineland Ave	La Puente	PO Box 1000	La Puente	CA	91747	GO	SG	4.00	3.50
318	Starline Nursery Company	David Mejia	IP	16505 Colima Rd	Hacienda Heights	PO Box 1000	La Puente	CA	91747	GO	SG	2.50	2.00
142	Sunflower Farms	Ron Akiyama	4096005007 4096005800	17609 S. Western Ave.	Gardena	17609 S Western Avenue	Gardena	CA	90247	F	D	4.00	3.50

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
319	Sunshine Food & Nursery	Kevin Wong	5288003801 5288003802 5288003800	8500 Dorothy St.	Rosemead	8500 Dorothy St.	Rosemead	CA	91770	GO	SG	6.50	5.00
395	Tops Landscape Co.	Yun Kong	IP	18809 Calvert St.	Reseda	18809 Calvert St.	Reseda	CA	91335	IP	LA	5.64	5.64
295	Torrance Wholesale Nursery	Margaret Edelman	4089016802	18901 Ermanita Ave	Torrance	18901 Ermanita Ave.	Torrance	CA	90504	GO	D	2.00	1.87
260	Triunfo Canyon Vineyards	Laura Gilbard	2063002092	3030 Triunfo Canyon Rd	Agoura	3030 Triunfo Canyon Rd	Agoura	CA	91301	V	SM	10.00	1.25
171	T-Y Nursery, Inc.	Terry Yasutake	7521012800 7521001802 7522006800 7520009801	Between Firmona Ave. / N. Beryl St.	Torrance	5221 Arvada Street	Torrance	CA	90503	GO	SM	21.25	13.50
176	T-Y Nursery, Inc.	Terry Yasutake	7502012800 7502008804 7502008802 7502008805 7502008800 7502013800	Between Flagler Ln. / N. Paulina Ave.	Redondo Beach	5221 Arvada Street	Torrance	CA	90503	GO	SM	12.00	7.50
178	Ultra Greens Nursery	Michael Lentz	2525001802 2525001801 2525001800	13102 Maclay Street	Sylmar	P O Box 922259	Sylmar	CA	91392	GO	LA	10.00	8.50
179	Ultra Greens Nursery	Michael Lentz	2504009800	14025 Polk Street	Sylmar	P O Box 922259	Sylmar	CA	91392	GO	LA	1.50	1.23
297	UVA Nursery	Alberto Gomez / Ariana Gutierrez	7339009901 7339009272	19033 Anelo Ave	Gardena	17516 Scudder Ct.	Carson	CA	90746	GO	D	2.00	1.50
299	V & N Nursery	Jose Uribe	2126014900 2126015902	18841 Hart St	Reseda	3948 Sepulveda Blvd.	Culver City	CA	90230	GO	LA	3.00	1.50
320	Valley Crest Tree Company	Robert Crudup	2548001011	9500 Foothill Blvd	Sunland	3200 West Telegraph Rd.	Fillmore	CA	93015	GO	LA	1.00	0.50
184	Valley Sod Farm, Inc.	Dan Gibson	2689002910 2689002909	16405 Chase Street	North Hills	16405 Chase Street	North Hills	CA	91343	S	LA	36.00	36.00
149	Vargas Nursery	Oscar Vargas/ Reuben Vargas	7162001274	17020 Passage Ave	Bellflower	3925 E. Elizabeth St	Compton	CA	90221	GO	SG	1.75	1.75
382	Victor Martinez Nursery	Victor Martinez	6242033006	13933 Paramount Blvd.	Paramount	13933 Paramount Blvd.	Paramount	CA	90723	IP	LA	1.88	1.88
298	Vineland Growers Nursery	Fidel Montenegro/ Gaby Ruiz	2414003902 2414003901	6200 Vineland Ave	North Hollywood	6200 Vineland Ave	North Hollywood	CA	91606	GO	IP	5.00	2.00
396	Wendy's Nursery	Juan Ramirez	IP	West of Laurel Canyon Blvd. between Saticoy and Cohasset	Los Angeles	PO Box 4916	Panorama City	CA	91412	IP	LA	1.70	1.70
187	West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	8666021902 8666021904	2820 Amherst Ave	La Verne	P. O. Box 8046	La Verne	CA	91750	GO	SG	5.00	4.50
188	West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	8378022910	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

NGA #	OWNER/ TENANT	OPERATOR/ CONTACT	PARCEL			MAILING				CROP TYPE	Watershed	ACREAGE	
			APN	ADDRESS	CITY	ADDRESS	CITY	STATE	ZIP			TOTAL	IRRIGATED
190	West Covina Wholesale Nursery	Dave Zylstra / Mark Barrios / Olegario Gonzalez	5386015800 5386015801 5386015802 5386015803 5387004801 5387004800 5387004802 5387004803	5820 Burton Ave.	San Gabriel	P. O. Box 8046	La Verne	CA	91750	GO	LA	15.00	15.00
95	Wilmington Nursery	Rodrigo Ramirez (New Owner)	7404034900	898 Deloras Drive	Wilmington	898 E Deloras Drive	Carson	CA	90745	GO	D	3.50	2.50
232	Wish Vineyard LLC	Susan Hayes	2049006031	25045 Jim Bridger Rd	Hidden Hills	25045 Jim Bridger Rd	Hidden Hills	CA	93102	V	LA	0.66	0.66
204	Worldwide Exotics Inc.	Shelly Jennings	2528025800	11157 Orcas Avenue	Lake View bTerrace	10260 Arnwood Rd.	Lake View Terrace	CA	91342	GO	LA	6.00	2.00
238	Zuma Canyon Orchids	George Vasquez	4467024003	5949 Bonsall Drive	Malibu	5949 Bonsall Dr.	Malibu	CA	90265	GH	LA	3.89	0.20

TOTALS

271 **4443.66** **1852.74**

IP In Progress - still gathering information

Watersheds:		**# Operations**	**Irrigated Acres**
D	Dominguez Channel LA/Long Beach Harbors WMA	57	171.85
LA	Los Angeles River Watershed	129	761.62
SC	Santa Clara River Watershed	6	284
SG	San Gabriel River Watershed	43	502.67
SM	Santa Monica WMA	16	65.97
SA	Santa Anna River Watershed (Located in the Santa Ana Region)	1	3
IP	In Progress	19	63.63
		271	1852.74

Crop Type:		**# Operations**	**Irrigated Acres**
F	Cutflower	3	5.95
GO	Ornamental	130	545.34
C	Color Plants	12	71.6
V	Vineyard	20	142.56
GH	Greenhouse	5	5.25
O	Orchard	2	18
S	Sod	1	36
M	Multiple	11	794
R	Row Crop	8	22.3
IP	In Progress	79	211.74
		271	1852.74

APPENDIX B

TABULATED DATA, CURRENT AND HISTORICAL SAMPLING RESULTS

LIST OF SITE VISITS AND COLLECTED SAMPLES
NURSERY GROWERS ASSOCIATION
LOS ANGELES COUNTY IRRIGATED LANDS GROUP

	OWNER/TENANT	NGA #	PROPERTY ADDRESS	ACREAGE (Irrigated)	CWIL Order # R4-2005-0080												CWIL Order # R4-2010-0186																CONTINUATION, CWIL				CWIL Order # R4-2016-0143			
					YEAR 1 [1]				YEAR 2 [2]				YEAR 3		YEAR 4		Interim Sampling Event [3]	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 1, Interim Locations			
					Dry Season		Wet Season		Dry Season		Wet Season		Dry Season	Wet Season	Dry Season	Wet Season		Dry Season		Wet Season		Dry Season		Wet Season [6]		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	March 2011	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	Event #1	Event #2	Event #1	Event #2
GROUP 1	Boething Treeland Farms, Inc.	19	23475 Long Valley Road, Woodland Hills	14.68	**8/13/07**	9/25/07	**12/18/07**	**1/5/08**	**8/12/08**	9/23/08	**11/26/08**	12/15/08	10/12/09	ns*	8/19/10	ns*	**3/23/11**	10/11/11							nv			**2/28/14**			10/7/14				9/30/15				9/2/16		IP	IP
	Norman's Nsy-Broadway	124/125	8550 E Broadway, San Gabriel	7.00	**8/13/07**	9/24/07	**12/7/07**	**1/5/08**	8/12/08	9/24/08	**11/26/08**	**12/15/08**	10/12/09	ns*	8/18/10	ns*	**3/21/11**	10/11/11							nv			**2/28/14**			10/7/14				9/30/15					9/20/16	IP	IP
	Ultra Greens	178	Site not included as a sampling location.	8.50							11/26/08	**12/15/08**	10/12/09	ns*	8/17/10	ns*		10/11/11							nv			**2/28/14**			10/7/14				9/30/15					9/20/16	IP	IP
	Valley Sod Farms, Inc.	184	Site not included as a sampling location.	36.00							**11/26/08**	**12/15/08**	10/12/09	ns*	8/17/10	ns*		10/11/11							nv			**2/28/14**			10/7/14				9/30/15					9/20/16	IP	IP
GROUP 2	Acosta Growers Inc.	11	Site not included as a sampling location.	7.50														Rotating Site				8/28/12							nv		12/2/14			10/2/15						IP	IP
	M Downard-Rainbow Garden Nursery	110	1132 S Grand Avenue, Glendora	3.75	8/8/07	9/25/07	**1/4/08**	ns[4]	8/12/08	9/23/08	11/26/08	**12/15/08**	10/11/09	ns*	8/18/10	ns*			10/12/11			8/28/12							nv		12/2/14			10/2/15						IP	IP
	R Wilson-Colorama Wholesale Nursery	150	1025 N. Todd Avenue, Azusa	15.30	8/8/07	**9/25/07**	**12/7/07**	ns[4]	8/12/08	9/23/08	**11/26/08**	**12/15/08**	10/12/09	ns*	8/18/10	ns*	**3/21/11**		10/12/11			8/28/12							nv		**12/2/14**			10/2/15					9/20/16	IP	IP
	West Covina Wholesale-Damien	189	3424 Damien Ave, La Verne	1.25	8/8/07	9/25/07	**1/4/08**	ns[4]	8/12/08	9/23/08	11/26/08	**12/15/08**	10/12/09	ns*	8/18/10	ns*			10/12/11			8/28/12							nv		12/2/14			10/2/15						IP	IP
GROUP 3	Coiner Nursery	31	285 San Fidel, La Puente	48.00	8/21/07	9/28/07	ns[4]	ns[4]	8/12/08	**9/23/08**	**11/26/08**	**12/15/08**	10/12/09	ns*	8/18/10	ns*				**3/17/12**			9/26/12			10/10/13		**2/28/14**[5]					5/15/15			1/15/16				IP	IP
	H&H Nursery of Lakewood	64	6220 Lakewood Boulevard, Lakewood	2.50	8/21/07	9/28/07	**1/23/08**	ns[4]	8/12/08	9/25/08	11/26/08	**12/15/08**	10/13/09	ns*	8/17/10	ns*				**3/17/12**			9/26/12			10/10/13							5/15/15			**1/15/16**				IP	IP
	Centeno's Nursery and Landscaping	81	Site not included as a sampling location.	3.00																						10/10/13							5/15/15			1/15/16				IP	IP
	SY Nursery Inc.	168	19900 S Pioneer Blvd, Cerritos	4.75	**8/13/07**	**9/28/07**	**11/30/07**	**1/25/08**	8/12/08	9/24/08	11/26/08	**12/15/08**	10/13/09	ns*	8/17/10	ns*				**3/17/12**			9/26/12			10/10/13							**5/15/15**			**1/15/16**			9/2/16		IP	IP
GROUP 4	ABC Nursery, Inc.	4	424 E. Gardena Boulevard, Gardena	11.51	8/9/07	9/24/07	**12/7/07**	**1/23/08**	**8/13/08**	9/24/08	11/26/08	**12/15/08**	10/12/09	ns*	8/17/10	ns*	**3/21/11**				**3/25/12**			1/25/13			10/11/13				10/8/14						nv		9/2/16		IP	IP
	G Hernandez-New Westgrowers	53	1601 S. Santa Fe Ave, Compton	1.70	8/9/07	9/24/07	**12/18/07**	**1/23/08**	8/12/08	9/24/08	11/26/08	12/15/08	10/13/09	ns*	8/17/10	ns*					3/25/12			1/25/13			10/11/13				10/8/14						nv				IP	IP
	T-Y Nursery	176	Between Paulina/Prospect, Redondo Beach	7.50	8/9/07	9/24/07	**12/18/07**	ns[4]	8/13/08	9/24/08	11/26/08	12/15/08	10/13/09	ns*	8/17/10	ns*					**3/25/12**						10/11/13				10/8/14						nv		9/2/16		IP	IP
	Church Estate Vinyard	210	6415 Busch Drive, Malibu	2.75	Site not included as a sampling location.						**11/26/08**	12/15/08	10/13/09	ns*	8/19/10	ns*					**3/25/12**						10/11/13				10/8/14						nv				IP	IP
ROTATING SAMPLE SITES	Canyon Way Nursery	26	11745 Sherman Way, Studio City	4.25	Site not included as a sampling location.																						**2/28/14**												IP	IP
	Color Spot Nurseries, Inc.	33	321 W. Sepulveda Blvd., Carson	18.50	Site not included as a sampling location.																					10/11/13														IP	IP
	Carreon Nursery	50	7900 La Merced Road, Rosemead	6.00	Site not included as a sampling location.																	9/26/12																	IP	IP
	Live Art Plantscapes, Inc.	105	18809 Plummer St, Northridge	1.80	Site not included as a sampling location.													10/11/11																						IP	IP
	Sakaida Nursery	158	8601 Longden Ave., San Gabriel	6.89	Site not included as a sampling location.																									10/17/14									9/20/16	IP	IP
	West Covina Wholesale-Damien	188	1340 Puddingstone Dr., La Verne	15.25	Site not included as a sampling location.																											**12/2/14**								IP	IP
	El Nativo Growers	202	200 S. Peckham Azusa, CA	7.00	Site not included as a sampling location.																																		9/2/16		IP	IP
	Worldwide Exotics	204	11157 Orcas Ave., Lake Terrace	2.00	Site not included as a sampling location.																																9/30/15				IP	IP
	Lam Farms	212	8600 Jefferson, Paramount	1.00	Site not included as a sampling location.																																		1/15/16		IP	IP
	Choji Matsishita	226	724 N. Cataract Av., San Dimas	1.70	Site not included as a sampling location.																																		10/2/15		IP	IP
	ABC Rhubarb	261	6208 Clara St., Bell Gardens	5.00	Site not included as a sampling location.																																			5/15/15	IP	IP
DISCONTINUED SAMPLING SITES	Acosta Growers Inc.	13	16412 Wedgeworth Dr, Hacienda Hights	4.50	8/8/07	9/24/07	**12/18/07**	ns[4]	8/13/08	9/24/08	11/26/08	12/15/08	10/12/09	ns*	8/18/10	ns*			10/12/11			8/28/12				Site no longer in operation.															IP	IP
	Brothers Nursery, Inc.	20	Cerritos & Newburgh St, Azusa	2.98	Site not included as a sampling location.														10/12/11							Site no longer in operation.														IP	IP
	Carlos Soto, Jr^	25	600 W. Alondra Blvd, Gardena	3.50	8/9/07	9/24/07	ns[4]	ns[4]	8/13/08	9/25/08	**11/26/08**	12/15/08	10/11/09	ns*	8/19/10	ns*		Site no longer in operation.																								IP	IP
	Norman's Nursery-Ramona	122	12500 Ramona Blvd, Baldwin Park	39.93	Site not included as a sampling location.															3/17/12			9/26/12			Site no longer in operation.														IP	IP
	Norman's Nsy-Rosemead^	130	475 Rosemead Blvd, S. El Monte	16.56	**8/6/07**	9/24/07	**12/7/07**	**1/24/08**	8/13/08	9/24/08	**11/26/08**	**12/15/08**	10/13/09	ns*	8/19/10	ns*		Site no longer in operation.																								IP	IP
	San Gabriel Nursery & Florist	162	2015 Potrero Grande, Monterey Park	6.00	Site not included as a sampling location.															**3/17/12**						10/10/13										Lot Sold				IP	IP
	Toro Nursery Inc.	170	17585 Crenshaw Blvd, Torrance	15.78	Site not included as a sampling location.																**3/25/12**			1/25/13												Unknown				IP	IP
	Valley Crest Tree Company ^	182	16202 Yarnell St. and 16222 Filbert St, Sylmar	16.00	8/21/07	9/25/07	**12/7/07**	**1/24/08**	Site no longer in operation.																																IP	IP
	Valley Sod Farms, Inc. ^	183	6301 Balboa Boulevard, Encino	60.00	**8/6/07**	**9/26/07**	**12/18/07**	**1/5/08**	Site no longer in operation.																																IP	IP
	Malibu Vineyard	221	3222 Rambla Pacifica, Malibu	2.00	Site not included as a sampling location.																																				IP	IP
	Schoelkopf Vineyard^	224	31499 Pacific Coast Highway, Malibu	0.80	Site not included as a sampling location.				11/26/08	12/15/08	10/11/09	ns*	8/19/10	ns*				Site no longer in operation.																								IP	IP
	ABC Rhubarb	261	6208 Clara St., Bell Gardens	5.00	Site not included as a sampling location.																																			5/15/15	Site no longer in operation.		IP	IP

ns Not sampled due to minimal rainfall and/or no runoff observed during sampling event.

Sample Collected

* No sampling activities were conducted

nv Not visited, no storm event sufficient to trigger sampling.

IP In Progress

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.

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.

4 Site visited on multiple dates during multiple storms

5 Sample collected for Council of Watershed Health

6 Event #1 aborted early due to lack of rain

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	3/21/11	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	3/21/11	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-NGA 150-5	3/21/11	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	3/23/11	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	3/21/11	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	3/21/11	nd	nd	2.0	nd	nd	nd	nd	2.0	nd	nd	0.37	0.15	0.0028
Field Blank	LAILG-NGA- FB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	nd	nd	nd O9	nd	nd	nd	nd	nd O9	nd	nd	nd	nd	0.00073
Field Blank	LAILG-NGA- FB	3/17/12	nd	nd	nd O9	nd	nd	nd	nd	nd O9	nd	nd	nd	nd	0.00050
NGA #4	LAILG-NGA4-6	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/12	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	2/28/14	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	2/28/14	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	2/28/14	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	2/28/14	0.87	**120**	2.200**	**10**	**370**	2.4	**940**	2.2**	3.6	270	324	130	0.030
NGA #184	LAILG-NGA184-3	2/28/14	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	2/28/14	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	2/28/14	<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	2/28/14	<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
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
** 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.
MRL Method Reporting Limit

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	12/2/14	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	12/2/14	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	12/2/14	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	5/15/15	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	12/2/14	<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	12/2/14	<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
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
** 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.
MRL Method Reporting Limit

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	1/5/16	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	1/5/16	0.36	41	0.32	**15**	160	0.45	410	0.32	0.80	140	162	64.9	0.036
Duplicate	LAILG-NGA-DUP	1/5/16	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	1/5/16	<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	1/5/16	<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
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
** 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.
MRL Method Reporting Limit

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	8/6/07	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	8/6/07	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	8/13/07	1	108.57	2.2882	**10.84**	118.85	2.68	**772**	4.62	5.09	568
NGA #124	NGA-#124-LAILG-1	8/13/07	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	8/13/07	0.4	81.85	1.977	4.93	131.16	2.28	**664**	2.13	3.243	122
NGA BLANK	NGA LAILG-BLANK-1	8/13/07	0.04[J]	nd	nd	nd	nd	nd	32	nd	nd	nd
NGA FBLI	NGA-LAILG-FBLI	8/21/07	0.01[J]	nd	nd	0.016[J]	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/07	**52.4**	95.9	26.84	**355.6**	87	22.5	**2279**	23	24	57
NGA #183	ILG-#183	9/26/07	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]
GA #183-DU	ILGNGA-#Dup	9/26/07	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	9/26/07	nd	nd	nd	nd	nd	nd	5	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/07	2.2	172.52	1.582[C]	8.91	340.14[E]	2.15	**1,297**	3.51	5.379	504
NGA #168	NGA-#168-LAILG-3	11/30/07	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	12/7/07	0.4	**60.71**	1.7533	**19.85**	**159.87**[F]	1.52	**456**	1.41	1.554	20.3
GA #182-DU	NGA-Duplicate	12/7/07	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	12/7/07	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	12/7/07	0.3	**162.95**	1.0247	**26.16**	190[F]	0.91	**830**	0.74	0.94	51
NGA #150	NGA #150-LAILG-2	12/7/07	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	12/7/07	4.6	33.03	3.9247	**45.41**	59.24[F]	2.9	**550**	2.76	3.168	90
NGA #EQUIP	NGA-equip blank	12/7/07	nd	nd	nd	nd	1.13	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/07	nd	nd	nd	nd	nd	nd	6	nd	nd	nd
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
NGA #183	LAILG-NGA#183-3	12/18/07	1.95	28.41	2.344	**11.37**	41.11	2.78	292	3.14	3.561	92
NGA #19	LAILG-NGA#19-2	12/18/07	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	12/18/07	1.6	5.46	0.2033	1.72	32.27	0.49	32	1.44	2.878	944
NGA #53	LAILG-NGA#53-1	12/18/07	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

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	1/4/08	0.41	10.65	1.3052	2.36	18.22	1.74	162	1.81	2.033	24
NGA #189	LAILG-NGA189-1	1/4/08	0.59	7.29	0.6851	1.83	26.43	1.33	192	1.8	2.475	20
NGA #19	LAILG-NGA19-3	1/5/08	0.12	**157.52**	0.2125	0.44	**451.78**	0.96	**1,030**	1.26	1.173	84
NGA #124	LAILG-NGA124-3	1/5/08	15.5	28.3	0.9814	**28.34**[Q1]	57.68	1.66	378	1.66	2.228	40
NGA #183	LAILG-NGA183-4	1/5/08	0.73	5.82	1.0874	1.4	6.36	0.23	106	1.29	1.729	510
NGA #4	LAILG-NGA4-2	1/23/08	0.24	1.45	0.1891	0.6	3.87	0.15	145	0.26	1.848	27
NGA #53	LAILG-NGA53-2	1/23/08	0.31	2.19	0.6425	0.76	14.92	0.82	nd	0.68	1.993	516
NGA #64	LAILG-NGA64-1	1/23/08	0.20	3.82	0.2818	3.83	101.1	0.3	nd	0.46	0.393	76
NGA #130	LAILG-NGA130-3	1/24/08	0.15	58.12	0.264	3.64	107.65	0.26	383	0.27	0.314	16
NGA #182	LAILG-NGA182-2	1/24/08	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	1/25/08	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	8/12/08	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	8/13/08	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	8/13/08	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	9/23/08	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	9/23/08	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	11/26/08	0.96	115.72	1.507	**26.94**	126.35	1.356	748	4.69	4.884	995
NGA # 210	LAILG-NGA 210-1	11/26/08	0.11	155.92	1.892	0.92	**336.78**	2.185	**884**	3.23	3.722	542
NGA # 184	LAILG-NGA 184-1	11/26/08	0.46	31.44	0.609	3.12	17.92	0.643	206[FB]	0.88	1.3	129.5
Duplicate	LAILG-NGA-DUP	11/26/08	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	11/26/08	0.48	37.78	2.595	**28.36**	84.22	2.975	568	2.53	3.297	117
NGA # 31	LAILG-NGA 31-2	11/26/08	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	11/26/08	0.68	95.81	0.228	**9.17**	183.82	0.652	616	0.8	1.046	97
NGA # 150	LAILG-NGA 150-3	11/26/08	**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	11/26/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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	12/15/08	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

CWIL	Conditional waiver for irrigated lands	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		
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.	Q1	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration.
M3	Detection of the analyte was difficult due to matrix interference.		

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	1/5/16	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #168	LAILG-NGA-168-8	1/5/16	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Duplicate	LAILG-NGA-DUP	1/5/16	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	1/5/16	<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	1/5/16	<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, order #R4-2005-0080
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	12/2/14	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
NGA #188	LAILG-NGA-188-1	12/2/14	<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	12/2/14	<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	5/15/15	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	12/2/14	<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	12/2/14	<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, order #R4-2005-0080
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	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #26	LAILG-NGA26-1	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #124	LAILG-NGA124-7	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #178	LAILG-NGA178-2	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
NGA #184	LAILG-NGA184-3	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Duplicate	LAILG-NGA-DUP	2/28/14	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Equip Blank	LAILG-NGA-EB	2/28/14	<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	2/28/14	<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, order #R4-2005-0080
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	3/21/11	nd	nd	nd	nd	**17**	**21**	nd	nd	nd	nd	nd	**13**	**18**	nd	nd	nd	nd
NGA #124	LAILG-NGA124-6	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**33**[FD]	nd	nd	nd
NGA # 150	LAILG-NGA 150-5	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA19-6	3/23/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**22**	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
NGA #31	LAILG-NGA31-4	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
NGA #162	LAILG-NGA162-1	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
NGA #64	LAILG-NGA64-3	3/17/12	nd	nd	nd	nd	**28**[FD]	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
Duplicate	LAILG-NGA-DUP	3/17/12	nd	nd	nd	nd	**51**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
Equip Blank	LAILG-NGA-EB	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
Field Blank	LAILG-NGA- FB	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[BSL]	nd
NGA #4	LAILG-NGA4-6	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #170	LAILG-NGA170-1	3/25/12	nd	nd	nd	nd	**9.6**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA176-2	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #210	LAILG-NGA210-2	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/12	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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080
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

S4	The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect.
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.
BS-L	The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.

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	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA189-1	1/4/08	nd	nd	nd	nd	**22.5**	nd	nd	nd	nd	nd	nd	nd	6	nd	nd	nd	nd
NGA #19	LAILG-NGA19-3	1/5/08	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	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA183-4	1/5/08	nd	nd	nd	**12**	**26.5**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA53-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-1	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA130-3	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182	LAILG-NGA182-2	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-4	1/25/08	nd	nd	nd	nd	**19.2**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/08	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	8/13/08	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	8/13/08	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	9/23/08	nd	nd	nd	nd	**13.5**	nd	nd	nd	nd	nd	nd	nd	7.6[FD]	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	9/23/08	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	11/26/08	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	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/08	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	11/26/08	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	11/26/08	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	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/08	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	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/08	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	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/08	nd	nd	nd	**6.2**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/08	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	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/08	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	12/15/08	nd	nd	nd	nd	nd[FD]	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/08	nd	nd	nd	nd	**43.3**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/08	nd	nd	nd	nd	**11.8**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-4	12/15/08	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 estim

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
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

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.

Q3 RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL.

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 spe

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	8/6/07	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	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-1	8/13/07	nd	nd	nd	**22.5**	**15.3**	**13.7**	nd	nd	nd	nd	nd	nd	nd	12.1	nd	nd	nd
NGA #168	NGA-#168-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLI	NGA-LAILG-FBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/07	nd	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	ILG-#183	9/26/07	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	9/26/07	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	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/07	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	11/30/07	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	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182-DUP	NGA-Duplicate	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	NGA #4-LAILG-1	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	NGA #130-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA #150-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	**35.2**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-2	12/7/07	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	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA#176-1	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA#183-3	12/18/07	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	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #13	LAILG-NGA#13-1	12/18/07	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	12/18/07	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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	MDL	Method Detection Limits
A	Component of total chlordane, see total chlordane for CWIL limitations	RL	Reporting Limits
B	**Estimated concentration, RPD of duplicate sample >25%**	nd	not detected
C	Procedural blank Matrix Spike recovery out of limits	nl	not listed
D	Procedural blank Matrix Spike Duplicate RPD out of limits	na	not analyzed
J	Estimated concentrations, results above MDL but less than RL		

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	1/5/16	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #168	LAILG-NGA-168-1	1/5/16	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Duplicate	LAILG-NGA-DUP	1/5/16	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	1/5/16	<100	<5.0	<5.0	<100	**68**	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	
Field Blank	LAILG-NGA-FB	1/5/16	<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, order #R4-2005-0080	M-04	Due to the nature of marix interfrenences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
WQB	Water Quality Benchmarks		
MRL	Method Reporting Limits		
nl	not listed		

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	12/2/14	<1000	<50	<50	<1000	<50	<50	<50	<50	<5000	<50	<50	<50	M-04
NGA #188	LAILG-NGA-188-1	12/2/14	<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	12/2/14	<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	5/15/15	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	12/2/14	<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	12/2/14	<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, order #R4-2005-0080	M-04	Due to the nature of marix interfrenences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
WQB	Water Quality Benchmarks		
MRL	Method Reporting Limits		
nl	not listed		

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	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #26	LAILG-NGA26-1	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #124	LAILG-NGA124-7	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #178	LAILG-NGA178-2	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
NGA #184	LAILG-NGA184-3	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Duplicate	LAILG-NGA-DUP	2/28/14	<500	<25	<25	<500	<25	<25	<25	<25	<2500	<25	<25	<25	M-04
Equip Blank	LAILG-NGA-EB	2/28/14	<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	2/28/14	<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, order #R4-2005-0080
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										
			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	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.6	**39.6**
NGA #124	LAILG-NGA#124-3	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA#19-2	3/23/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-6	3/17/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
NGA #31	LAILG-NGA31-4	3/17/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
NGA #162	LAILG-NGA162-1	3/17/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-3	3/17/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/17/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-6	3/25/12	nd	nd	nd	nd[SGC]	nd	nd	nd	nd	nd	nd	nd
NGA #170	LAILG-NGA170-1	3/25/12	nd	nd	nd	nd[SGC]	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA176-2	3/25/12	nd	nd	nd	nd[SGC]	nd	nd	nd	nd	nd	nd	nd
NGA #210	LAILG-NGA210-2	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	3/25/12	nd	nd	nd	nd[S4]	nd	nd	nd	nd	nd	nd	nd
Equip Blank	LAILG-NGA-EB	3/25/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Field Blank	LAILG-NGA- FB	3/25/12	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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	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	Oxychlordane	Perthane	Toxaphene	trans-Nonachlor	Total Chlordane
NGA #110	LAILG-NGA#110-1	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA#189-1	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.9	**14.9**
NGA #19	LAILG-NGA#19-2	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	14	**16.3**
NGA #124	LAILG-NGA#124-3	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	17.1	**17.1**
NGA #183	LAILG-NGA#183-4	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA#4-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA#53-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA#64-1	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA#130-3	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182	LAILG-NGA#182-2	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA#168-4	1/25/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/08	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	8/13/08	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd	nd[M4]	nd	nd	nd	nd[M4]	nd[M4]	nd	7.1[M4,Q2,FD]	**38.8**
Duplicate	LAILG-NGA-DUP	8/13/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	27[FD]	**124.4**
NGA # 31	LAILG-NGA 31-1	9/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	7.6	**15.2**
Duplicate	LAILG-NGA-DUP	9/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.5	**20.1**
NGA # 19	LAILG-NGA 19-5	11/26/08	nd	nd	nd	nd	nd	339.4[Q3]	nd	nd	nd	nd	nd	nd	nd	nd	6.6[J,Q3]	**20.2[J]**
NGA # 210	LAILG-NGA 210-1	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/08	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	11/26/08	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	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/08	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	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/08	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	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**4.2[J]**
NGA # 130	LAILG-NGA 130-5	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/08	nd	nd[M4]	nd[M4]	nd	nd	nd	nd	nd	nd[M4]	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**666**	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-4	12/15/08	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 estim

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
MDL Method Detection Limits
J Estimated concentrations, results above MDL but less than RL
RL Reporting Limits
nd not detected
nl not listed
FD Estimated concentration. Field Duplicate RPD >25%.

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.

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

Q3 RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL.

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 spe

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	Oxychlordane	Perthane	Toxaphene	trans-Nonachlor	Total Chlordane
NGA #130	NGA-#130-LAILG-1	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd
NGA #183	NGA-#183-LAILG-1	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	21.9	**34**
NGA #168	NGA-#168-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLI	NGA-LAILG-FBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd[D]	nd	nd	nd	nd
NGA #183	ILG-#183	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd[D]	nd	nd	nd	nd
NGA #183-DUP	ILGNGA-#Dup	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd[D]	nd	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd[D]	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-3	11/30/07	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	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182-DUP	NGA-Duplicate	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	NGA #4-LAILG-1	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	NGA #130-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA #150-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	7.3	**11.4**
NGA #EQUIP	NGA-equip blank	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	LAILG-NGA#176-1	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[C]	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA#183-3	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd[C]	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA#19-2	12/18/07	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	12/18/07	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	12/18/07	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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080	MDL	Method Detection Limits
A	Component of total chlordane, see total chlordane for CWIL limitations	RL	Reporting Limits
B	**Estimated concentration, RPD of duplicate sample >25%**	nd	not detected
C	Procedural blank Matrix Spike recovery out of limits	nl	not listed
D	Procedural blank Matrix Spike Duplicate RPD out of limits	na	not analyzed
J	Estimated concentrations, results above MDL but less than RL		

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 parathior	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	Trichloronate	
NGA #64	LAILG-NGA-64-4	1/5/16	<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-168-8	1/5/16	<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	1/5/16	<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	1/5/16	<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	1/5/16	<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	10.0	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

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 parathior	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	Trichloronate	
NGA #150	LAILG-NGA-150-6	12/2/14	<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	12/2/14	<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	12/2/14	<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	5/15/15	<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	12/2/14	<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	12/2/14	<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	10.0	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

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	Trichloronate	
NGA #19	LAILG-NGA19-7	2/28/14	<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	2/28/14	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	23	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #124	LAILG-NGA124-7	2/28/14	<10	<10	17	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	<10	<10	<10	<10	<10	<10	<10	<10	<10	
NGA #178	LAILG-NGA178-2	2/28/14	<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	2/28/14	<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	2/28/14	<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	2/28/14	<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	2/28/14	<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

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	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Naled	Phorate	Ronnel	Stirophos	Tokuthion	Trichloronate	
NGA #4	LAILG-NGA4-5	3/21/11	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	3/21/11	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-NGA 150-5	3/21/11	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	3/23/11	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	3/21/11	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	3/21/11	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	3/21/11	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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	3/25/12	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[(1)]	nl	nl	nl	nl	
MDL			5.5	4.6	6.9	5.1	10	10	5.2	2.9	6.2	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

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	Fenchlorphos	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Phorate	Tetrachlorvinphos	Tokuthion	Trichloronate
NGA #110	LAILG-NGA110-1	1/4/08	nd	**88.5**	nd	**534.8**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA189-1	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA19-3	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	LAILG-NGA124-3	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA183-4	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-2	1/23/08	nd	**153.8**	nd	**2,212.1**	nd	nd	nd	nd	nd	nd	nd	**15,453.2**	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA53-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-1	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA130-3	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182	LAILG-NGA182-2	1/24/08	nd	nd	nd	nd	nd	13.3	nd	nd	nd	nd	nd	19.9	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-4	1/25/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-3	8/13/08	nd[M4]	nd[M4]	nd[M4]	**6,058.9**[Q1,Q2,FD]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	**1,148,630**[Q1]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]	nd[M4]
Duplicate	LAILG-NGA-DUP	8/13/08	nd	nd	nd	**13586.8**[FD]	nd	nd	nd	nd	nd	nd	nd	**1,117,145**	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-1	9/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	9/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA 19-5	11/26/08	nd	**130.1**	nd	32.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 210	LAILG-NGA 210-1	11/26/08	nd	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	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-2	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-4	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 150	LAILG-NGA 150-4	12/15/08	nd	**90.2**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/08	nd	21	nd	98.5	nd	nd	nd	nd	nd	nd	nd	**85.3**	nd	nd	nd	nd	nd	nd	nd
NGA # 189	LAILG-NGA 189-2	12/15/08	nd	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	12/15/08	nd	nd	nd	79.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/08	nd	**44.5**	nd	nd	nd	nd	nd	nd	nd	nd	nd	**3,433.9**	nd	nd	nd	nd	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 130	LAILG-NGA 130-5	12/15/08	nd	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	12/15/08	nd	nd	nd	nd	nd	nd	nd[M4]	nd	nd	nd[M4]	nd	nd	nd	nd	nd	nd	nd[M4]	nd	nd
Duplicate	LAILG-NGA-DUP	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/08	nd	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	12/15/08	nd	**590.9**	nd	**859**	nd	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	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

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

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	Fenchlorphos	Fensulfothion	Fenthion	Malathion	Merphos	Methyl Parathion	Mevinphos	Phorate	Tetrachlorvinphos	Tokuthion	Trichloronate
NGA #130	NGA-#130-LAILG-1	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	NGA-#183-LAILG-1	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLI	NGA-LAILG-FBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/07	nd	nd	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd[D]	nd	nd	nd
NGA #183	ILG-#183	9/26/07	nd	nd	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd[D]	nd	nd	nd
NGA #183-DU	ILGNGA-#Dup	9/26/07	nd	nd	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd[D]	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/07	nd	nd	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd	nd[D]	nd	nd	nd	nd[D]	nd	nd	nd
NGA #168	NGA-#168-LAILG-3	11/30/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.9	nd	nd	nd	nd	nd	nd	nd
NGA #182	NGA #182-LAILG-1	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #182-DU	NGA-Duplicate	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	NGA #4-LAILG-1	12/7/07	nd	**1,122.6**	nd	**175.2**	11.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	NGA #130-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA #150-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	NGA-#124-LAILG-2	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #EQUIP	NGA-equip blank	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	NGA-#176-LAILG-1	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	LAILG-NGA#183-3	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA#19-2	12/18/07	nd	nd	nd	15	nd	nd	nd	nd	nd	nd	nd	2,291.3	nd	nd	nd	nd	nd	nd	nd
NGA #13	LAILG-NGA#13-1	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #53	LAILG-NGA#53-1	12/18/07	nd	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	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 estim

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 R4-2010-0186 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	1/5/16	<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	1/5/16	<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	1/5/16	<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	1/5/16	<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	1/5/16	<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 estim

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
WQB Water Quality Benchmark
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
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.

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	12/2/14	<2.0	**4000**	<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	12/2/14	<2.0	51	<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	12/2/14	<2.0	41	<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	5/15/15	<2.0	22	<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	12/2/14	<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	12/2/14	<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 estim

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
WQB Water Quality Benchmark
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
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.

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	2/28/14	<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	2/28/14	<2.0	9.4	**20**	<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	2/28/14	<10	**3,700**	<10	<10	<10	<10	170	<10	<10	<10	**46**	<10	<50	<10	M-04, S-GC
NGA #178	LAILG-NGA178-2	2/28/14	<20	40	<20	<20	<20	<20	<20	<20	<20	<20	<50	<20	<100	<20	M-04, S-GC
NGA #184	LAILG-NGA184-3	2/28/14	<2.0	2.5	<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	2/28/14	<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	2/28/14	<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	2/28/14	<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	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 estim

CWIL Conditional waiver for irrigated lands, order #R4-2005-0080
WQB Water Quality Benchmark
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
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.

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	3/21/11	nd	22	nd	nd	nd	nd	nd	nd	nd	3.3	**1600**[E1]	nd	nd	nd	S4
NGA #124	LAILG-NGA124-6	3/21/11	nd	88	nd	78[FD]	nd	nd	nd	nd	nd	3.8	nd	nd	nd	nd	
NGA # 150	LAILG-NGA 150-5	3/21/11	nd	480[E1]	nd	nd	nd	nd	nd	nd	nd	nd	**48**	nd	nd	nd	
NGA #19	LAILG-NGA19-6	3/23/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	29	nd	nd	nd	nd	
Duplicate	LAILG-NGA-DUP	3/21/11	nd	74	nd	57	nd	nd	nd	nd	nd	3.7	nd	nd	nd	nd	
Equip Blank	LAILG-NGA-EB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/21/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
NGA #168	LAILG-NGA168-6	3/17/12	nd	54	nd	nd	nd	nd[BS-03]	nd	nd	nd	18	nd	nd	nd	nd	S4
NGA #31	LAILG-NGA31-4	3/17/12	nd	2.9	nd	nd	nd	nd[BS-03]	nd	nd	nd	33	nd	nd	nd	nd	S4
NGA #162	LAILG-NGA162-1	3/17/12	nd	11	nd	nd	**230**	nd[BS-03]	nd	nd	nd	23	nd	nd	nd	nd	S4
NGA #64	LAILG-NGA64-3	3/17/12	nd	nd	nd	nd	nd	nd[BS-03]	nd	nd	nd	22	nd	nd	nd	nd	S4
Duplicate	LAILG-NGA-DUP	3/17/12	nd	nd	nd	nd	nd	nd[BS-03]	nd	nd	nd	20	nd	nd	nd	nd	S4
Equip Blank	LAILG-NGA-EB	3/17/12	nd	nd	nd	nd	nd	nd[BS-03]	nd	nd	nd	nd	nd	nd	nd	nd	
Field Blank	LAILG-NGA- FB	3/17/12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	S4
NGA #4	LAILG-NGA4-6	3/25/12	nd[BS-03]	9.7	nd	nd	nd	nd	nd	nd	nd	nd[FD,BS-03]	**100**[FD]	nd	nd	nd[BS-03]	S4
NGA #170	LAILG-NGA170-1	3/25/12	nd[BS-03]	5.8	nd	nd	nd	nd	nd	nd	nd	11[BS-03]	nd[BS-03]	nd	nd	nd[BS-03]	S4
NGA #176	LAILG-NGA176-2	3/25/12	nd[BS-03]	270	nd	nd	nd	nd	nd	nd	nd	35[BS-03]	nd[BS-03]	nd	nd	nd[BS-03]	S4
NGA #210	LAILG-NGA210-2	3/25/12	nd[BS-03]	nd	nd	nd	nd	80	nd	nd	nd	2.7[BS-03]	nd[BS-03]	nd	nd	nd[BS-03]	S4
Duplicate	LAILG-NGA-DUP	3/25/12	nd[BS-03]	12	nd	nd	nd	nd	nd	nd	nd	47[BS-03]	**130**[BS-03]	nd	nd	nd[BS-03]	S4
Equip Blank	LAILG-NGA-EB	3/25/12	nd[BS-03]	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	3/25/12	nd[BS-03]	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 [(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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080
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 8.

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-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.
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-ccv has an acceptable recovery.The batch was accepted since samples were either ND or yielded very high results.

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	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #189	LAILG-NGA189-1	1/4/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	LAILG-NGA19-3	1/5/08	nd	nd	nd	nd	6.8	nd	nd	nd	nd	nd	nd	nd	nd
NGA #124	LAILG-NGA124-3	1/5/08	nd	581.5	38	nd	1,207.20	66.4	nd	nd	5.5	nd	nd	nd	nd
NGA #183	LAILG-NGA183-4	1/5/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #4	LAILG-NGA4-2	1/23/08	nd	nd	15.8	nd	1,178.40	157.1	nd	nd	13.6	24.5	nd	nd	nd
NGA #53	LAILG-NGA53-2	1/23/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #64	LAILG-NGA64-1	1/23/08	nd	30.2	15.1	nd	2.1	nd	nd	nd	nd	nd	nd	nd	nd
NGA #130	LAILG-NGA130-3	1/24/08	nd	143.4	4.2	nd	33.2	nd	nd	nd	3.8	nd	nd	nd	nd
NGA #182	LAILG-NGA182-2	1/24/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	LAILG-NGA168-4	1/25/08	nd	187.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA # 19	LAILG-NGA19-4	8/12/08	nd	nd	nd	nd	82	nd	nd	nd	9.8	nd	nd	nd	nd
NGA # 4	LAILG-NGA 4-3	8/13/08	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]
Duplicate	LAILG-NGA-DUP	8/13/08	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
NGA # 31	LAILG-NGA 31-1	9/23/08	nd	nd	4.3	nd	71.9	nd	nd	nd	nd	2.4[EB]	nd	nd	nd
Duplicate	LAILG-NGA-DUP	9/23/08	nd	nd	4.9	nd	63.6	nd	nd	nd	nd	2.6[EB]	nd	nd	nd
NGA # 19	LAILG-NGA 19-5	11/26/08	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]
NGA # 210	LAILG-NGA 210-1	11/26/08	nd	134.5	15.6	23.3	92.9	nd	1.8[J]	4.1[EB]	nd	7.6[FB]	nd	nd	nd
NGA # 184	LAILG-NGA 184-1	11/26/08	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.1[FB]	nd	nd	nd
Duplicate	LAILG-NGA-DUP	11/26/08	nd	nd	nd	nd	nd	nd	2.0	0.9[EB]	nd	6.0[FB]	nd	nd	nd
NGA # 124	LAILG-NGA 124-4	11/26/08	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
NGA # 31	LAILG-NGA 31-2	11/26/08	nd	33.9	23.6	nd	382.1	nd	nd	4.3[EB]	nd	16.3[FB]	nd	nd	nd
NGA # 130	LAILG-NGA 130-4	11/26/08	nd	407.5	nd	nd	180.5	nd	nd	1.5[J,EB]	70.0	2.1[FB]	**1,096.2**	nd	nd
NGA # 150	LAILG-NGA 150-3	11/26/08	nd	8,031.3	nd	nd	nd	nd	3.2	6.4	2,238.7	10.9[FB]	**780.0**	nd	nd
NGA # 25	LAILG-NGA 25-1	11/26/08	nd	nd	30.1	12.3	0.7[J,EB]	nd	nd	nd	nd	89.6[FB]	nd	nd	nd
NGA # 150	LAILG-NGA 150-4	12/15/08	nd	82,902.4	66.3	51.9	34.1	nd	8.4	9.3	6,642.4	nd	**2,116.6**	nd	nd
NGA # 124	LAILG-NGA 124-5	12/15/08	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
NGA # 189	LAILG-NGA 189-2	12/15/08	nd	nd	nd	nd	0.7[J]	nd	nd	1.0[J,EB]	4.4[EB,FB]	nd	nd	nd	nd
NGA # 110	LAILG-NGA 110-2	12/15/08	nd	55.2	nd	nd	nd	nd	nd	0.5[J,EB]	11.5[EB,FB]	nd	nd	nd	nd
NGA # 31	LAILG-NGA 31-3	12/15/08	nd	nd	nd	nd	48.5	nd	nd	0.9[J,EB]	nd	3.2[EB,FB]	nd	nd	nd
NGA # 184	LAILG-NGA 184-2	12/15/08	nd	26.2	nd	nd	nd	nd	0.5[J]	2.0[EB]	nd	2.0[EB,FB]	nd	nd	nd
NGA # 130	LAILG-NGA 130-5	12/15/08	nd	101.8	nd	nd	35.6	nd	nd	nd	28.8	nd	**210.7**	nd	nd
NGA # 178	LAILG-NGA 178-1	12/15/08	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]
Duplicate	LAILG-NGA-DUP	12/15/08	nd	nd	nd	nd	1.1[J]	nd	0.6 [J]	1[J,EB]	3.0[EB,FB]	nd	nd	nd	nd
NGA # 64	LAILG-NGA 64-2	12/15/08	nd	81.3	nd	nd	26.9	nd	1.8[J]	nd	nd	nd	nd	nd	nd
NGA # 168	LAILG-NGA 168-5	12/15/08	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
NGA # 4	LAILG-NGA 4-4	12/15/08	nd	311.5	133.6	133.6	93,137.5	452.3	3.6	nd	1,547	44.5	**824.4**	nd	nd
CWIL Limits			nl	nl	nl	nl	nl	nl	nl	nl	nl	nl	nl [(1)]	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 estim

CWIL	Conditional waiver for irrigated lands, order #R4-2005-0080
EB	Estimated concentration, constituent detected at greater than 10% in equipment blank
FD	Estimated concentration. Field Duplicate RPD >25%.
nl	not listed
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.

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.
Q3	RPD values are not accurate and not applicable because the results for R1 and/or R2 are lower than ten times the MDL.

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	8/6/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183	NGA-#183-LAILG-1	8/6/07	nd	21[J]	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #19	NGA-#19-LAILG-1	8/13/07	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	8/13/07	nd	62.2	nd	nd	74.7	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-1	8/13/07	nd	1348.2	19.8[J]	nd	nd	nd	nd	nd	nd	11.1[J]	nd	nd	nd
NGA BLANK	NGA LAILG-BLANK-1	8/13/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA FBLI	NGA-LAILG-FBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA EQBLI	NGA-LAILG-EQBLI	8/21/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #150	NGA-#150-LAILG	9/25/07	nd	19,426.6	153.4	nd	nd	nd	nd	nd	515.2	nd	5,208.8	nd	nd
NGA #183	ILG-#183	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #183-DUP	ILGNGA-#Dup	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #EQUIP	ILGNGA-#Equip	9/26/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	ILGNGA-#FIELD-2	9/28/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168-2	ILGNGA-#168-2	9/28/07	nd	964	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #168	NGA-#168-LAILG-3	11/30/07	nd	nd	1.4[J]	1.6[J]	463.1	nd	nd	nd	nd	nd	nd	nd	na
NGA #182	NGA #182-LAILG-1	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #182-DUP	NGA-Duplicate	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #4	NGA #4-LAILG-1	12/7/07	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	12/7/07	nd	944.6	14.2	nd	73.5	nd	nd	nd	33.5	nd	327.3	nd	na
NGA #150	NGA #150-LAILG-2	12/7/07	nd	1,566.7	nd	nd	nd	nd	nd	nd	17.9	nd	237.8	nd	na
NGA #124	NGA-#124-LAILG-2	12/7/07	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	12/7/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #FIELD	Field Blank-2	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NGA #176	NGA-#176-LAILG-1	12/18/07	nd	870.5	nd	nd	3.4	nd	nd	nd	nd	nd	nd	nd	na
NGA #183	LAILG-NGA#183-3	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #19	LAILG-NGA#19-2	12/18/07	nd	nd	11.5	nd	449.5	nd	nd	nd	6.6	nd	1,346.4	nd	na
NGA #13	LAILG-NGA#13-1	12/18/07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
NGA #53	LAILG-NGA#53-1	12/18/07	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 concentration. All other footnotes are for reference purposes; data was not deemed to be qualified as estim

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

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	1/5/16	100.00%	N	100.00%	N	N		
NGA #168	LAILG-NGA-168-8	1/5/16	100.00%	N	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (75.35%)

Y significantly different from control group
N no significant diffence 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	12/2/14	100.00%	P	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (>100%)
NGA #188	LAILG-NGA-188-1	12/2/14	100.00%	N	100.00%	N	N		
NGA #168	LAILG-NGA-168-7	5/15/15	100.00%	N	100.00%	N	N		

Y significantly different from control group
N no significant diffence 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	2/28/14	100.00%	N	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (87.03%)
NGA #26	LAILG-NGA26-1	2/28/14	100.00%	N	100.00%	N	N		
NGA #124	LAILG-NGA124-7	2/28/14	100.00%	N	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (>100%)
NGA #178	LAILG-NGA178-2	2/28/14	100.00%	N	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (97.98%)
NGA #184	LAILG-NGA184-3	2/28/14	100.00%	N	100.00%	N	**Y**		No TIE, IC50 > 50% for Selenastrum (>100%)

Y significantly different from control group
N no significant diffence 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 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	3/21/11	**0.00%**	**Y**	**15.00%**	**Y**	**Y**	3/27/12	Non-polar organics and organophosphates
NGA #124	LAILG-NGA124-6	3/21/11	90.00%	N	100.00%	N	N		
NGA # 150	LAILG-NGA 150-5	3/21/11	100.00%	N	100.00%	N	**Y**	3/27/12	Organophosphates
NGA #19	LAILG-NGA19-6	3/23/11	100.00%	**Y**	**0.00%**	**Y**	**Y**	3/27/12	TIE was initiated, did not show an observed effect
NGA #168	LAILG-NGA168-6	3/17/12	100.00%	N	95.00%	N	N		
NGA #31	LAILG-NGA31-4	3/17/12	70.00%	**Y**	90.00%	N	**Y**	3/24/12	Non-polar organic compounds and metals
NGA #162	LAILG-NGA162-1	3/17/12	100.00%	N	96.67%	N	N		
NGA #64	LAILG-NGA64-3	3/17/12	90.00%	N	100.00%	N	N		

Y significantly different from control group
N no significant diffence 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 #110	LAILG-NGA110-1	1/4/08	90.00%	N	80.00%	N	N		
NGA #189	LAILG-NGA189-1	1/4/08	100.00%	N	91.67%	N	**Y**		
NGA #19	LAILG-NGA19-3	1/5/08	TIE initiated based in results from sample LAILG-NGA#19-2					1/8/08	TIE was initiated, did not show an observed effect
NGA #124	LAILG-NGA124-3	1/5/08	TIE initiated based in results from sample NGA #124-LAILG-2					1/8/08	TIE was initiated, did not show an observed effect
NGA #4	LAILG-NGA4-2	1/23/08	TIE initiated based in results from sample NGA #4-LAILG-1					1/24/08	Non-polar organic compounds
NGA #53	LAILG-NGA53-2	1/23/08	TIE initiated based in results from sample NGA #53-LAILG-1					1/24/08	TIE was initiated, did not show an observed effect
NGA #64	LAILG-NGA64-1	1/23/08	100.00%	**Y**	91.67%	N	N		
NGA #182	LAILG-NGA182-2	1/23/08	TIE initiated based in results from sample NGA #182-LAILG-1					1/24/08	TIE was initiated, did not show an observed effect
NGA #19	LAILG-NGA 19-4	8/12/08	90.00%	N	NR		NR		
NGA # 4	LAILG-NGA 4-3	8/13/08	**0.00%**	**Y**	NR		NR	8/26/08	Non-polar organics and particulate-bound toxicants
NGA # 31	LAILG-NGA 31-1	9/23/08	**20.00%**	**Y**	NR		NR		
NGA # 19	LAILG-NGA19-5	11/26/08	70.00%	**Y**	NR		NR		
NGA # 210	LAILG-NGA 210-1	11/26/08	90.00%	**P**	98.33%	N	N		
NGA # 184	LAILG-NGA 184-1	11/26/08	80.00%	**P**	100.00%	N	N		
NGA # 124	LAILG-NGA 124-4	11/26/08	**0.00%**	**Y**	NR		NR	12/9/08	Volatile compounds
NGA #31	LAILG-NGA 31-2	11/26/08	80.00%	N	98.33%	N	**P**		
NGA # 130	LAILG-NGA 130-4	11/26/08	NR		NR		N		
NGA # 150	LAILG-NGA 150-3	11/26/08	NR		NR		**P**		
NGA # 25	LAILG-NGA 25-1	11/26/08	80.00%	**Y**	100.00%	N	N		
NGA # 124	LAILG-NGA 124-5	12/15/08	**0.00%**	**Y**	NR		NR	12/16/08	TIE was initiated, did not show an observed effect
NGA # 189	LAILG-NGA 189-2	12/15/08	NR		NR		**Y**	1/15/09	Particulate Bound toxicants and OP compounds
NGA # 110	LAILG-NGA 110-2	12/15/08	90.00%	N	NR		NR		
NGA # 178	LAILG-NGA 178-1	12/15/08	100.00%	N	100.00%	N	N		
NGA # 64	LAILG-NGA 64-2	12/15/08	90.00%	**P**	NR		NR		
NGA # 168	LAILG-NGA 168-5	12/15/08	90.00%	**P**	NR		NR		
NGA # 4	LAILG-NGA 4-4	12/15/08	**0.00%**	**Y**	NR		NR	12/16/08	Metals,copper,cadmium,zink,manganese,lead,and nickle

Y significantly different from control group
N no significant diffence 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	8/6/07	100.00%	N	93.33%	N	**Y**	ns	
NGA #183	NGA-#183-LAILG-1	8/6/07	100.00%	N	93.33%	N	N		
NGA #19	NGA-#19-LAILG-1	8/13/07	80.00%	N	98.30%	N	N		
NGA #124	NGA-#124-LAILG-1	8/13/07	100.00%	N	98.30%	N	N		
NGA #168	NGA-#168-LAILG-1	8/13/07	**0.00%**	**Y**	98.30%	N	**Y**	9/28/08	100% survival
NGA #150	NGA-#150-LAILG	9/25/07	**0.00%**	**Y**	98.33%	N	**Y**	ns	
NGA #168	NGA-#168-LAILG-3	11/30/07	100.00%	N	100.00%	N	N		
NGA #182	NGA #182-LAILG-1	12/7/07	**0.00%**	**Y**	98.33%	N	**Y**	ns	
NGA #4	NGA #4-LAILG-1	12/7/07	**0.00%**	**Y**	**40.00%**	**Y**	**Y**	ns	
NGA #130	NGA #130-LAILG-2	12/7/07	100.00%	N	98.33%	N	N		
NGA #150	NGA #150-LAILG-2	12/7/07	100.00%	N	98.33%	N	**Y**	ns	
NGA #124	NGA-#124-LAILG-2	12/7/07	**0.00%**	**Y**	100.00%	N	**Y**	ns	
NGA #176	NGA-#176-LAILG-1	12/18/07	100.00%	N	100.00%	N	N		
NGA #183	LAILG-NGA#183-3	12/18/07	100.00%	N	100.00%	N	N		
NGA #19	LAILG-NGA#19-2	12/18/07	**50.00%**	**Y**	100.00%	N	N	ns	
NGA #13	LAILG-NGA#13-1	12/18/07	**10.00%**	**Y**	**21.67%**	**Y**	N	ns	
NGA #53	LAILG-NGA#53-1	12/18/07	100.00%	N	81.67%	N	N		

Y Significantly different from control group
N No significant diffence 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 (^oC)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #4	LAILG-NGA#4-5	3/21/11	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	3/21/11	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	3/21/11	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	3/23/11	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	3/17/12	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	3/17/12	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	3/17/12	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	3/17/12	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	3/25/12	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

^oC degrees celcius

uS microsiemens

mg/L milligrams per liter

NTU Nephelometric Turbidity Units

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 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 (^oC)	pH	E.C. (uS)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
NGA #170	LAILG-NGA#170-1	3/25/12	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	3/25/12	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	3/25/12	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
^oC	degrees celcius	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	Flow (ft/s)	Temperature (^{o}C)	pH	E.C. (uS)	Dissolved Oxygen	Turbidity (NTU)
NGA #19	LAILG-NGA19-7	2/28/14	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	2/28/14	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	2/28/14	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	2/28/14	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	2/28/14	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

^{o}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 4
FIELD MONITORING RESULTS
NURSERY GROWERS ASSOCIATION
LOS ANGELES IRRIGATED LANDS GROUP

Site	Sample ID	Date	Sample Type	Time (24hr)	*Approximate Flow Cross	Flow (ft/s)	Temperature (^{o}C)	pH	E.C. (uS)	Dissolved Oxygen	Turbidity (NTU)
NGA #150	LAILG-NGA150-6	12/2/14	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	5/15/15	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	12/2/14	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

^{o}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	Flow (ft/s)	Temperature (^{o}C)	pH	E.C. (uS)	Dissolved Oxygen	Turbidity (NTU)
NGA #64	LAILG-NGA-64-4	1/15/16	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	1/15/16	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*width*depth.

ft/s feet per second

mg/L milligrams per liter

^{o}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

CERTIFICATE OF ANALYSIS

Client: Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Attention: Bryn Home

Phone: (805) 525-5563

Fax: (805) 525-2896

Work Order(s): 6A05038

Report Date: 01/28/16 11:04

Received Date: 01/05/16 12:11

Turn Around: Normal

Client Project: Nursery Growers Association

NELAC #4047-002 ORELAP ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

Dear Bryn Home :

Enclosed are the results of analyses for samples received 01/05/16 12:11 with the Chain of Custody document. The samples were received in good condition, at 10.7 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Lab ID	Matrix	Date Sampled
LAILG-NGA-EB	Scott Jordan	6A05038-01	Water	01/05/16 07:00
LAILG-NGA168-8	Scott Jordan	6A05038-02	Water	01/05/16 09:20
LAILG-NGA64-4	Scott Jordan	6A05038-03	Water	01/05/16 08:30
LAILG-NGA-DUP	Scott Jordan	6A05038-04	Water	01/05/16 09:30
LAILG-NGA-FB	Scott Jordan	6A05038-05	Water	01/05/16 10:30

ANALYSES

Anions by IC, EPA Method 300.0

Chlorinated Pesticides and/or PCBs

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

Metals by EPA 200 Series Methods

Pyrethroid Pesticides by GC/MS SIM

Semivolatile Organic Compounds by GC/MS

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-01 LAILG-NGA-EB

Sampled: 01/05/16 07:00 **Sampled By:** Scott Jordan **Matrix:** Water

Anions by IC, EPA Method 300.0

Method: EPA 300.0 Batch: W6A0290 Prepared: 01/07/16 12:00 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	ND	0.50	mg/l	1	01/07/16 16:50	
Sulfate as SO4	ND	0.50	mg/l	1	01/07/16 16:50	

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4'-DDD	ND	5.0	ng/l	1	01/22/16 01:28	
2,4'-DDE	ND	5.0	ng/l	1	01/22/16 01:28	
2,4'-DDT	ND	5.0	ng/l	1	01/22/16 01:28	
4,4´-DDD	ND	5.0	ng/l	1	01/22/16 01:28	
4,4´-DDE	ND	5.0	ng/l	1	01/22/16 01:28	
4,4´-DDT	ND	5.0	ng/l	1	01/22/16 01:28	
Aldrin	ND	5.0	ng/l	1	01/22/16 01:28	
alpha-BHC	ND	5.0	ng/l	1	01/22/16 01:28	
alpha-Chlordane	ND	5.0	ng/l	1	01/22/16 01:28	
Aroclor 1016	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1221	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1232	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1242	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1248	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1254	ND	100	ng/l	1	01/22/16 01:28	
Aroclor 1260	ND	100	ng/l	1	01/22/16 01:28	
beta-BHC	ND	5.0	ng/l	1	01/22/16 01:28	
Chlordane (tech)	ND	100	ng/l	1	01/22/16 01:28	
cis-Nonachlor	ND	5.0	ng/l	1	01/22/16 01:28	
delta-BHC	ND	5.0	ng/l	1	01/22/16 01:28	
Dieldrin	ND	5.0	ng/l	1	01/22/16 01:28	
Endosulfan I	ND	5.0	ng/l	1	01/22/16 01:28	
Endosulfan II	ND	5.0	ng/l	1	01/22/16 01:28	
Endosulfan sulfate	ND	5.0	ng/l	1	01/22/16 01:28	
Endrin	ND	5.0	ng/l	1	01/22/16 01:28	
Endrin aldehyde	ND	5.0	ng/l	1	01/22/16 01:28	
gamma-BHC (Lindane)	ND	5.0	ng/l	1	01/22/16 01:28	
gamma-Chlordane	ND	5.0	ng/l	1	01/22/16 01:28	
Heptachlor	**68**	5.0	ng/l	1	01/22/16 01:28	
Heptachlor epoxide	ND	5.0	ng/l	1	01/22/16 01:28	
Methoxychlor	ND	5.0	ng/l	1	01/22/16 01:28	
Mirex	ND	5.0	ng/l	1	01/22/16 01:28	
Toxaphene	ND	500	ng/l	1	01/22/16 01:28	
trans-Nonachlor	ND	5.0	ng/l	1	01/22/16 01:28	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-01 LAILG-NGA-EB

Sampled: 01/05/16 07:00 **Sampled By:** Scott Jordan **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Surr: Decachlorobiphenyl	*45 %*	Conc:*45.3*	*0.1-118*	%			
Surr: Tetrachloro-meta-xylene	*71 %*	Conc:*70.5*	*12-117*	%			

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

Method: EPA 350.1 Batch: W6A1015 Prepared: 01/19/16 15:17 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N	ND	0.10	mg/l	1	01/21/16 16:25	

Method: EPA 353.2 Batch: W6A0119 Prepared: 01/05/16 14:07 Analyst: AJW

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	01/05/16 16:27	

Method: EPA 365.1 Batch: W6A0215 Prepared: 01/06/16 14:18 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	ND	0.0020	mg/l	1	01/06/16 19:10	**

Method: EPA 365.1 Batch: W6A0216 Prepared: 01/06/16 14:20 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P, dissolved	ND	2.0	ug/l	1	01/06/16 19:44	**

Method: EPA 365.1 Batch: W6A0621 Prepared: 01/12/16 18:52 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	ND	0.010	mg/l	1	01/14/16 15:48	

Method: EPA 365.1 Batch: W6A0812 Prepared: 01/15/16 11:27 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	ND	0.010	mg/l	1	01/20/16 15:08	

Method: SM 2540C Batch: W6A0366 Prepared: 01/08/16 11:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	ND	10	mg/l	1	01/08/16 13:30	

Method: SM 2540D Batch: W6A0142 Prepared: 01/05/16 18:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	01/05/16 19:15	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: [CALC] Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	ND	0.250	mg/l	1	01/12/16 14:57	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-01 LAILG-NGA-EB

Sampled: 01/05/16 07:00 **Sampled By:** Scott Jordan **Matrix:** Water

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W6A0296 Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium, Total	ND	0.100	mg/l	1	01/12/16 14:57	

Method: EPA 200.8 Batch: W6A0301 Prepared: 01/07/16 12:31 Analyst: rrl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	ND	0.50	ug/l	1	01/13/16 13:21	

Pyrethroid Pesticides by GC/MS SIM

Method: GC/MS NCI-SIM Batch: W6A0864 Prepared: 01/17/16 08:10 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Allethrin	ND		2.0	ng/l	1	01/23/16 01:56	
Bifenthrin	ND		2.0	ng/l	1	01/23/16 01:56	
Cyfluthrin	ND		2.0	ng/l	1	01/23/16 01:56	
Cypermethrin	ND		2.0	ng/l	1	01/23/16 01:56	
Deltamethrin/Tralomethrin	ND		2.0	ng/l	1	01/23/16 01:56	
Dichloran	ND		2.0	ng/l	1	01/23/16 01:56	
Fenpropathrin (Danitol)	ND		2.0	ng/l	1	01/23/16 01:56	
Fenvalerate/Esfenvalerate	ND		2.0	ng/l	1	01/23/16 01:56	
L-Cyhalothrin	ND		2.0	ng/l	1	01/23/16 01:56	
Pendimethalin	ND		2.0	ng/l	1	01/23/16 01:56	
Permethrin	ND		5.0	ng/l	1	01/23/16 01:56	
Prallethrin	ND		2.0	ng/l	1	01/23/16 01:56	
Sumithrin (Phenothrin)	ND		10	ng/l	1	01/23/16 01:56	
Tefluthrin	ND		2.0	ng/l	1	01/23/16 01:56	
Surr: Perylene-d12	*96 %*	Conc:*241*	*2-205*	%			
Surr: Triphenyl phosphate	*110 %*	Conc:*275*	*6-222*	%			

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	10	ng/l	1	01/12/16 19:51	
Bolstar	ND	10	ng/l	1	01/12/16 19:51	
Chlorpyrifos	ND	10	ng/l	1	01/12/16 19:51	
Coumaphos	ND	10	ng/l	1	01/12/16 19:51	
Demeton-o	ND	10	ng/l	1	01/12/16 19:51	
Demeton-s	ND	10	ng/l	1	01/12/16 19:51	
Diazinon	ND	10	ng/l	1	01/12/16 19:51	
Dichlorvos	ND	10	ng/l	1	01/12/16 19:51	
Dimethoate	ND	10	ng/l	1	01/12/16 19:51	
Disulfoton	ND	10	ng/l	1	01/12/16 19:51	
Ethoprop	ND	10	ng/l	1	01/12/16 19:51	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-01 LAILG-NGA-EB

Sampled: 01/05/16 07:00 **Sampled By:** Scott Jordan **Matrix:** Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Ethyl parathion	ND		10	ng/l	1	01/12/16 19:51	
Fensulfothion	ND		10	ng/l	1	01/12/16 19:51	
Fenthion	ND		10	ng/l	1	01/12/16 19:51	
Malathion	ND		10	ng/l	1	01/12/16 19:51	
Merphos	ND		10	ng/l	1	01/12/16 19:51	
Methyl parathion	ND		10	ng/l	1	01/12/16 19:51	
Mevinphos	ND		10	ng/l	1	01/12/16 19:51	
Naled	ND		10	ng/l	1	01/12/16 19:51	
Phorate	ND		10	ng/l	1	01/12/16 19:51	
Ronnel	ND		10	ng/l	1	01/12/16 19:51	
Stirophos	ND		10	ng/l	1	01/12/16 19:51	
Tokuthion (Prothiofos)	ND		10	ng/l	1	01/12/16 19:51	
Trichloronate	ND		10	ng/l	1	01/12/16 19:51	
Surr: 1,3-Dimethyl-2-nitrobenzene	*107 %*	Conc:*536*	*76-128*	%			
Surr: Triphenyl phosphate	*95 %*	Conc:*476*	*40-163*	%			

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-02 **LAILG-NGA168-8**

Sampled: 01/05/16 09:20 **Sampled By:** Scott Jordan **Matrix:** Water

Anions by IC, EPA Method 300.0

Method: EPA 300.0 Batch: W6A0290 Prepared: 01/07/16 12:00 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	**41**	1.2	mg/l	2.5	01/07/16 15:41	
Sulfate as SO4	**160**	1.2	mg/l	2.5	01/07/16 15:41	

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4'-DDD	ND	25	ng/l	5	01/22/16 01:58	M-04
2,4'-DDE	ND	25	ng/l	5	01/22/16 01:58	M-04
2,4'-DDT	ND	25	ng/l	5	01/22/16 01:58	M-04
4,4´-DDD	ND	25	ng/l	5	01/22/16 01:58	M-04
4,4´-DDE	ND	25	ng/l	5	01/22/16 01:58	M-04
4,4´-DDT	ND	25	ng/l	5	01/22/16 01:58	M-04
Aldrin	ND	25	ng/l	5	01/22/16 01:58	M-04
alpha-BHC	ND	25	ng/l	5	01/22/16 01:58	M-04
alpha-Chlordane	ND	25	ng/l	5	01/22/16 01:58	M-04
Aroclor 1016	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1221	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1232	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1242	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1248	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1254	ND	500	ng/l	5	01/22/16 01:58	M-04
Aroclor 1260	ND	500	ng/l	5	01/22/16 01:58	M-04
beta-BHC	ND	25	ng/l	5	01/22/16 01:58	M-04
Chlordane (tech)	ND	500	ng/l	5	01/22/16 01:58	M-04
cis-Nonachlor	ND	25	ng/l	5	01/22/16 01:58	M-04
delta-BHC	ND	25	ng/l	5	01/22/16 01:58	M-04
Dieldrin	ND	25	ng/l	5	01/22/16 01:58	M-04
Endosulfan I	ND	25	ng/l	5	01/22/16 01:58	M-04
Endosulfan II	ND	25	ng/l	5	01/22/16 01:58	M-04
Endosulfan sulfate	ND	25	ng/l	5	01/22/16 01:58	M-04
Endrin	ND	25	ng/l	5	01/22/16 01:58	M-04
Endrin aldehyde	ND	25	ng/l	5	01/22/16 01:58	M-04
gamma-BHC (Lindane)	ND	25	ng/l	5	01/22/16 01:58	M-04
gamma-Chlordane	ND	25	ng/l	5	01/22/16 01:58	M-04
Heptachlor	ND	25	ng/l	5	01/22/16 01:58	M-04
Heptachlor epoxide	ND	25	ng/l	5	01/22/16 01:58	M-04
Methoxychlor	ND	25	ng/l	5	01/22/16 01:58	M-04
Mirex	ND	25	ng/l	5	01/22/16 01:58	M-04
Toxaphene	ND	2500	ng/l	5	01/22/16 01:58	M-04
trans-Nonachlor	ND	25	ng/l	5	01/22/16 01:58	M-04

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-02 **LAILG-NGA168-8**

Sampled: 01/05/16 09:20 **Sampled By:** Scott Jordan **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Surr: Decachlorobiphenyl	*63 %*	Conc:*62.8*	*0.1-118*	%			*M-04*
Surr: Tetrachloro-meta-xylene	*69 %*	Conc:*68.8*	*12-117*	%			*M-04*

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

Method: EPA 350.1 Batch: W6A1015 Prepared: 01/19/16 15:17 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N	**0.36**	0.10	mg/l	1	01/21/16 16:25	

Method: EPA 353.2 Batch: W6A0119 Prepared: 01/05/16 14:07 Analyst: AJW

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**15000**	200	ug/l	2	01/05/16 17:52	

Method: EPA 365.1 Batch: W6A0215 Prepared: 01/06/16 14:18 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	**0.32**	0.010	mg/l	5	01/06/16 19:26	**

Method: EPA 365.1 Batch: W6A0216 Prepared: 01/06/16 14:20 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P, dissolved	**320**	10	ug/l	5	01/06/16 19:43	**

Method: EPA 365.1 Batch: W6A0621 Prepared: 01/12/16 18:52 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.80**	0.10	mg/l	1	01/14/16 15:49	

Method: EPA 365.1 Batch: W6A0686 Prepared: 01/13/16 16:07 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	**0.45**	0.040	mg/l	2	01/20/16 14:20	M-06

Method: SM 2540C Batch: W6A0366 Prepared: 01/08/16 11:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**410**	10	mg/l	1	01/08/16 13:30	

Method: SM 2540D Batch: W6A0142 Prepared: 01/05/16 18:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**140**	5	mg/l	1	01/05/16 19:15	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: [CALC] Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	**162**	0.250	mg/l	1	01/12/16 15:11	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-02 **LAILG-NGA168-8**

Sampled: 01/05/16 09:20 **Sampled By:** Scott Jordan **Matrix:** Water

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W6A0296 Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium, Total	**64.9**	0.100	mg/l	1	01/12/16 15:11	

Method: EPA 200.8 Batch: W6A0301 Prepared: 01/07/16 12:31 Analyst: rrl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**36**	0.50	ug/l	1	01/13/16 13:25	

Pyrethroid Pesticides by GC/MS SIM

Method: GC/MS NCI-SIM Batch: W6A0864 Prepared: 01/17/16 08:10 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Allethrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Bifenthrin	**310**		4.0	ng/l	2	01/23/16 02:28	M-04
Cyfluthrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Cypermethrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Deltamethrin/Tralomethrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Dichloran	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Fenpropathrin (Danitol)	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Fenvalerate/Esfenvalerate	ND		4.0	ng/l	2	01/23/16 02:28	M-04
L-Cyhalothrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Pendimethalin	**69**		4.0	ng/l	2	01/23/16 02:28	M-04
Permethrin	ND		10	ng/l	2	01/23/16 02:28	M-04
Prallethrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Sumithrin (Phenothrin)	ND		20	ng/l	2	01/23/16 02:28	M-04
Tefluthrin	ND		4.0	ng/l	2	01/23/16 02:28	M-04
Surr: Perylene-d12	*131 %*	Conc:*327*	*2-205*	%			*M-04*
Surr: Triphenyl phosphate	*156 %*	Conc:*391*	*6-222*	%			*M-04*

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	10	ng/l	1	01/12/16 20:17	
Bolstar	ND	10	ng/l	1	01/12/16 20:17	
Chlorpyrifos	ND	10	ng/l	1	01/12/16 20:17	
Coumaphos	ND	10	ng/l	1	01/12/16 20:17	
Demeton-o	ND	10	ng/l	1	01/12/16 20:17	
Demeton-s	ND	10	ng/l	1	01/12/16 20:17	
Diazinon	ND	10	ng/l	1	01/12/16 20:17	
Dichlorvos	ND	10	ng/l	1	01/12/16 20:17	
Dimethoate	ND	10	ng/l	1	01/12/16 20:17	
Disulfoton	ND	10	ng/l	1	01/12/16 20:17	
Ethoprop	ND	10	ng/l	1	01/12/16 20:17	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-02 **LAILG-NGA168-8**

Sampled: 01/05/16 09:20 **Sampled By:** Scott Jordan **Matrix:** Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Ethyl parathion	ND		10	ng/l	1	01/12/16 20:17	
Fensulfothion	ND		10	ng/l	1	01/12/16 20:17	
Fenthion	ND		10	ng/l	1	01/12/16 20:17	
Malathion	ND		10	ng/l	1	01/12/16 20:17	
Merphos	ND		10	ng/l	1	01/12/16 20:17	
Methyl parathion	ND		10	ng/l	1	01/12/16 20:17	
Mevinphos	ND		10	ng/l	1	01/12/16 20:17	
Naled	ND		10	ng/l	1	01/12/16 20:17	
Phorate	ND		10	ng/l	1	01/12/16 20:17	
Ronnel	ND		10	ng/l	1	01/12/16 20:17	
Stirophos	ND		10	ng/l	1	01/12/16 20:17	
Tokuthion (Prothiofos)	ND		10	ng/l	1	01/12/16 20:17	
Trichloronate	ND		10	ng/l	1	01/12/16 20:17	
Surr: 1,3-Dimethyl-2-nitrobenzene	*109 %*	Conc:*544*	*76-128*	%			
Surr: Triphenyl phosphate	*121 %*	Conc:*606*	*40-163*	%			

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-03 **LAILG-NGA64-4**

Sampled: 01/05/16 08:30 **Sampled By:** Scott Jordan **Matrix:** Water

Anions by IC, EPA Method 300.0

Method: EPA 300.0 Batch: W6A0290 Prepared: 01/07/16 12:00 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	**3.9**	0.50	mg/l	1	01/07/16 15:57	
Sulfate as SO4	**7.2**	0.50	mg/l	1	01/07/16 15:57	

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4'-DDD	ND	25	ng/l	5	01/22/16 02:29	M-04
2,4'-DDE	ND	25	ng/l	5	01/22/16 02:29	M-04
2,4'-DDT	ND	25	ng/l	5	01/22/16 02:29	M-04
4,4´-DDD	ND	25	ng/l	5	01/22/16 02:29	M-04
4,4´-DDE	ND	25	ng/l	5	01/22/16 02:29	M-04
4,4´-DDT	ND	25	ng/l	5	01/22/16 02:29	M-04
Aldrin	ND	25	ng/l	5	01/22/16 02:29	M-04
alpha-BHC	ND	25	ng/l	5	01/22/16 02:29	M-04
alpha-Chlordane	ND	25	ng/l	5	01/22/16 02:29	M-04
Aroclor 1016	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1221	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1232	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1242	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1248	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1254	ND	500	ng/l	5	01/22/16 02:29	M-04
Aroclor 1260	ND	500	ng/l	5	01/22/16 02:29	M-04
beta-BHC	ND	25	ng/l	5	01/22/16 02:29	M-04
Chlordane (tech)	ND	500	ng/l	5	01/22/16 02:29	M-04
cis-Nonachlor	ND	25	ng/l	5	01/22/16 02:29	M-04
delta-BHC	ND	25	ng/l	5	01/22/16 02:29	M-04
Dieldrin	ND	25	ng/l	5	01/22/16 02:29	M-04
Endosulfan I	ND	25	ng/l	5	01/22/16 02:29	M-04
Endosulfan II	ND	25	ng/l	5	01/22/16 02:29	M-04
Endosulfan sulfate	ND	25	ng/l	5	01/22/16 02:29	M-04
Endrin	ND	25	ng/l	5	01/22/16 02:29	M-04
Endrin aldehyde	ND	25	ng/l	5	01/22/16 02:29	M-04
gamma-BHC (Lindane)	ND	25	ng/l	5	01/22/16 02:29	M-04
gamma-Chlordane	ND	25	ng/l	5	01/22/16 02:29	M-04
Heptachlor	ND	25	ng/l	5	01/22/16 02:29	M-04
Heptachlor epoxide	ND	25	ng/l	5	01/22/16 02:29	M-04
Methoxychlor	ND	25	ng/l	5	01/22/16 02:29	M-04
Mirex	ND	25	ng/l	5	01/22/16 02:29	M-04
Toxaphene	ND	2500	ng/l	5	01/22/16 02:29	M-04
trans-Nonachlor	ND	25	ng/l	5	01/22/16 02:29	M-04

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-03 **LAILG-NGA64-4**

Sampled: 01/05/16 08:30 **Sampled By:** Scott Jordan **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Surr: Decachlorobiphenyl	*44 %*	Conc:*44.3*	*0.1-118*	%			*M-04*
Surr: Tetrachloro-meta-xylene	*77 %*	Conc:*76.8*	*12-117*	%			*M-04*

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

Method: EPA 350.1 Batch: W6A1015 Prepared: 01/19/16 15:17 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N	**0.63**	0.10	mg/l	1	01/21/16 16:25	

Method: EPA 353.2 Batch: W6A0119 Prepared: 01/05/16 14:07 Analyst: AJW

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**700**	100	ug/l	1	01/05/16 17:06	

Method: EPA 365.1 Batch: W6A0215 Prepared: 01/06/16 14:18 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	**0.16**	0.0020	mg/l	1	01/06/16 19:13	**

Method: EPA 365.1 Batch: W6A0216 Prepared: 01/06/16 14:20 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P, dissolved	**150**	2.0	ug/l	1	01/06/16 19:46	**

Method: EPA 365.1 Batch: W6A0621 Prepared: 01/12/16 18:52 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.46**	0.050	mg/l	1	01/14/16 15:50	

Method: EPA 365.1 Batch: W6A0686 Prepared: 01/13/16 16:07 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	**0.17**	0.010	mg/l	1	01/20/16 14:22	

Method: SM 2540C Batch: W6A0366 Prepared: 01/08/16 11:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**45**	10	mg/l	1	01/08/16 13:30	

Method: SM 2540D Batch: W6A0142 Prepared: 01/05/16 18:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**190**	5	mg/l	1	01/05/16 19:15	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: [CALC] Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	**28.3**	0.250	mg/l	1	01/12/16 15:13	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-03 **LAILG-NGA64-4**

Sampled: 01/05/16 08:30 **Sampled By:** Scott Jordan **Matrix:** Water

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W6A0296 Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium, Total	**11.3**	0.100	mg/l	1	01/12/16 15:13	

Method: EPA 200.8 Batch: W6A0301 Prepared: 01/07/16 12:31 Analyst: rrl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**27**	0.50	ug/l	1	01/13/16 13:29	

Pyrethroid Pesticides by GC/MS SIM

Method: GC/MS NCI-SIM Batch: W6A0864 Prepared: 01/17/16 08:10 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Allethrin	ND		2.0	ng/l	1	01/23/16 03:01	
Bifenthrin	**2.0**		2.0	ng/l	1	01/23/16 03:01	
Cyfluthrin	ND		2.0	ng/l	1	01/23/16 03:01	
Cypermethrin	ND		2.0	ng/l	1	01/23/16 03:01	
Deltamethrin/Tralomethrin	ND		2.0	ng/l	1	01/23/16 03:01	
Dichloran	**2.6**		2.0	ng/l	1	01/23/16 03:01	
Fenpropathrin (Danitol)	ND		2.0	ng/l	1	01/23/16 03:01	
Fenvalerate/Esfenvalerate	ND		2.0	ng/l	1	01/23/16 03:01	
L-Cyhalothrin	ND		2.0	ng/l	1	01/23/16 03:01	
Pendimethalin	**2.7**		2.0	ng/l	1	01/23/16 03:01	
Permethrin	ND		5.0	ng/l	1	01/23/16 03:01	
Prallethrin	ND		2.0	ng/l	1	01/23/16 03:01	
Sumithrin (Phenothrin)	ND		10	ng/l	1	01/23/16 03:01	
Tefluthrin	ND		2.0	ng/l	1	01/23/16 03:01	
Surr: Perylene-d12	*105 %*	Conc:*263*	*2-205*	%			
Surr: Triphenyl phosphate	*139 %*	Conc:*347*	*6-222*	%			

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	10	ng/l	1	01/12/16 20:42	
Bolstar	ND	10	ng/l	1	01/12/16 20:42	
Chlorpyrifos	ND	10	ng/l	1	01/12/16 20:42	
Coumaphos	ND	10	ng/l	1	01/12/16 20:42	
Demeton-o	ND	10	ng/l	1	01/12/16 20:42	
Demeton-s	ND	10	ng/l	1	01/12/16 20:42	
Diazinon	ND	10	ng/l	1	01/12/16 20:42	
Dichlorvos	ND	10	ng/l	1	01/12/16 20:42	
Dimethoate	ND	10	ng/l	1	01/12/16 20:42	
Disulfoton	ND	10	ng/l	1	01/12/16 20:42	
Ethoprop	ND	10	ng/l	1	01/12/16 20:42	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-03 **LAILG-NGA64-4**

Sampled: 01/05/16 08:30 **Sampled By:** Scott Jordan **Matrix:** Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Ethyl parathion	ND		10	ng/l	1	01/12/16 20:42	
Fensulfothion	ND		10	ng/l	1	01/12/16 20:42	
Fenthion	ND		10	ng/l	1	01/12/16 20:42	
Malathion	ND		10	ng/l	1	01/12/16 20:42	
Merphos	ND		10	ng/l	1	01/12/16 20:42	
Methyl parathion	ND		10	ng/l	1	01/12/16 20:42	
Mevinphos	ND		10	ng/l	1	01/12/16 20:42	
Naled	ND		10	ng/l	1	01/12/16 20:42	
Phorate	ND		10	ng/l	1	01/12/16 20:42	
Ronnel	ND		10	ng/l	1	01/12/16 20:42	
Stirophos	ND		10	ng/l	1	01/12/16 20:42	
Tokuthion (Prothiofos)	ND		10	ng/l	1	01/12/16 20:42	
Trichloronate	ND		10	ng/l	1	01/12/16 20:42	
Surr: 1,3-Dimethyl-2-nitrobenzene	*132 %*	Conc:*662*	*76-128*	%			*S-GC*
Surr: Triphenyl phosphate	*138 %*	Conc:*688*	*40-163*	%			

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-04 LAILG-NGA-DUP

Sampled: 01/05/16 09:30 **Sampled By:** Scott Jordan **Matrix:** Water

Anions by IC, EPA Method 300.0

Method: EPA 300.0 Batch: W6A0290 Prepared: 01/07/16 12:00 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	**39**	2.5	mg/l	5	01/07/16 17:21	
Sulfate as SO4	**160**	2.5	mg/l	5	01/07/16 17:21	

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4'-DDD	ND	25	ng/l	5	01/22/16 02:59	M-04
2,4'-DDE	ND	25	ng/l	5	01/22/16 02:59	M-04
2,4'-DDT	ND	25	ng/l	5	01/22/16 02:59	M-04
4,4´-DDD	ND	25	ng/l	5	01/22/16 02:59	M-04
4,4´-DDE	ND	25	ng/l	5	01/22/16 02:59	M-04
4,4´-DDT	ND	25	ng/l	5	01/22/16 02:59	M-04
Aldrin	ND	25	ng/l	5	01/22/16 02:59	M-04
alpha-BHC	ND	25	ng/l	5	01/22/16 02:59	M-04
alpha-Chlordane	ND	25	ng/l	5	01/22/16 02:59	M-04
Aroclor 1016	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1221	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1232	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1242	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1248	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1254	ND	500	ng/l	5	01/22/16 02:59	M-04
Aroclor 1260	ND	500	ng/l	5	01/22/16 02:59	M-04
beta-BHC	ND	25	ng/l	5	01/22/16 02:59	M-04
Chlordane (tech)	ND	500	ng/l	5	01/22/16 02:59	M-04
cis-Nonachlor	ND	25	ng/l	5	01/22/16 02:59	M-04
delta-BHC	ND	25	ng/l	5	01/22/16 02:59	M-04
Dieldrin	ND	25	ng/l	5	01/22/16 02:59	M-04
Endosulfan I	ND	25	ng/l	5	01/22/16 02:59	M-04
Endosulfan II	ND	25	ng/l	5	01/22/16 02:59	M-04
Endosulfan sulfate	ND	25	ng/l	5	01/22/16 02:59	M-04
Endrin	ND	25	ng/l	5	01/22/16 02:59	M-04
Endrin aldehyde	ND	25	ng/l	5	01/22/16 02:59	M-04
gamma-BHC (Lindane)	ND	25	ng/l	5	01/22/16 02:59	M-04
gamma-Chlordane	ND	25	ng/l	5	01/22/16 02:59	M-04
Heptachlor	ND	25	ng/l	5	01/22/16 02:59	M-04
Heptachlor epoxide	ND	25	ng/l	5	01/22/16 02:59	M-04
Methoxychlor	ND	25	ng/l	5	01/22/16 02:59	M-04
Mirex	ND	25	ng/l	5	01/22/16 02:59	M-04
Toxaphene	ND	2500	ng/l	5	01/22/16 02:59	M-04
trans-Nonachlor	ND	25	ng/l	5	01/22/16 02:59	M-04

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-04 LAILG-NGA-DUP

Sampled: 01/05/16 09:30 **Sampled By:** Scott Jordan **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Surr: Decachlorobiphenyl	*69 %*	Conc:*69.2*	*0.1-118*	%			*M-04*
Surr: Tetrachloro-meta-xylene	*74 %*	Conc:*74.2*	*12-117*	%			*M-04*

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

Method: EPA 350.1 Batch: W6A1015 Prepared: 01/19/16 15:17 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N	**0.36**	0.10	mg/l	1	01/21/16 16:25	

Method: EPA 353.2 Batch: W6A0119 Prepared: 01/05/16 14:07 Analyst: AJW

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**15000**	200	ug/l	2	01/05/16 17:54	

Method: EPA 365.1 Batch: W6A0215 Prepared: 01/06/16 14:18 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	**0.35**	0.010	mg/l	5	01/06/16 19:27	**

Method: EPA 365.1 Batch: W6A0216 Prepared: 01/06/16 14:20 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P, dissolved	**350**	10	ug/l	5	01/06/16 19:47	**

Method: EPA 365.1 Batch: W6A0621 Prepared: 01/12/16 18:52 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.91**	0.10	mg/l	1	01/14/16 15:52	

Method: EPA 365.1 Batch: W6A0686 Prepared: 01/13/16 16:07 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	**0.50**	0.040	mg/l	2	01/20/16 14:23	M-06

Method: SM 2540C Batch: W6A0366 Prepared: 01/08/16 11:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**410**	10	mg/l	1	01/08/16 13:30	

Method: SM 2540D Batch: W6A0142 Prepared: 01/05/16 18:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**160**	5	mg/l	1	01/05/16 19:15	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: [CALC] Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	**159**	0.250	mg/l	1	01/12/16 15:16	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-04 LAILG-NGA-DUP

Sampled: 01/05/16 09:30 **Sampled By:** Scott Jordan **Matrix:** Water

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W6A0296 Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium, Total	**63.6**	0.100	mg/l	1	01/12/16 15:16	

Method: EPA 200.8 Batch: W6A0301 Prepared: 01/07/16 12:31 Analyst: rrl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**41**	0.50	ug/l	1	01/13/16 13:34	

Pyrethroid Pesticides by GC/MS SIM

Method: GC/MS NCI-SIM Batch: W6A0864 Prepared: 01/17/16 08:10 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Allethrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Bifenthrin	**250**		4.0	ng/l	2	01/23/16 03:33	M-04
Cyfluthrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Cypermethrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Deltamethrin/Tralomethrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Dichloran	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Fenpropathrin (Danitol)	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Fenvalerate/Esfenvalerate	ND		4.0	ng/l	2	01/23/16 03:33	M-04
L-Cyhalothrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Pendimethalin	**50**		4.0	ng/l	2	01/23/16 03:33	M-04
Permethrin	ND		10	ng/l	2	01/23/16 03:33	M-04
Prallethrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Sumithrin (Phenothrin)	ND		20	ng/l	2	01/23/16 03:33	M-04
Tefluthrin	ND		4.0	ng/l	2	01/23/16 03:33	M-04
Surr: Perylene-d12	*105 %*	Conc:*263*	*2-205*	%			*M-04*
Surr: Triphenyl phosphate	*125 %*	Conc:*314*	*6-222*	%			*M-04*

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	10	ng/l	1	01/12/16 21:08	
Bolstar	ND	10	ng/l	1	01/12/16 21:08	
Chlorpyrifos	ND	10	ng/l	1	01/12/16 21:08	
Coumaphos	ND	10	ng/l	1	01/12/16 21:08	
Demeton-o	ND	10	ng/l	1	01/12/16 21:08	
Demeton-s	ND	10	ng/l	1	01/12/16 21:08	
Diazinon	ND	10	ng/l	1	01/12/16 21:08	
Dichlorvos	ND	10	ng/l	1	01/12/16 21:08	
Dimethoate	ND	10	ng/l	1	01/12/16 21:08	
Disulfoton	ND	10	ng/l	1	01/12/16 21:08	
Ethoprop	ND	10	ng/l	1	01/12/16 21:08	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-04 **LAILG-NGA-DUP**

Sampled: 01/05/16 09:30 **Sampled By:** Scott Jordan **Matrix:** Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Ethyl parathion	ND		10	ng/l	1	01/12/16 21:08	
Fensulfothion	ND		10	ng/l	1	01/12/16 21:08	
Fenthion	ND		10	ng/l	1	01/12/16 21:08	
Malathion	ND		10	ng/l	1	01/12/16 21:08	
Merphos	ND		10	ng/l	1	01/12/16 21:08	
Methyl parathion	ND		10	ng/l	1	01/12/16 21:08	
Mevinphos	ND		10	ng/l	1	01/12/16 21:08	
Naled	ND		10	ng/l	1	01/12/16 21:08	
Phorate	ND		10	ng/l	1	01/12/16 21:08	
Ronnel	ND		10	ng/l	1	01/12/16 21:08	
Stirophos	ND		10	ng/l	1	01/12/16 21:08	
Tokuthion (Prothiofos)	ND		10	ng/l	1	01/12/16 21:08	
Trichloronate	ND		10	ng/l	1	01/12/16 21:08	
Surr: 1,3-Dimethyl-2-nitrobenzene	*110 %*	Conc:*550*	*76-128*	%			
Surr: Triphenyl phosphate	*121 %*	Conc:*607*	*40-163*	%			

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-05 LAILG-NGA-FB

Sampled: 01/05/16 10:30 **Sampled By:** Scott Jordan **Matrix:** Water

Anions by IC, EPA Method 300.0

Method: EPA 300.0 Batch: W6A0290 Prepared: 01/07/16 12:00 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	ND	0.50	mg/l	1	01/07/16 17:05	
Sulfate as SO4	ND	0.50	mg/l	1	01/07/16 17:05	

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4'-DDD	ND	5.0	ng/l	1	01/22/16 03:30	
2,4'-DDE	ND	5.0	ng/l	1	01/22/16 03:30	
2,4'-DDT	ND	5.0	ng/l	1	01/22/16 03:30	
4,4´-DDD	ND	5.0	ng/l	1	01/22/16 03:30	
4,4´-DDE	ND	5.0	ng/l	1	01/22/16 03:30	
4,4´-DDT	ND	5.0	ng/l	1	01/22/16 03:30	
Aldrin	ND	5.0	ng/l	1	01/22/16 03:30	
alpha-BHC	ND	5.0	ng/l	1	01/22/16 03:30	
alpha-Chlordane	ND	5.0	ng/l	1	01/22/16 03:30	
Aroclor 1016	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1221	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1232	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1242	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1248	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1254	ND	100	ng/l	1	01/22/16 03:30	
Aroclor 1260	ND	100	ng/l	1	01/22/16 03:30	
beta-BHC	ND	5.0	ng/l	1	01/22/16 03:30	
Chlordane (tech)	ND	100	ng/l	1	01/22/16 03:30	
cis-Nonachlor	ND	5.0	ng/l	1	01/22/16 03:30	
delta-BHC	ND	5.0	ng/l	1	01/22/16 03:30	
Dieldrin	ND	5.0	ng/l	1	01/22/16 03:30	
Endosulfan I	ND	5.0	ng/l	1	01/22/16 03:30	
Endosulfan II	ND	5.0	ng/l	1	01/22/16 03:30	
Endosulfan sulfate	ND	5.0	ng/l	1	01/22/16 03:30	
Endrin	ND	5.0	ng/l	1	01/22/16 03:30	
Endrin aldehyde	ND	5.0	ng/l	1	01/22/16 03:30	
gamma-BHC (Lindane)	ND	5.0	ng/l	1	01/22/16 03:30	
gamma-Chlordane	ND	5.0	ng/l	1	01/22/16 03:30	
Heptachlor	ND	5.0	ng/l	1	01/22/16 03:30	
Heptachlor epoxide	ND	5.0	ng/l	1	01/22/16 03:30	
Methoxychlor	ND	5.0	ng/l	1	01/22/16 03:30	
Mirex	ND	5.0	ng/l	1	01/22/16 03:30	
Toxaphene	ND	500	ng/l	1	01/22/16 03:30	
trans-Nonachlor	ND	5.0	ng/l	1	01/22/16 03:30	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-05 LAILG-NGA-FB

Sampled: 01/05/16 10:30 **Sampled By:** Scott Jordan **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 608 Batch: W6A0222 Prepared: 01/07/16 08:26 Analyst: par

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Surr: Decachlorobiphenyl	*86 %*	Conc:*86.3*	*0.1-118*	%			
Surr: Tetrachloro-meta-xylene	*83 %*	Conc:*83.1*	*12-117*	%			

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

Method: EPA 350.1 Batch: W6A1015 Prepared: 01/19/16 15:17 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N	ND	0.10	mg/l	1	01/21/16 16:25	

Method: EPA 353.2 Batch: W6A0119 Prepared: 01/05/16 14:07 Analyst: AJW

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	01/05/16 16:34	

Method: EPA 365.1 Batch: W6A0215 Prepared: 01/06/16 14:18 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	ND	0.0020	mg/l	1	01/06/16 19:15	**

Method: EPA 365.1 Batch: W6A0216 Prepared: 01/06/16 14:20 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P, dissolved	ND	2.0	ug/l	1	01/06/16 19:40	**

Method: EPA 365.1 Batch: W6A0621 Prepared: 01/12/16 18:52 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	ND	0.010	mg/l	1	01/14/16 15:37	

Method: EPA 365.1 Batch: W6A0686 Prepared: 01/13/16 16:07 Analyst: lac

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	ND	0.010	mg/l	1	01/20/16 14:09	

Method: SM 2540C Batch: W6A0366 Prepared: 01/08/16 11:19 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	ND	10	mg/l	1	01/08/16 13:30	

Method: SM 2540D Batch: W6A0148 Prepared: 01/05/16 19:30 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	01/05/16 21:10	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: [CALC] Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	ND	0.250	mg/l	1	01/12/16 15:19	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-05 LAILG-NGA-FB

Sampled: 01/05/16 10:30 **Sampled By:** Scott Jordan **Matrix:** Water

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W6A0296 Prepared: 01/07/16 12:20 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium, Total	ND	0.100	mg/l	1	01/12/16 15:19	

Method: EPA 200.8 Batch: W6A0301 Prepared: 01/07/16 12:31 Analyst: rrl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	ND	0.50	ug/l	1	01/13/16 13:42	

Pyrethroid Pesticides by GC/MS SIM

Method: GC/MS NCI-SIM Batch: W6A0864 Prepared: 01/17/16 08:10 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Allethrin	ND		2.0	ng/l	1	01/23/16 04:06	
Bifenthrin	ND		2.0	ng/l	1	01/23/16 04:06	
Cyfluthrin	ND		2.0	ng/l	1	01/23/16 04:06	
Cypermethrin	ND		2.0	ng/l	1	01/23/16 04:06	
Deltamethrin/Tralomethrin	ND		2.0	ng/l	1	01/23/16 04:06	
Dichloran	ND		2.0	ng/l	1	01/23/16 04:06	
Fenpropathrin (Danitol)	ND		2.0	ng/l	1	01/23/16 04:06	
Fenvalerate/Esfenvalerate	ND		2.0	ng/l	1	01/23/16 04:06	
L-Cyhalothrin	ND		2.0	ng/l	1	01/23/16 04:06	
Pendimethalin	ND		2.0	ng/l	1	01/23/16 04:06	
Permethrin	ND		5.0	ng/l	1	01/23/16 04:06	
Prallethrin	ND		2.0	ng/l	1	01/23/16 04:06	
Sumithrin (Phenothrin)	ND		10	ng/l	1	01/23/16 04:06	
Tefluthrin	ND		2.0	ng/l	1	01/23/16 04:06	
Surr: Perylene-d12	*206 %*	Conc:*515*	*2-205*	%			*S-GC*
Surr: Triphenyl phosphate	*122 %*	Conc:*306*	*6-222*	%			

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	10	ng/l	1	01/12/16 21:34	
Bolstar	ND	10	ng/l	1	01/12/16 21:34	
Chlorpyrifos	ND	10	ng/l	1	01/12/16 21:34	
Coumaphos	ND	10	ng/l	1	01/12/16 21:34	
Demeton-o	ND	10	ng/l	1	01/12/16 21:34	
Demeton-s	ND	10	ng/l	1	01/12/16 21:34	
Diazinon	ND	10	ng/l	1	01/12/16 21:34	
Dichlorvos	ND	10	ng/l	1	01/12/16 21:34	
Dimethoate	ND	10	ng/l	1	01/12/16 21:34	
Disulfoton	ND	10	ng/l	1	01/12/16 21:34	
Ethoprop	ND	10	ng/l	1	01/12/16 21:34	

Pacific Ridgeline Inc.
230 Dove Ct.
Santa Paula CA, 93060

Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

6A05038-05 LAILG-NGA-FB

Sampled: 01/05/16 10:30 **Sampled By:** Scott Jordan **Matrix:** Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2 Batch: W6A0444 Prepared: 01/10/16 09:20 Analyst: EFC

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Ethyl parathion	ND		10	ng/l	1	01/12/16 21:34	
Fensulfothion	ND		10	ng/l	1	01/12/16 21:34	
Fenthion	ND		10	ng/l	1	01/12/16 21:34	
Malathion	ND		10	ng/l	1	01/12/16 21:34	
Merphos	ND		10	ng/l	1	01/12/16 21:34	
Methyl parathion	ND		10	ng/l	1	01/12/16 21:34	
Mevinphos	ND		10	ng/l	1	01/12/16 21:34	
Naled	ND		10	ng/l	1	01/12/16 21:34	
Phorate	ND		10	ng/l	1	01/12/16 21:34	
Ronnel	ND		10	ng/l	1	01/12/16 21:34	
Stirophos	ND		10	ng/l	1	01/12/16 21:34	
Tokuthion (Prothiofos)	ND		10	ng/l	1	01/12/16 21:34	
Trichloronate	ND		10	ng/l	1	01/12/16 21:34	
Surr: 1,3-Dimethyl-2-nitrobenzene	*112 %*	Conc:*562*	*76-128*	%			
Surr: Triphenyl phosphate	*106 %*	Conc:*531*	*40-163*	%			

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QUALITY CONTROL SECTION

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Anions by IC, EPA Method 300.0 - Quality Control

Batch W6A0290 - EPA 300.0

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0290-BLK1)				Analyzed: 01/07/16 12:35						
Chloride, Total	ND	0.50	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W6A0290-BS1)				Analyzed: 01/07/16 12:53						
Chloride, Total	3.67	0.50	mg/l	4.00		92	90-110			
Sulfate as SO4	8.38	0.50	mg/l	8.00		105	90-110			
Matrix Spike (W6A0290-MS1)	**Source: 6A06054-05**			Analyzed: 01/07/16 13:58						
Chloride, Total	38.6	5.0	mg/l	40.0	2.67	90	76-118			
Sulfate as SO4	107	5.0	mg/l	80.0	21.3	107	78-111			
Matrix Spike (W6A0290-MS2)	**Source: 6A06054-08**			Analyzed: 01/07/16 15:09						
Chloride, Total	43.4	5.0	mg/l	40.0	5.82	94	76-118			
Sulfate as SO4	90.7	5.0	mg/l	80.0	11.3	99	78-111			
Matrix Spike Dup (W6A0290-MSD1)	**Source: 6A06054-05**			Analyzed: 01/07/16 14:36						
Chloride, Total	38.0	5.0	mg/l	40.0	2.67	88	76-118	1	20	
Sulfate as SO4	102	5.0	mg/l	80.0	21.3	101	78-111	5	20	
Matrix Spike Dup (W6A0290-MSD2)	**Source: 6A06054-08**			Analyzed: 01/07/16 15:25						
Chloride, Total	42.4	5.0	mg/l	40.0	5.82	92	76-118	2	20	
Sulfate as SO4	97.0	5.0	mg/l	80.0	11.3	107	78-111	7	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W6A0222 - EPA 608

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0222-BLK1)				Analyzed: 01/21/16 21:22						
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							

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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W6A0222 - EPA 608

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0222-BLK1)				Analyzed: 01/21/16 21:22						
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							
Surr: Decachlorobiphenyl	*90.5*		*ng/l*	*100*		*91*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*76.4*		*ng/l*	*100*		*76*	*12-117*			
Blank (W6A0222-BLK2)				Analyzed: 01/21/16 21:53						
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							

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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W6A0222 - EPA 608

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0222-BLK2)				Analyzed: 01/21/16 21:53						
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							
Surr: Decachlorobiphenyl	*98.0*		*ng/l*	*100*		*98*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*80.6*		*ng/l*	*100*		*81*	*12-117*			
LCS (W6A0222-BS1)				Analyzed: 01/21/16 22:24						
4,4´-DDD	91.3	5.0	ng/l	100		91	42-133			
4,4´-DDE	89.3	5.0	ng/l	100		89	33-126			
4,4´-DDT	97.8	5.0	ng/l	100		98	35-147			
Aldrin	85.9	5.0	ng/l	100		86	18-117			
alpha-BHC	88.8	5.0	ng/l	100		89	47-119			
beta-BHC	95.5	5.0	ng/l	100		95	53-123			
delta-BHC	103	5.0	ng/l	100		103	51-123			
Dieldrin	90.8	5.0	ng/l	100		91	48-123			
Endosulfan I	78.1	5.0	ng/l	100		78	14-131			
Endosulfan II	81.6	5.0	ng/l	100		82	40-121			
Endosulfan sulfate	109	5.0	ng/l	100		109	44-140			
Endrin	92.4	5.0	ng/l	100		92	40-143			
Endrin aldehyde	87.4	5.0	ng/l	100		87	18-136			
gamma-BHC (Lindane)	89.7	5.0	ng/l	100		90	49-117			
Heptachlor	89.0	5.0	ng/l	100		89	31-130			
Heptachlor epoxide	87.6	5.0	ng/l	100		88	49-122			
Surr: Decachlorobiphenyl	*98.6*		*ng/l*	*100*		*99*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*78.7*		*ng/l*	*100*		*79*	*12-117*			
LCS (W6A0222-BS2)				Analyzed: 01/21/16 23:25						

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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W6A0222 - EPA 608

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W6A0222-BS2)				Analyzed: 01/21/16 23:25						
4,4´-DDD	86.5	5.0	ng/l	100		87	42-133			
4,4´-DDE	84.2	5.0	ng/l	100		84	33-126			
4,4´-DDT	92.7	5.0	ng/l	100		93	35-147			
Aldrin	80.1	5.0	ng/l	100		80	18-117			
alpha-BHC	84.9	5.0	ng/l	100		85	47-119			
beta-BHC	91.4	5.0	ng/l	100		91	53-123			
delta-BHC	99.0	5.0	ng/l	100		99	51-123			
Dieldrin	86.3	5.0	ng/l	100		86	48-123			
Endosulfan I	74.3	5.0	ng/l	100		74	14-131			
Endosulfan II	77.4	5.0	ng/l	100		77	40-121			
Endosulfan sulfate	109	5.0	ng/l	100		109	44-140			
Endrin	87.5	5.0	ng/l	100		88	40-143			
Endrin aldehyde	82.1	5.0	ng/l	100		82	18-136			
gamma-BHC (Lindane)	85.6	5.0	ng/l	100		86	49-117			
Heptachlor	83.3	5.0	ng/l	100		83	31-130			
Heptachlor epoxide	83.3	5.0	ng/l	100		83	49-122			
Surr: Decachlorobiphenyl	*92.1*		*ng/l*	*100*		*92*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*77.4*		*ng/l*	*100*		*77*	*12-117*			
LCS Dup (W6A0222-BSD1)				Analyzed: 01/21/16 22:54						
4,4´-DDD	86.0	5.0	ng/l	100		86	42-133	6	30	
4,4´-DDE	82.0	5.0	ng/l	100		82	33-126	9	30	
4,4´-DDT	91.9	5.0	ng/l	100		92	35-147	6	30	
Aldrin	78.8	5.0	ng/l	100		79	18-117	9	30	
alpha-BHC	81.5	5.0	ng/l	100		82	47-119	8	30	
beta-BHC	91.4	5.0	ng/l	100		91	53-123	4	30	
delta-BHC	98.0	5.0	ng/l	100		98	51-123	5	30	
Dieldrin	84.5	5.0	ng/l	100		85	48-123	7	30	
Endosulfan I	72.5	5.0	ng/l	100		73	14-131	7	30	
Endosulfan II	76.7	5.0	ng/l	100		77	40-121	6	30	
Endosulfan sulfate	103	5.0	ng/l	100		103	44-140	6	30	
Endrin	84.6	5.0	ng/l	100		85	40-143	9	30	
Endrin aldehyde	79.7	5.0	ng/l	100		80	18-136	9	30	
gamma-BHC (Lindane)	82.1	5.0	ng/l	100		82	49-117	9	30	
Heptachlor	81.8	5.0	ng/l	100		82	31-130	8	30	
Heptachlor epoxide	81.5	5.0	ng/l	100		82	49-122	7	30	
Surr: Decachlorobiphenyl	*90.8*		*ng/l*	*100*		*91*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*72.5*		*ng/l*	*100*		*73*	*12-117*			
LCS Dup (W6A0222-BSD2)				Analyzed: 01/21/16 23:56						
4,4´-DDD	95.3	5.0	ng/l	100		95	42-133	10	30	

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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W6A0222 - EPA 608

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W6A0222-BSD2)				Analyzed: 01/21/16 23:56						
4,4´-DDE	90.5	5.0	ng/l	100		90	33-126	7	30	
4,4´-DDT	101	5.0	ng/l	100		101	35-147	9	30	
Aldrin	86.2	5.0	ng/l	100		86	18-117	7	30	
alpha-BHC	89.9	5.0	ng/l	100		90	47-119	6	30	
beta-BHC	97.4	5.0	ng/l	100		97	53-123	6	30	
delta-BHC	105	5.0	ng/l	100		105	51-123	5	30	
Dieldrin	91.4	5.0	ng/l	100		91	48-123	6	30	
Endosulfan I	78.7	5.0	ng/l	100		79	14-131	6	30	
Endosulfan II	84.0	5.0	ng/l	100		84	40-121	8	30	
Endosulfan sulfate	109	5.0	ng/l	100		109	44-140	0.05	30	
Endrin	93.8	5.0	ng/l	100		94	40-143	7	30	
Endrin aldehyde	93.7	5.0	ng/l	100		94	18-136	13	30	
gamma-BHC (Lindane)	89.9	5.0	ng/l	100		90	49-117	5	30	
Heptachlor	92.8	5.0	ng/l	100		93	31-130	11	30	
Heptachlor epoxide	87.7	5.0	ng/l	100		88	49-122	5	30	
Surr: Decachlorobiphenyl	*100*		*ng/l*	*100*		*100*	*0.1-118*			
Surr: Tetrachloro-meta-xylene	*82.9*		*ng/l*	*100*		*83*	*12-117*			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W6A0119 - EPA 353.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0119-BLK1)				Analyzed: 01/05/16 16:23						
NO2+NO3 as N	ND	100	ug/l							
LCS (W6A0119-BS1)				Analyzed: 01/05/16 16:25						
NO2+NO3 as N	1030	100	ug/l	1000		103	90-110			
Matrix Spike (W6A0119-MS1)	**Source: 6A05038-01**			Analyzed: 01/05/16 16:30						
NO2+NO3 as N	2040	100	ug/l	2000	ND	102	90-110			
Matrix Spike (W6A0119-MS2)	**Source: 6A05038-05**			Analyzed: 01/05/16 16:36						
NO2+NO3 as N	2010	100	ug/l	2000	ND	100	90-110			
Matrix Spike Dup (W6A0119-MSD1)	**Source: 6A05038-01**			Analyzed: 01/05/16 16:32						
NO2+NO3 as N	2080	100	ug/l	2000	ND	104	90-110	2	20	
Matrix Spike Dup (W6A0119-MSD2)	**Source: 6A05038-05**			Analyzed: 01/05/16 16:38						
NO2+NO3 as N	2030	100	ug/l	2000	ND	101	90-110	0.9	20	

Batch W6A0142 - SM 2540D

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0142-BLK1)				Analyzed: 01/05/16 19:15						
Total Suspended Solids	ND	5	mg/l							

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W6A0142 - SM 2540D

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate (W6A0142-DUP1)		**Source: 6A05031-01**		Analyzed: 01/05/16 19:15						
Total Suspended Solids	29.0	5	mg/l		27.0			7	20	
Duplicate (W6A0142-DUP2)		**Source: 6A05031-02**		Analyzed: 01/05/16 19:15						
Total Suspended Solids	41.0	5	mg/l		39.0			5	20	

Batch W6A0148 - SM 2540D

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0148-BLK1)				Analyzed: 01/05/16 21:10						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W6A0148-DUP1)		**Source: 6A05038-05**		Analyzed: 01/05/16 21:10						
Total Suspended Solids	ND	5	mg/l		0.00			NR	20	
Duplicate (W6A0148-DUP2)		**Source: 6A05043-01**		Analyzed: 01/05/16 21:10						
Total Suspended Solids	14.0	5	mg/l		13.0			7	20	

Batch W6A0215 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0215-BLK1)				Analyzed: 01/06/16 18:58						
o-Phosphate as P	ND	0.0020	mg/l							
LCS (W6A0215-BS1)				Analyzed: 01/06/16 19:00						
o-Phosphate as P	0.0492	0.0020	mg/l	0.0500		98	90-110			
Duplicate (W6A0215-DUP1)		**Source: 6A06041-01**		Analyzed: 01/06/16 19:07						
o-Phosphate as P	0.00110	0.0020	mg/l		0.00142			25	20	R-03
Matrix Spike (W6A0215-MS1)		**Source: 6A06043-01**		Analyzed: 01/06/16 19:18						
o-Phosphate as P	0.565	0.010	mg/l	0.250	0.338	91	90-110			
Matrix Spike Dup (W6A0215-MSD1)		**Source: 6A06043-01**		Analyzed: 01/06/16 19:20						
o-Phosphate as P	0.565	0.010	mg/l	0.250	0.338	91	90-110	NR	20	

Batch W6A0216 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0216-BLK1)				Analyzed: 01/06/16 19:33						
o-Phosphate as P, dissolved	ND	2.0	ug/l							
LCS (W6A0216-BS1)				Analyzed: 01/06/16 19:34						
o-Phosphate as P, dissolved	49.7	2.0	ug/l	50.0		99	90-110			
Matrix Spike (W6A0216-MS1)		**Source: 6A05038-05**		Analyzed: 01/06/16 19:37						
o-Phosphate as P, dissolved	52.0	2.0	ug/l	50.0	1.02	102	90-110			
Matrix Spike Dup (W6A0216-MSD1)		**Source: 6A05038-05**		Analyzed: 01/06/16 19:39						
o-Phosphate as P, dissolved	52.4	2.0	ug/l	50.0	1.02	103	90-110	0.8	20	

Batch W6A0366 - SM 2540C

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0366-BLK1)				Analyzed: 01/08/16 13:30						

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W6A0366 - SM 2540C

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0366-BLK1)				Analyzed: 01/08/16 13:30						
Total Dissolved Solids	ND	10	mg/l							
LCS (W6A0366-BS1)				Analyzed: 01/08/16 13:30						
Total Dissolved Solids	801	10	mg/l	824		97	96-102			
Duplicate (W6A0366-DUP1)		**Source: 6A05089-01**		Analyzed: 01/08/16 13:30						
Total Dissolved Solids	80.0	10	mg/l		79.0			1	10	
Duplicate (W6A0366-DUP2)		**Source: 6A05093-01**		Analyzed: 01/08/16 13:30						
Total Dissolved Solids	594	10	mg/l		579			3	10	

Batch W6A0621 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0621-BLK1)				Analyzed: 01/14/16 15:35						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W6A0621-BS1)				Analyzed: 01/14/16 15:36						
Phosphorus as P, Total	0.0495	0.010	mg/l	0.0500		99	90-110			
Duplicate (W6A0621-DUP1)		**Source: 6A05038-05**		Analyzed: 01/14/16 15:42						
Phosphorus as P, Total	ND	0.010	mg/l		ND			NR	20	
Matrix Spike (W6A0621-MS1)		**Source: 6A05038-05**		Analyzed: 01/14/16 15:39						
Phosphorus as P, Total	0.0458	0.010	mg/l	0.0500	ND	92	90-110			
Matrix Spike (W6A0621-MS2)		**Source: 6A05089-01**		Analyzed: 01/14/16 15:45						
Phosphorus as P, Total	0.274	0.020	mg/l	0.100	0.169	105	90-110			
Matrix Spike Dup (W6A0621-MSD1)		**Source: 6A05038-05**		Analyzed: 01/14/16 15:40						
Phosphorus as P, Total	0.0466	0.010	mg/l	0.0500	ND	93	90-110	2	20	
Matrix Spike Dup (W6A0621-MSD2)		**Source: 6A05089-01**		Analyzed: 01/14/16 15:46						
Phosphorus as P, Total	0.270	0.020	mg/l	0.100	0.169	101	90-110	1	20	

Batch W6A0686 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0686-BLK1)				Analyzed: 01/20/16 14:06						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W6A0686-BS1)				Analyzed: 01/20/16 14:07						
Phosphorus, Dissolved	0.0504	0.010	mg/l	0.0500		101	90-110			
Duplicate (W6A0686-DUP1)		**Source: 6A05038-05**		Analyzed: 01/20/16 14:13						
Phosphorus, Dissolved	ND	0.010	mg/l		ND			NR	20	
Matrix Spike (W6A0686-MS1)		**Source: 6A05038-05**		Analyzed: 01/20/16 14:10						
Phosphorus, Dissolved	0.0509	0.010	mg/l	0.0500	ND	102	90-110			
Matrix Spike (W6A0686-MS2)		**Source: 6A05089-01**		Analyzed: 01/20/16 14:16						
Phosphorus, Dissolved	0.191	0.010	mg/l	0.0500	0.145	92	90-110			
Matrix Spike Dup (W6A0686-MSD1)		**Source: 6A05038-05**		Analyzed: 01/20/16 14:17						
Phosphorus, Dissolved	0.0504	0.010	mg/l	0.0500	ND	101	90-110	1	20	
Matrix Spike Dup (W6A0686-MSD2)		**Source: 6A05089-01**		Analyzed: 01/20/16 14:19						

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W6A0686 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Phosphorus, Dissolved	0.193	0.010	mg/l	0.0500	0.145	96	90-110	1	20	

Batch W6A0812 - EPA 365.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0812-BLK1)				Analyzed: 01/20/16 15:00						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W6A0812-BS1)				Analyzed: 01/20/16 15:02						
Phosphorus, Dissolved	0.0512	0.010	mg/l	0.0500		102	90-110			
Duplicate (W6A0812-DUP1)		**Source: 6A05038-01**		Analyzed: 01/20/16 15:09						
Phosphorus, Dissolved	ND	0.010	mg/l		0.00183			NR	20	R-03
Matrix Spike (W6A0812-MS1)		**Source: 6A06043-01**		Analyzed: 01/20/16 15:05						
Phosphorus, Dissolved	0.394	0.020	mg/l	0.100	0.296	98	90-110			
Matrix Spike Dup (W6A0812-MSD1)		**Source: 6A06043-01**		Analyzed: 01/20/16 15:06						
Phosphorus, Dissolved	0.390	0.020	mg/l	0.100	0.296	94	90-110	1	20	

Batch W6A1015 - EPA 350.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A1015-BLK1)				Analyzed: 01/21/16 16:25						
Ammonia as N	ND	0.10	mg/l							
LCS (W6A1015-BS1)				Analyzed: 01/21/16 16:25						
Ammonia as N	0.241	0.10	mg/l	0.250		96	90-110			
Matrix Spike (W6A1015-MS1)		**Source: 6A05038-05**		Analyzed: 01/21/16 16:25						
Ammonia as N	0.239	0.10	mg/l	0.250	ND	96	90-110			
Matrix Spike Dup (W6A1015-MSD1)		**Source: 6A05038-05**		Analyzed: 01/21/16 16:25						
Ammonia as N	0.230	0.10	mg/l	0.250	ND	92	90-110	4	15	

Metals by EPA 200 Series Methods - Quality Control

Batch W6A0296 - EPA 200.7

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0296-BLK1)				Analyzed: 01/12/16 14:25						
Calcium, Total	ND	0.100	mg/l							
LCS (W6A0296-BS1)				Analyzed: 01/12/16 14:31						
Calcium, Total	48.3	0.100	mg/l	50.2		96	85-115			
Matrix Spike (W6A0296-MS1)		**Source: 6A05081-01**		Analyzed: 01/12/16 15:32						
Calcium, Total	65.4	0.100	mg/l	50.2	18.0	94	70-130			
Matrix Spike (W6A0296-MS2)		**Source: 6A05008-05**		Analyzed: 01/12/16 15:37						
Calcium, Total	50.3	0.100	mg/l	50.2	4.67	91	70-130			
Matrix Spike Dup (W6A0296-MSD1)		**Source: 6A05081-01**		Analyzed: 01/12/16 15:35						
Calcium, Total	65.7	0.100	mg/l	50.2	18.0	95	70-130	0.5	30	

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Metals by EPA 200 Series Methods - Quality Control

Batch W6A0296 - EPA 200.7

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W6A0296-MSD2)	**Source: 6A05008-05**			Analyzed: 01/12/16 15:40						
Calcium, Total	50.5	0.100	mg/l	50.2	4.67	91	70-130	0.5	30	

Batch W6A0301 - EPA 200.8

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0301-BLK1)				Analyzed: 01/13/16 12:12						
Copper, Total	ND	0.50	ug/l							
LCS (W6A0301-BS1)				Analyzed: 01/13/16 11:54						
Copper, Total	48.2	0.50	ug/l	50.0		96	85-115			
Matrix Spike (W6A0301-MS1)	**Source: 6A05038-01**			Analyzed: 01/13/16 12:51						
Copper, Total	48.1	0.50	ug/l	50.0	0.479	95	70-130			
Matrix Spike (W6A0301-MS2)	**Source: 6A05038-05**			Analyzed: 01/13/16 13:47						
Copper, Total	46.3	0.50	ug/l	50.0	ND	93	70-130			
Matrix Spike Dup (W6A0301-MSD1)	**Source: 6A05038-01**			Analyzed: 01/13/16 12:55						
Copper, Total	48.8	0.50	ug/l	50.0	0.479	97	70-130	1	30	
Matrix Spike Dup (W6A0301-MSD2)	**Source: 6A05038-05**			Analyzed: 01/13/16 13:51						
Copper, Total	48.9	0.50	ug/l	50.0	ND	98	70-130	5	30	

Pyrethroid Pesticides by GC/MS SIM - Quality Control

Batch W6A0864 - GC/MS NCI-SIM

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0864-BLK1)				Analyzed: 01/22/16 23:13						
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							
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							
Surr: Perylene-d12	*174*		*ng/l*	*250*		*70*	*2-205*			
Surr: Triphenyl phosphate	*212*		*ng/l*	*250*		*85*	*6-222*			
LCS (W6A0864-BS1)				Analyzed: 01/22/16 23:46						

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Pyrethroid Pesticides by GC/MS SIM - Quality Control

Batch W6A0864 - GC/MS NCI-SIM

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W6A0864-BS1)				Analyzed: 01/22/16 23:46						
Allethrin	41.2	2.0	ng/l	50.0		82	23-149			
Bifenthrin	54.1	2.0	ng/l	50.0		108	26-153			
Cyfluthrin	42.8	2.0	ng/l	50.0		86	3-168			
Cypermethrin	43.4	2.0	ng/l	50.0		87	2-169			
Deltamethrin/Tralomethrin	28.1	2.0	ng/l	50.0		56	0.1-252			
Dichloran	45.1	2.0	ng/l	50.0		90	53-161			
Fenpropathrin (Danitol)	54.6	2.0	ng/l	50.0		109	28-154			
Fenvalerate/Esfenvalerate	41.2	2.0	ng/l	50.0		82	35-133			
L-Cyhalothrin	32.7	2.0	ng/l	50.0		65	9-214			
Pendimethalin	48.0	2.0	ng/l	50.0		96	41-158			
Permethrin	46.5	5.0	ng/l	50.0		93	31-154			
Prallethrin	38.1	2.0	ng/l	50.0		76	28-143			
Sumithrin (Phenothrin)	65.0	10	ng/l	50.0		130	12-200			
Tefluthrin	38.5	2.0	ng/l	50.0		77	48-161			
Surr: Perylene-d12	*224*		*ng/l*	*250*		*90*	*2-205*			
Surr: Triphenyl phosphate	*283*		*ng/l*	*250*		*113*	*6-222*			
LCS Dup (W6A0864-BSD1)				Analyzed: 01/23/16 00:18						
Allethrin	43.1	2.0	ng/l	50.0		86	23-149	5	30	
Bifenthrin	53.3	2.0	ng/l	50.0		107	26-153	2	30	
Cyfluthrin	45.7	2.0	ng/l	50.0		91	3-168	7	30	
Cypermethrin	50.9	2.0	ng/l	50.0		102	2-169	16	30	
Deltamethrin/Tralomethrin	30.4	2.0	ng/l	50.0		61	0.1-252	8	30	
Dichloran	52.7	2.0	ng/l	50.0		105	53-161	16	30	
Fenpropathrin (Danitol)	56.4	2.0	ng/l	50.0		113	28-154	3	30	
Fenvalerate/Esfenvalerate	46.1	2.0	ng/l	50.0		92	35-133	11	30	
L-Cyhalothrin	32.3	2.0	ng/l	50.0		65	9-214	1	30	
Pendimethalin	45.3	2.0	ng/l	50.0		91	41-158	6	30	
Permethrin	52.6	5.0	ng/l	50.0		105	31-154	12	30	
Prallethrin	40.6	2.0	ng/l	50.0		81	28-143	6	30	
Sumithrin (Phenothrin)	59.7	10	ng/l	50.0		119	12-200	8	30	
Tefluthrin	39.7	2.0	ng/l	50.0		79	48-161	3	30	
Surr: Perylene-d12	*232*		*ng/l*	*250*		*93*	*2-205*			
Surr: Triphenyl phosphate	*282*		*ng/l*	*250*		*113*	*6-222*			

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W6A0444 - EPA 525.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0444-BLK1)				Analyzed: 01/12/16 17:43						

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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W6A0444 - EPA 525.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6A0444-BLK1)				Analyzed: 01/12/16 17:43						
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							
Surr: 1,3-Dimethyl-2-nitrobenzene	*506*		*ng/l*	*500*		*101*	*76-128*			
Surr: Triphenyl phosphate	*535*		*ng/l*	*500*		*107*	*40-163*			
LCS (W6A0444-BS1)				Analyzed: 01/12/16 18:08						
Azinphos methyl (Guthion)	42.1	10	ng/l	50.0		84	0.1-188			
Bolstar	37.4	10	ng/l	50.0		75	11-166			
Chlorpyrifos	47.9	10	ng/l	50.0		96	37-169			
Coumaphos	43.8	10	ng/l	50.0		88	0.1-225			
Demeton-o	34.3	10	ng/l	50.0		69	0.1-211			
Demeton-s	47.6	10	ng/l	50.0		95	0.1-213			
Diazinon	47.5	10	ng/l	50.0		95	43-152			
Dichlorvos	35.4	10	ng/l	50.0		71	46-133			
Dimethoate	51.0	10	ng/l	50.0		102	10-234			
Disulfoton	50.2	10	ng/l	50.0		100	0.1-212			
Ethoprop	50.8	10	ng/l	50.0		102	53-163			
Ethyl parathion	45.9	10	ng/l	50.0		92	7-230			

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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W6A0444 - EPA 525.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W6A0444-BS1)				Analyzed: 01/12/16 18:08						
Fensulfothion	44.6	10	ng/l	50.0		89	0.1-265			
Fenthion	65.9	10	ng/l	50.0		132	20-177			
Malathion	56.0	10	ng/l	50.0		112	14-175			
Merphos	36.6	10	ng/l	50.0		73	28-181			
Methyl parathion	47.2	10	ng/l	50.0		94	0.1-252			
Mevinphos	43.1	10	ng/l	50.0		86	14-202			
Naled	8.90	10	ng/l	50.0		18	0.1-240			
Phorate	49.8	10	ng/l	50.0		100	26-180			
Ronnel	50.6	10	ng/l	50.0		101	34-154			
Stirophos	55.6	10	ng/l	50.0		111	0.1-188			
Tokuthion (Prothiofos)	38.6	10	ng/l	50.0		77	23-159			
Trichloronate	48.1	10	ng/l	50.0		96	34-153			
Surr: 1,3-Dimethyl-2-nitrobenzene	*516*		*ng/l*	*500*		*103*	*76-128*			
Surr: Triphenyl phosphate	*520*		*ng/l*	*500*		*104*	*40-163*			
LCS Dup (W6A0444-BSD1)				Analyzed: 01/12/16 18:34						
Azinphos methyl (Guthion)	29.4	10	ng/l	50.0		59	0.1-188	35	30	Q-12
Bolstar	16.2	10	ng/l	50.0		32	11-166	79	30	Q-12
Chlorpyrifos	52.6	10	ng/l	50.0		105	37-169	9	30	
Coumaphos	31.2	10	ng/l	50.0		62	0.1-225	34	30	Q-12
Demeton-o	27.2	10	ng/l	50.0		54	0.1-211	23	30	
Demeton-s	38.1	10	ng/l	50.0		76	0.1-213	22	30	
Diazinon	48.5	10	ng/l	50.0		97	43-152	2	30	
Dichlorvos	32.7	10	ng/l	50.0		65	46-133	8	30	
Dimethoate	57.3	10	ng/l	50.0		115	10-234	12	30	
Disulfoton	33.6	10	ng/l	50.0		67	0.1-212	39	30	Q-12
Ethoprop	50.6	10	ng/l	50.0		101	53-163	0.3	30	
Ethyl parathion	53.3	10	ng/l	50.0		107	7-230	15	30	
Fensulfothion	26.4	10	ng/l	50.0		53	0.1-265	51	30	Q-12
Fenthion	56.7	10	ng/l	50.0		113	20-177	15	30	
Malathion	66.9	10	ng/l	50.0		134	14-175	18	30	
Merphos	21.4	10	ng/l	50.0		43	28-181	52	30	Q-12
Methyl parathion	53.1	10	ng/l	50.0		106	0.1-252	12	30	
Mevinphos	36.5	10	ng/l	50.0		73	14-202	17	30	
Naled	10.7	10	ng/l	50.0		21	0.1-240	18	30	
Phorate	47.8	10	ng/l	50.0		96	26-180	4	30	
Ronnel	55.7	10	ng/l	50.0		111	34-154	10	30	
Stirophos	60.0	10	ng/l	50.0		120	0.1-188	8	30	
Tokuthion (Prothiofos)	20.4	10	ng/l	50.0		41	23-159	62	30	Q-12
Trichloronate	52.1	10	ng/l	50.0		104	34-153	8	30	

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Date Received: 01/05/16 12:11
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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W6A0444 - EPA 525.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W6A0444-BSD1)				Analyzed: 01/12/16 18:34						
Surr: 1,3-Dimethyl-2-nitrobenzene	*528*		*ng/l*	*500*		*106*	*76-128*			
Surr: Triphenyl phosphate	*420*		*ng/l*	*500*		*84*	*40-163*			

Pacific Ridgeline Inc.
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Date Received: 01/05/16 12:11
Date Reported: 01/28/16 11:04

Notes and Definitions

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.
R-03	The RPD is not applicable for result below the reporting limit (either ND or J value).
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.
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.
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.
**	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.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

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 Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Pacific Ridgeline, Inc
230 Dove Court, Santa Paula, CA 93060
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CHAIN OF CUSTODY RECORD

ABC Lab.

PROJECT NAME: Los Angeles Irrigated Lands Grp.
PROJECT ADDRESS: Nursery Growers Association
PROJECT MANAGER: Bryn Howe
SAMPLER NAME (PRINT): Scott Jordan
PO#

ANALYSIS REQUESTED

☐ EDF
☐ STD TAT
☐ 24 HR RUSH
☐ 48-HR RUSH
☐ 72-HR RUSH

SAMPLE ID	SAMPLE LOCATION	DEPTH	DATE	TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	Ceriodaphnia Dubia 7 Day	Fathead Minnow 7 Day	Selenastrum 96hr.							NOTES
	LAILG-NGA-168-8	N/A	1/5/16	9:20	H_2O	2	X	X	X							S.W.
	LAILG-NGA-64-4	N/A	↓	8:30	H_2O	2	↓	↓	↓							Runoff

168-8 = 64-4

Temp. deg. C = 12.5°C = 12.0°C

Chlorine (mg/L) = <0.1 = <0.1

NH3 (mg/L) = 0.6 = 2.0

RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE: 1-6-16	TIME: 1312
RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE:	TIME:

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA168-8
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.042

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL	NOEC	=	100.00 %
	TUc	=	1.00
	EC25	=	>100.00 %
	EC50	=	>100.00 %
GROWTH	NOEC	=	100.00 %
	TUc	=	1.00
	IC25	=	>100.00 %
	IC50	=	>100.00 %

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	14-5601-6684	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:40	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	01-3300-1777	**Code:**	PRI0116.042fml	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	29h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
18-6090-7109	7d Survival Rate	100	>100	NA	4.08%	1	Equal Variance t Two-Sample Test
12-6624-7529	Mean Dry Biomass-mg	100	>100	NA	9.49%	1	Equal Variance t Two-Sample Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
00-9915-8764	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
16-7664-5074	Mean Dry Biomass-mg	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
00-9915-8764	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
18-6090-7109	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
12-6624-7529	Mean Dry Biomass-mg	Control Resp	0.3037	0.25 - NL	Yes	Passes Acceptability Criteria
16-7664-5074	Mean Dry Biomass-mg	Control Resp	0.3037	0.25 - NL	Yes	Passes Acceptability Criteria
12-6624-7529	Mean Dry Biomass-mg	PMSD	0.09491	0.12 - 0.3	Yes	Below Acceptability Criteria

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.9667	0.9054	1	0.9333	1	0.01925	0.03849	3.98%	3.33%

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3037	0.2747	0.3326	0.2853	0.3287	0.009102	0.0182	6.0%	0.0%
100		4	0.3293	0.2921	0.3666	0.3067	0.3567	0.01171	0.02342	7.11%	-8.45%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		0.9333	0.9333	1	1

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3067	0.3567	0.3407	0.3133

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		14/15	14/15	15/15	15/15

CETIS Analytical Report

Test Code: PRI0116.042fml | 06-7249-7679

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	18-6090-7109	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	4.08%	Passes 7d survival rate

Equal Variance t Two-Sample Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100	1.732	1.943	0.074	6	0.0670	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.008672003	0.008672003	1	3	0.1340	Non-Significant Effect
Error	0.01734401	0.002890667	6			
Total	0.02601601		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8489	0.6451	0.0929	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.25	0.3313	0.1599	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.6699	3.878	0.0804	Normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.9667	0.9054	1	0.9667	0.9333	1	0.01924	3.98%	3.33%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	4	1.441	1.441	1.442	1.441	1.441	1.441	0	0.0%	0.0%
100		4	1.375	1.254	1.496	1.375	1.31	1.441	0.03802	5.53%	4.57%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		0.9333	0.9333	1	1

Angular (Corrected) Transformed Detail

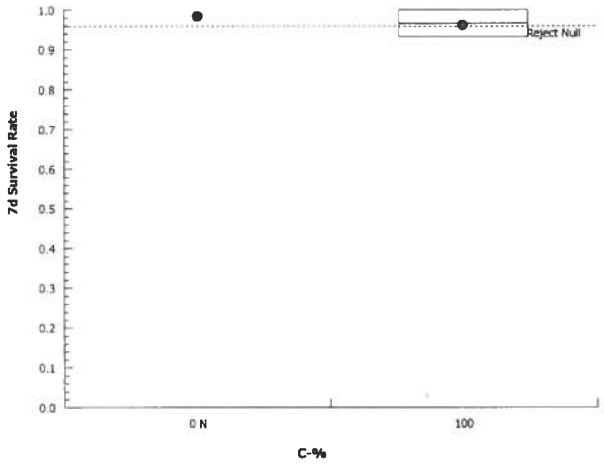
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.441	1.441	1.441	1.441
100		1.31	1.31	1.441	1.441

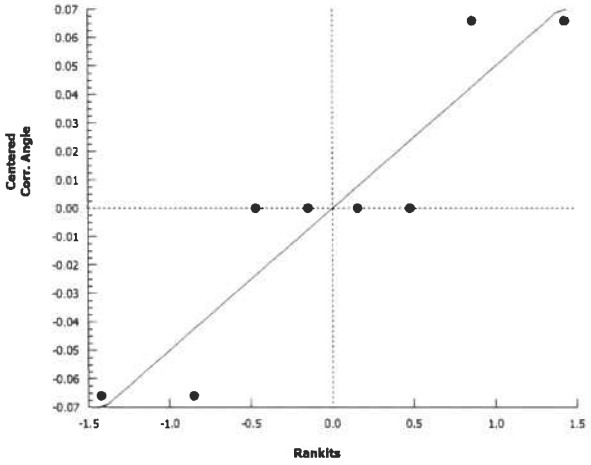
7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		14/15	14/15	15/15	15/15

Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	18-6090-7109	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Graphics





Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	12-6624-7529	Endpoint:	Mean Dry Biomass-mg	CETIS Version: CETISv1.8.7
Analyzed:	22 Jan-16 10:03	Analysis:	Parametric-Two Sample	Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	9.49%	Passes mean dry biomass-mg

Equal Variance t Two-Sample Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100	-1.731	1.943	0.029	6	0.9329	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.001317557	0.001317557	1	2.995	0.1342	Non-Significant Effect
Error	0.002639555	0.0004399258	6			
Total	0.003957111		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.655	47.47	0.6891	Equal Variances
Variances	Mod Levene Equality of Variance	1.017	13.75	0.3522	Equal Variances
Variances	Levene Equality of Variance	1.079	13.75	0.3390	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.91	0.6451	0.3539	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.17	0.3313	0.9228	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.3497	3.878	0.4773	Normal Distribution

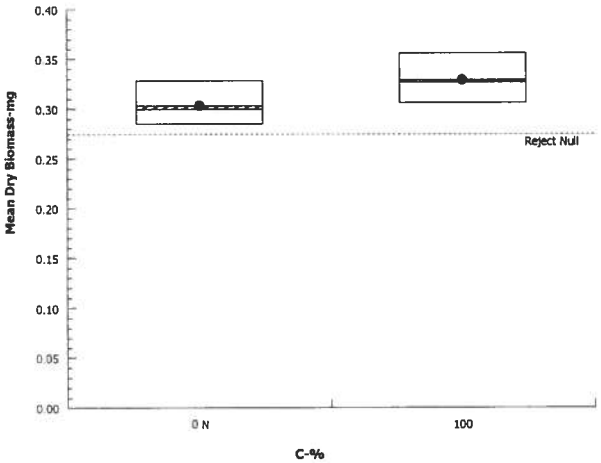
Mean Dry Biomass-mg Summary

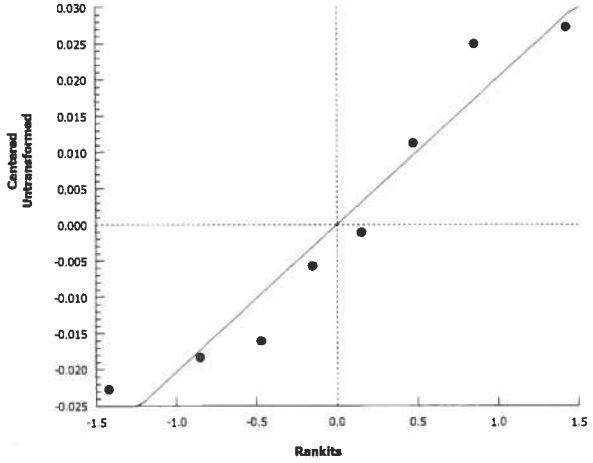
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	0.3037	0.2747	0.3326	0.3003	0.2853	0.3287	0.009102	6.0%	0.0%
100		4	0.3293	0.2921	0.3666	0.327	0.3067	0.3567	0.01171	7.11%	-8.45%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3067	0.3567	0.3407	0.3133

Graphics





CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	00-9915-8764	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:03	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	NA	NA
EC10	>100	N/A	N/A	<1	NA	NA
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	4	1	1	1	0	0	0.0%	0.0%	60	60
100		4	0.9667	0.9333	1	0.01924	0.03849	3.98%	3.33%	58	60

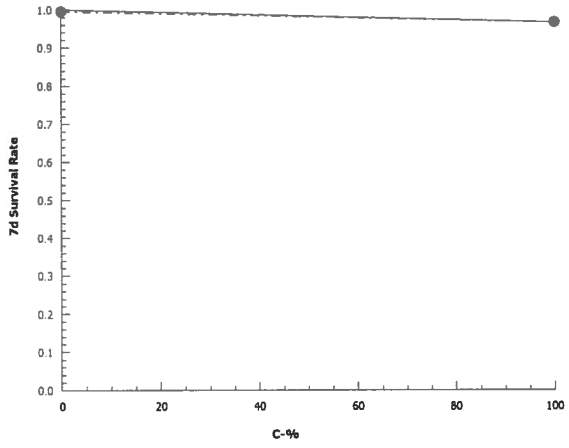
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		0.9333	0.9333	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		14/15	14/15	15/15	15/15

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	16-7664-5074	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:03	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1673331	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

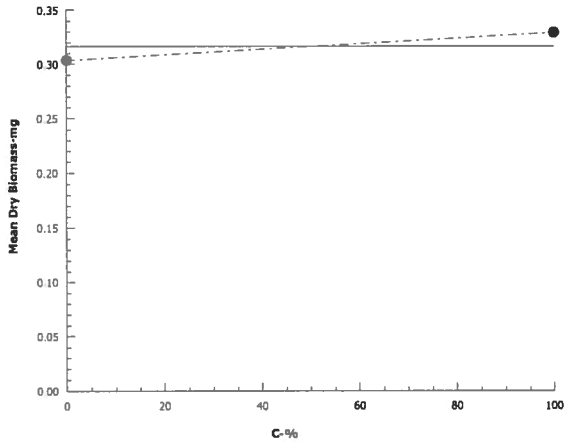
Mean Dry Biomass-mg Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3037	0.2853	0.3287	0.009102	0.0182	6.0%	0.0%
100		4	0.3293	0.3067	0.3567	0.01171	0.02342	7.11%	-8.45%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3067	0.3567	0.3407	0.3133

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	14-5601-6684	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:40	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	01-3300-1777	**Code:**	PRI0116.042fml	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	29h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	64.13	61.25	67	60	68	1.217	3.441	5.37%	0
100		8	64	64	64	64	64	0	0	0.0%	0
Overall		16	64.06			60	68				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.4	326	330.8	323	332	1.017	2.875	0.88%	0
100		8	590.3	584.9	595.6	580	597	2.266	6.409	1.09%	0
Overall		16	459.3			323	597				0 (0%)

Dissolved Oxygen-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.1	7.686	8.514	7.7	9.2	0.1753	0.4957	6.12%	0
100		8	7.75	7.181	8.319	6.3	8.7	0.2405	0.6803	8.78%	0
Overall		16	7.925			6.3	9.2				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	92.13	88.68	95.57	88	97	1.457	4.121	4.47%	0
100		8	184	184	184	184	184	0	0	0.0%	0
Overall		16	138.1			88	184				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.025	7.803	8.247	7.6	8.3	0.09402	0.2659	3.31%	0
100		8	7.513	7.243	7.782	7.1	7.9	0.1141	0.3227	4.3%	0
Overall		16	7.769			7.1	8.3				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.06	23.91	24.21	24	24.5	0.0625	0.1768	0.73%	0
100		8	24.19	24.02	24.35	24	24.5	0.06927	0.1959	0.81%	0
Overall		16	24.13			24	24.5				0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	63	63	63	60	60
100		64	64	64	64	64	64	64	64

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	332	323	328	330	326	329	331
100		580	596	595	595	597	584	586	589

Dissolved Oxygen-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.8	8.4	7.7	7.8	7.9	7.9	8.1	9.2
100		8.7	8.2	7.7	7.7	7.7	7.9	7.8	6.3

Hardness (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	90	90	90	88	88
100		184	184	184	184	184	184	184	184

pH-Units

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	7.9	7.7	8.3	8.1	8.2	7.6	8.3
100		7.1	7.8	7.9	7.8	7.7	7.2	7.2	7.4

Temperature-°C

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24	24	24	24	24.5	24
100		24.3	24	24	24.4	24.1	24.5	24.2	24

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA-168-8
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.042

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC	=	100.00 %
	TUc	=	1.00
	EC25	=	>100.00 %
	EC50	=	>100.00 %
REPRODUCTION	NOEC	=	100.00 %
	TUc	=	1.00
	IC25	=	>100.00 %
	IC50	=	>100.00 %

Yours very truly,

Scott Johnson
Laboratory Director

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	02-5393-4392	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:40	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	08-2172-7457	**Code:**	PRI0116.042cer	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	29h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
06-0097-3081	7d Survival Rate	100	>100	NA	NA	1	Fisher Exact Test
04-5707-3070	Reproduction	100	>100	NA	24.9%	1	TST-Welch's t Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
09-9583-7677	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
20-3354-6189	Reproduction	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
06-0097-3081	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
09-9583-7677	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
04-5707-3070	Reproduction	Control Resp	16.8	15 - NL	Yes	Passes Acceptability Criteria
20-3354-6189	Reproduction	Control Resp	16.8	15 - NL	Yes	Passes Acceptability Criteria
04-5707-3070	Reproduction	PMSD	0.2485	0.13 - 0.47	Yes	Passes Acceptability Criteria

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	1	1	1	1	1	0	0	0.0%	0.0%
100		10	1	1	1	1	1	0	0	0.0%	0.0%

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	16.8	10.27	23.33	7	35	2.886	9.126	54.32%	0.0%
100		10	30.4	20.71	40.09	8	54	4.282	13.54	44.55%	-80.95%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		28	24	54	51	24	31	34	23	27	8

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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

Test Code: PRI0116.042cer | 06-5815-3480

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	04-5707-3070	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:25	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	24.9%	Passes reproduction

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:20%)
Negative Control		100*	3.71	0.8702	4.175	13	0.0013	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	924.8	924.8	1	6.936	0.0169	Significant Effect
Error	2400	133.3333	18			
Total	3324.8		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.202	6.541	0.2553	Equal Variances
Variances	Mod Levene Equality of Variance	0.3553	8.285	0.5586	Equal Variances
Variances	Levene Equality of Variance	0.5258	8.285	0.4777	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.927	0.866	0.1353	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1636	0.2235	0.1725	Normal Distribution
Distribution	D'Agostino Skewness	1.21	2.576	0.2263	Normal Distribution
Distribution	D'Agostino Kurtosis	0.7099	2.576	0.4778	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	1.968	9.21	0.3738	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.7992	3.878	0.0382	Normal Distribution

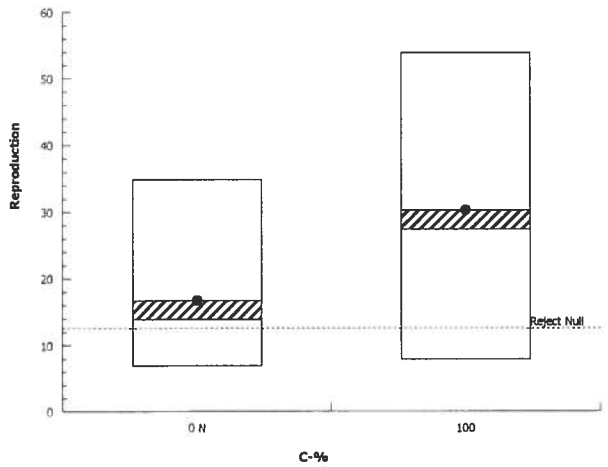
Reproduction Summary

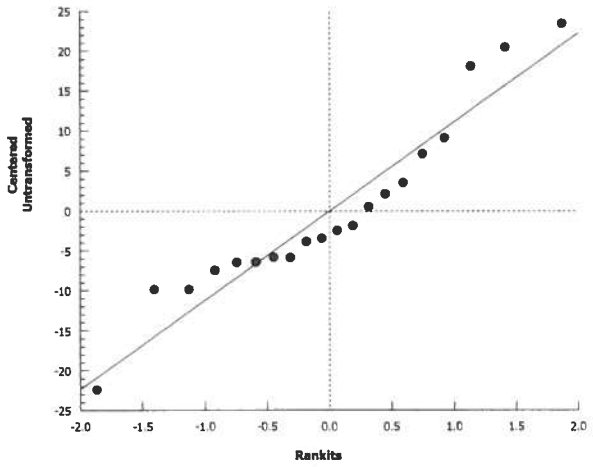
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	10	16.8	10.27	23.33	14	7	35	2.886	54.32%	0.0%
100		10	30.4	20.71	40.09	27.5	8	54	4.282	44.55%	-80.95%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		28	24	54	51	24	31	34	23	27	8

Graphics





 Analyst:_____ QA:_____

CETIS Analytical Report

Test Code: PRI0116.042cer | 06-5815-3480

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	09-9583-7677	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:25	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	NA	NA
EC10	>100	N/A	N/A	<1	NA	NA
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	10	1	1	1	0	0	0.0%	0.0%	10	10
100		10	1	1	1	0	0	0.0%	0.0%	10	10

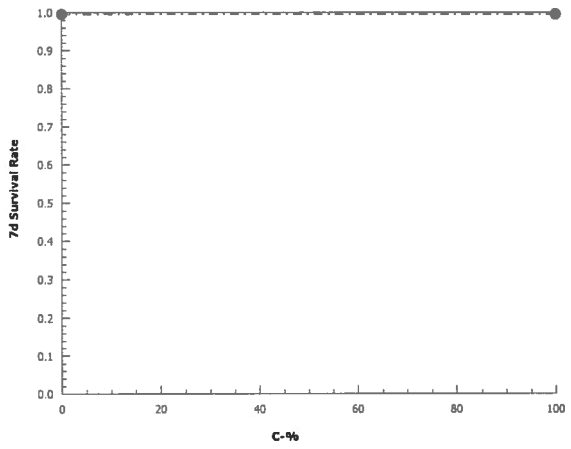
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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



 Analyst:_____ QA:_____

Ceriodaphnia 7-d Survival and Reproduction Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	20-3354-6189	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:25	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2089611	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

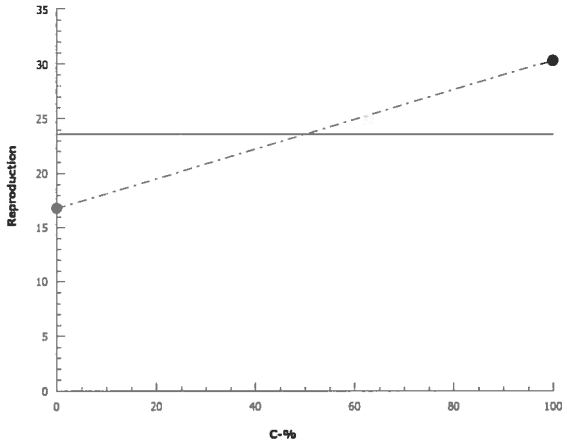
Reproduction Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	16.8	7	35	2.886	9.126	54.32%	0.0%
100		10	30.4	8	54	4.282	13.54	44.55%	-80.95%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		28	24	54	51	24	31	34	23	27	8

Graphics



CETIS Analytical Report

Test Code: PRI0116.042cer | 06-5815-3480

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	06-0097-3081	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:25	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Untransformed		C > T	NA	NA	Passes 7d survival rate

Fisher Exact Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Negative Control		100	1	1.0000	Exact	Non-Significant Effect

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Negative Contr	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

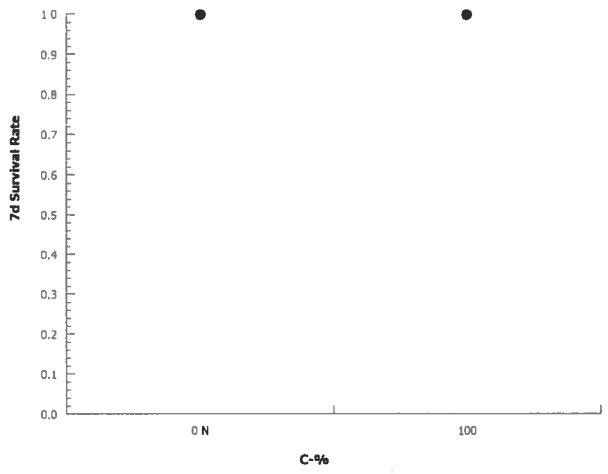
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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



 Analyst:_____ QA:_____

CETIS Measurement Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	02-5393-4392	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:40	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	08-2172-7457	**Code:**	PRI0116.042cer	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	29h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	64.13	61.25	67	60	68	1.217	3.441	5.37%	0
100		8	64	64	64	64	64	0	0	0.0%	0
Overall		16	64.06			60	68				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.4	326	330.8	323	332	1.017	2.875	0.88%	0
100		8	590.3	584.9	595.6	580	597	2.266	6.409	1.09%	0
Overall		16	459.3			323	597				0 (0%)

Dissolved Oxygen-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.1	7.686	8.514	7.7	9.2	0.1753	0.4957	6.12%	0
100		8	7.75	7.181	8.319	6.3	8.7	0.2405	0.6803	8.78%	0
Overall		16	7.925			6.3	9.2				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	92.13	88.68	95.57	88	97	1.457	4.121	4.47%	0
100		8	184	184	184	184	184	0	0	0.0%	0
Overall		16	138.1			88	184				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.025	7.803	8.247	7.6	8.3	0.09402	0.2659	3.31%	0
100		8	7.513	7.243	7.782	7.1	7.9	0.1141	0.3227	4.3%	0
Overall		16	7.769			7.1	8.3				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.06	23.91	24.21	24	24.5	0.0625	0.1768	0.73%	0
100		8	24.19	24.02	24.35	24	24.5	0.06927	0.1959	0.81%	0
Overall		16	24.13			24	24.5				0 (0%)

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	63	63	63	60	60
100		64	64	64	64	64	64	64	64

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	332	323	328	330	326	329	331
100		580	596	595	595	597	584	586	589

Dissolved Oxygen-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.8	8.4	7.7	7.8	7.9	7.9	8.1	9.2
100		8.7	8.2	7.7	7.7	7.7	7.9	7.8	6.3

Hardness (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	90	90	90	88	88
100		184	184	184	184	184	184	184	184

pH-Units

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	7.9	7.7	8.3	8.1	8.2	7.6	8.3
100		7.1	7.8	7.9	7.8	7.7	7.2	7.2	7.4

Temperature-°C

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24	24	24	24	24.5	24
100		24.3	24	24	24.4	24.1	24.5	24.2	24

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA-168-8
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.042

CHRONIC SELENASTRUM ALGAE GROWTH BIOASSAY

NOEC = <100.00 %
TUc = >1.00

IC25 = 37.67 %
IC50 = 75.35 %

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Test Code: PRI0116.042sel | 08-4293-8035

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	02-9230-5208	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	06 Jan-16 15:59	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Jan-16 14:15	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	11-8543-9828	**Code:**	PRI0116.042sel	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	31h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-6162-9851	Cell Density	<100	100	NA	2.4%	>1	Equal Variance t Two-Sample Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
16-0201-1605	Cell Density	IC5	7.535	7.287	7.909	13.27	Linear Interpolation (ICPIN)
		IC10	15.07	14.57	15.82	6.636	
		IC15	22.6	21.86	23.73	4.424	
		IC20	30.14	29.15	31.64	3.318	
		IC25	37.67	36.44	39.55	2.654	
		IC40	60.28	58.3	63.27	1.659	
		IC50	75.35	72.87	79.09	1.327	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
16-0201-1605	Cell Density	Control CV	0.01571	NL - 0.2	Yes	Passes Acceptability Criteria
19-6162-9851	Cell Density	Control CV	0.01571	NL - 0.2	Yes	Passes Acceptability Criteria
16-0201-1605	Cell Density	Control Resp	1.53E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
19-6162-9851	Cell Density	Control Resp	1.53E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
19-6162-9851	Cell Density	PMSD	0.02404	0.091 - 0.29	Yes	Below Acceptability Criteria

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.527E+6	1.489E+6	1.565E+6	1.496E+6	1.554E+6	1.200E+4	2.399E+4	1.57%	0.0%
100		4	5.138E+5	4.673E+5	5.602E+5	4.930E+5	5.570E+5	1.460E+4	2.920E+4	5.69%	66.36%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		5.570E+5	5.010E+5	4.930E+5	5.040E+5

Analyst: ____ QA: PASS

CETIS Analytical Report

Test Code: PRI0116.042sel | 08-4293-8035

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	19-6162-9851	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	12 Jan-16 10:30	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	2.4%	Fails cell density

Equal Variance t Two-Sample Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100*	53.63	1.943	36720	6	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.054364E+12	2.054364E+12	1	2876	<0.0001	Significant Effect
Error	4285500000	714250000	6			
Total	2.05865E+12		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.482	47.47	0.7544	Equal Variances
Variances	Mod Levene Equality of Variance	0.001139	13.75	0.9742	Equal Variances
Variances	Levene Equality of Variance	0.2552	13.75	0.6315	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9504	0.6451	0.7157	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1581	0.3313	1.0000	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.2698	3.878	0.7060	Normal Distribution

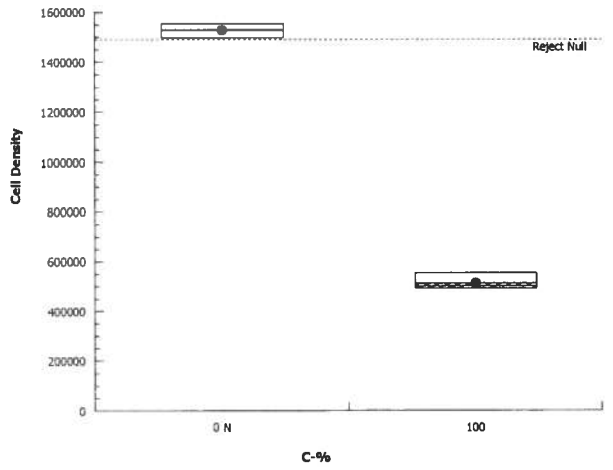
Cell Density Summary

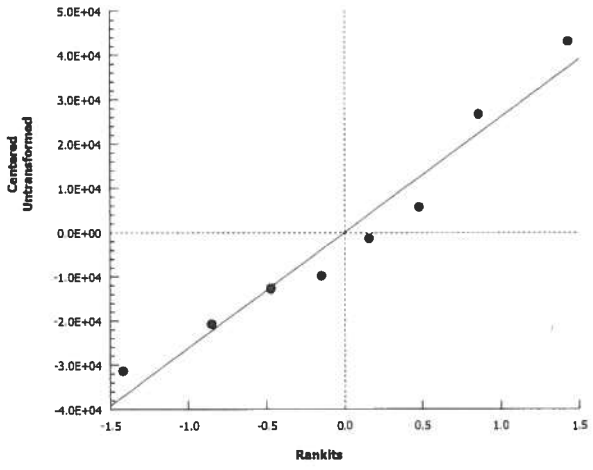
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	1.527E+6	1.489E+6	1.565E+6	1530000	1.496E+6	1.554E+6	1.200E+4	1.57%	0.0%
100		4	5.138E+5	4.673E+5	5.602E+5	502500	4.930E+5	5.570E+5	1.460E+4	5.69%	66.36%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		5.570E+5	5.010E+5	4.930E+5	5.040E+5

Graphics





Analyst: QA:

CETIS Analytical Report

Test Code: PRI0116.042sel | 08-4293-8035

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	16-0201-1605	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	12 Jan-16 10:30	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	7.535	7.287	7.909	13.27	12.64	13.72
IC10	15.07	14.57	15.82	6.636	6.322	6.861
IC15	22.6	21.86	23.73	4.424	4.215	4.574
IC20	30.14	29.15	31.64	3.318	3.161	3.431
IC25	37.67	36.44	39.55	2.654	2.529	2.745
IC40	60.28	58.3	63.27	1.659	1.58	1.715
IC50	75.35	72.87	79.09	1.327	1.264	1.372

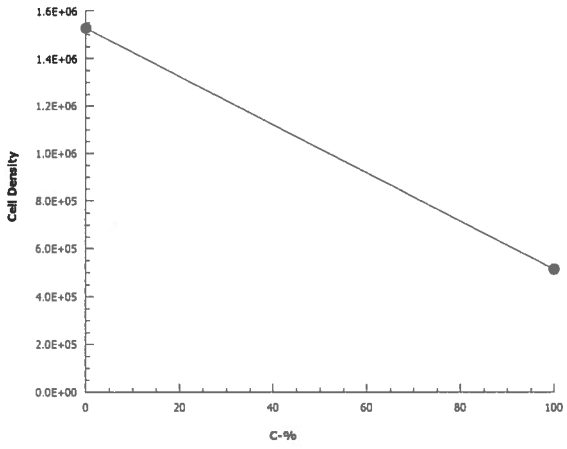
Cell Density Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.527E+6	1.496E+6	1.554E+6	1.200E+4	2.399E+4	1.57%	0.0%
100		4	5.138E+5	4.930E+5	5.570E+5	1.460E+4	2.920E+4	5.69%	66.36%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		5.570E+5	5.010E+5	4.930E+5	5.040E+5

Graphics



Analyst:_____ QA:_____

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	02-9230-5208	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	06 Jan-16 15:59	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Jan-16 14:15	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	11-8543-9828	**Code:**	PRI0116.042sel	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 09:20	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	31h (12.5 °C)	**Station:**	LAILG-NGA-168-8		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	70			70	70	0	0	0.0%	0
100		1	64			64	64	0	0	0.0%	0
Overall		2	67			64	70				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	413	408.8	417.2	410	418	1.517	3.391	0.82%	0
100		5	680.8	676.1	685.5	675	685	1.685	3.768	0.55%	0
Overall		10	546.9			410	685				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	100			100	100	0	0	0.0%	0
100		1	184			184	184	0	0	0.0%	0
Overall		2	142			100	184				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	7.68	7.576	7.784	7.6	7.8	0.03742	0.08367	1.09%	0
100		5	7.72	7.032	8.408	7.4	8.7	0.2478	0.5541	7.18%	0
Overall		10	7.7			7.4	8.7				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	24.2	23.86	24.54	24	24.5	0.1225	0.2739	1.13%	0
100		5	24.2	23.86	24.54	24	24.5	0.1225	0.2739	1.13%	0
Overall		10	24.2			24	24.5				0 (0%)

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1
0	Negative Contr	70
100		64

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5
0	Negative Contr	410	411	411	415	418
100		685	681	675	680	683

Hardness (CaCO3)-mg/L

C-%	Control Type	1
0	Negative Contr	100
100		184

pH-Units

C-%	Control Type	1	2	3	4	5
0	Negative Contr	7.6	7.7	7.6	7.7	7.8
100		8.7	7.6	7.4	7.4	7.5

Temperature-°C

C-%	Control Type	1	2	3	4	5
0	Negative Contr	24.5	24.5	24	24	24
100		24.5	24.5	24	24	24

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA-64-4
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.043

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL	NOEC	=	100.00 %
	TUc	=	1.00
	EC25	=	>100.00 %
	EC50	=	>100.00 %
GROWTH	NOEC	=	100.00 %
	TUc	=	1.00
	IC25	=	>100.00 %
	IC50	=	>100.00 %

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	03-0133-2741	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:21	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	20-3267-2506	**Code:**	PRI0116.043fml	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	30h (12 °C)	**Station:**	LAILG-NGA-64-4		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-7000-5604	7d Survival Rate	100	>100	NA	3.7%	1	Wilcoxon Rank Sum Two-Sample Test
08-3675-7225	Mean Dry Biomass-mg	100	>100	NA	10.8%	1	Equal Variance t Two-Sample Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
01-6612-0313	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
09-0658-5027	Mean Dry Biomass-mg	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
01-6612-0313	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
19-7000-5604	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
08-3675-7225	Mean Dry Biomass-mg	Control Resp	0.3037	0.25 - NL	Yes	Passes Acceptability Criteria
09-0658-5027	Mean Dry Biomass-mg	Control Resp	0.3037	0.25 - NL	Yes	Passes Acceptability Criteria
08-3675-7225	Mean Dry Biomass-mg	PMSD	0.1077	0.12 - 0.3	Yes	Below Acceptability Criteria

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.9833	0.9303	1	0.9333	1	0.01667	0.03333	3.39%	1.67%

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3037	0.2747	0.3326	0.2853	0.3287	0.009102	0.0182	6.0%	0.0%
100		4	0.3103	0.2653	0.3554	0.2833	0.3407	0.01415	0.0283	9.12%	-2.2%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		1	1	1	0.9333

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3407	0.328	0.2893	0.2833

Analyst: LN QA: PASS

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	14/15

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	19-7000-5604	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:07	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	3.7%	Passes 7d survival rate

Wilcoxon Rank Sum Two-Sample Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100	16	NA	1	6	0.5000	Exact	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002168001	0.002168001	1	1	0.3559	Non-Significant Effect
Error	0.013008	0.002168001	6			
Total	0.015176		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	13.75	0.3559	Equal Variances
Variances	Levene Equality of Variance	9	13.75	0.0240	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7065	0.6451	0.0027	Non-normal Distribution
Distribution	Kolmogorov-Smirnov D	0.375	0.3313	0.0015	Non-normal Distribution
Distribution	Anderson-Darling A2 Normality	1.162	3.878	0.0049	Non-normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.9833	0.9303	1	1	0.9333	1	0.01667	3.39%	1.67%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	4	1.441	1.441	1.442	1.441	1.441	1.441	0	0.0%	0.0%
100		4	1.408	1.304	1.513	1.441	1.31	1.441	0.03292	4.68%	2.28%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		1	1	1	0.9333

Angular (Corrected) Transformed Detail

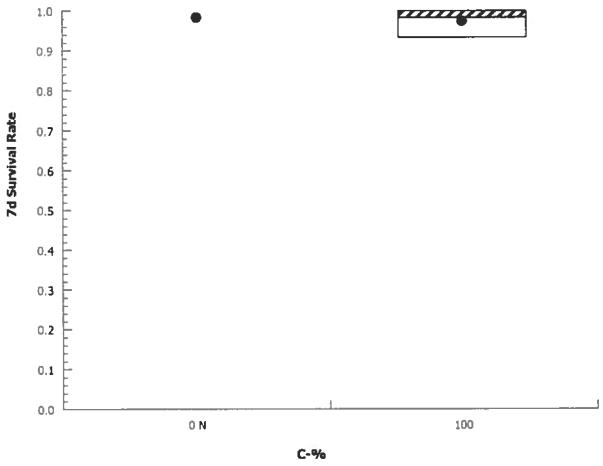
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.441	1.441	1.441	1.441
100		1.441	1.441	1.441	1.31

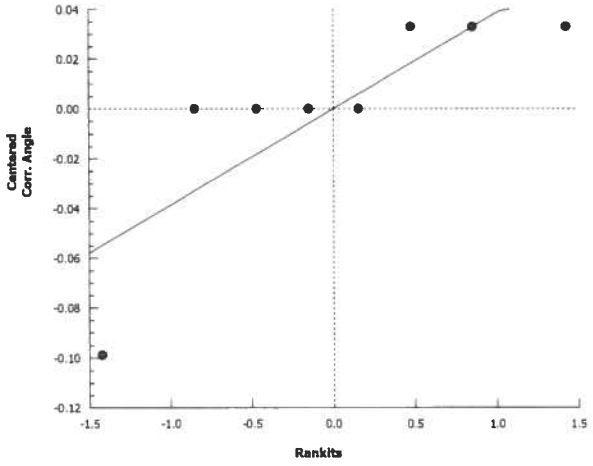
7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	14/15

Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	19-7000-5604	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:07	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Graphics





Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 08-3675-7225 **Endpoint:** Mean Dry Biomass-mg **CETIS Version:** CETISv1.8.7
Analyzed: 22 Jan-16 10:07 **Analysis:** Parametric-Two Sample **Official Results:** Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Untransformed	NA	C > T	NA	NA	10.8%	Passes mean dry biomass-mg

Equal Variance t Two-Sample Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100	-0.3963	1.943	0.033	6	0.6472	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.888931E-05	8.888931E-05	1	0.157	0.7056	Non-Significant Effect
Error	0.003396445	0.0005660742	6			
Total	0.003485334		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.416	47.47	0.4877	Equal Variances
Variances	Mod Levene Equality of Variance	3.021	13.75	0.1329	Equal Variances
Variances	Levene Equality of Variance	3.395	13.75	0.1150	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.917	0.6451	0.4059	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1724	0.3313	0.8884	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.3438	3.878	0.4920	Normal Distribution

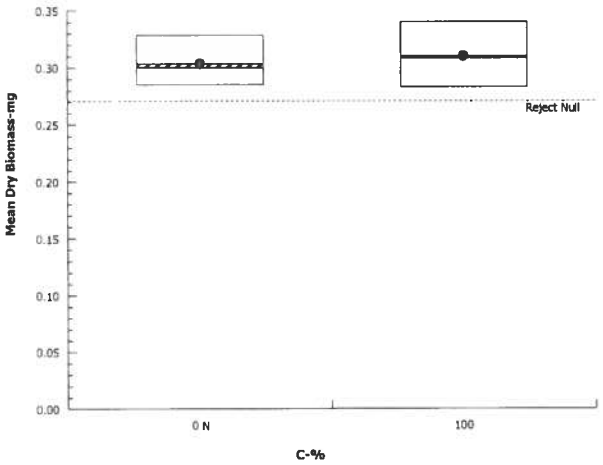
Mean Dry Biomass-mg Summary

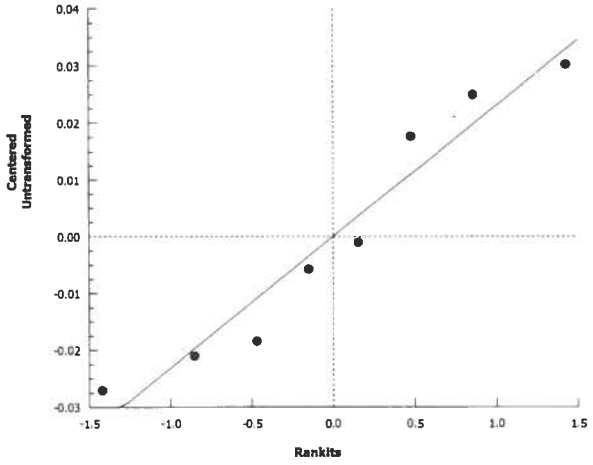
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	0.3037	0.2747	0.3326	0.3003	0.2853	0.3287	0.009102	6.0%	0.0%
100		4	0.3103	0.2653	0.3554	0.3087	0.2833	0.3407	0.01415	9.12%	-2.2%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3407	0.328	0.2893	0.2833

Graphics





Fathead Minnow 7-d Larval Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	01-6612-0313	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:07	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	NA	NA
EC10	>100	N/A	N/A	<1	NA	NA
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	4	1	1	1	0	0	0.0%	0.0%	60	60
100		4	0.9833	0.9333	1	0.01667	0.03333	3.39%	1.67%	59	60

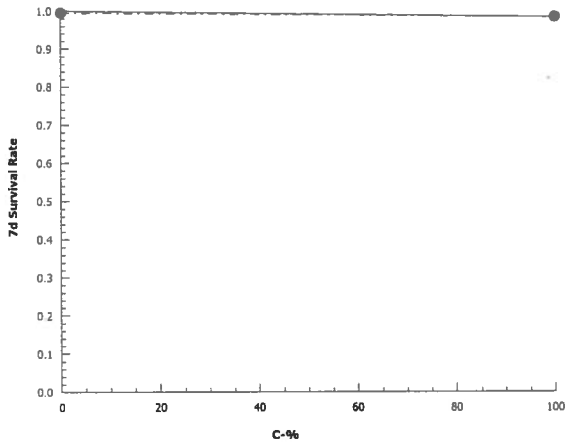
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		1	1	1	0.9333

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	14/15

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	09-0658-5027	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 10:07	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1840059	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

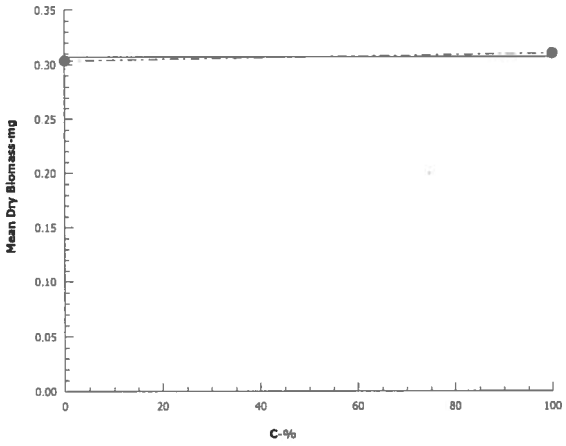
Mean Dry Biomass-mg Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3037	0.2853	0.3287	0.009102	0.0182	6.0%	0.0%
100		4	0.3103	0.2833	0.3407	0.01415	0.0283	9.12%	-2.2%

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.2853	0.298	0.3027	0.3287
100		0.3407	0.328	0.2893	0.2833

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	03-0133-2741	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:21	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	20-3267-2506	**Code:**	PRI0116.043fml	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	30h (12 °C)	**Station:**	LAILG-NGA-64-4		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	64.88	62.71	67.04	63	68	0.9149	2.588	3.99%	0
100		8	48	48	48	48	48	0	0	0.0%	0
Overall		16	56.44			48	68				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.4	326	330.8	323	332	1.017	2.875	0.88%	0
100		8	150.5	146.6	154.4	142	157	1.669	4.721	3.14%	0
Overall		16	239.4			142	332				0 (0%)

Dissolved Oxygen-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.1	7.686	8.514	7.7	9.2	0.1753	0.4957	6.12%	0
100		8	6.538	5.68	7.395	5.5	8.6	0.3625	1.025	15.68%	0
Overall		16	7.319			5.5	9.2				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	92.63	89.6	95.65	90	97	1.281	3.623	3.91%	0
100		8	115	115	115	115	115	0	0	0.0%	0
Overall		16	103.8			90	115				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.025	7.803	8.247	7.6	8.3	0.09402	0.2659	3.31%	0
100		8	7.788	7.585	7.99	7.5	8.1	0.08544	0.2416	3.1%	0
Overall		16	7.906			7.5	8.3				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.13	23.93	24.32	24	24.5	0.08183	0.2315	0.96%	0
100		8	24.17	23.97	24.36	24	24.5	0.08287	0.2344	0.97%	0
Overall		16	24.15			24	24.5				0 (0%)

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	63	63	63	63	63
100		48	48	48	48	48	48	48	48

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	332	323	328	330	326	329	331
100		142	147	153	155	150	157	151	149

Dissolved Oxygen-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.8	8.4	7.7	7.8	7.9	7.9	8.1	9.2
100		8.6	5.6	6.1	6.2	7	7.2	6.1	5.5

Hardness (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	90	90	90	90	90
100		115	115	115	115	115	115	115	115

pH-Units

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	7.9	7.7	8.3	8.1	8.2	7.6	8.3
100		7.7	7.7	8.1	8.1	8	7.5	7.6	7.6

Temperature-°C

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24	24.5	24	24	24.5	24
100		24.32	24	24	24.5	24	24.5	24	24

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA-64-4
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.043

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC	=	100.00 %
	TUc	=	1.00
	EC25	=	>100.00 %
	EC50	=	>100.00 %
REPRODUCTION	NOEC	=	100.00 %
	TUc	=	1.00
	IC25	=	>100.00 %
	IC50	=	>100.00 %

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	05-1344-8268	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:21	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:45	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	06-6107-0593	**Code:**	PRI0116.043cer	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	30h (12 °C)	**Station:**	LAILG-NGA-64-4		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
07-8564-8908	7d Survival Rate	100	>100	NA	NA	1	Fisher Exact Test
00-4293-7593	Reproduction	100	>100	NA	23.8%	1	TST-Welch's t Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
05-7279-8684	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
01-7945-0681	Reproduction	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
05-7279-8684	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
07-8564-8908	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
00-4293-7593	Reproduction	Control Resp	16.8	15 - NL	Yes	Passes Acceptability Criteria
01-7945-0681	Reproduction	Control Resp	16.8	15 - NL	Yes	Passes Acceptability Criteria
00-4293-7593	Reproduction	PMSD	0.2384	0.13 - 0.47	Yes	Passes Acceptability Criteria

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	1	1	1	1	1	0	0	0.0%	0.0%
100		10	1	1	1	1	1	0	0	0.0%	0.0%

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	16.8	10.27	23.33	7	35	2.886	9.126	54.32%	0.0%
100		10	29.2	20.01	38.39	15	51	4.063	12.85	44.0%	-73.81%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		47	27	22	42	51	26	18	18	15	26

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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

Test Code: PRI0116.043cer | 07-3596-5673

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	00-4293-7593	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:26	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	23.8%	Passes reproduction

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:20%)
Negative Control		100*	3.606	0.8702	4.006	13	0.0016	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	768.8	768.8	1	6.191	0.0229	Significant Effect
Error	2235.2	124.1778	18			
Total	3004		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.982	6.541	0.3228	Equal Variances
Variances	Mod Levene Equality of Variance	0.4973	8.285	0.4897	Equal Variances
Variances	Levene Equality of Variance	1.472	8.285	0.2407	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9025	0.866	0.0460	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.2159	0.2235	0.0153	Normal Distribution
Distribution	D'Agostino Skewness	1.529	2.576	0.1263	Normal Distribution
Distribution	D'Agostino Kurtosis	0.5012	2.576	0.6163	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	2.589	9.21	0.2741	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.882	3.878	0.0239	Normal Distribution

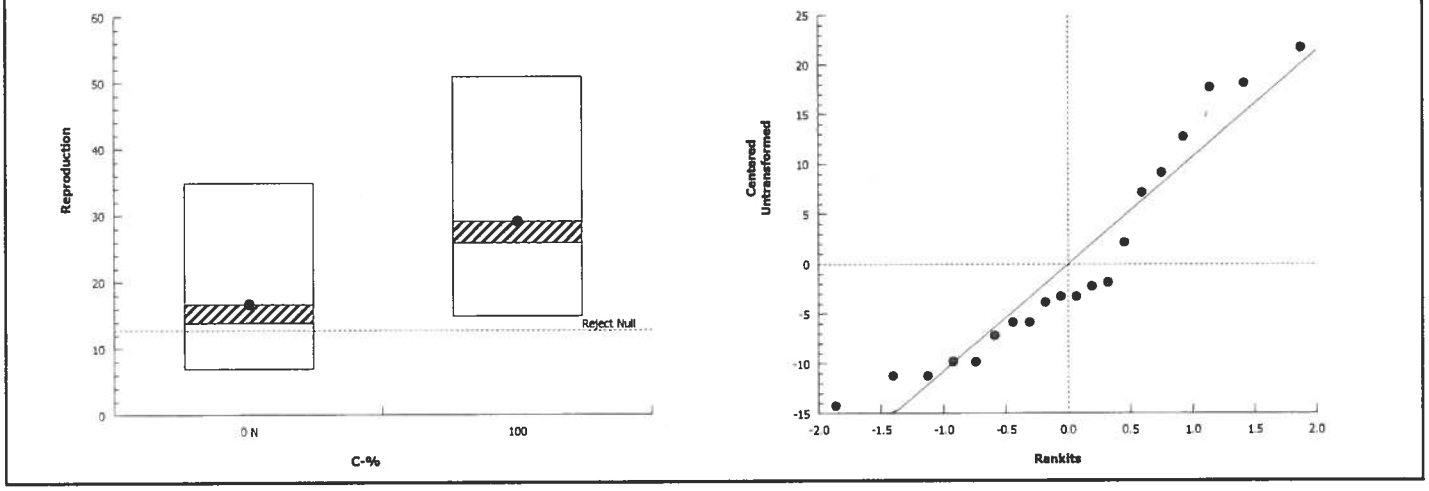
Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	10	16.8	10.27	23.33	14	7	35	2.886	54.32%	0.0%
100		10	29.2	20.01	38.39	26	15	51	4.063	44.0%	-73.81%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		47	27	22	42	51	26	18	18	15	26

Graphics



Analyst:_____ QA:_____

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	05-7279-8684	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:26	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	NA	NA
EC10	>100	N/A	N/A	<1	NA	NA
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	10	1	1	1	0	0	0.0%	0.0%	10	10
100		10	1	1	1	0	0	0.0%	0.0%	10	10

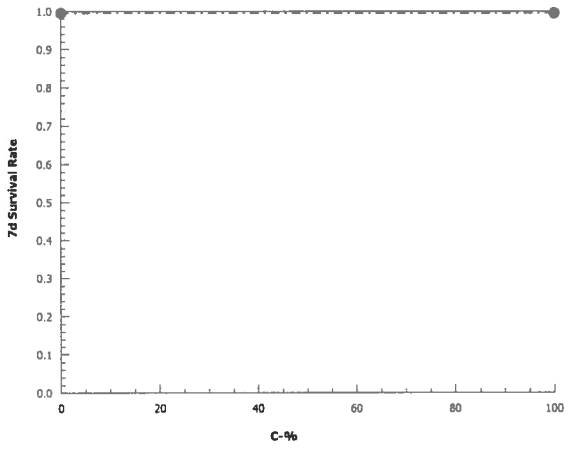
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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



Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-7945-0681	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:26	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	719400	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

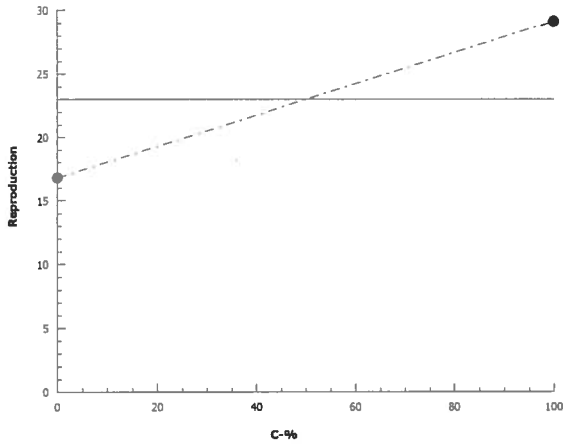
Reproduction Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	16.8	7	35	2.886	9.126	54.32%	0.0%
100		10	29.2	15	51	4.063	12.85	44.0%	-73.81%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	11	7	26	35	7	13	15	19	11	24
100		47	27	22	42	51	26	18	18	15	26

Graphics



CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	07-8564-8908	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	20 Jan-16 15:26	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Untransformed		C > T	NA	NA	Passes 7d survival rate

Fisher Exact Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Negative Control		100	1	1.0000	Exact	Non-Significant Effect

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Negative Contr	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

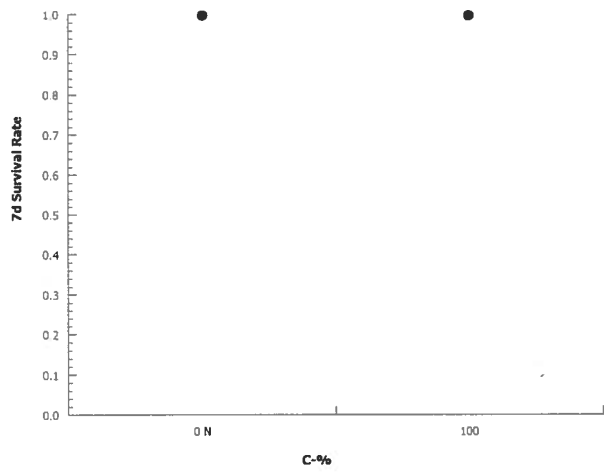
7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	05-1344-8268	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 14:21	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 14:45	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	06-6107-0593	**Code:**	PRI0116.043cer	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	30h (12 °C)	**Station:**	LAILG-NGA-64-4		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	64.88	62.71	67.04	63	68	0.9149	2.588	3.99%	0
100		8	48	48	48	48	48	0	0	0.0%	0
Overall		16	56.44			48	68				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.4	326	330.8	323	332	1.017	2.875	0.88%	0
100		8	150.5	146.6	154.4	142	157	1.669	4.721	3.14%	0
Overall		16	239.4			142	332				0 (0%)

Dissolved Oxygen-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.1	7.686	8.514	7.7	9.2	0.1753	0.4957	6.12%	0
100		8	6.538	5.68	7.395	5.5	8.6	0.3625	1.025	15.68%	0
Overall		16	7.319			5.5	9.2				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	92.63	89.6	95.65	90	97	1.281	3.623	3.91%	0
100		8	115	115	115	115	115	0	0	0.0%	0
Overall		16	103.8			90	115				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.025	7.803	8.247	7.6	8.3	0.09402	0.2659	3.31%	0
100		8	7.788	7.585	7.99	7.5	8.1	0.08544	0.2416	3.1%	0
Overall		16	7.906			7.5	8.3				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.13	23.93	24.32	24	24.5	0.08183	0.2315	0.96%	0
100		8	24.17	23.97	24.36	24	24.5	0.08287	0.2344	0.97%	0
Overall		16	24.15			24	24.5				0 (0%)

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	63	63	63	63	63
100		48	48	48	48	48	48	48	48

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	332	323	328	330	326	329	331
100		142	147	153	155	150	157	151	149

Dissolved Oxygen-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.8	8.4	7.7	7.8	7.9	7.9	8.1	9.2
100		8.6	5.6	6.1	6.2	7	7.2	6.1	5.5

Hardness (CaCO3)-mg/L

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	90	90	90	90	90
100		115	115	115	115	115	115	115	115

pH-Units

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	7.9	7.7	8.3	8.1	8.2	7.6	8.3
100		7.7	7.7	8.1	8.1	8	7.5	7.6	7.6

Temperature-°C

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24	24.5	24	24	24.5	24
100		24.32	24	24	24.5	24	24.5	24	24

aquatic bioassay & consulting laboratories, inc

January 27, 2016

Mr. Bryn Home
Pacific Ridgeline, Inc.
230 Dove Court
Santa Paula, CA 93060

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, Inc.
SAMPLE I.D.:	LAILG-NGA-64-4
DATE RECEIVED:	6 Jan -16
ABC LAB. NO.:	PRI0116.043

CHRONIC SELENASTRUM ALGAE GROWTH BIOASSAY

NOEC = 100.00 %
TUc = 1.00

IC25 = >100.00 %
IC50 = >100.00%

Yours very truly,

Scott Johnson
Laboratory Director

CETIS Summary Report

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	19-7023-3868	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	06 Jan-16 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Jan-16 14:20	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	08-1164-5064	**Code:**	PRI0116.043sel	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	32h (12 °C)	**Station:**	LAILG-NGA-64-4		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
14-4855-8015	Cell Density	100	>100	NA	2.44%	1	TST-Welch's t Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
11-1327-3066	Cell Density	IC5	26.31	18.04	47.85	3.801	Linear Interpolation (ICPIN)
		IC10	52.62	36.09	95.71	1.9	
		IC15	78.93	54.13	N/A	1.267	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
11-1327-3066	Cell Density	Control CV	0.01571	NL - 0.2	Yes	Passes Acceptability Criteria
14-4855-8015	Cell Density	Control CV	0.01571	NL - 0.2	Yes	Passes Acceptability Criteria
11-1327-3066	Cell Density	Control Resp	1.53E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
14-4855-8015	Cell Density	Control Resp	1.53E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
14-4855-8015	Cell Density	PMSD	0.02437	0.091 - 0.29	Yes	Below Acceptability Criteria

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.527E+6	1.489E+6	1.565E+6	1.496E+6	1.554E+6	1.200E+4	2.399E+4	1.57%	0.0%
100		4	1.237E+6	1.085E+6	1.389E+6	1.151E+6	1.369E+6	4.782E+4	9.565E+4	7.73%	19.0%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		1.369E+6	1.186E+6	1.242E+6	1.151E+6

CETIS Analytical Report

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	14-4855-8015	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	27 Jan-16 9:44	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	2.44%	Passes cell density

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:25%)
Negative Control		100*	1.882	0.7649	37220	3	0.0782	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.684901E+11	1.684901E+11	1	34.65	0.0011	Significant Effect
Error	29172750000	4862125000	6			
Total	1.976629E+11		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	15.89	47.47	0.0480	Equal Variances
Variances	Mod Levene Equality of Variance	2.853	13.75	0.1422	Equal Variances
Variances	Levene Equality of Variance	3.505	13.75	0.1104	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9144	0.6451	0.3862	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.2145	0.3313	0.3921	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.4325	3.878	0.3084	Normal Distribution

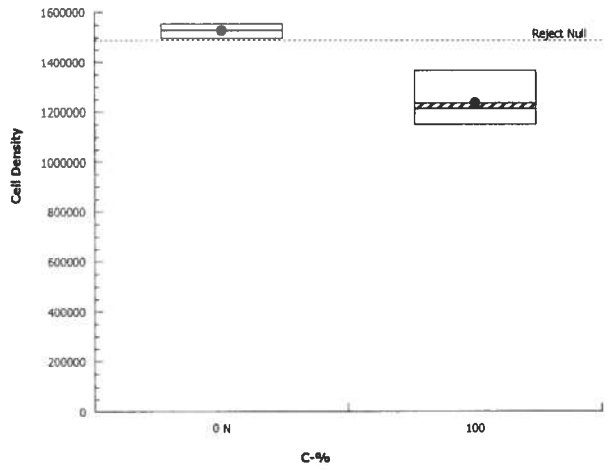
Cell Density Summary

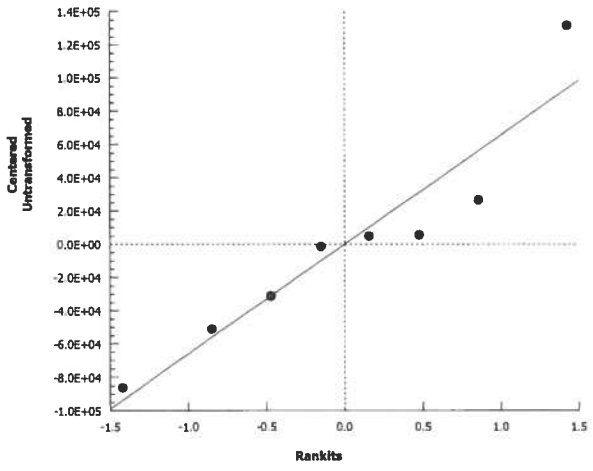
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	1.527E+6	1.489E+6	1.565E+6	1530000	1.496E+6	1.554E+6	1.200E+4	1.57%	0.0%
100		4	1.237E+6	1.085E+6	1.389E+6	1214000	1.151E+6	1.369E+6	4.782E+4	7.73%	19.0%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		1.369E+6	1.186E+6	1.242E+6	1.151E+6

Graphics





CETIS Analytical Report

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	11-1327-3066	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	27 Jan-16 9:44	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	26.31	18.04	47.85	3.801	2.09	5.542
IC10	52.62	36.09	95.71	1.9	1.045	2.771
IC15	78.93	54.13	N/A	1.267	NA	1.847
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

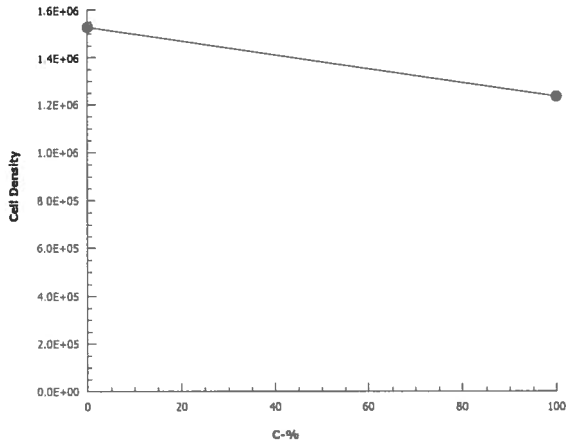
Cell Density Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.527E+6	1.496E+6	1.554E+6	1.200E+4	2.399E+4	1.57%	0.0%
100		4	1.237E+6	1.151E+6	1.369E+6	4.782E+4	9.565E+4	7.73%	19.0%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.496E+6	1.526E+6	1.533E+6	1.554E+6
100		1.369E+6	1.186E+6	1.242E+6	1.151E+6

Graphics



Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	19-7023-3868	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	06 Jan-16 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Jan-16 14:20	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	08-1164-5064	**Code:**	PRI0116.043sel	**Client:**	Pacific Ridgeline, Inc.
Sample Date:	05 Jan-16 08:30	**Material:**	Sample Water	**Project:**	Nursery Growers Association
Receive Date:	06 Jan-16 13:12	**Source:**	Bioassay Report		
Sample Age:	32h (12 °C)	**Station:**	LAILG-NGA-64-4		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	70			70	70	0	0	0.0%	0
100		1	48			48	48	0	0	0.0%	0
Overall		2	59			48	70				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	413	408.8	417.2	410	418	1.517	3.391	0.82%	0
100		5	261.6	252.2	271	251	269	3.4	7.603	2.91%	0
Overall		10	337.3			251	418				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	100			100	100	0	0	0.0%	0
100		1	115			115	115	0	0	0.0%	0
Overall		2	107.5			100	115				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	7.68	7.576	7.784	7.6	7.8	0.03742	0.08367	1.09%	0
100		5	7.9	7.338	8.462	7.6	8.7	0.2025	0.4528	5.73%	0
Overall		10	7.79			7.6	8.7				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	24.2	23.86	24.54	24	24.5	0.1225	0.2739	1.13%	0
100		5	24.2	23.86	24.54	24	24.5	0.1225	0.2739	1.13%	0
Overall		10	24.2			24	24.5				0 (0%)

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1
0	Negative Contr	70
100		48

Conductivity-µmhos

C-%	Control Type	1	2	3	4	5
0	Negative Contr	410	411	411	415	418
100		251	257	263	268	269

Hardness (CaCO3)-mg/L

C-%	Control Type	1
0	Negative Contr	100
100		115

pH-Units

C-%	Control Type	1	2	3	4	5
0	Negative Contr	7.6	7.7	7.6	7.7	7.8
100		8.7	7.8	7.6	7.7	7.7

Temperature-°C

C-%	Control Type	1	2	3	4	5
0	Negative Contr	24.5	24.5	24	24	24
100		24.5	24.5	24	24	24

aquatic bioassay & consulting laboratories, inc

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 6 January 2016

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 38.00 ug/l

EC25 = 45.88 ug/l
EC50 = 58.39 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 30.24 ug/l
IC50 = 49.32 ug/l

Yours very truly,

Scott Johnson
Laboratory Director

29 north olive st. ventura, ca 93001 (805) 643 5621 www.aquabio.org

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	05-3787-4752	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 13:50	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 11:50	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	6d 22h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	12-7379-3699	**Code:**	FML010616	**Client:**	ABC Labs
Sample Date:	06 Jan-16 13:50	**Material:**	Copper chloride	**Project:**	REF TOX
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
13-2406-5401	7d Survival Rate	38	75	53.39	14.5%		Dunnett Multiple Comparison Test
07-4926-4741	Mean Dry Biomass-mg	19	38	26.87	18.1%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
04-8272-9535	7d Survival Rate	EC5	22.01	10.58	49.41		Linear Interpolation (ICPIN)
		EC10	38.38	17.51	43.26		
		EC15	40.88	33.77	45.38		
		EC20	43.38	38.19	47.65		
		EC25	45.88	41.06	50.1		
		EC40	53.39	49.14	58.09		
		EC50	58.39	54.31	64.09		
06-4915-6096	Mean Dry Biomass-mg	IC5	12.82	10.73	17.21		Linear Interpolation (ICPIN)
		IC10	15.64	12.51	24.11		
		IC15	18.46	13.88	35.55		
		IC20	24.02	13.53	49.02		
		IC25	30.24	15.5	49.09		
		IC40	43.29	28.44	53.89		
		IC50	49.32	35.59	58.4		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
04-8272-9535	7d Survival Rate	Control Resp	0.9833	0.8 - NL	Yes	Passes Acceptability Criteria
13-2406-5401	7d Survival Rate	Control Resp	0.9833	0.8 - NL	Yes	Passes Acceptability Criteria
06-4915-6096	Mean Dry Biomass-mg	Control Resp	0.3072	0.25 - NL	Yes	Passes Acceptability Criteria
07-4926-4741	Mean Dry Biomass-mg	Control Resp	0.3072	0.25 - NL	Yes	Passes Acceptability Criteria
07-4926-4741	Mean Dry Biomass-mg	PMSD	0.1805	0.12 - 0.3	Yes	Passes Acceptability Criteria

7d Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.9833	0.9303	1	0.9333	1	0.01667	0.03333	3.39%	0.0%
10		4	1	1	1	1	1	0	0	0.0%	-1.7%
19		4	0.95	0.8484	1	0.8667	1	0.03191	0.06383	6.72%	3.39%
38		4	0.9	0.763	1	0.8	1	0.04303	0.08607	9.56%	8.48%
75		4	0.1667	0	0.3698	0.06667	0.3333	0.06383	0.1277	76.59%	83.05%
150		4	0.1333	0	0.4206	0	0.4	0.09027	0.1805	135.4%	86.44%

Mean Dry Biomass-mg Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3072	0.2595	0.3549	0.2893	0.352	0.01498	0.02997	9.76%	0.0%
10		4	0.339	0.2951	0.3829	0.3007	0.364	0.01379	0.02758	8.14%	-10.36%
19		4	0.2715	0.2371	0.3059	0.2467	0.2993	0.0108	0.0216	7.96%	11.61%
38		4	0.2222	0.1328	0.3115	0.16	0.2713	0.02808	0.05616	25.28%	27.67%
75		4	0.023	-0.003914	0.04991	0.006	0.046	0.008457	0.01691	73.54%	92.51%
150		4	0.02517	-0.01993	0.07026	0	0.06533	0.01417	0.02834	112.6%	91.81%

7d Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.9333	1
10		1	1	1	1
19		1	1	0.8667	0.9333
38		0.8667	0.9333	0.8	1
75		0.06667	0.06667	0.3333	0.2
150		0	0.4	0.06667	0.06667

Mean Dry Biomass-mg Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.352	0.2893	0.2927	0.2947
10		0.3387	0.3527	0.3007	0.364
19		0.2713	0.2993	0.2467	0.2687
38		0.1893	0.2713	0.16	0.268
75		0.006	0.01667	0.046	0.02333
150		0	0.06533	0.02267	0.01267

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	14/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	13/15	14/15
38		13/15	14/15	12/15	15/15
75		1/15	1/15	5/15	3/15
150		0/15	6/15	1/15	1/15

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 13-2406-5401 Endpoint: 7d Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 22 Jan-16 12:03 Analysis: Parametric-Control vs Treatments Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	14.5%	38	75	53.39	

Dunnett Multiple Comparison Test

Control	vs	C-µg/L	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		10	-0.3197	2.407	0.248	6	0.9103	CDF	Non-Significant Effect
		19	0.5931	2.407	0.248	6	0.6064	CDF	Non-Significant Effect
		38	1.404	2.407	0.248	6	0.2600	CDF	Non-Significant Effect
		75*	9.788	2.407	0.248	6	<0.0001	CDF	Significant Effect
		150*	10.43	2.407	0.248	6	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.393576	1.078715	5	50.85	<0.0001	Significant Effect
Error	0.3818108	0.02121171	18			
Total	5.775386		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.381	4.248	0.2777	Equal Variances
Variances	Levene Equality of Variance	3.299	4.248	0.0274	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9486	0.884	0.2531	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.111	0.2056	0.6409	Normal Distribution
Distribution	D'Agostino Skewness	1.759	2.576	0.0785	Normal Distribution
Distribution	D'Agostino Kurtosis	1.26	2.576	0.2077	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	4.683	9.21	0.0962	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.4413	3.878	0.2940	Normal Distribution

7d Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	0.9833	0.9303	1	1	0.9333	1	0.01667	3.39%	0.0%
10		4	1	1	1	1	1	1	0	0.0%	-1.7%
19		4	0.95	0.8484	1	0.9667	0.8667	1	0.03191	6.72%	3.39%
38		4	0.9	0.763	1	0.9	0.8	1	0.04303	9.56%	8.48%
75		4	0.1667	0	0.3698	0.1333	0.06667	0.3333	0.06383	76.59%	83.05%
150		4	0.1333	0	0.4206	0.06667	0	0.4	0.09027	135.4%	86.44%

Angular (Corrected) Transformed Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	4	1.408	1.304	1.513	1.441	1.31	1.441	0.03292	4.68%	0.0%
10		4	1.441	1.441	1.442	1.441	1.441	1.441	0	0.0%	-2.34%
19		4	1.347	1.16	1.535	1.375	1.197	1.441	0.05894	8.75%	4.34%
38		4	1.264	1.034	1.494	1.253	1.107	1.441	0.07224	11.43%	10.27%
75		4	0.4004	0.1262	0.6745	0.3624	0.2612	0.6155	0.08614	43.03%	71.57%
150		4	0.3341	-0.05069	0.7189	0.2612	0.1295	0.6847	0.1209	72.38%	76.28%

7d Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.9333	1
10		1	1	1	1
19		1	1	0.8667	0.9333
38		0.8667	0.9333	0.8	1
75		0.06667	0.06667	0.3333	0.2
150		0	0.4	0.06667	0.06667

Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	13-2406-5401	Endpoint:	7d Survival Rate	CETIS Version: CETISv1.8.7
Analyzed:	22 Jan-16 12:03	Analysis:	Parametric-Control vs Treatments	Official Results: Yes

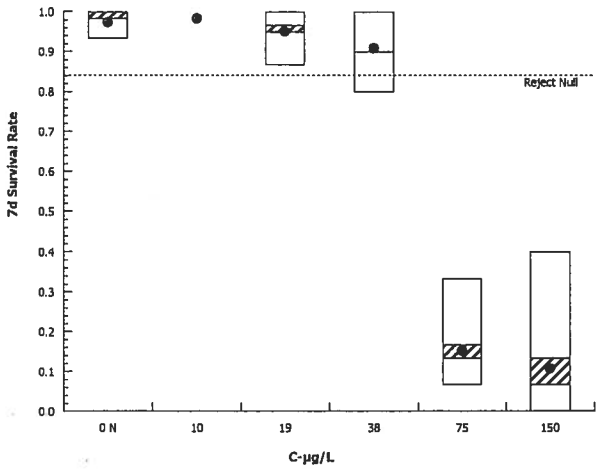
Angular (Corrected) Transformed Detail

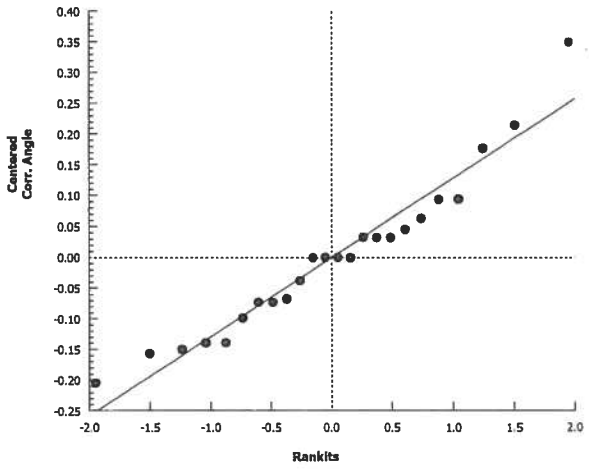
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.441	1.441	1.31	1.441
10		1.441	1.441	1.441	1.441
19		1.441	1.441	1.197	1.31
38		1.197	1.31	1.107	1.441
75		0.2612	0.2612	0.6155	0.4636
150		0.1295	0.6847	0.2612	0.2612

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	14/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	13/15	14/15
38		13/15	14/15	12/15	15/15
75		1/15	1/15	5/15	3/15
150		0/15	6/15	1/15	1/15

Graphics





Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 07-4926-4741 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.8.7
Analyzed: 22 Jan-16 12:03 Analysis: Parametric-Control vs Treatments Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	18.1%	19	38	26.87	

Dunnett Multiple Comparison Test

Control	vs	C-µg/L	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		10	-1.382	2.407	0.055	6	0.9941	CDF	Non-Significant Effect
		19	1.548	2.407	0.055	6	0.2128	CDF	Non-Significant Effect
		38*	3.69	2.407	0.055	6	0.0036	CDF	Significant Effect
		75*	12.34	2.407	0.055	6	<0.0001	CDF	Significant Effect
		150*	12.24	2.407	0.055	6	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.393124	0.0786248	5	74.08	<0.0001	Significant Effect
Error	0.01910355	0.001061309	18			
Total	0.4122276		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	4.842	15.09	0.4355	Equal Variances
Variances	Mod Levene Equality of Variance	2.038	4.248	0.1215	Equal Variances
Variances	Levene Equality of Variance	3.29	4.248	0.0277	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9624	0.884	0.4885	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1621	0.2056	0.1030	Normal Distribution
Distribution	D'Agostino Skewness	0.1823	2.576	0.8553	Normal Distribution
Distribution	D'Agostino Kurtosis	0.2462	2.576	0.8055	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	0.09388	9.21	0.9541	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.4278	3.878	0.3163	Normal Distribution

Mean Dry Biomass-mg Summary

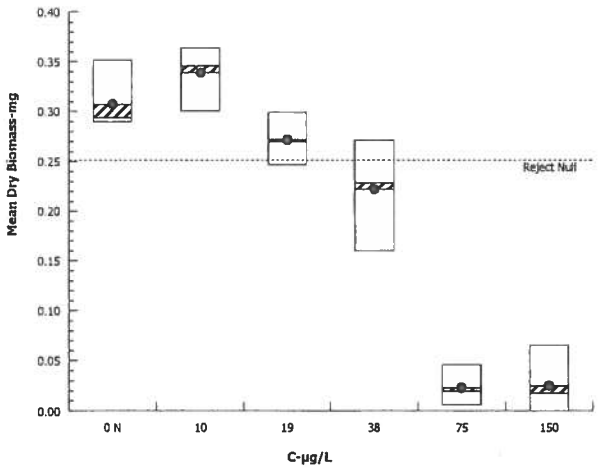
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	0.3072	0.2595	0.3549	0.2937	0.2893	0.352	0.01498	9.76%	0.0%
10		4	0.339	0.2951	0.3829	0.3457	0.3007	0.364	0.01379	8.14%	-10.36%
19		4	0.2715	0.2371	0.3059	0.27	0.2467	0.2993	0.0108	7.96%	11.61%
38		4	0.2222	0.1328	0.3115	0.2287	0.16	0.2713	0.02808	25.28%	27.67%
75		4	0.023	-0.003914	0.04991	0.02	0.006	0.046	0.008457	73.54%	92.51%
150		4	0.02517	-0.01993	0.07026	0.01767	0	0.06533	0.01417	112.6%	91.81%

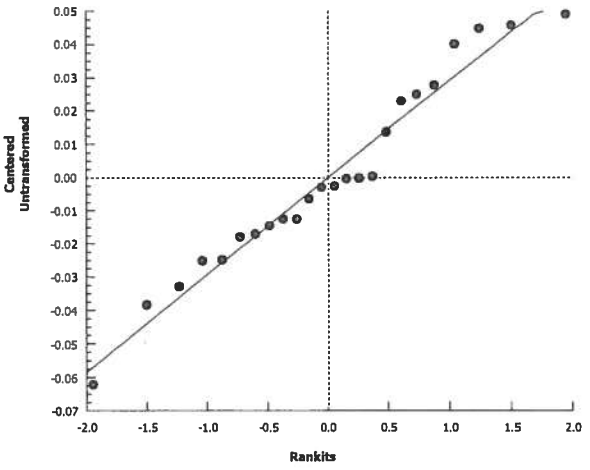
Mean Dry Biomass-mg Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.352	0.2893	0.2927	0.2947
10		0.3387	0.3527	0.3007	0.364
19		0.2713	0.2993	0.2467	0.2687
38		0.1893	0.2713	0.16	0.268
75		0.006	0.01667	0.046	0.02333
150		0	0.06533	0.02267	0.01267

Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	07-4926-4741	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.7
Analyzed:	22 Jan-16 12:03	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Graphics





CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	04-8272-9535	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	22 Jan-16 12:03	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC5	22.01	10.58	49.41
EC10	38.38	17.51	43.26
EC15	40.88	33.77	45.38
EC20	43.38	38.19	47.65
EC25	45.88	41.06	50.1
EC40	53.39	49.14	58.09
EC50	58.39	54.31	64.09

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	4	0.9833	0.9333	1	0.01667	0.03333	3.39%	0.0%	59	60
10		4	1	1	1	0	0	0.0%	-1.7%	60	60
19		4	0.95	0.8667	1	0.03191	0.06383	6.72%	3.39%	57	60
38		4	0.9	0.8	1	0.04303	0.08607	9.56%	8.48%	54	60
75		4	0.1667	0.06667	0.3333	0.06383	0.1277	76.59%	83.05%	10	60
150		4	0.1333	0	0.4	0.09027	0.1805	135.4%	86.44%	8	60

7d Survival Rate Detail

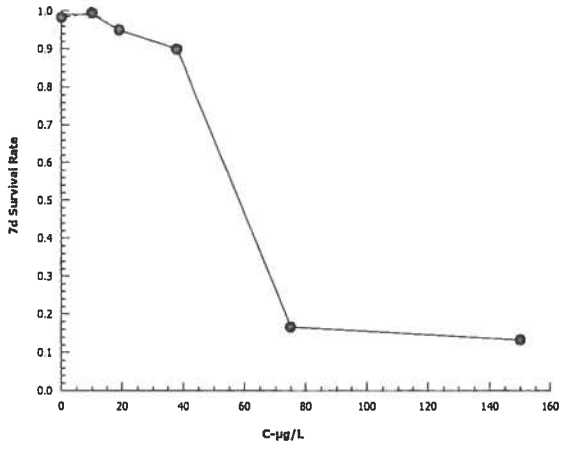
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.9333	1
10		1	1	1	1
19		1	1	0.8667	0.9333
38		0.8667	0.9333	0.8	1
75		0.06667	0.06667	0.3333	0.2
150		0	0.4	0.06667	0.06667

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	15/15	15/15	14/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	13/15	14/15
38		13/15	14/15	12/15	15/15
75		1/15	1/15	5/15	3/15
150		0/15	6/15	1/15	1/15

Fathead Minnow 7-d Larval Survival and Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	04-8272-9535	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	22 Jan-16 12:03	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	06-4915-6096	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETISv1.8.7
Analyzed:	22 Jan-16 12:03	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1134893	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	12.82	10.73	17.21
IC10	15.64	12.51	24.11
IC15	18.46	13.88	35.55
IC20	24.02	13.53	49.02
IC25	30.24	15.5	49.09
IC40	43.29	28.44	53.89
IC50	49.32	35.59	58.4

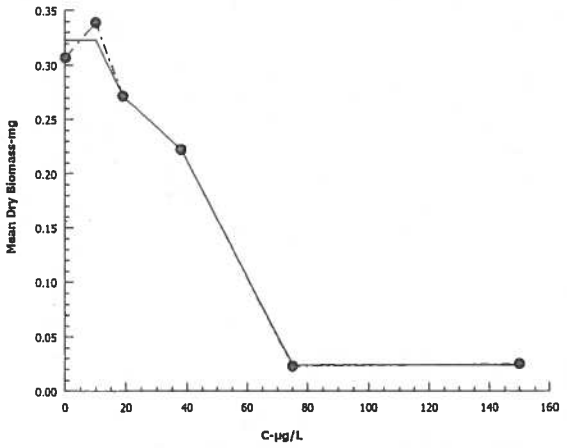
Mean Dry Biomass-mg Summary

			Calculated Variate						
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.3072	0.2893	0.352	0.01498	0.02997	9.76%	0.0%
10		4	0.339	0.3007	0.364	0.01379	0.02758	8.14%	-10.36%
19		4	0.2715	0.2467	0.2993	0.0108	0.0216	7.96%	11.61%
38		4	0.2222	0.16	0.2713	0.02808	0.05616	25.28%	27.67%
75		4	0.023	0.006	0.046	0.008457	0.01691	73.54%	92.51%
150		4	0.02517	0	0.06533	0.01417	0.02834	112.6%	91.81%

Mean Dry Biomass-mg Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.352	0.2893	0.2927	0.2947
10		0.3387	0.3527	0.3007	0.364
19		0.2713	0.2993	0.2467	0.2687
38		0.1893	0.2713	0.16	0.268
75		0.006	0.01667	0.046	0.02333
150		0	0.06533	0.02267	0.01267

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	05-3787-4752	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	06 Jan-16 13:50	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	13 Jan-16 11:50	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	6d 22h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	12-7379-3699	**Code:**	FML010616	**Client:**	ABC Labs
Sample Date:	06 Jan-16 13:50	**Material:**	Copper chloride	**Project:**	REF TOX
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	64.13	61.25	67	60	68	1.217	3.441	5.37%	0
150		8	74	74	74	74	74	0	0	0.0%	0
Overall		16	69.06			60	74				0 (0%)

Conductivity-µmhos

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.4	326	330.8	323	332	1.017	2.875	0.88%	0
10		8	329	314.4	343.6	295	350	6.159	17.42	5.3%	0
19		8	322.8	315.4	330.1	308	332	3.098	8.763	2.72%	0
38		8	323.1	317.2	329	307	328	2.496	7.06	2.19%	0
75		8	318	302.1	333.9	271	327	6.743	19.07	6.0%	0
150		8	324.8	323.4	326.1	322	327	0.559	1.581	0.49%	0
Overall		48	324.3			271	350				0 (0%)

Dissolved Oxygen-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.1	7.686	8.514	7.7	9.2	0.1753	0.4957	6.12%	0
10		8	8.5	7.928	9.072	7.8	9.7	0.242	0.6845	8.05%	0
19		8	8.55	7.955	9.145	7.7	9.7	0.2514	0.7111	8.32%	0
38		8	8.6	8.007	9.193	7.7	9.8	0.2507	0.7091	8.25%	0
75		8	8.588	8.006	9.169	7.7	9.8	0.246	0.6958	8.1%	0
150		8	8.563	8.017	9.108	7.7	9.6	0.2306	0.6523	7.62%	0
Overall		48	8.483			7.7	9.8				0 (0%)

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	92.13	88.68	95.57	88	97	1.457	4.121	4.47%	0
150		8	99	99	99	99	99	0	0	0.0%	0
Overall		16	95.56			88	99				0 (0%)

pH-Units

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.025	7.803	8.247	7.6	8.3	0.09402	0.2659	3.31%	0
10		8	7.725	7.526	7.924	7.4	8	0.08399	0.2375	3.08%	0
19		8	7.763	7.608	7.917	7.5	8	0.06529	0.1847	2.38%	0
38		8	7.788	7.643	7.932	7.5	8	0.06105	0.1727	2.22%	0
75		8	7.775	7.643	7.907	7.5	7.9	0.0559	0.1581	2.03%	0
150		8	7.763	7.637	7.888	7.5	7.9	0.05324	0.1506	1.94%	0
Overall		48	7.806			7.4	8.3				0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Temperature-°C

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.08	23.9	24.25	24	24.6	0.075	0.2121	0.88%	0
10		8	24.1	23.86	24.34	24	24.8	0.1	0.2828	1.17%	0
19		8	24.1	23.9	24.3	24	24.7	0.0866	0.2449	1.02%	0
38		8	24.08	23.93	24.22	24	24.5	0.06196	0.1752	0.73%	0
75		8	24.01	23.98	24.04	24	24.1	0.01249	0.03531	0.15%	0
150		8	24.04	23.99	24.08	24	24.1	0.01827	0.05167	0.22%	0
Overall		48	24.07			24	24.8				0 (0%)

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	63	63	63	60	60
150		74	74	74	74	74	74	74	74

Conductivity-µmhos

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	332	323	328	330	326	329	331
10		321	295	350	348	338	327	325	328
19		322	308	325	330	332	326	311	328
38		320	307	326	327	328	326	323	328
75		321	271	325	326	325	325	324	327
150		322	325	323	325	325	326	325	327

Dissolved Oxygen-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.8	8.4	7.7	7.8	7.9	7.9	8.1	9.2
10		8.6	9.7	7.9	7.8	7.8	8.5	9.2	8.5
19		8.6	9.7	7.8	7.9	7.7	8.8	9.2	8.7
38		8.7	9.8	8	7.9	7.7	8.8	9.2	8.7
75		8.6	9.8	8.1	7.9	7.7	8.6	9.2	8.8
150		8.7	9.6	8.2	7.8	7.7	8.7	9.2	8.6

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	90	90	90	88	88
150		99	99	99	99	99	99	99	99

pH-Units

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	7.9	7.7	8.3	8.1	8.2	7.6	8.3
10		7.4	7.4	7.9	7.9	7.9	8	7.6	7.7
19		7.5	7.6	7.9	7.9	7.9	8	7.6	7.7
38		7.5	7.7	7.9	8	7.9	7.9	7.6	7.8
75		7.5	7.7	7.9	7.9	7.9	7.9	7.6	7.8
150		7.5	7.7	7.8	7.9	7.9	7.9	7.6	7.8

Temperature-°C

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24	24	24	24	24.6	24
10		24	24	24	24	24	24	24.8	24
19		24	24	24	24	24.1	24	24.7	24
38		24	24	24	24	24.1	24	24.5	24
75		24	24	24	24	24.1	24	24	24
150		24	24	24	24	24.1	24.1	24.1	24

aquatic bioassay & consulting laboratories, inc

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 5 January- 2016

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

EC25 = 14.29 ug/l
EC50 = 21.43 ug/l

ENDPOINT: REPRODUCTION

NOEC = 10.00 ug/l

IC25 = 10.55 ug/l
IC50 = 17.36 ug/l

Yours very truly,

Scott Johnson
Laboratory Director

29 north olive st. ventura, ca 93001 (805) 643 5621 www.aquabio.org

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	14-6650-7256	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	05 Jan-16 12:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	12 Jan-16 11:00	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	6d 23h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	13-1381-7155	**Code:**	CER010516	**Client:**	Internal Lab
Sample Date:	05 Jan-16 12:00	**Material:**	Copper chloride	**Project:**	
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
17-7157-2608	7d Survival Rate	10	30	17.32	NA		Fisher Exact/Bonferroni-Holm Test
06-7842-3993	Reproduction	10	30	17.32	21.6%		Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
15-4141-4292	7d Survival Rate	EC5	7.5	5.833	11.43		Linear Interpolation (ICPIN)
		EC10	10	6.667	12.86		
		EC15	11.43	7.5	14.29		
		EC20	12.86	8.333	16.67		
		EC25	14.29	9.167	18.33		
		EC40	18.57	13.33	23.33		
		EC50	21.43	16.67	26.67		
12-5136-4443	Reproduction	IC5	6.088	4.573	7.629		Linear Interpolation (ICPIN)
		IC10	7.176	6.184	10.39		
		IC15	8.264	6.843	11.51		
		IC20	9.352	7.578	12.63		
		IC25	10.55	8.223	13.75		
		IC40	14.64	10.55	17.15		
		IC50	17.36	14.14	19.36		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
15-4141-4292	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
17-7157-2608	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
06-7842-3993	Reproduction	Control Resp	30.9	15 - NL	Yes	Passes Acceptability Criteria
12-5136-4443	Reproduction	Control Resp	30.9	15 - NL	Yes	Passes Acceptability Criteria
06-7842-3993	Reproduction	PMSD	0.2162	0.13 - 0.47	Yes	Passes Acceptability Criteria

7d Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	1	1	1	1	1	0	0	0.0%	0.0%
3		10	1	1	1	1	1	0	0	0.0%	0.0%
5		10	1	1	1	1	1	0	0	0.0%	0.0%
10		10	0.9	0.6738	1	0	1	0.1	0.3162	35.14%	10.0%
30		10	0.2	0	0.5016	0	1	0.1333	0.4216	210.8%	80.0%
50		10	0	0	0	0	0	0	0		100.0%

Reproduction Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	30.9	28.55	33.25	27	36	1.038	3.281	10.62%	0.0%
3		10	33.1	27.32	38.88	15	41	2.554	8.075	24.4%	-7.12%
5		10	36.1	29.41	42.79	22	48	2.957	9.351	25.9%	-16.83%
10		10	25.7	20.22	31.18	13	39	2.422	7.66	29.81%	16.83%
30		10	1.2	-0.1822	2.582	0	4	0.611	1.932	161.0%	96.12%
50		10	0	0	0	0	0	0	0		100.0%

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
3		1	1	1	1	1	1	1	1	1	1
5		1	1	1	1	1	1	1	1	1	1
10		1	1	1	1	1	1	1	1	1	0
30		0	0	0	0	1	0	0	1	0	0
50		0	0	0	0	0	0	0	0	0	0

Reproduction Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	29	29	36	36	28	27	31	30	34	29
3		29	40	33	29	29	40	41	15	40	35
5		22	44	44	43	36	22	39	35	48	28
10		23	39	27	18	33	21	29	31	23	13
30		0	0	0	0	4	4	0	4	0	0
50		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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	0/1
30		0/1	0/1	0/1	0/1	1/1	0/1	0/1	1/1	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

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 06-7842-3993 Endpoint: Reproduction CETIS Version: CETISv1.8.7
Analyzed: 13 Jan-16 15:05 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	21.6%	10	30	17.32	

Steel Many-One Rank Sum Test

Control	vs	C-µg/L	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		3	120.5	76	1	18	0.9871	Asymp	Non-Significant Effect
		5	123.5	76	3	18	0.9938	Asymp	Non-Significant Effect
		10	82.5	76	3	18	0.1302	Asymp	Non-Significant Effect
		30*	55	76	0	18	0.0003	Asymp	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7897.6	1974.4	4	43.72	<0.0001	Significant Effect
Error	2032.4	45.16444	45			
Total	9930		49			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	22.73	13.28	0.0001	Unequal Variances
Variances	Mod Levene Equality of Variance	4.536	3.767	0.0037	Unequal Variances
Variances	Levene Equality of Variance	4.477	3.767	0.0039	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.954	0.9367	0.0500	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1222	0.1453	0.0598	Normal Distribution
Distribution	D'Agostino Skewness	1.716	2.576	0.0862	Normal Distribution
Distribution	D'Agostino Kurtosis	1.269	2.576	0.2046	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	4.553	9.21	0.1026	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.8851	3.878	0.0235	Normal Distribution

Reproduction Summary

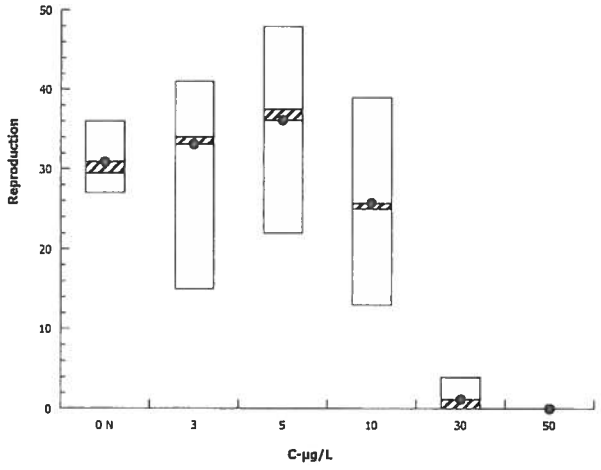
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	10	30.9	28.55	33.25	29.5	27	36	1.038	10.62%	0.0%
3		10	33.1	27.32	38.88	34	15	41	2.554	24.4%	-7.12%
5		10	36.1	29.41	42.79	37.5	22	48	2.957	25.9%	-16.83%
10		10	25.7	20.22	31.18	25	13	39	2.422	29.81%	16.83%
30		10	1.2	-0.1822	2.582	0	0	4	0.611	161.0%	96.12%
50		10	0	0	0	0	0	0	0		100.0%

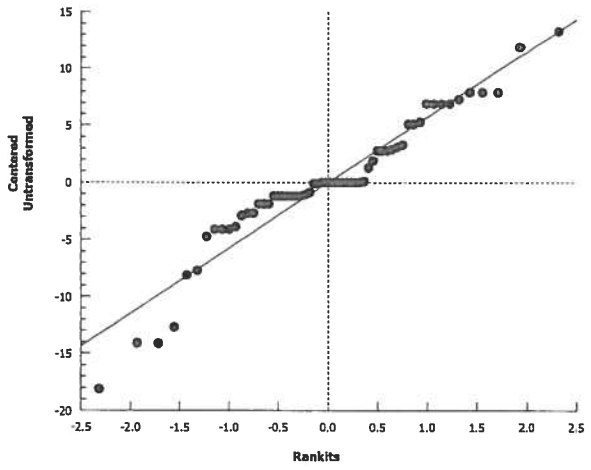
Reproduction Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	29	29	36	36	28	27	31	30	34	29
3		29	40	33	29	29	40	41	15	40	35
5		22	44	44	43	36	22	39	35	48	28
10		23	39	27	18	33	21	29	31	23	13
30		0	0	0	0	4	4	0	4	0	0
50		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia 7-d Survival and Reproduction Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	06-7842-3993	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	13 Jan-16 15:05	**Analysis:**	Nonparametric-Control vs Treatments	**Official Results:**	Yes

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	15-4141-4292	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	13 Jan-16 15:05	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC5	7.5	5.833	11.43
EC10	10	6.667	12.86
EC15	11.43	7.5	14.29
EC20	12.86	8.333	16.67
EC25	14.29	9.167	18.33
EC40	18.57	13.33	23.33
EC50	21.43	16.67	26.67

7d Survival Rate Summary

			Calculated Variate(A/B)								
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	10	1	1	1	0	0	0.0%	0.0%	10	10
3		10	1	1	1	0	0	0.0%	0.0%	10	10
5		10	1	1	1	0	0	0.0%	0.0%	10	10
10		10	0.9	0	1	0.1	0.3162	35.14%	10.0%	9	10
30		10	0.2	0	1	0.1333	0.4216	210.8%	80.0%	2	10
50		10	0	0	0	0	0		100.0%	0	10

7d Survival Rate Detail

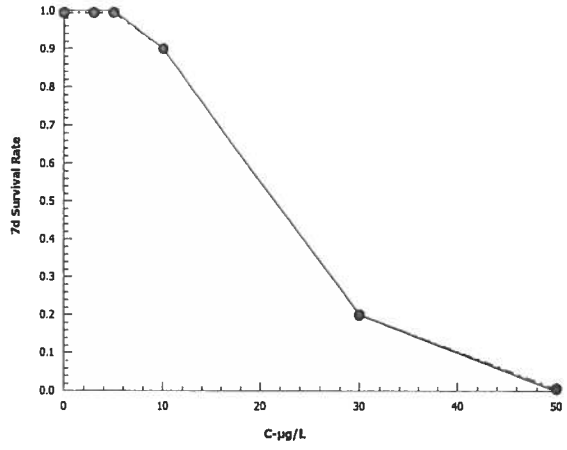
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
3		1	1	1	1	1	1	1	1	1	1
5		1	1	1	1	1	1	1	1	1	1
10		1	1	1	1	1	1	1	1	1	0
30		0	0	0	0	1	0	0	1	0	0
50		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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	0/1
30		0/1	0/1	0/1	0/1	1/1	0/1	0/1	1/1	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:	15-4141-4292	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	13 Jan-16 15:05	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test					Aquatic Bioassay & Consulting Labs, Inc.
Analysis ID:	12-5136-4443	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	13 Jan-16 15:05	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1986062	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	6.088	4.573	7.629
IC10	7.176	6.184	10.39
IC15	8.264	6.843	11.51
IC20	9.352	7.578	12.63
IC25	10.55	8.223	13.75
IC40	14.64	10.55	17.15
IC50	17.36	14.14	19.36

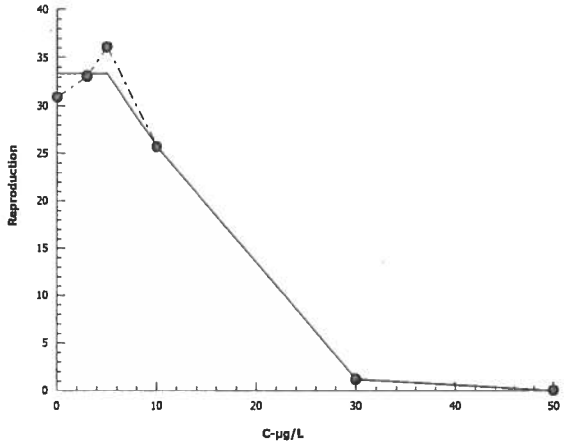
Reproduction Summary

			Calculated Variate						
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	10	30.9	27	36	1.038	3.281	10.62%	0.0%
3		10	33.1	15	41	2.554	8.075	24.4%	-7.12%
5		10	36.1	22	48	2.957	9.351	25.9%	-16.83%
10		10	25.7	13	39	2.422	7.66	29.81%	16.83%
30		10	1.2	0	4	0.611	1.932	161.0%	96.12%
50		10	0	0	0	0	0		100.0%

Reproduction Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	29	29	36	36	28	27	31	30	34	29
3		29	40	33	29	29	40	41	15	40	35
5		22	44	44	43	36	22	39	35	48	28
10		23	39	27	18	33	21	29	31	23	13
30		0	0	0	0	4	4	0	4	0	0
50		0	0	0	0	0	0	0	0	0	0

Graphics



CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 17-7157-2608 **Endpoint:** 7d Survival Rate **CETIS Version:** CETISv1.8.7
Analyzed: 13 Jan-16 15:05 **Analysis:** STP 2x2 Contingency Tables **Official Results:** Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Untransformed		C > T	NA	NA	10	30	17.32	

Fisher Exact/Bonferroni-Holm Test

Control	vs	C-µg/L	Test Stat	P-Value	P-Type	Decision(α:5%)
Negative Control		3	1	1.0000	Exact	Non-Significant Effect
		5	1	1.0000	Exact	Non-Significant Effect
		10	0.5	1.0000	Exact	Non-Significant Effect
		30	0.0003572	0.0014	Exact	Significant Effect
		50	5.413E-06	<0.0001	Exact	Significant Effect

Data Summary

C-µg/L	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Negative Contr	10	0	10	1	0	0.0%
3		10	0	10	1	0	0.0%
5		10	0	10	1	0	0.0%
10		9	1	10	0.9	0.1	10.0%
30		2	8	10	0.2	0.8	80.0%
50		0	10	10	0	1	100.0%

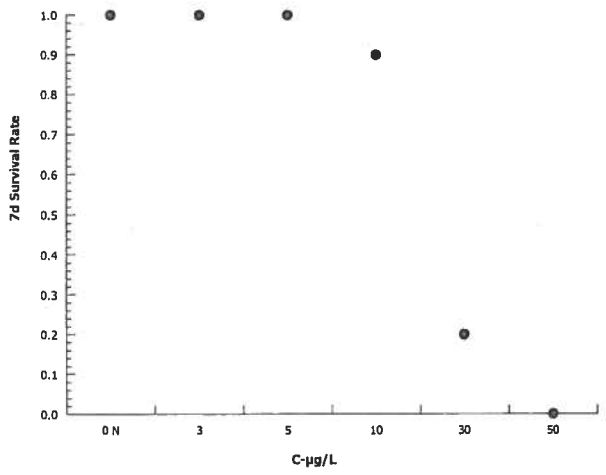
7d Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
3		1	1	1	1	1	1	1	1	1	1
5		1	1	1	1	1	1	1	1	1	1
10		1	1	1	1	1	1	1	1	1	0
30		0	0	0	0	1	0	0	1	0	0
50		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	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	0/1
30		0/1	0/1	0/1	0/1	1/1	0/1	0/1	1/1	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

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	14-6650-7256	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	05 Jan-16 12:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	12 Jan-16 11:00	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	6d 23h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	13-1381-7155	**Code:**	CER010516	**Client:**	Internal Lab
Sample Date:	05 Jan-16 12:00	**Material:**	Copper chloride	**Project:**	
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	65.5	63.27	67.73	63	68	0.9449	2.673	4.08%	0
50		5	60	60	60	60	60	0	0	0.0%	0
Overall		13	62.75			60	68				0 (0%)

Conductivity-µmhos

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	328.5	325.8	331.2	323	333	1.134	3.207	0.98%	0
3		8	320	309.9	330.1	310	338	4.289	12.13	3.79%	0
5		8	313.4	307.9	318.8	308	325	2.314	6.545	2.09%	0
10		8	311.9	307.1	316.7	308	322	2.03	5.743	1.84%	0
30		8	303.6	294.5	312.7	291	321	3.84	10.86	3.58%	0
50		5	311	308.2	313.8	310	315	1	2.236	0.72%	0
Overall		45	314.7			291	338				0 (0%)

Dissolved Oxygen-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.925	7.717	8.133	7.7	8.4	0.08813	0.2493	3.15%	0
3		8	8.288	7.829	8.746	7.7	9.5	0.1941	0.5489	6.62%	0
5		8	8.25	7.986	8.514	7.8	8.7	0.1118	0.3162	3.83%	0
10		8	8.288	7.986	8.589	7.7	8.7	0.1274	0.3603	4.35%	0
30		8	8.288	7.964	8.611	7.7	8.8	0.1368	0.3871	4.67%	0
50		5	8.38	7.993	8.767	8	8.7	0.1393	0.3114	3.72%	0
Overall		45	8.236			7.7	9.5				0 (0%)

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	93.5	90.37	96.63	90	97	1.323	3.742	4.0%	0
50		5	84	84	84	84	84	0	0	0.0%	0
Overall		13	88.75			84	97				0 (0%)

pH-Units

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.975	7.753	8.197	7.5	8.3	0.09402	0.2659	3.33%	0
3		8	8	7.874	8.126	7.8	8.2	0.05345	0.1512	1.89%	0
5		8	7.963	7.822	8.103	7.7	8.2	0.05957	0.1685	2.12%	0
10		8	7.938	7.797	8.078	7.7	8.2	0.05957	0.1685	2.12%	0
30		8	7.938	7.804	8.071	7.7	8.1	0.0565	0.1598	2.01%	0
50		5	7.88	7.676	8.084	7.7	8.1	0.07349	0.1643	2.09%	0
Overall		45	7.949			7.5	8.3				0 (0%)

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.2	23.96	24.44	24	24.7	0.1018	0.2878	1.19%	0
3		8	24.19	23.97	24.41	24	24.6	0.09342	0.2642	1.09%	0
5		8	24.14	23.96	24.31	24	24.6	0.07303	0.2066	0.86%	0
10		8	24.16	24.01	24.31	24	24.5	0.06249	0.1768	0.73%	0
30		8	24.13	23.95	24.3	24	24.6	0.07257	0.2053	0.85%	0
50		5	24.16	23.85	24.47	24	24.6	0.1122	0.251	1.04%	0
Overall		45	24.16			24	24.7				0 (0%)

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	68	68	68	68	63	63	63	63
50		60	60	60	60	60			

Conductivity-µmhos

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	328	328	332	323	328	330	326	333
3		310	310	334	310	315	312	331	338
5		309	308	314	309	310	310	322	325
10		308	308	311	309	308	309	320	322
30		292	291	298	310	309	312	321	296
50		310	310	310	310	315			

Dissolved Oxygen-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.7	7.8	8.4	7.7	7.8	7.9	7.9	8.2
3		8.2	8.4	9.5	8.3	7.7	7.8	8.3	8.1
5		8.4	8.4	8	8.7	7.9	7.8	8.3	8.5
10		8.3	8.5	8.6	8.4	7.8	7.7	8.3	8.7
30		8.3	8.6	8.6	8.2	7.8	7.7	8.3	8.8
50		8.1	8.5	8.7	8.6	8			

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	97	97	97	97	90	90	90	90
50		84	84	84	84	84			

pH-Units

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8	8.1	7.9	7.7	8.3	8.1	8.2	7.5
3		7.9	8	8.2	7.8	7.9	7.9	8.1	8.2
5		7.9	7.9	8.2	7.7	7.9	7.9	8	8.2
10		7.8	7.8	8.1	7.7	8	7.9	8	8.2
30		7.8	7.7	8.1	7.8	8.1	7.9	8	8.1
50		7.8	7.7	8	7.8	8.1			

Temperature-°C

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24.6	24.1	24.7	24.2	24	24	24	24
3		24.6	24.1	24.6	24.2	24	24	24	24
5		24	24.2	24.6	24.2	24.1	24	24	24
10		24.3	24.2	24.5	24.2	24.1	24	24	24
30		24	24.1	24.6	24.2	24.1	24	24	24
50		24	24.1	24.6	24.1	24			

aquatic bioassay & consulting laboratories, inc

CHRONIC SELENASTRUM GROWTH BIOASSAY

DATE: 7 January - 2016

STANDARD TOXICANT: Cadmium Chloride

NOEC = 80.00 ug/l

IC25 = 104.90 ug/l
IC50 = 156.20 ug/l

Yours very truly,

Scott Johnson
Laboratory Director

29 north olive st. ventura, ca 93001 (805) 643 5621 www.aquabio.org

CETIS Summary Report

Test Code: SEL010716 | 15-2352-3661

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	03-4998-4998	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	07 Jan-16 13:09	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Jan-16 14:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	4d 1h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	00-2681-6804	**Code:**	SEL010716	**Client:**	Internal Lab
Sample Date:	07 Jan-16 13:09	**Material:**	Cadmium chloride	**Project:**	
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
14-1417-3399	Cell Density	80	140	105.8	12.0%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
18-5250-6959	Cell Density	IC5	55.52	25.19	82.51		Linear Interpolation (ICPIN)
		IC10	71.03	53.7	96.08		
		IC15	84.34	65.16	101.3		
		IC20	94.62	76.74	108.8		
		IC25	104.9	89.64	117.6		
		IC40	135.7	124.5	149.1		
		IC50	156.2	144.8	165		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
14-1417-3399	Cell Density	Control CV	0.01484	NL - 0.2	Yes	Passes Acceptability Criteria
18-5250-6959	Cell Density	Control CV	0.01484	NL - 0.2	Yes	Passes Acceptability Criteria
14-1417-3399	Cell Density	Control Resp	1.09E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
18-5250-6959	Cell Density	Control Resp	1.09E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
14-1417-3399	Cell Density	PMSD	0.1205	0.091 - 0.29	Yes	Passes Acceptability Criteria

Cell Density Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.088E+6	1.062E+6	1.114E+6	1.064E+6	1.099E+6	8.073E+3	1.615E+4	1.48%	0.0%
20		4	1.395E+6	1.258E+6	1.531E+6	1.310E+6	1.480E+6	4.283E+4	8.566E+4	6.14%	-28.19%
40		4	1.288E+6	1.091E+6	1.484E+6	1.140E+6	1.397E+6	6.162E+4	1.232E+5	9.57%	-18.34%
80		4	1.095E+6	9.569E+5	1.233E+6	1.022E+6	1.220E+6	4.330E+4	8.661E+4	7.91%	-0.62%
140		4	7.280E+5	6.338E+5	8.222E+5	6.730E+5	7.990E+5	2.959E+4	5.918E+4	8.13%	33.09%
180		4	4.818E+5	4.145E+5	5.490E+5	4.450E+5	5.250E+5	2.112E+4	4.225E+4	8.77%	55.72%

Cell Density Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.094E+6	1.099E+6	1.064E+6	1.095E+6
20		1.333E+6	1.310E+6	1.480E+6	1.456E+6
40		1.381E+6	1.232E+6	1.397E+6	1.140E+6
80		1.220E+6	1.060E+6	1.022E+6	1.077E+6
140		6.730E+5	7.540E+5	7.990E+5	6.860E+5
180		4.450E+5	4.460E+5	5.250E+5	5.110E+5

CETIS Analytical Report

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-1417-3399 | Endpoint: Cell Density | CETIS Version: CETISv1.8.7
Analyzed: 13 Jan-16 15:50 | Analysis: Parametric-Control vs Treatments | Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	12.0%	80	140	105.8	

Dunnett Multiple Comparison Test

Control	vs	C-µg/L	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		20	-5.634	2.407	1E+05	6	1.0000	CDF	Non-Significant Effect
		40	-3.664	2.407	1E+05	6	1.0000	CDF	Non-Significant Effect
		80	-0.124	2.407	1E+05	6	0.8672	CDF	Non-Significant Effect
		140*	6.612	2.407	1E+05	6	<0.0001	CDF	Significant Effect
		180*	11.13	2.407	1E+05	6	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.387365E+12	4.774729E+11	5	80.53	<0.0001	Significant Effect
Error	1.067293E+11	5929403000	18			
Total	2.494094E+12		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	9.196	15.09	0.1015	Equal Variances
Variances	Mod Levene Equality of Variance	3.244	4.248	0.0291	Equal Variances
Variances	Levene Equality of Variance	5.257	4.248	0.0038	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9763	0.884	0.8200	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1117	0.2056	0.6287	Normal Distribution
Distribution	D'Agostino Skewness	0.1423	2.576	0.8868	Normal Distribution
Distribution	D'Agostino Kurtosis	0.2983	2.576	0.7654	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	0.1093	9.21	0.9468	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.2888	3.878	0.6459	Normal Distribution

Cell Density Summary

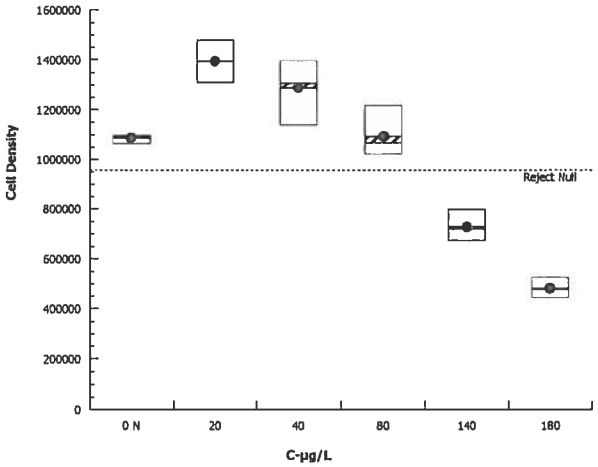
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	1.088E+6	1.062E+6	1.114E+6	1095000	1.064E+6	1.099E+6	8.072E+3	1.48%	0.0%
20		4	1.395E+6	1.258E+6	1.531E+6	1395000	1.310E+6	1.480E+6	4.283E+4	6.14%	-28.19%
40		4	1.288E+6	1.091E+6	1.484E+6	1307000	1.140E+6	1.397E+6	6.162E+4	9.57%	-18.34%
80		4	1.095E+6	9.569E+5	1.233E+6	1069000	1.022E+6	1.220E+6	4.330E+4	7.91%	-0.62%
140		4	7.280E+5	6.338E+5	8.222E+5	720000	6.730E+5	7.990E+5	2.959E+4	8.13%	33.09%
180		4	4.818E+5	4.145E+5	5.490E+5	478500	4.450E+5	5.250E+5	2.112E+4	8.77%	55.72%

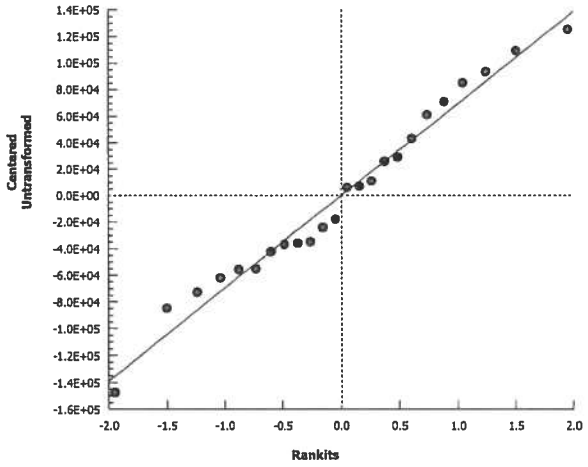
Cell Density Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.094E+6	1.099E+6	1.064E+6	1.095E+6
20		1.333E+6	1.310E+6	1.480E+6	1.456E+6
40		1.381E+6	1.232E+6	1.397E+6	1.140E+6
80		1.220E+6	1.060E+6	1.022E+6	1.077E+6
140		6.730E+5	7.540E+5	7.990E+5	6.860E+5
180		4.450E+5	4.460E+5	5.250E+5	5.110E+5

Selenastrum Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	14-1417-3399	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	13 Jan-16 15:50	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Graphics





CETIS Analytical Report

Test Code: SEL010716 | 15-2352-3661

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	18-5250-6959	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	13 Jan-16 15:50	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	55.52	25.19	82.51
IC10	71.03	53.7	96.08
IC15	84.34	65.16	101.3
IC20	94.62	76.74	108.8
IC25	104.9	89.64	117.6
IC40	135.7	124.5	149.1
IC50	156.2	144.8	165

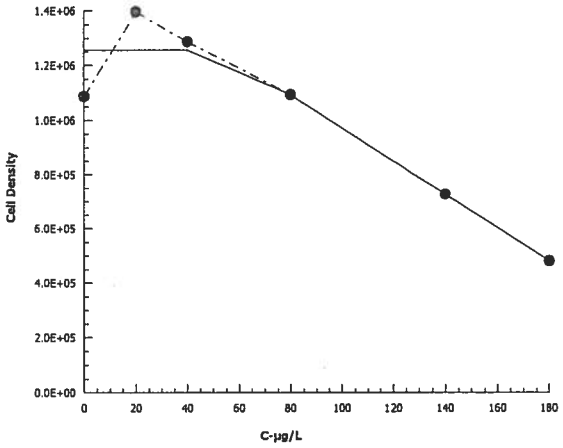
Cell Density Summary

			Calculated Variate						
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	1.088E+6	1.064E+6	1.099E+6	8.072E+3	1.614E+4	1.48%	0.0%
20		4	1.395E+6	1.310E+6	1.480E+6	4.283E+4	8.566E+4	6.14%	-28.19%
40		4	1.288E+6	1.140E+6	1.397E+6	6.162E+4	1.232E+5	9.57%	-18.34%
80		4	1.095E+6	1.022E+6	1.220E+6	4.330E+4	8.661E+4	7.91%	-0.62%
140		4	7.280E+5	6.730E+5	7.990E+5	2.959E+4	5.918E+4	8.13%	33.09%
180		4	4.818E+5	4.450E+5	5.250E+5	2.112E+4	4.225E+4	8.77%	55.72%

Cell Density Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.094E+6	1.099E+6	1.064E+6	1.095E+6
20		1.333E+6	1.310E+6	1.480E+6	1.456E+6
40		1.381E+6	1.232E+6	1.397E+6	1.140E+6
80		1.220E+6	1.060E+6	1.022E+6	1.077E+6
140		6.730E+5	7.540E+5	7.990E+5	6.860E+5
180		4.450E+5	4.460E+5	5.250E+5	5.110E+5

Graphics



 Analyst:_____ QA:_____

CETIS Measurement Report

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	03-4998-4998	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	07 Jan-16 13:09	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Jan-16 14:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	4d 1h	**Source:**	Aquatic Biosystems, CO	**Age:**	
Sample ID:	00-2681-6804	**Code:**	SEL010716	**Client:**	Internal Lab
Sample Date:	07 Jan-16 13:09	**Material:**	Cadmium chloride	**Project:**	
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	NA	**Station:**	REF TOX		

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	70			70	70	0	0	0.0%	0
20		1	78			78	78	0	0	0.0%	0
40		1	84			84	84	0	0	0.0%	0
80		1	79			79	79	0	0	0.0%	0
140		1	79			79	79	0	0	0.0%	0
180		1	67			67	67	0	0	0.0%	0
Overall		6	76.17			67	84				0 (0%)

Conductivity-µmhos

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	412.4	405.5	419.3	405	420	2.482	5.55	1.35%	0
20		5	442.8	434.5	451.1	432	450	2.99	6.686	1.51%	0
40		5	415	408.5	421.5	411	424	2.345	5.244	1.26%	0
80		5	403.2	402.6	403.8	403	404	0.2	0.4472	0.11%	0
140		5	378.8	370.4	387.2	372	389	3.023	6.76	1.79%	0
180		5	356	351.5	360.5	351	361	1.612	3.606	1.01%	0
Overall		30	401.4			351	450				0 (0%)

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	1	100			100	100	0	0	0.0%	0
20		1	100			100	100	0	0	0.0%	0
40		1	108			108	108	0	0	0.0%	0
80		1	112			112	112	0	0	0.0%	0
140		1	116			116	116	0	0	0.0%	0
180		1	104			104	104	0	0	0.0%	0
Overall		6	106.7			100	116				0 (0%)

pH-Units

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	7.74	7.598	7.882	7.6	7.9	0.05099	0.114	1.47%	0
20		5	7.98	7.796	8.164	7.8	8.2	0.06633	0.1483	1.86%	0
40		5	8.02	7.884	8.156	7.9	8.2	0.04899	0.1095	1.37%	0
80		5	8.02	7.884	8.156	7.9	8.2	0.04899	0.1095	1.37%	0
140		5	7.98	7.876	8.084	7.9	8.1	0.03742	0.08366	1.05%	0
180		5	7.96	7.892	8.028	7.9	8	0.02449	0.05476	0.69%	0
Overall		30	7.95			7.6	8.2				0 (0%)

Temperature-°C

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
20		5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
40		5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
80		5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
140		5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
180		5	24.1	23.82	24.38	24	24.5	0.1	0.2236	0.93%	0
Overall		30	24.1			24	24.5				0 (0%)

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Alkalinity (CaCO3)-mg/L

C-µg/L	Control Type	1
0	Negative Contr	70
20		78
40		84
80		79
140		79
180		67

Conductivity-µmhos

C-µg/L	Control Type	1	2	3	4	5
0	Negative Contr	411	411	415	420	405
20		432	445	442	450	445
40		412	411	415	413	424
80		403	403	403	403	404
140		375	376	382	389	372
180		351	356	355	357	361

Hardness (CaCO3)-mg/L

C-µg/L	Control Type	1
0	Negative Contr	100
20		100
40		108
80		112
140		116
180		104

pH-Units

C-µg/L	Control Type	1	2	3	4	5
0	Negative Contr	7.7	7.6	7.7	7.8	7.9
20		8	8.2	7.9	7.8	8
40		8	8.2	8	7.9	8
80		8	8.2	8	8	7.9
140		7.9	8.1	8	8	7.9
180		7.9	8	8	8	7.9

Temperature-°C

C-µg/L	Control Type	1	2	3	4	5
0	Negative Contr	24.5	24	24	24	24
20		24.5	24	24	24	24
40		24.5	24	24	24	24
80		24.5	24	24	24	24
140		24.5	24	24	24	24
180		24.5	24	24	24	24