



EA Engineering, P.C.
EA Science and Technology

6712 Brooklawn Parkway, Suite 104
Syracuse, New York 13211-2158
Telephone: 315-431-4610
Fax: 315-431-4280
www.eaest.com

14 April 2017

Brian Jankauskas
Remedial Bureau E, Section A
Div. Environmental Remediation
NYSDEC
625 Broadway, 12th Floor, Albany, NY 12233-7017

RE: 2016 Groundwater Sampling Event
EA Project No. 14907.29

Dear Mr. Jankauskas:

EA Engineering, P.C. and its affiliate EA Science and Technology (EA) completed post-remediation groundwater sampling activities in December 2016 at the request of the New York State Department of Environmental Conservation (NYSDEC) at the Bianchi/Weiss Greenhouses site (152209) located in East Patchogue, New York (**Figure 1**).

EA completed a remedial investigation (RI) and feasibility study (FS) at the site, and presented the findings in a RI Report (EA 2011a)¹ and a FS Report (EA 2011b)², respectively. A groundwater sampling event was completed in May 2013 to satisfy the objectives outlined in the NYSDEC 2012 Record of Decision (ROD) (2012)³. Results from this groundwater sampling event were presented in a Pre-Design Investigation (PDI) Groundwater Sampling Report (EA 2013)⁴. A pre-remedial action groundwater sampling event was completed by the NYSDEC in May 2015 and documented in a memorandum dated 1 September 2015 (NYSDEC 2015)⁵. A total of 28,511 cubic yards (yd³) of impacted soil was removed from the site during remedial construction activities that concluded in July 2016. The wells selected for sampling during the December 2016 sampling event were based off the detections recorded from the May 2015 sampling event.

EA completed the following tasks during the December 2016 groundwater sampling event:

- Located monitoring wells to be sampled using a global positioning system (GPS) unit, and verified the monitoring wells' coordinates
- Gauged all locatable/functioning monitoring wells and piezometers associated with the site

1 EA. 2011a. Final RI Report, Bianchi/Weiss Greenhouses Site (152209), East Patchogue, Suffolk County, New York. August.

2 EA. 2011b. FS, Bianchi/Weiss Greenhouses Site (152209), East Patchogue, Suffolk County, New York. September.

3 NYSDEC. 2012. ROD, Bianchi/Weiss Greenhouses State Superfund Project, East Patchogue, Suffolk County, Site Number 152209. January.

4 EA. 2013. Pre-Design Investigation Groundwater Sampling Report, Contract/Work Assignment No: D007624-18 Bianchi/Weiss Greenhouses Site, East Patchogue, New York (152209). October.

5 NYSDEC. 2015. Memorandum; Groundwater Monitoring May 2015, Bianchi/Weiss Greenhouses. September 1.



- Collected groundwater samples from three on-site shallow piezometers replaced during the remedial action
- Collected groundwater samples from 16 off-site monitoring wells
- Collected a groundwater sample from one off-site private well
- Collected one surface water sample from Abet's Creek.

Each groundwater sample was analyzed for pesticides by U.S. Environmental Protection Agency (EPA) Method 608. Category A deliverables were requested for samples collected from monitoring wells and surface water. Category B deliverables were requested for the sample collected from a private well.

Monitoring Well Locations

Monitoring well locations were compared against surveyed coordinates using a GPS unit prior to gauging and sampling. The coordinates of the monitoring well cluster MW-33(-D, -I, and -S) were off by approximately 250 ft. The coordinates of the monitoring well WO-34 were off by approximately 100 ft. The wells are located 250 and 100 ft north of the previously surveyed locations. Monitoring well WO-33P was not previously surveyed. The data gathered using the GPS unit is summarized below, with former coordinates shown for comparison.

Summary of Revised Monitoring Well Locations				
Monitoring Well ID	Revised X-Coordinate	<i>Previously Surveyed X-Coordinate</i>	Revised Y-Coordinate	<i>Previously Surveyed Y-Coordinate</i>
MW-33D	1267819.7	<i>1267781.7668</i>	216029.2	<i>215784.3593</i>
MW-33I	1267819.9	<i>1267779.5951</i>	216037.6	<i>215775.9363</i>
MW-33S	1267819.9	<i>1267777.4677</i>	216026.1	<i>215768.0909</i>
WO-33P	1267819.7	Not surveyed	216027.4	Not surveyed
WO-34	1267821.8	<i>1267872.65</i>	216043.4	<i>216134.5947</i>

Monitoring Well Gauging

Prior to the start of the groundwater sampling event, a complete round of static water level measurements were taken from each monitoring well location to prepare a groundwater contour map and evaluate groundwater flow patterns. Groundwater elevations are summarized in the following table:



Summary of Groundwater Elevations December 2016			
Monitoring Well ID	Depth to Water (ft btoc)	Well Casing Elevation (ft AMSL)	Groundwater Elevation (ft AMSL)
TPMW-01	8.73	14.59	5.86
PDI-PZ-01	9.48	15.67	6.19
PDI-PZ-02	9.32	16.00	6.68
MW-33D	2.66	2.64	-0.02
MW-33I	2.92	2.86	-0.06
MW-33S	2.73	2.72	-0.01
MW-41	12.56	20.46	7.90
MW-42	9.45	12.43	2.98
WO-07	6.21	11.66	5.45
WO-08	6.41	11.88	5.47
WO-09	5.65	11.27	5.62
WO-10	5.33	10.72	5.39
WO-11	5.55	10.90	5.35
WO-15	5.79	11.01	5.22
WO-16	4.81	9.98	5.17
WO-17	3.82	8.97	5.15
WO-18	3.41	8.49	5.08
WO-19	4.04	8.93	4.89
WO-21	9.32	14.94	5.62
WO-25	11.23	10.08	-1.15
WO-26	7.53	11.07	3.54
WO-27	7.90	10.86	2.96
WO-28	13.21	15.71	2.50
WO-30	9.62	11.52	1.90
WO-31	6.41	8.28	1.87
WO-34	2.77	0.43	-2.34
WO-36	6.82	9.92	3.10
NOTE: ID = Identification ft = feet btoc = Below top of casing AMSL = Above mean sea level NS = Not Surveyed --- = No groundwater elevation data			

A figure showing interpreted groundwater elevation contours is provided as **Figure 2**. Groundwater flows in a southwesterly direction toward Abet's Creek and Patchogue Bay.

Monitoring Well Sampling

During sampling, purge water was contained in a 5 gal bucket and then transferred into 55 gal drums located on-site for filtration prior to discharge. Groundwater sampling was conducted through the steps detailed below:

- Personal protective equipment was worn as specified in the Generic HASP (EA 2011c)⁶.
- Monitoring locations were unlocked and the caps were removed.
- Static water levels were measured at each location using a water interface probe. The interface probe was washed with Alconox detergent and water, then rinsed with deionized water between locations to prevent cross-contamination.
- Low-flow purging techniques were used to purge the wells. Dedicated polyethylene tubing was used at each monitoring well location.
- Prior to sampling, wells were purged until the following conditions were met:
 - Three consecutive pH readings are ± 0.1 pH units of each other
 - Three consecutive dissolved oxygen readings are ± 10 percent of each other
 - Three consecutive Redox readings are ± 0.10 units of each other
 - Three consecutive measured specific conductance is ± 3 percent of each other
 - Turbidity is < 50 nephelometric turbidity units for three consecutive readings
 - Purge rate between 200 and 500 ml/min with a draw down less than 0.3 ft.
- Field measurements of pH, dissolved oxygen, temperature, and specific conductivity were recorded on the monitoring well gauging, purging, and sampling forms. The field instruments were decontaminated between wells to prevent cross-contamination.
- Once groundwater quality field parameters had stabilized under low-flow pumping conditions, sampling was performed.
- Sample bottles were obtained from the laboratory prior to field mobilization.
- Analytical samples were placed in coolers and chilled to 4°C.
- The monitoring wells were capped and re-locked.
- Sample log sheets, labels, and chain-of-custody forms were completed after sampling at each monitoring well location.

Groundwater samples were collected from 16 off-site monitoring wells and three on-site monitoring wells. Groundwater was also collected from an off-site residential private monitoring well. One surface water sample (SW-01) was collected from Abet's Creek, from next to stream gauge SG-03 (**Figure 2**).

⁶ EA. 2011c. Generic Health and Safety Plan for NYSDEC Standby Contract D007624. April.

Groundwater and surface water samples were placed in appropriate sample containers, sealed, and submitted to the laboratory for analysis for pesticides by EPA Method 608. Field forms are provided in **Attachment A**.

Quality Assurance / Quality Control

All samples were labeled, handled, and packaged following the procedures described in the Generic Quality Assurance Project Plan (QAPP) (EA 2011d)⁷. Quality Assurance / quality control samples were collected at the frequency detailed in the letter work plan (EA 2016)⁸. Two duplicates, one matrix spike, and one matrix spike duplicate sample were collected and analyzed. Analytical data for the private well sample were sent to a third party validator, Environmental Data Services, Inc. (EDS), and data usability summary reports (DUSRs) were prepared for each analytical package. The DUSRs are provided in **Attachment B**.

Groundwater Sampling Results

Of the 19 groundwater samples collected, 16 samples contained chlordane at a concentration exceeding the NYSDEC Ambient Water Quality Standard (AWQS) for Class GA waters (0.05 µg/L). The highest detected concentration of chlordane was observed in monitoring well MW-33S at 9.2 µg/L located downgradient from the site, near Abet's Creek.

Chlordane was detected in the private well PW-01 at a concentration of 0.3206 µg/L. PW-01 was collected from a tap source located at a nearby nursery/flower market. A water sample was collected from PW-1A during the May 2015 sampling event. The well was turned off for the winter season and a water sample was not able to be collected during this sampling event. Both of these private wells are located along the western edge of the chlordane plume boundary. The chlordane detection in PW-01 did not exceed the New York State Department of Health (NYSDOH) drinking water standard of 2 µg/L.

Chlordane was not detected in the surface water sample collected from location SW-01.

Analytical results from the December 2016 groundwater sampling event are summarized in **Table 1** and on **Figure 3**. Groundwater trends are provided in **Table 2**. Laboratory analytical results for total chlordane from the groundwater sampling event are provided in **Attachment C**.

CONCLUSIONS

Groundwater analytical results from this sampling event indicate that concentrations of chlordane within the plume are generally stable when compared to previous groundwater sampling results. On-site groundwater contains elevated concentrations of chlordane, though two of the three samples contained lower concentrations in 2016 than 2015. The concentration of chlordane detected in MW-33S during the December 2016 sampling event was the highest detected during that event and higher than the concentration detected during the

⁷ EA. 2011d. Generic Quality Assurance Project Plan For NYSDEC Standby Contract D007624. April.

⁸ EA. 2016. Letter Work Plan. 2016 Groundwater Sampling Event. November.



May 2015 sampling event. In contrast, the deeper wells within the same cluster, MW-33D, MW-33I, and WO-33P contained lower concentrations of chlordane than MW-33S, which were consistent with concentrations detected up-gradient from these wells. The increased concentration in MW-33S is likely the result of contamination from a separate source.

Surface water results were also consistent with previous results and indicate that site related contaminants are not migrating from groundwater to surface water within Abet's Creeks.

If you have any questions regarding the results of this groundwater sampling report, please do not hesitate to contact me at (315) 431-4610.

Sincerely yours,

EA SCIENCE AND TECHNOLOGY

A handwritten signature in black ink that reads 'Megan Miller'.

Megan Miller
Project Manager

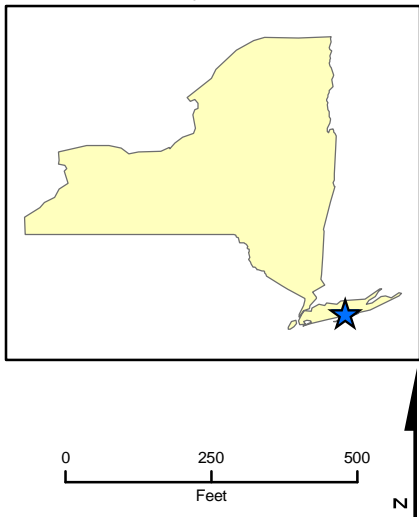
EA ENGINEERING, P.C.

A handwritten signature in black ink that reads 'Donald F. Conan'.

Donald F. Conan, P.E.
Vice President

Attachments

G:\Projects\State&Local\NYSDEC - D007624\0007624 - Work Assignments\14907.29 - Bianchi CWGIS and CAD\Projects\Bianchi_L_Fig1_GW_Locations.mxd



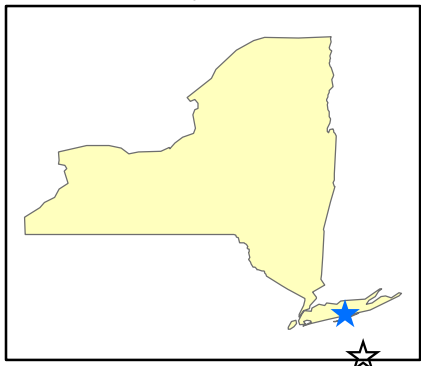
Legend

- Groundwater Monitoring Well
- Potable Well
- PDI Piezometer
- Surface Water Location
- Fenceline
- Property Boundaries

Figure 1
2016 Groundwater Sampling Locations
Bianchi Weiss Greenhouses (152209)
East Patchogue, New York

Map Date: 3/23/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane NY Long Island

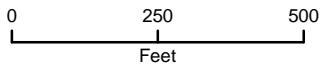
G:\Projects\State&Local\NYSDEC - D007624\0007624 - Work Assignments\1490729 - Bianchi CW\GIS and CAD\Projects\Bianchi_Fig2_GW_contour.mxd



Legend

- Groundwater Monitoring Well
- PDI Piezometer
- Groundwater Contour (1 ft. interval)
- Inferred Groundwater Contour
- Groundwater Flow Direction
- Fenceline
- Property Boundaries

Note: Contours are reported in ft AMSL (feet Above Mean Sea Level)



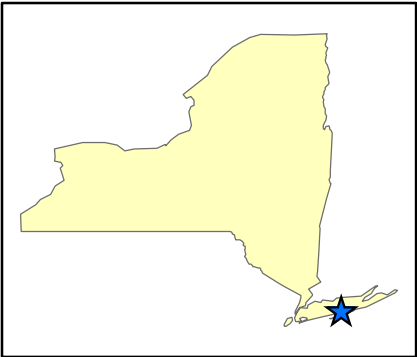
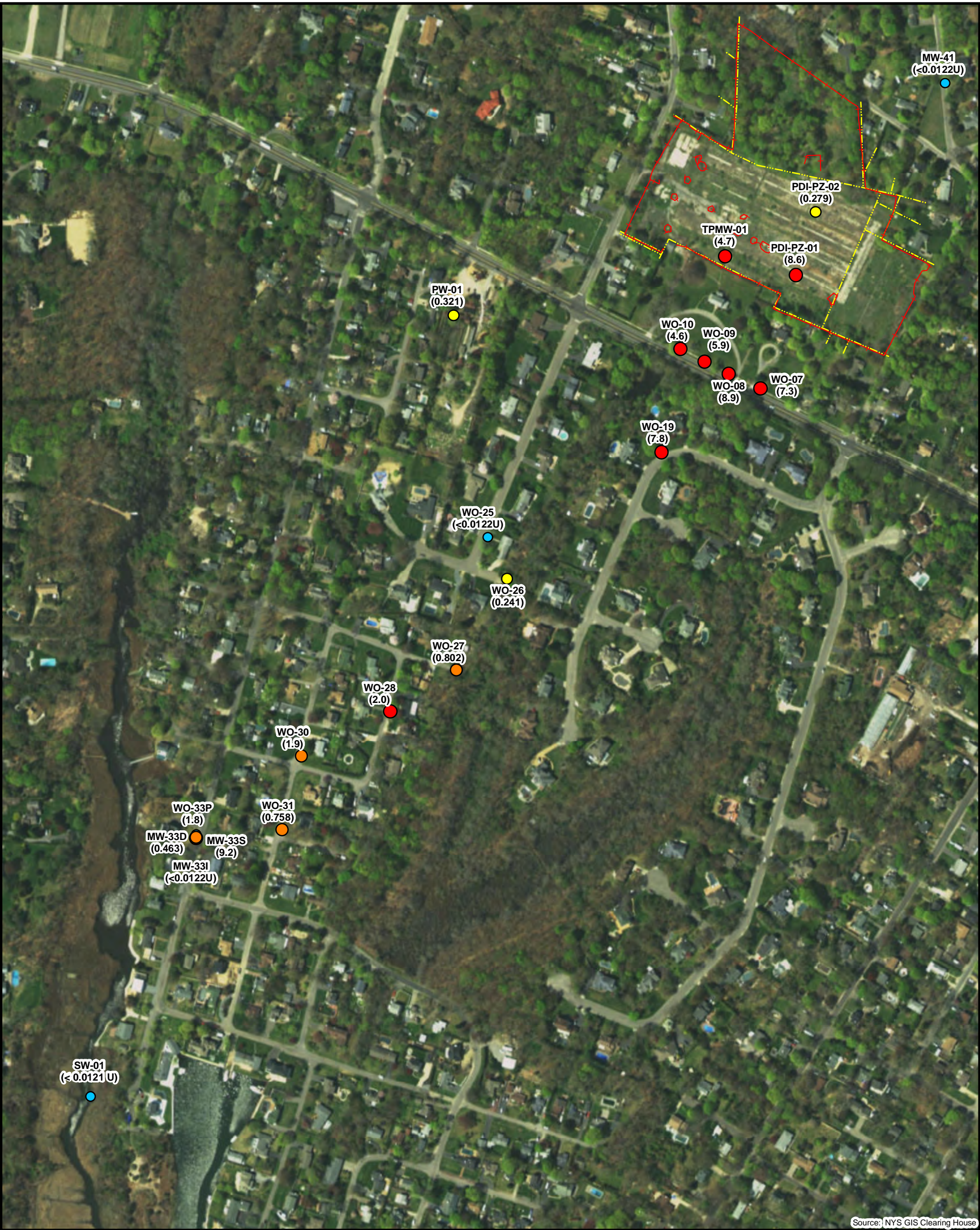
N

Figure 2
Groundwater Flow
Bianchi Weiss Greenhouses (152209)
East Patchogue, New York

Map Date: 3/23/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane NY Long Island



G:\Projects\State&Local\NYSDEC - D007624\B0007624 - Work Assignments\14907.29 - Bianchi CM\GIS and CAD\Projects\Bianchi_L_Fig3_GW_Chlordane_Results.mxd



- Legend**
- Chlordane (total) Concentration Range (ug/L)**
- = Non-detect
 - = > 0.05 (ug/L)
 - = > 0.5 (ug/L)
 - = > 2 (ug/L)
 - Fenceline
 - Property Boundaries

Note: NYSDEC AWQS - Chlordane = 0.05 ug/L

Figure 3
Groundwater Analytical Results Chlordane (total)
Bianchi Weiss Greenhouses (152209)
East Patchogue, New York

Map Date: 3/23/2017
Source: ESRI, 2011
Projection: NAD 1983 State Plane NY Long Island



0 250 500
Feet N

Table 1 Groundwater Analytical Data December 2016

Parameter List USEPA Method 608	Sample ID	TPMW-01		PDI-PZ-01		PDI-PZ-02		WO-07		WO-08		WO-09		WO-10		NYSDEC Ambient Water Quality Standard Class GA (µg/L)	
	Lab ID	H5959-03		H5959-04		H5959-02		H5959-05		H5959-06		H5959-07		H5959-08			
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater			
	Sample Date	12/6/2016		12/6/2016		12/6/2016		12/6/2016		12/6/2016		12/6/2016		12/6/2016			
Chlordane	µg/L	4.7	D	8.6	D	0.2794		7.3	D	8.9	D	5.9	D	4.6	D	0.05 (s)	
Parameter List USEPA Method 608	Sample ID	WO-19		WO-25		WO-26		WO-27		WO-28		WO-30		WO-31		NYSDEC Ambient Water Quality Standard Class GA (µg/L)	
	Lab ID	H5959-13		H5959-15		H5959-24		H5959-14		H5959-18		H5959-16		H5959-17			
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater			
	Sample Date	12/7/2016		12/7/2016		12/7/2016		12/7/2016		12/7/2016		12/7/2016		12/7/2016			
Chlordane	µg/L	7.8	D	<0.0122	U	0.241		0.8018		2.0	D	1.9	D	0.7584	P	0.05 (s)	
Parameter List USEPA Method 608	Sample ID	WO-33P		MW-33S		MW-33I		MW-33D		MW-41		PW-01		SW-01		NYSDEC Ambient Water Quality Standard Class GA (µg/L)	
	Lab ID	H5959-12		H5959-11		H5959-09		H5959-10		H5959-01		H5958-01		H5959-25			
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater			
	Sample Date	12/6/2016		12/6/2016		12/6/2016		12/6/2016		12/6/2016		12/5/2016		12/5/2016			
Chlordane	µg/L	1.8	D	9.2	D	<0.0122	U	0.4628		<0.0122	U	0.3206		<0.0121	U	0.05 (s)	
Parameter List USEPA Method 608	Sample ID	FD-01-20161206		FD-02-20161206												NYSDEC Ambient Water Quality Standard Class GA (µg/L)	
	Lab ID	H5959-19		H5959-20													
	Sample Type	Groundwater		Groundwater													
	Sample Date	12/6/2016		12/6/2016													
Chlordane	µg/L	5.3	D	7.1	D												0.05 (s)
NOTE:	USEPA	= U.S. Environmental Protection Agency															
	ID	= Identification															
	NYSDEC	= New York State Department of Environmental Conservation															
	µg/L	= micrograms per liter															
	P	= >25% difference detected between concentrations in pesticides.															
	D	= Sample was diluted.															
	U	= Non-detect, detection below the method detection limit.															
	J	= The associated numerical value is an estimated quantity															
	(s)	= Standard															
December 2016 data provided by Chemtech Consulting Group, Inc. Data validation completed by Environmental Data Services, Inc.																	
Concentration values in bold indicate the concentration was above the respective standard, criteria, and guidance.																	
FD-01-20161206 was collected from WO-10 on 12/6/2016. FD-02-20161206 was collected from TPMW-01 on 12/6/2016.																	

Table 2 Groundwater Trends

Well Identification	Concentration of Chlordane - December 2009	Concentration of Chlordane - May 2013	Concentration of Chlordane - May 2015	Concentration of Chlordane - December 2016
MW-33D	0.32	0.33 J	0.28	0.46
MW-33I	0.16	0.461	0.086	U
MW-33S	6.4	9	3.9	9.2 D
MW-41	0.34	U	0.1	U
WO-07	8.4 DJ	19	5.2	7.3 D
WO-08	17 D	21.6	6.6	8.9 D
WO-09	14 DJ	13.3	4.9	5.9 D
WO-10	5.3 D	7.3	3.5	4.6 D
WO-17			U	
WO-19	11	9.7	4.7	7.8 D
WO-25			U	U
WO-26	0.92	0.678	0.16	0.24
WO-27	3.3 DJ	3.1	0.98	0.80
WO-28	3.8 DJ	3.4	0.86	2.0 D
WO-30	3.4 DJ	3	1.50	1.9 D
WO-31	3.9 DJ	3.9	0.81	0.7584 P
WO-33P		5.9	0.9	1.8 D
PDI-PZ-01		33.9	12.0	8.6 D
PDI-PZ-02		7.5	2.7	0.28
PDI-PZ-03		7.6		
TPMW01		6.8	2.9	4.7 D
PW-1		0.451	0.390	0.32
PW-1A		0.198	0.045 J	
SW			0.034	
SW-01				U
DUP01-0513		22.8		
DUP1			0.098	
DUP2			0.32	
FD-01-20161206				5.3 D
FD-02-20161206				7.1 D
FB-01			U	
FB-02			U	
FB-03			U	

Note:

J = The associated numerical value is an estimated quantity.

DJ = The associated numerical value is an estimated quantity from a dilution run.

U = Non-detect, detection below the method detection limit.

P = >25% difference detected between concentrations in pesticides.

Bold data represents data above the NYSDEC GA Groundwater standard for Chlordane of 0.05 ug/L.

Highlighted data is concentrations of Chlordane exceeding the NYSDOH drinking water standard of 2 ug/L.

May 2015 data provided by Test America Laboratories, Inc.

December 2016 data provided by Chemtech Consulting Group, Inc. Data validation completed by Environmental Data Services, Inc.

DUP01-0513 is a duplicate collected from WO-8 during the May 2013 sampling event.

DUP1 is a duplicate collected from MW-33I and DUP2 is a duplicate collected from PW-1 during the May 2015 sampling event.

FD-01-20161206 is a duplicate collected from WO-10 and FD-02-20161206 is a duplicate collected from TPMW-01 during the December 2016 sampling event.

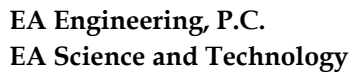
FB = Field Blank

PW = Private Well

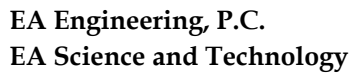
SW = Surface Water

Attachment A

Field Forms



Well I.D.: SW-SG-03			EA Personnel: KT/SS/JM			Client: NYSDEC; BIANCHI WEISS GREENHOUSES				
Location: <div>End of Roosevelt Ave</div>			Well Condition: Surface Water			Weather: Cleaar, Calm 45°F				
Sounding Method: NA			Gauge Date: NA			Measurement Ref:				
			Gauge Time: NA			NA				
Stick Up/Down (ft): NA			PID Headspace Reading: NA			Well Diameter (in): NA				
Purge Date: 5-Dec-16						Purge Time: NA				
Purge Method: NA						Field Technician: KT/SS/JM				
Well Volume										
A. Well Depth (ft): NA			D. Well Volume (ft): NA			Depth/Height of Top of PVC: NA				
B. Depth to Water (ft): NA			E. Well Volume (gal) C*D): NA			Pump Type: PERI				
C. Liquid Depth (ft) (A-B): NA			F. Three Well Volumes (gal) (E3): NA			Pump Intake Depth: NA				
Water Quality Parameters										
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)	
1533	6.70	25.2	0	6.27	9.42	-112	NA	NA	NA	
Total Quantity of Water Removed (gal): Samplers: Sampling Date:					0.25 _____ KT/SS/JM _____ 12/5/2016	Sampling Time: Split Sample With: Sample Type:				1531 _____ -- _____ GRAB
COMMENTS AND OBSERVATIONS: _____ Surface Water sample										



Well I.D.: PW-01			EA Personnel: KT/SS/JM			Client: NYSDEC; BIANCHI WEISS GREENHOUSES					
Location: Basement of Residence			Well Condition: Good			Weather: Clear 50°, Calm					
Sounding Method: NA			Gauge Date:		NA	Measurement Ref: NA					
			Gauge Time:		NA						
Stick Up/Down (ft): NA			PID Headspace Reading: NA			Well Diameter (in): NA					
Purge Date: 5-Dec-16						Purge Time: 1445-1455					
Purge Method: spigot ran for ten minutes prior to sample collection						Field Technician: KT/SS/JM					
Well Volume											
A. Well Depth (ft): NA			D. Well Volume (ft): NA			Depth/Height of Top of PVC: NA					
B. Depth to Water (ft): NA			E. Well Volume (gal) C*D): NA			Pump Type: Faucet					
C. Liquid Depth (ft) (A-B): NA			F. Three Well Volumes (gal) (E3): NA			Pump Intake Depth: NA					
Water Quality Parameters											
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (Gallons)		
1455	5.13	0.399	34.4	2	50.62	27	NA	NA	10		
Total Quantity of Water Removed (gal):					10		Sampling Time:			1455	
Samplers:		KT/SS/JM			Split Sample With:			ms/msd			
Sampling Date:					12/5/2016			Sample Type:			GRAB
COMMENTS AND OBSERVATIONS:											
MS/MSD taken here											



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: PDI-PZ-01	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location: Southern border of site	Well Condition: Good/New	Weather: Clear 40°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016	Measurement Ref: TOC
Stick Up/Down (ft): + 3	Gauge Time: 7:20:00	Well Diameter (in): 2
PID Headspace Reading: NA		

Purge Date: 6-Dec-16	Purge Time: 1106
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

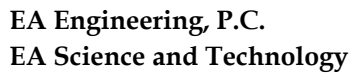
A. Well Depth (ft): 17.47	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: -0.3
B. Depth to Water (ft): 9.47	E. Well Volume (gal) C*D): 1.304	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 8	F. Three Well Volumes (gal) (E3): 3.912	Pump Intake Depth: 12.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1107	5.43	0.241	234	5.47	13.02	180	9.5	0.20	--
1110	5.66	0.228	92.2	5.74	13.01	173	9.5	0.20	0.60
1113	5.69	0.233	70.9	5.69	13.09	175	9.5	0.20	1.20
1116	5.69	0.236	49.6	5.54	13.00	179	9.5	0.20	1.80
1119	5.63	0.238	40.5	5.43	13.01	182	9.5	0.20	2.40
1122	5.67	0.239	32.1	5.39	13.05	184	9.5	0.20	3.00
1124	5.69	0.239	24.1	5.43	13.09	185	9.5	0.20	3.60
1127	5.66	0.241	20.2	5.31	13.16	186	9.5	0.20	4.20
1130	5.66	0.239	19.1	5.35	13.14	187	9.5	0.20	4.80

Total Quantity of Water Removed (gal):	1.2680256	Sampling Time:	1130
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	6-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:	Clear and odorless



Well I.D.: PDI-PZ-02			EA Personnel: KT/SS			Client: NYSDEC; BIANCHI WEISS GREENHOUSES			
Location: Middle of Site			Well Condition: Good/New			Weather: Clear 38°F			
Sounding Method: Solonist 100'			Gauge Date: 12/6/2016			Measurement Ref: TOC			
Stick Up/Down (ft): + 3			PID Headspace Reading: NA			Well Diameter (in): 2			
Purge Date: 6-Dec-16					Purge Time: 1012				
Purge Method: Low Flow					Field Technician: KT/SS				
Well Volume									
A. Well Depth (ft): 17.5			D. Well Volume (ft): 0.163			Depth/Height of Top of PVC: -0.2			
B. Depth to Water (ft): 9.4			E. Well Volume (gal) C*D): 1.3203			Pump Type: PERI			
C. Liquid Depth (ft) (A-B): 8.1			F. Three Well Volumes (gal) (E3): 3.9609			Pump Intake Depth: 17			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1013	6.07	0.338	748	4.61	11.38	195	9.35	0.25	--
1016	5.40	0.297	385	4.39	12.23	211	9.35	0.25	0.75
1019	5.32	0.279	162	4.71	12.39	211	9.35	0.25	1.5
1022	5.42	0.277	98.3	4.81	12.51	203	9.35	0.25	2.25
1025	5.24	0.283	68.3	4.51	12.70	209	9.35	0.25	3
1028	5.46	0.282	50.4	4.48	12.79	197	9.35	0.25	3.75
1031	5.52	0.28	38.5	4.48	12.87	194	9.35	0.25	4.5
1034	5.57	0.286	32.7	4.45	12.96	193	9.35	0.25	5.25
Total Quantity of Water Removed (gal):					1.386903		Sampling Time:		1034
Samplers:					KT/SS		Split Sample With:		--
Sampling Date:					6-Dec-16		Sample Type:		GRAB
COMMENTS AND OBSERVATIONS:									
Cleared during purging; odorless									



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-08	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location: S. Country Rd	Well Condition: Good	Weather: Cloudy 40°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 8:10:00	Well Diameter (in): 2
PID Headspace Reading: NA		

Purge Date: 6-Dec-16	Purge Time: 1158
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 20.32	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: -0.2
B. Depth to Water (ft): 6.4	E. Well Volume (gal) C*D): 2.26896	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 13.92	F. Three Well Volumes (gal) (E3): 6.80688	Pump Intake Depth: 20.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1159	5.84	0.140	309	5.63	13.69	19	6.45	0.20	--
1202	6.02	0.138	246	5.23	13.82	11	6.45	0.20	0.60
1205	6.07	0.128	126	5.16	13.92	26	6.45	0.20	1.20
1208	6.02	0.126	73.3	5.13	13.93	42	6.45	0.20	1.80
1211	5.99	0.126	47.5	5.09	13.94	54	6.45	0.20	2.40
1214	5.95	0.130	29.4	5.00	13.96	66	6.45	0.20	3.00
1217	5.93	0.129	27.8	5.04	13.96	71	6.45	0.20	3.60
1220	5.90	0.135	16.7	4.92	14.00	82	6.45	0.20	4.20
1223	5.89	0.133	17.2	5.02	14.02	85	6.45	0.20	4.80
1226	5.87	0.132	11.5	4.92	14.05	91	6.45	0.20	5.40

Total Quantity of Water Removed (gal):	1.4265288	Sampling Time:	1226
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	6-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: Initially turbid; cleared up, odorless



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-19	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location: Moss Creek Lane	Well Condition: No bolts	Weather: Overcast/Rain 45°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016	Measurement Ref: TOC
Stick Up/Down (ft): -1"	Gauge Time: 8:00:00	Well Diameter (in): 2
PID Headspace Reading: NA		

Purge Date: 7-Dec-16	Purge Time: 7:10
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 19.81	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: -0.1
B. Depth to Water (ft): 3.82	E. Well Volume (gal) C*D): 2.60637	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 15.99	F. Three Well Volumes (gal) (E3): 7.81911	Pump Intake Depth: 19.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
725	6.47	0.470	908	3.12	13.20	-22	4.00	0.20	--
728	6.12	0.485	383	1.45	13.16	-22	4.00	0.20	0.60
731	5.99	0.393	149	1.64	13.11	-2	4.00	0.20	1.20
734	5.98	0.347	135	1.75	13.10	5	4.00	0.20	1.80
737	5.99	0.332	50.2	1.79	13.08	16	4.00	0.20	2.40
740	5.97	0.328	22.6	1.79	13.03	29	4.00	0.20	3.00
743	5.96	0.328	29.6	1.77	12.94	40	4.00	0.20	3.60
746	5.95	0.329	45.9	1.79	12.82	35	4.00	0.20	4.20
749	5.94	0.334	75.5	1.73	12.82	20	4.00	0.20	4.80
752	5.94	0.335	38.7	1.76	12.81	23	4.00	0.20	5.40
755	5.93	0.333	12.2	1.92	12.80	37	4.00	0.20	6.00
758	5.93	0.334	12.9	1.79	12.75	42	4.00	0.20	6.60
801	5.93	0.334	8.2	1.75	12.66	41	4.00	0.20	7.20

Total Quantity of Water Removed (gal):	1.9020384	Sampling Time:	801
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	7-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:	Cleared during purging; odorless



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-25	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location:	Well Condition: Good	Weather: Overcast 35°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016 Gauge Time: 9:10:00	Measurement Ref: TOC
Stick Up/Down (ft): -1"	PID Headspace Reading: NA	Well Diameter (in): 1

Purge Date: 7-Dec-16	Purge Time: 833
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 18.8	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: -0.2
B. Depth to Water (ft): 11.23	E. Well Volume (gal) C*D): 0.31037	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 7.57	F. Three Well Volumes (gal) (E3): 0.93111	Pump Intake Depth: 18.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
834	6.28	1.230	>1000	5.15	13.08	-22	NA	0.20	--
837	6.02	0.427	230	3.21	13.31	41	NA	0.20	0.60
840	5.92	0.343	89.6	3.24	13.42	60	NA	0.20	1.20
843	5.75	0.273	33.5	3.19	13.55	88	NA	0.20	1.80
846	5.64	0.245	21.1	3.18	13.66	108	NA	0.20	2.40
849	5.58	0.235	8.9	3.14	13.74	122	NA	0.20	3.00
852	5.54	0.231	9.9	3.12	13.66	135	NA	0.20	3.60
855	5.52	0.229	7.6	3.11	13.74	143	NA	0.20	4.20
858	5.52	0.228	1.0	3.09	13.80	148	NA	0.20	4.80
901	5.51	0.228	0.0	3.07	13.82	153	NA	0.20	5.40

Total Quantity of Water Removed (gal):	1.4265288	Sampling Time:	901
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	7-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: Clear; odorless
1" Well, could not fit water level for readings



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-26	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location: Corner of Wilson St	Well Condition: Good	Weather: Overcast 45°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016 Gauge Time: 10:15:00	Measurement Ref: TOC
Stick Up/Down (ft): Flush	PID Headspace Reading: NA	Well Diameter (in): 1

Purge Date: 7-Dec-16	Purge Time: 1020
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 39.97	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: -0.2
B. Depth to Water (ft): 7.53	E. Well Volume (gal) C*D): 1.33004	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 32.44	F. Three Well Volumes (gal) (E3): 3.99012	Pump Intake Depth: 39.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1023	5.20	0.328	>1000	0.98	11.42	65	7.53	0.20	--
1026	5.1	0.317	>1000	0.57	11.79	77	7.53	0.20	0.60
1029	5.08	0.311	>1000	0.49	11.73	86	7.53	0.20	1.20
1032	5.09	0.319	>1000	0.36	11.77	72	7.53	0.20	1.80
1038	5.22	0.32	287.0	0.47	11.86	92	7.53	0.20	2.40
1041	5.07	0.32	113.0	0.36	11.91	105	7.53	0.20	3.00
1044	5.06	0.319	33.1	0.31	11.97	125	7.53	0.20	3.60
1047	5.08	0.319	17.4	0.29	11.99	132	7.53	0.20	4.20
1050	5.1	0.319	14.1	0.27	12.03	138	7.53	0.20	4.80
1053	5.11	0.318	8.6	0.27	12.04	140	7.53	0.20	5.40

Total Quantity of Water Removed (gal):	1.4265288	Sampling Time:	1053
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	7-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:	Drained Horiba at 1033 to clear it of turbid water



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-28	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location: Side of the road by a bank	Well Condition: Good	Weather: Overcast 42°F
Sounding Method: Solonist 100'	Gauge Date: 12/5/2016 Gauge Time: 16:33:00	Measurement Ref: TOC
Stick Up/Down (ft): Flush	PID Headspace Reading: NA	Well Diameter (in): 1

Purge Date: 7-Dec-16	Purge Time: 1045
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 39.25	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: -0.2
B. Depth to Water (ft): 13.16	E. Well Volume (gal) C*D): 1.06969	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 26.09	F. Three Well Volumes (gal) (E3): 3.20907	Pump Intake Depth: 39.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1048	5.59	0.238	170	1.47	11.57	170	13.16	0.20	--
1051	5.56	0.24	136	1.26	11.79	190	--	0.20	0.60
1054	5.56	0.24	124	1.16	11.86	201	--	0.20	1.20
1057	5.56	0.24	113	1.12	11.89	204	--	0.20	1.80
1100	5.56	0.24	107.0	1.08	11.93	209	--	0.20	2.40
1103	5.56	0.24	101.0	1.05	11.94	214	--	0.20	3.00
1106							--	0.20	3.60
1107	5.52	0.247	361.0	1.35	11.80	209	--	0.20	4.20
1110	5.55	0.241	211.0	1.06	11.80	216	--	0.20	4.80
1113	5.54	0.241	200.0	1.04	11.83	218	--	0.20	5.40
1116	5.54	0.241	150	1.04	11.87	221	--	0.20	6.00
1119	5.54	0.241	102	0.99	11.87	223	--	0.20	6.60
1122	5.54	0.241	84.2	0.96	11.91	224	--	0.20	7.20
1125	5.54	0.242	43.2	0.93	11.92	226	--	0.20	7.80
1128	5.54	0.242	25.1	0.91	11.92	227	--	0.20	8.40
1131	5.54	0.242	4.2	0.88	11.9	228	--	0.20	9.00

Total Quantity of Water Removed (gal):	2.377548	Sampling Time:	1131
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	7-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:
Drained Horiba at 1106 to clear it of turbid water
Could not take water level due to 1" well diameter



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: WO-31	EA Personnel: KT/SS/JM	Client: NYSDEC; BIANCHI WEISS GREENHOUSES
Location:	Well Condition: No well cover	Weather: Overcast 35°F
Sounding Method: Solonist 100'	Gauge Date: 12/6/2016 Gauge Time: 9:10:00	Measurement Ref: TOC
Stick Up/Down (ft): Flush	PID Headspace Reading: NA	Well Diameter (in): 1

Purge Date: 7-Dec-16	Purge Time: 930
Purge Method: Low Flow	Field Technician: KT/SS/JM

Well Volume

A. Well Depth (ft): 39.43	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: -0.2
B. Depth to Water (ft): 6.37	E. Well Volume (gal) C*D): 1.35546	Pump Type: PERI
C. Liquid Depth (ft) (A-B): 33.06	F. Three Well Volumes (gal) (E3): 4.06638	Pump Intake Depth: 39.0

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
930	6.04	0.096	>1000	5.78	10.53	20	6.37	0.20	--
933	5.72	0.063	275	6.45	10.64	43	--	0.20	0.60
936	5.65	0.054	115	6.68	10.87	65	--	0.20	1.20
939	5.65	0.049	56.1	6.70	10.99	87	--	0.20	1.80
942	5.7	0.047	42.7	6.66	11.06	101	--	0.20	2.40
945	5.72	0.047	35.7	6.05	11.15	110	--	0.20	3.00
948	5.72	0.047	30.4	6.69	11.21	117	--	0.20	3.60
951	5.72	0.047	24.5	6.66	11.25	121	--	0.20	4.20
954	5.72	0.047	21.2	6.67	11.28	124	6.37	0.20	4.80

Total Quantity of Water Removed (gal):	1.2680256	Sampling Time:	954
Samplers:	KT/SS/JM	Split Sample With:	--
Sampling Date:	7-Dec-16	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: Clear; odorless
Could not take water level reading during sampling due to 1" well diameter

Attachment B

Data Usability Summary Reports

DATA USABILITY SUMMARY REPORT
BIANCHI/WEISS GREENHOUSES, EAST PATCHOGUE, NEW YORK

Client: EA Engineering, Science & Technology, Inc., Syracuse, New York
SDG: H5958
Laboratory: Chemtech, Mountainside, New Jersey
Site: Bianchi/Weiss Greenhouses, East Patchogue, New York
Date: February 15, 2017

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	152209-PW-01	H5958-01	Water
1MS	152209-PW-01MS	H5958-01MS	Water
1MSD	152209-PW-01MSD	H5958-01MSD	Water

A Data Usability Summary Review was performed on the analytical data for one water sample collected on December 5, 2016 by EA Engineering at the Bianchi/Weiss Greenhouses site in East Patchogue, New York. The samples were analyzed under Environmental Protection Agency (USEPA) *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater*.

Specific method references are as follows:

Analysis

Pesticides (Chlordane only)

Method References

USEPA Method 608

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-36A, Revision 0, July 2015: Pesticide Data Validation;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics

- Data Completeness
- Holding times and sample preservation
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- GC/ECD Instrument Performance Check

- Analytical Sequence Check
- Extraction Method Cleanup
- Pesticide Identification
- Compound Quantitation
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data.

Overall the data is acceptable for the intended purposes. There were no qualifications.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Pesticides

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days for all samples.

Initial Calibration

- All %RSD criteria were met.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

GC/ECD Instrument Performance Check

- All % breakdown and retention time (RT) criteria were met.

Analytical Sequence Check

- All criteria were met.

Extraction Method Cleanup

- All criteria were met.

Pesticide Identification

- All criteria were met.

Compound Quantitations

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:

Nancy Weaver
Nancy Weaver
Senior Chemist

Dated: 2/16/17

Data Qualifiers

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
- U = The analyte was analyzed for, but was not detected above the sample reporting limit.
- R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/05/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/08/16	
Client Sample ID:	152209-PW-01		SDG No.:	H5958	
Lab Sample ID:	H5958-01		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	550	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume:		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021736.D	1	12/09/16 10:00	12/14/16 18:10	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.321		0.0218	0.0455	0.0909	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.1		25 - 156		91%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.8		10 - 148		74%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Attachment C

Laboratory Data

ANALYTICAL RESULTS SUMMARY

GC SEMI-VOLATILES

PROJECT NAME : 2016 BIANCHI WEISS GREENHOUSE

EA ENGINEERING SCIENCE & TECHNOLOGY

6712 Brooklawn Parkway, Suite 104

Suite 104

East Syracuse, NY - 13211-2158

Phone No: 315-431-4610

ORDER ID : H5959

ATTENTION : Megan Miller



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5959

Order ID: H5959

Client: EA Engineering Science & Technology

Project ID: 2016 Bianchi Weiss Greenhouse

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	152209-PDI-PZ-02								
H5959-02	152209-PDI-PZ-02	Water	Chlordane	0.28		0.0124	0.0258	0.0515	ug/L
			Total Concentration:	0.28					
Client ID :	152209-TPMW-01								
H5959-03	152209-TPMW-01	Water	Chlordane	4.80	E	0.0122	0.0255	0.051	ug/L
			Total Concentration:	4.80					
Client ID :	152209-TPMW-01DL								
H5959-03DL	152209-TPMW-01DL	Water	Chlordane	4.70	D	0.0612	0.1276	0.255	ug/L
			Total Concentration:	4.70					
Client ID :	152209-PDI-PZ-01								
H5959-04	152209-PDI-PZ-01	Water	Chlordane	9.40	E	0.012	0.025	0.05	ug/L
			Total Concentration:	9.40					
Client ID :	152209-PDI-PZ-01DL								
H5959-04DL	152209-PDI-PZ-01DL	Water	Chlordane	8.60	D	0.12	0.25	0.5	ug/L
			Total Concentration:	8.60					
Client ID :	152209-WO-07								
H5959-05	152209-WO-07	Water	Chlordane	7.40	E	0.0121	0.0253	0.0505	ug/L
			Total Concentration:	7.40					
Client ID :	152209-WO-07DL								
H5959-05DL	152209-WO-07DL	Water	Chlordane	7.30	D	0.121	0.2525	0.505	ug/L
			Total Concentration:	7.30					
Client ID :	152209-WO-08								
H5959-06	152209-WO-08	Water	Chlordane	9.60	E	0.0122	0.0255	0.051	ug/L
			Total Concentration:	9.60					
Client ID :	152209-WO-08DL								
H5959-06DL	152209-WO-08DL	Water	Chlordane	8.90	D	0.122	0.2551	0.51	ug/L
			Total Concentration:	8.90					
Client ID :	152209-WO-09								
H5959-07	152209-WO-09	Water	Chlordane	6.20	E	0.012	0.025	0.05	ug/L
			Total Concentration:	6.20					



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5959

Order ID: H5959

Client: EA Engineering Science & Technology

Project ID: 2016 Bianchi Weiss Greenhouse

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : 152209-WO-09DL									
H5959-07DL	152209-WO-09DL	Water	Chlordane	5.90	D	0.12	0.25	0.5	ug/L
			Total Concentration:	5.90					
Client ID : 152209-WO-10									
H5959-08	152209-WO-10	Water	Chlordane	4.40	E	0.0124	0.0258	0.0515	ug/L
			Total Concentration:	4.40					
Client ID : 152209-WO-10DL									
H5959-08DL	152209-WO-10DL	Water	Chlordane	4.60	D	0.0619	0.1289	0.258	ug/L
			Total Concentration:	4.60					
Client ID : 152209-MW33D									
H5959-10	152209-MW33D	Water	Chlordane	0.46		0.012	0.025	0.05	ug/L
			Total Concentration:	0.46					
Client ID : 152209-MW33S									
H5959-11	152209-MW33S	Water	Chlordane	9.20	E	0.0124	0.0258	0.0515	ug/L
			Total Concentration:	9.20					
Client ID : 152209-MW33SDL									
H5959-11DL	152209-MW33SDL	Water	Chlordane	9.20	D	0.124	0.2577	0.516	ug/L
			Total Concentration:	9.20					
Client ID : 152209-WO-33P									
H5959-12	152209-WO-33P	Water	Chlordane	2.10	E	0.0122	0.0255	0.051	ug/L
			Total Concentration:	2.10					
Client ID : 152209-WO-33PDL									
H5959-12DL	152209-WO-33PDL	Water	Chlordane	1.80	D	0.0612	0.1276	0.255	ug/L
			Total Concentration:	1.80					
Client ID : 152209-WO-19									
H5959-13	152209-WO-19	Water	Chlordane	7.90	E	0.0122	0.0255	0.051	ug/L
			Total Concentration:	7.90					
Client ID : 152209-WO-19DL									
H5959-13DL	152209-WO-19DL	Water	Chlordane	7.80	D	0.122	0.2551	0.51	ug/L
			Total Concentration:	7.80					



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5959

Order ID: H5959

Client: EA Engineering Science & Technology

Project ID: 2016 Bianchi Weiss Greenhouse

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	152209-WO-27								
H5959-14	152209-WO-27	Water	Chlordane	0.80		0.0124	0.0258	0.0515	ug/L
			Total Concentration:	0.80					
Client ID :	152209-WO-30								
H5959-16	152209-WO-30	Water	Chlordane	1.80	E	0.0122	0.0255	0.051	ug/L
			Total Concentration:	1.80					
Client ID :	152209-WO-30DL								
H5959-16DL	152209-WO-30DL	Water	Chlordane	1.90	D	0.0245	0.051	0.102	ug/L
			Total Concentration:	1.90					
Client ID :	152209-WO-31								
H5959-17	152209-WO-31	Water	Chlordane	0.76	P	0.0124	0.0258	0.0515	ug/L
			Total Concentration:	0.76					
Client ID :	152209-WO-28								
H5959-18	152209-WO-28	Water	Chlordane	2.20	E	0.0121	0.0253	0.0505	ug/L
			Total Concentration:	2.20					
Client ID :	152209-WO-28DL								
H5959-18DL	152209-WO-28DL	Water	Chlordane	2.00	D	0.0606	0.1263	0.252	ug/L
			Total Concentration:	2.00					
Client ID :	152209-FD-01								
H5959-19	152209-FD-01	Water	Chlordane	6.00	E	0.012	0.025	0.05	ug/L
			Total Concentration:	6.00					
Client ID :	152209-FD-01DL								
H5959-19DL	152209-FD-01DL	Water	Chlordane	5.30	D	0.12	0.25	0.5	ug/L
			Total Concentration:	5.30					
Client ID :	152209-FD-02								
H5959-20	152209-FD-02	Water	Chlordane	7.20	E	0.0121	0.0253	0.0505	ug/L
			Total Concentration:	7.20					
Client ID :	152209-FD-02DL								
H5959-20DL	152209-FD-02DL	Water	Chlordane	7.10	D	0.121	0.2525	0.505	ug/L
			Total Concentration:	7.10					



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5959

Order ID: H5959

Client: EA Engineering Science & Technology

Project ID: 2016 Bianchi Weiss Greenhouse

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : 152209-FB-120516								
H5959-21	152209-FB-120516	Water Chlordane	0.08		0.0122	0.0255	0.051	ug/L
Total Concentration:			0.08					
Client ID : 152209-FB-120616								
H5959-22	152209-FB-120616	Water Chlordane	0.13		0.0124	0.0258	0.0515	ug/L
Total Concentration:			0.13					
Client ID : 152209-WO-26								
H5959-24	152209-WO-26	Water Chlordane	0.24		0.0122	0.0255	0.051	ug/L
Total Concentration:			0.24					

ANALYTICAL RESULTS SUMMARY

GC SEMI-VOLATILES

PROJECT NAME : 2016 BIANCHI WEISS GREENHOUSE

EA ENGINEERING SCIENCE & TECHNOLOGY

6712 Brooklawn Parkway, Suite 104

Suite 104

East Syracuse, NY - 13211-2158

Phone No: 315-431-4610

ORDER ID : H5958

ATTENTION : Megan Miller



DoD ELAP

Table Of Contents for H5958

1) Signature Page	3
2) Case Narrative	7
2.1) PESTICIDE Group1- Case Narrative	7
3) Qualifier Page	9
4) QA Checklist	10
5) PESTICIDE Group1 Data	11
6) Shipping Document	49
6.1) CHAIN OF CUSTODY	50
6.2) Air Bill	53
6.3) Lab Certificate	56

Cover Page

Order ID : H5958

Project ID : 2016 Bianchi Weiss Greenhouse

Client : EA Engineering Science & Technology

Lab Sample Number

H5958-01
H5958-02
H5958-03

Client Sample Number

152209-PW-01
H5958-01MS
H5958-01MSD

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :



APPROVED

Date: 12/21/2016

By Mildred V Reyes, QAQC Supervisor at 3:53 pm, Dec 21, 2016

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION							
FORM S-I							
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY							
NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
152209-PW-01	H5958-01				608		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-IIa
SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION					
FORM S-IIc					
SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES					
Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
H5958-01	Water	12/05/16	12/08/16	12/09/16	12/14/16
* Details For Test :PESTICIDE Group1					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION					
FORM S-III					
SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES					
Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
H5958-01	Water	608	3510C		

CASE NARRATIVE

EA Engineering Science & Technology

Project Name: 2016 Bianchi Weiss Greenhouse

Project # N/A

Chemtech Project # H5958

Test Name: PESTICIDE Group1

A. Number of Samples and Date of Receipt:

3 Water samples were received on 12/08/2016.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: PESTICIDE Group1. This data package contains results for PESTICIDE Group1.

C. Analytical Techniques:

The analysis was performed on instrument ECD_L. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df,; Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11. The analysis of PESTICIDE Group1s was based on method 608 and extraction was done based on method 3510C.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD {H5958-03MSD} recoveries met requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The second column has % RSD more than 10 % with average but first column is passing, as per method no corrective action was required

The Continuous Calibration met the requirements except for Tetrachloro-m-xylene, Decachlorobiphenyl in second column but it is passing in first column in file id PL021724.D.

The Continuous Calibration met the requirements except for Tetrachloro-m-xylene in second column but it is passing in first column in PL021743.D.

All the associates samples were passing for the surrogate recoveries for this target compound.

E. Additional Comments:

The sample # 152209-PW-01 , 152209-PW-01MS and 152209-PW-01MSD were extracted with reduce weight volume due having very limited volume received .

The Chlordane compound is not a part of the spike mix list; therefore the matrix spike and Matrix spike dup form are not reported.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature

**APPROVED***By Mildred V Reyes, QAQC Supervisor at 3:53 pm, Dec 21, 2016*

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: H5958

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

1st Level QA Review Signature: KALPANA RAYTHATTHA

Date: 12/21/2016

2nd Level QA Review Signature:

Mildred V Reyes

APPROVED

By Mildred V Reyes, QAQC Supervisor at 3:53 pm, Dec 21, 2016



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	H5958	OrderDate:	12/8/2016 3:29:40 PM
Client:	EA Engineering Science & Technology	Project:	2016 Bianchi Weiss Greenhouse
Contact:	Megan Miller	Location:	O51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H5958-01	152209-PW-01	Water	PESTICIDE Group1	608	12/05/16	12/09/16	12/14/16	12/08/16

Hit Summary Sheet
SW-846

SDG No.: H5958		Order ID: H5958						
Client: EA Engineering Science & Technology		Project ID: 2016 Bianchi Weiss Greenhouse						
Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	152209-PW-01							
H5958-01	152209-PW-01	Water	Chlordane	0.32	0.0218	0.0455	0.0909	ug/L
Total Concentration:				0.32				

SAMPLE DATA

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/05/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/08/16	
Client Sample ID:	152209-PW-01		SDG No.:	H5958	
Lab Sample ID:	H5958-01		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	550	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021736.D	1	12/09/16 10:00	12/14/16 18:10	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.321		0.0218		0.0455 0.0909	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.1		25 - 156		91%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.8		10 - 148		74%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SDG No.: H5958

Client: EA Engineering Science & Technology

Analytical Method: 608 Pest

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits	
								Low	High
I.BLK-PL021561.D	PIBLK-PL021561.D	Decachlorobiphenyl	1	20	20.06	100		10	192
		Tetrachloro-m-xylene	1	20	18.76	94		10	172
		Decachlorobiphenyl	2	20	20.28	101		10	192
		Tetrachloro-m-xylene	2	20	19.02	95		10	172
I.BLK-PL021723.D	PIBLK-PL021723.D	Tetrachloro-m-xylene	1	20	18.08	90		25	156
		Decachlorobiphenyl	1	20	16.19	81		10	148
		Tetrachloro-m-xylene	2	20	18.64	93		25	156
		Decachlorobiphenyl	2	20	13.59	68		10	148
PB95164BS	PB95164BS	Tetrachloro-m-xylene	1	20	17.78	89		25	156
		Decachlorobiphenyl	1	20	16.85	84		10	148
		Tetrachloro-m-xylene	2	20	17.93	90		25	156
		Decachlorobiphenyl	2	20	14.84	74		10	148
H5958-01	152209-PW-01	Tetrachloro-m-xylene	1	20	18.11	91		25	156
		Decachlorobiphenyl	1	20	14.84	74		10	148
		Tetrachloro-m-xylene	2	20	16.92	85		25	156
		Decachlorobiphenyl	2	20	13.05	65		10	148
H5958-02MS	152209-PW-01MS	Tetrachloro-m-xylene	1	20	18.62	93		25	156
		Decachlorobiphenyl	1	20	16	80		10	148
		Tetrachloro-m-xylene	2	20	17.61	88		25	156
		Decachlorobiphenyl	2	20	13.29	66		10	148
H5958-03MSD	152209-PW-01MSD	Tetrachloro-m-xylene	1	20	15.18	76		25	156
		Decachlorobiphenyl	1	20	15.57	78		10	148
		Tetrachloro-m-xylene	2	20	16.44	82		25	156
		Decachlorobiphenyl	2	20	13.54	68		10	148
PB95164BL	PB95164BL	Tetrachloro-m-xylene	1	20	16.39	82		25	156
		Decachlorobiphenyl	1	20	15.42	77		10	148
		Tetrachloro-m-xylene	2	20	16.43	82		25	156
		Decachlorobiphenyl	2	20	13.39	67		10	148
I.BLK-PL021741.D	PIBLK-PL021741.D	Tetrachloro-m-xylene	1	20	19.07	95		25	156
		Decachlorobiphenyl	1	20	17.62	88		10	148
		Tetrachloro-m-xylene	2	20	19.3	97		25	156
		Decachlorobiphenyl	2	20	16.07	80		10	148

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H5958

Client: EA Engineering Science & Technology

Analytical Method:

DataFile :

Lab Sample ID:		Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
----------------	--	-----------	-------	---------------	--------	-------	-----	----------	-----	----------	-----	-------------	-----

Client Sample ID:

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H5958

Client: EA Engineering Science & Technology

Analytical Method:

DataFile :

Lab Sample ID:		Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
----------------	--	-----------	-------	---------------	--------	-------	-----	----------	-----	----------	-----	-------------	-----

Client Sample ID:

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H5958
Client: EA Engineering Science & Technology
Analytical Method: Datafile :

								RPD	Limits	
Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	Qual	Low	High
										RPD

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB95164BL

Lab Name: CHEMTECH

Contract: EAEN05

Lab Code: CHEM Case No.: H5958

SAS No.: H5958 SDG NO.: H5958

Lab Sample ID: PB95164BL

Lab File ID: PL021739.D

Matrix: (soil/water) Water

Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N

Date Extracted: 12/09/2016

Date Analyzed (1): 12/14/2016

Date Analyzed (2): 12/14/2016

Time Analyzed (1): 18:53

Time Analyzed (2): 18:53

Instrument ID (1): ECD_L

Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm)

GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB95164BS	PB95164BS	PL021725.D	12/14/2016	12/14/2016
152209-PW-01	H5958-01	PL021736.D	12/14/2016	12/14/2016
152209-PW-01MS	H5958-02MS	PL021737.D	12/14/2016	12/14/2016
152209-PW-01MSD	H5958-03MSD	PL021738.D	12/14/2016	12/14/2016

COMMENTS: _____

QC SAMPLE DATA

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:		
Project:	2016 Bianchi Weiss Greenhouse		Date Received:		
Client Sample ID:	PB95164BL		SDG No.:	H5958	
Lab Sample ID:	PB95164BL		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021739.D	1	12/09/16 10:00	12/14/16 18:53	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.05	U	0.012	0.025	0.05	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	16.4		25 - 156		82%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.4		10 - 148		77%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/07/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/07/16	
Client Sample ID:	PIBLK-PL021561.D		SDG No.:	H5958	
Lab Sample ID:	I.BLK-PL021561.D		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021561.D	1		12/07/16	PL120716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.5	U	0.1	0.1	0.5	ug/L
SURROGATES							
2051-24-3	Decachlorobiphenyl	20.1		10 - 192		100%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.8		10 - 172		94%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/14/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/14/16	
Client Sample ID:	PIBLK-PL021723.D		SDG No.:	H5958	
Lab Sample ID:	I.BLK-PL021723.D		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021723.D	1		12/14/16	PL121416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.5	U	0.12	0.25	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.1		25 - 156		90%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.2		10 - 148		81%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/14/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/14/16	
Client Sample ID:	PIBLK-PL021741.D		SDG No.:	H5958	
Lab Sample ID:	I.BLK-PL021741.D		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021741.D	1		12/14/16	PL121416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.5	U	0.12	0.25	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.1		25 - 156		95%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.6		10 - 148		88%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:		
Project:	2016 Bianchi Weiss Greenhouse		Date Received:		
Client Sample ID:	PB95164BS		SDG No.:	H5958	
Lab Sample ID:	PB95164BS		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021725.D	1	12/09/16 10:00	12/14/16 15:31	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
877-09-8	Tetrachloro-m-xylene	17.8		25 - 156		89%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.8		10 - 148		84%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology		Date Collected:	12/05/16	
Project:	2016 Bianchi Weiss Greenhouse		Date Received:	12/08/16	
Client Sample ID:	152209-PW-01MS		SDG No.:	H5958	
Lab Sample ID:	H5958-02MS		Matrix:	Water	
Analytical Method:	E608		% Moisture:	100	Decanted:
Sample Wt/Vol:	540	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	PESTICIDE Group1	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021737.D	1	12/09/16 10:00	12/14/16 18:24	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.531		0.0222	0.0463	0.0926	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.6		25 - 156		93%	SPK: 20
2051-24-3	Decachlorobiphenyl	16		10 - 148		80%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	12/05/16
Project:	2016 Bianchi Weiss Greenhouse	Date Received:	12/08/16
Client Sample ID:	152209-PW-01MSD	SDG No.:	H5958
Lab Sample ID:	H5958-03MSD	Matrix:	Water
Analytical Method:	E608	% Moisture:	100
Sample Wt/Vol:	540	Units:	mL
Soil Aliquot Vol:		uL	
Extraction Type:		Test:	PESTICIDE Group1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL021738.D	1	12/09/16 10:00	12/14/16 18:39	PB95164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
57-74-9	Chlordane	0.696		0.0222	0.0463	0.0926	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	15.2		25 - 156		76%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.6		10 - 148		78%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

CALIBRATION SUMMARY

RETENTION TIMES OF INITIAL CALIBRATION

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Instrument ID: ECD_L Calibration Date(s): 12/07/2016 12/07/2016

Calibration Times: 21:04 22:01

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PL021573.D RT 750 = PL021574.D

RT 500 = PL021575.D RT 250 = PL021576.D RT 050 = PL021577.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW	
								FROM	TO
Chlordane-1	(1)	4.67	4.67	4.67	4.67	4.67	4.67	4.57	4.77
Chlordane-2	(2)	4.85	4.85	4.85	4.85	4.85	4.85	4.75	4.95
Chlordane-3	(3)	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Chlordane-4	(4)	5.82	5.82	5.82	5.82	5.82	5.82	5.72	5.92
Chlordane-5	(5)	6.59	6.59	6.59	6.59	6.59	6.59	6.49	6.69
Decachlorobiphenyl		8.60	8.60	8.60	8.60	8.60	8.60	8.50	8.70
Tetrachloro-m-xylene		3.72	3.72	3.72	3.72	3.72	3.72	3.62	3.82

RETENTION TIMES OF INITIAL CALIBRATION

Contract: EAEN05
Lab Code: CHEM **Case No.:** H5958 **SAS No.:** H5958 **SDG NO.:** H5958
Instrument ID: ECD_L **Calibration Date(s):** 12/07/2016 12/07/2016
Calibration Times: 21:04 22:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID:	RT 1000 = <u>PL021573.D</u>	RT 750 = <u>PL021574.D</u>
RT 500 = <u>PL021575.D</u>	RT 250 = <u>PL021576.D</u>	RT 050 = <u>PL021577.D</u>

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW	
								FROM	TO
Chlordane-1	(1)	3.95	3.95	3.95	3.95	3.95	3.95	3.85	4.05
Chlordane-2	(2)	4.10	4.10	4.10	4.10	4.10	4.10	4.00	4.20
Chlordane-3	(3)	4.97	4.97	4.97	4.97	4.97	4.97	4.87	5.07
Chlordane-4	(4)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Chlordane-5	(5)	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Decachlorobiphenyl		7.75	7.75	7.75	7.75	7.75	7.75	7.65	7.85
Tetrachloro-m-xylene		3.13	3.13	3.13	3.13	3.13	3.13	3.03	3.23

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: EAEN05
Lab Code: CHEM **Case No.:** H5958 **SAS No.:** H5958 **SDG NO.:** H5958
Instrument ID: ECD_L **Calibration Date(s):** 12/07/2016 12/07/2016
Calibration Times: 21:04 22:01
GC Column: ZB-MR1 **ID:** 0.32 (mm)

<div>LAB FILE ID:</div> <div>CF 1000 = <u>PL021573.D</u></div> <div>CF 750 = <u>PL021574.D</u></div> <div>CF 500 = <u>PL021575.D</u></div> <div>CF 250 = <u>PL021576.D</u></div> <div>CF 050 = <u>PL021577.D</u></div>							
COMPOUND	CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Chlordane-1 (1)	44839900	44110000	45969500	45233400	42424400	44515400	3
Chlordane-2 (2)	50527900	49901600	52570500	51476600	50104600	50916200	2
Chlordane-3 (3)	160540000	155881000	163116000	166353000	162747000	161727000	2
Chlordane-4 (4)	187744000	183216000	192929000	193732000	198009000	191126000	3
Chlordane-5 (5)	37464200	36984500	39511300	40066300	40614000	38928100	4
Decachlorobiphenyl	79331000	79942400	86619800	90186500	101545000	87525000	10
Tetrachloro-m-xylene	101442000	100153000	104285000	101656000	102821000	102071000	2

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Instrument ID: ECD_L Calibration Date(s): 12/07/2016 12/07/2016

Calibration Times: 21:04 22:01

GC Column: ZB-MR2 ID: 0.32 (mm)

<div>LAB FILE ID:</div> <div>CF 1000 = <u>PL021573.D</u>CF 750 = <u>PL021574.D</u></div> <div>CF 500 = <u>PL021575.D</u>CF 250 = <u>PL021576.D</u>CF 050 = <u>PL021577.D</u></div>							
COMPOUND	CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Chlordane-1 (1)	142540000	139584000	144046000	137881000	140279000	140866000	2
Chlordane-2 (2)	208591000	204096000	210805000	200982000	197093000	204314000	3
Chlordane-3 (3)	467654000	454729000	470337000	444442000	413765000	450185000	5
Chlordane-4 (4)	467061000	455289000	475600000	449468000	431261000	455736000	4
Chlordane-5 (5)	140962000	136909000	142792000	134554000	131480000	137340000	3
Decachlorobiphenyl	316757000	317093000	340097000	348694000	396618000	343852000	10
Tetrachloro-m-xylene	341952000	336760000	347803000	333733000	326390000	337328000	2

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Instrument ID: ECD_L Date(s) Analyzed: 12/07/2016 12/07/2016

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
Chlordane	1000	1	4.67	4.57	4.77	44839900
		2	4.85	4.75	4.95	50527900
		3	5.74	5.64	5.84	160540000
		4	5.82	5.72	5.92	187744000
		5	6.59	6.49	6.69	37464200
Chlordane	250	1	4.67	4.57	4.77	45233400
		2	4.85	4.75	4.95	51476600
		3	5.74	5.64	5.84	166353000
		4	5.82	5.72	5.92	193732000
		5	6.59	6.49	6.69	40066300
Chlordane	50	1	4.67	4.57	4.77	42424400
		2	4.85	4.75	4.95	50104600
		3	5.74	5.64	5.84	162747000
		4	5.82	5.72	5.92	198009000
		5	6.59	6.49	6.69	40614000
Chlordane	500	1	4.67	4.57	4.77	45969500
		2	4.85	4.75	4.95	52570500
		3	5.74	5.64	5.84	163116000
		4	5.82	5.72	5.92	192929000
		5	6.59	6.49	6.69	39511300
Chlordane	750	1	4.67	4.57	4.77	44110000
		2	4.85	4.75	4.95	49901600
		3	5.74	5.64	5.84	155881000
		4	5.82	5.72	5.92	183216000
		5	6.59	6.49	6.69	36984500

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Instrument ID: ECD_L Date(s) Analyzed: 12/07/2016 12/07/2016

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
Chlordane	1000	1	3.95	3.85	4.05	142540000
		2	4.10	4.00	4.20	208591000
		3	4.97	4.87	5.07	467654000
		4	5.03	4.93	5.13	467061000
		5	5.83	5.73	5.93	140962000
Chlordane	250	1	3.95	3.85	4.05	137881000
		2	4.10	4.00	4.20	200982000
		3	4.97	4.87	5.07	444442000
		4	5.03	4.93	5.13	449468000
		5	5.83	5.73	5.93	134554000
Chlordane	50	1	3.95	3.85	4.05	140279000
		2	4.10	4.00	4.20	197093000
		3	4.97	4.87	5.07	413765000
		4	5.03	4.93	5.13	431261000
		5	5.83	5.73	5.93	131480000
Chlordane	500	1	3.95	3.85	4.05	144046000
		2	4.10	4.00	4.20	210805000
		3	4.97	4.87	5.07	470337000
		4	5.03	4.93	5.13	475600000
		5	5.83	5.73	5.93	142792000
Chlordane	750	1	3.95	3.85	4.05	139584000
		2	4.10	4.00	4.20	204096000
		3	4.97	4.87	5.07	454729000
		4	5.03	4.93	5.13	455289000
		5	5.83	5.73	5.93	136909000

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Continuing Calib Date: 12/14/2016 Initial Calibration Date(s): 12/07/2016 12/07/2016

Continuing Calib Time: 15:17 Initial Calibration Time(s): 18:55 19:52

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Chlordane-1 (1)	4.66	0.00	-0.10	0.10	-4.66
Chlordane-2 (2)	4.84	0.00	-0.10	0.10	-4.84
Chlordane-3 (3)	5.73	0.00	-0.10	0.10	-5.73
Chlordane-4 (4)	5.81	0.00	-0.10	0.10	-5.81
Chlordane-5 (5)	6.58	0.00	-0.10	0.10	-6.58
Tetrachloro-m-xylene	3.71	3.72	3.62	3.82	0.01
Decachlorobiphenyl	8.60	8.61	8.51	8.71	0.01

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Continuing Calib Date: 12/14/2016 Initial Calibration Date(s): 12/07/2016 12/07/2016

Continuing Calib Time: 15:17 Initial Calibration Time(s): 18:55 19:52

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Chlordane-1 (1)	3.95	0.00	-0.10	0.10	-3.95
Chlordane-2 (2)	4.09	0.00	-0.10	0.10	-4.09
Chlordane-3 (3)	4.97	0.00	-0.10	0.10	-4.97
Chlordane-4 (4)	5.02	0.00	-0.10	0.10	-5.02
Chlordane-5 (5)	5.82	0.00	-0.10	0.10	-5.82
Tetrachloro-m-xylene	3.12	3.13	3.03	3.23	0.01
Decachlorobiphenyl	7.73	7.75	7.65	7.85	0.02

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 12/07/2016 12/07/2016

Client Sample No.: CCAL01 Date Analyzed: 12/14/2016

Lab Sample No.: PCHLORCCC500 Data File : PL021724.D Time Analyzed: 15:17

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Chlordane-1	4.658	-0.100	0.100	536.580	500.000	7.3
Chlordane-2	4.839	-0.100	0.100	556.170	500.000	11.2
Chlordane-3	5.733	-0.100	0.100	484.570	500.000	-3.1
Chlordane-4	5.808	-0.100	0.100	482.620	500.000	-3.5
Chlordane-5	6.579	-0.100	0.100	462.450	500.000	-7.5
Decachlorobiphenyl	8.596	8.505	8.705	47.120	50.000	-5.8
Tetrachloro-m-xylene	3.708	3.615	3.815	54.090	50.000	8.2

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 12/07/2016 12/07/2016

Client Sample No.: CCAL01 Date Analyzed: 12/14/2016

Lab Sample No.: PCHLORCCC500 Data File : PL021724.D Time Analyzed: 15:17

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Chlordane-1	3.946	-0.100	0.100	523.240	500.000	4.6
Chlordane-2	4.088	-0.100	0.100	522.000	500.000	4.4
Chlordane-3	4.965	-0.100	0.100	486.550	500.000	-2.7
Chlordane-4	5.019	-0.100	0.100	499.520	500.000	-0.1
Chlordane-5	5.824	-0.100	0.100	507.900	500.000	1.6
Decachlorobiphenyl	7.733	7.646	7.846	40.530	50.000	-18.9
Tetrachloro-m-xylene	3.120	3.025	3.225	61.670	50.000	23.3

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Continuing Calib Date: 12/14/2016 Initial Calibration Date(s): 12/07/2016 12/07/2016

Continuing Calib Time: 19:50 Initial Calibration Time(s): 18:55 19:52

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Chlordane-1 (1)	4.66	0.00	-0.10	0.10	-4.66
Chlordane-2 (2)	4.84	0.00	-0.10	0.10	-4.84
Chlordane-3 (3)	5.73	0.00	-0.10	0.10	-5.73
Chlordane-4 (4)	5.81	0.00	-0.10	0.10	-5.81
Chlordane-5 (5)	6.58	0.00	-0.10	0.10	-6.58
Tetrachloro-m-xylene	3.71	3.72	3.62	3.82	0.01
Decachlorobiphenyl	8.59	8.61	8.51	8.71	0.02

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Continuing Calib Date: 12/14/2016 Initial Calibration Date(s): 12/07/2016 12/07/2016

Continuing Calib Time: 19:50 Initial Calibration Time(s): 18:55 19:52

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Chlordane-1 (1)	3.94	0.00	-0.10	0.10	-3.94
Chlordane-2 (2)	4.09	0.00	-0.10	0.10	-4.09
Chlordane-3 (3)	4.96	0.00	-0.10	0.10	-4.96
Chlordane-4 (4)	5.02	0.00	-0.10	0.10	-5.02
Chlordane-5 (5)	5.82	0.00	-0.10	0.10	-5.82
Tetrachloro-m-xylene	3.12	3.13	3.03	3.23	0.01
Decachlorobiphenyl	7.73	7.75	7.65	7.85	0.02

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 12/07/2016 12/07/2016

Client Sample No.: CCAL02 Date Analyzed: 12/14/2016

Lab Sample No.: PCHLORCCC500 Data File : PL021743.D Time Analyzed: 19:50

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Chlordane-1	4.656	-0.100	0.100	561.680	500.000	12.3
Chlordane-2	4.837	-0.100	0.100	574.550	500.000	14.9
Chlordane-3	5.731	-0.100	0.100	513.160	500.000	2.6
Chlordane-4	5.806	-0.100	0.100	513.810	500.000	2.8
Chlordane-5	6.577	-0.100	0.100	484.000	500.000	-3.2
Decachlorobiphenyl	8.594	8.505	8.705	47.840	50.000	-4.3
Tetrachloro-m-xylene	3.706	3.615	3.815	55.870	50.000	11.7

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 12/07/2016 12/07/2016

Client Sample No.: CCAL02 Date Analyzed: 12/14/2016

Lab Sample No.: PCHLORCCC500 Data File : PL021743.D Time Analyzed: 19:50

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Chlordane-1	3.944	-0.100	0.100	556.720	500.000	11.3
Chlordane-2	4.087	-0.100	0.100	549.890	500.000	10.0
Chlordane-3	4.962	-0.100	0.100	555.550	500.000	11.1
Chlordane-4	5.018	-0.100	0.100	542.110	500.000	8.4
Chlordane-5	5.822	-0.100	0.100	540.840	500.000	8.2
Decachlorobiphenyl	7.729	7.646	7.846	44.290	50.000	-11.4
Tetrachloro-m-xylene	3.119	3.025	3.225	63.890	50.000	27.8

Analytical Sequence

Client: EA Engineering Science & Technology

SDG No.: H5958

Project: 2016 Bianchi Weiss Greenhouse

Instrument ID: ECD_L

GC Column: ZB-MR1

ID: 0.32 (mm)

Inst. Calib. Date(s): 12/07/2016

12/07/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
1.BLK	1.BLK	12/07/2016	18:12	PL021561.D	8.61	3.72
PCHLORICC1000	PCHLORICC1000	12/07/2016	21:04	PL021573.D	8.60	3.72
PCHLORICC750	PCHLORICC750	12/07/2016	21:18	PL021574.D	8.60	3.72
PCHLORICC500	PCHLORICC500	12/07/2016	21:32	PL021575.D	8.60	3.72
PCHLORICC250	PCHLORICC250	12/07/2016	21:47	PL021576.D	8.60	3.72
PCHLORICC050	PCHLORICC050	12/07/2016	22:01	PL021577.D	8.60	3.72
1.BLK	1.BLK	12/14/2016	15:02	PL021723.D	8.60	3.71
PCHLORCCC500	PCHLORCCC500	12/14/2016	15:17	PL021724.D	8.60	3.71
PB95164BS	PB95164BS	12/14/2016	15:31	PL021725.D	8.60	3.71
152209-PW-01	H5958-01	12/14/2016	18:10	PL021736.D	8.60	3.71
152209-PW-01MS	H5958-02MS	12/14/2016	18:24	PL021737.D	8.59	3.71
152209-PW-01MSD	H5958-03MSD	12/14/2016	18:39	PL021738.D	8.60	3.71
PB95164BL	PB95164BL	12/14/2016	18:53	PL021739.D	8.60	3.71
1.BLK	1.BLK	12/14/2016	19:22	PL021741.D	8.59	3.71
PCHLORCCC500	PCHLORCCC500	12/14/2016	19:50	PL021743.D	8.59	3.71

Analytical Sequence

Client: EA Engineering Science & Technology

SDG No.: H5958

Project: 2016 Bianchi Weiss Greenhouse

Instrument ID: ECD_L

GC Column: ZB-MR2

ID: 0.32 (mm)

Inst. Calib. Date(s): 12/07/2016

12/07/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
1.BLK	1.BLK	12/07/2016	18:12	PL021561.D	7.75	3.12
PCHLORICC1000	PCHLORICC1000	12/07/2016	21:04	PL021573.D	7.75	3.13
PCHLORICC750	PCHLORICC750	12/07/2016	21:18	PL021574.D	7.75	3.13
PCHLORICC500	PCHLORICC500	12/07/2016	21:32	PL021575.D	7.75	3.13
PCHLORICC250	PCHLORICC250	12/07/2016	21:47	PL021576.D	7.75	3.13
PCHLORICC050	PCHLORICC050	12/07/2016	22:01	PL021577.D	7.75	3.13
1.BLK	1.BLK	12/14/2016	15:02	PL021723.D	7.73	3.12
PCHLORCCC500	PCHLORCCC500	12/14/2016	15:17	PL021724.D	7.73	3.12
PB95164BS	PB95164BS	12/14/2016	15:31	PL021725.D	7.73	3.12
152209-PW-01	H5958-01	12/14/2016	18:10	PL021736.D	7.73	3.12
152209-PW-01MS	H5958-02MS	12/14/2016	18:24	PL021737.D	7.73	3.12
152209-PW-01MSD	H5958-03MSD	12/14/2016	18:39	PL021738.D	7.73	3.12
PB95164BL	PB95164BL	12/14/2016	18:53	PL021739.D	7.73	3.12
1.BLK	1.BLK	12/14/2016	19:22	PL021741.D	7.73	3.12
PCHLORCCC500	PCHLORCCC500	12/14/2016	19:50	PL021743.D	7.73	3.12

IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SAMPLE NO.

152209-PW-01

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Lab Sample ID: H5958-01 Date(s) Analyzed: 12/14/2016 12/14/2016

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column: (1): ZB-MR1 ID: 0.32 (mm) GC Column: (2): ZB-MR2 ID: 0.32 (mm)

Data file PL021736.D

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%RPD
			FROM	TO			
Chlordane	1	4.66	4.61	4.71	0.80	0.321	1.98
COLUMN 1	2	0.00	0.00	0.00	0.00		
	3	5.73	5.68	5.78	0.16		
	4	5.81	5.76	5.86	0.17		
	5	6.58	6.53	6.63	0.15		
	1	3.95	3.90	4.00	0.73		
COLUMN 2	2	0.00	0.00	0.00	0.00	0.314	
	3	4.96	4.91	5.01	0.11		
	4	5.02	4.97	5.07	0.25		
	5	5.82	5.77	5.87	0.17		

IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SAMPLE NO.

152209-PW-01MS

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Lab Sample ID: H5958-02MS Date(s) Analyzed: 12/14/2016 12/14/2016

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column: (1): ZB-MR1 ID: 0.32 (mm) GC Column: (2): ZB-MR2 ID: 0.32 (mm)

Data file PL021737.D

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%RPD
			FROM	TO			
Chlordane	1	4.66	4.61	4.71	1.12	0.469	12.32
COLUMN 1	2	4.84	4.79	4.89	0.46		
	3	5.73	5.68	5.78	0.32		
	4	5.80	5.75	5.85	0.29		
	5	6.58	6.53	6.63	0.16		
COLUMN 2	1	3.94	3.89	3.99	0.80	0.531	
	2	4.09	4.04	4.14	0.44		
	3	4.96	4.91	5.01	0.31		
	4	5.02	4.97	5.07	0.43		
	5	5.82	5.77	5.87	0.68		

IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SAMPLE NO.

152209-PW-01MSD

Contract: EAEN05

Lab Code: CHEM Case No.: H5958 SAS No.: H5958 SDG NO.: H5958

Lab Sample ID: H5958-03MSD Date(s) Analyzed: 12/14/2016 12/14/2016

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column: (1): ZB-MR1 ID: 0.32 (mm) GC Column: (2): ZB-MR2 ID: 0.32 (mm)

Data file PL021738.D

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%RPD
			FROM	TO			
Chlordane	1	4.66	4.61	4.71	1.88	0.696	19.71
COLUMN 1	2	4.84	4.79	4.89	0.49		
	3	5.73	5.68	5.78	0.37		
	4	5.80	5.75	5.85	0.52		
	5	6.58	6.53	6.63	0.22		
COLUMN 2	1	3.95	3.90	4.00	0.91	0.571	
	2	4.09	4.04	4.14	0.45		
	3	4.96	4.91	5.01	0.35		
	4	5.02	4.97	5.07	0.51		
	5	5.82	5.77	5.87	0.64		

SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. 1150158

QUOTE NO.

COC Number 043489

6.1

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: EA ENGINEERING, PC
ADDRESS: 6712 BROOKLAWN PKWY, STE 104
CITY: SYRACUSE STATE: NY ZIP: 13211
ATTENTION: MEGAN MILLER
PHONE: 315 431 4610 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: BIANCHI-WEISS GREENHOUSE
PROJECT NO: 14907.29 LOCATION: PATCHOUGUE, NY
PROJECT MANAGER: MEGAN MILLER
e-mail: MMILLER@EAEST.COM
PHONE: 315-431-4610 FAX:

CLIENT BILLING INFORMATION

BILL TO: EA ACCTS. PAYABLE PO#: 14907.29
ADDRESS: NORTHEAST AVE EA EST. COM
CITY: NEWBURGH STATE: NY ZIP:
ATTENTION: MELANIE D. NA PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: EA ID IQ TAT _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☒ Others SEE BELOW
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☒ EDD Format: NYSDEC EQUUS

ANALYSIS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
			COMP	GRAB	DATE	TIME		E	1	2	3	4	5	6	7	8		9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1. HSD	152209 - PW - 01	GW		X	12/5/16	1455	3	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. STEPHEN SOLDNER / 58	DATE/TIME: 12/8/16 1300	RECEIVED BY: 1. UPS	Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant MeOH extraction requires an additional 4 oz jar for percent solid.	Cooler Temp. 5.2
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY:	Comments: CAT B. FOR PW-01 & SW-01; CAT A FOR ALL OTHERS	Ice in Cooler?: yes
RELINQUISHED BY: 3. UPS	DATE/TIME: 12-8-16	RECEIVED FOR LAB BY: 3. C. H. E.	Page 1 of 3	SHIPMENT VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT.
			Shipment Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO	

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. H5959

QUOTE NO.

COC Number 043487

6.1

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: _____
ADDRESS: SAME
CITY: _____ STATE: _____ ZIP: AS
ATTENTION: _____
PHONE: _____ FAX: _____

CLIENT PROJECT INFORMATION

PROJECT NAME: _____
PROJECT NO.: _____ LOCATION: _____
PROJECT MANAGER: PAGE
e-mail: _____
PHONE: _____ FAX: _____

CLIENT BILLING INFORMATION

BILL TO: _____ PO#: _____
ADDRESS: 1
CITY: _____ STATE: _____ ZIP: _____
ATTENTION: _____ PHONE: _____

DATA TURNAROUND INFORMATION

FAX: _____ DAYS: _____
HARD COPY: _____ DAYS: _____
EDD: _____ DAYS: _____
PREAPPROVED TAT: ☐ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☒ Others CAT A
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☒ EDD Format: NYSDOL EQUUS

ANALYSIS

EPA METHOD 608 (CHLOROBIPHENYL)

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		E										← Specify Preservatives A-HCl B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other
1.	152209-MW33I	GW		X	12/6/16	1435	1	X										
2.	152209- MW33D					1448	1											
3.	152209- MW33S					1505	1											
4.	152209- MW33P ^{ss 12/16} WO-33P					1525	1											
5.	152209- WO-19				12/7/16	0801	1											
6.	152209- WO-27				12/7/16	0853	1											
7.	152209- WO- 25					0901	1											
8.	152209- WO-30					1002	1											
9.	152209- WO-31					0954	1											
10.	152209- WO-28					1131	1											

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. STEPHEN S. COOPER DATE/TIME: 12/07/16 1300
RELINQUISHED BY: _____ DATE/TIME: _____ RECEIVED BY: 1. UPS
2. _____ DATE/TIME: _____ RECEIVED BY: _____
RELINQUISHED BY: UPS DATE/TIME: 10:30 RECEIVED FOR LAB BY: 3. C. Lere
3. _____ DATE/TIME: 12-8-16 RECEIVED FOR LAB BY: _____

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments: _____

Cooler Temp. 5.2
Ice in Cooler?: yes

Page 2 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: ADDRESS: CITY: STATE: ZIP: ATTENTION: PHONE: FAX:

SAME

AS

CLIENT PROJECT INFORMATION

PROJECT NAME: PROJECT NO.: LOCATION: PROJECT MANAGER: e-mail: PHONE: FAX:

PAGE

CLIENT BILLING INFORMATION

BILL TO: PO#: ADDRESS: CITY: STATE: ZIP: ATTENTION: PHONE:

1

DATA TURNAROUND INFORMATION

FAX: DAYS * HARD COPY: DAYS * EDD: STANDARD DAYS * PREAPPROVED TAT: ☐ YES ☐ NO * STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☒ Others CATA ☐ LEVEL 2: Results + QC ☐ LEVEL 3: Results (plus results raw data) + QC ☐ LEVEL 4: Results + QC (all raw data) ☒ EDD Format: NYSDEC EQU 45

EIA Method 608 (CUCOBA)

ANALYSIS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS		
			COMP	GRAB	DATE	TIME		E	1	2	3	4	5	6	7	8	9	← Specify Preservatives A-HCl C-H ₂ SO ₄ E-ICE B-HNO ₃ D-NaOH F-Other	
1.	152209-FD-01	QW		X	12/06/16	—	1	X											
2.	152209-FD-02				12/06/16	—	1												
3.	152209-FB-120516				12/05/16	1630													
4.	152209-FB-120616				12/06/16	1630													
5.	152209-FB-120716	+		+	12/07/16	1115	+	+											
6.	152209-WO-26	+		+	12/07/16	1053	+	+											
7.																			
8.																			
9.																			
10.																			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>STEPHEN SOLDNER</u> 12/07/16 1300	DATE/TIME: 12/07/16 1300	RECEIVED BY: 1. <u>UPS</u>	Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant	Cooler Temp. <u>7.2</u>
RELINQUISHED BY: 2. <u>UPS</u>	DATE/TIME: 12-8-16	RECEIVED BY: 2. <u>C. Lee</u>	MeOH extraction requires an additional 4 oz jar for percent solid.	Ice in Cooler?: <u>yes</u>
RELINQUISHED BY: 3. <u>UPS</u>	DATE/TIME: 12-8-16	RECEIVED FOR LAB BY: 3. <u>C. Lee</u>	Comments: Page <u>3</u> of <u>3</u>	SHIPMENT VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT
			Shipment Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO	



UPS Next Day Air®
UPS Worldwide Express®
Shipping Document

WEIGHT	LTR	PAK	WEIGHT	DIMENSIONAL WEIGHT (INTL)	LARGE PACKAGE	SHIPPER RELEASE
	<input type="checkbox"/>	<input type="checkbox"/>	63	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SATURDAY DELIVERY

☐ EXPRESS (INTL)
☐ DOCUMENTS ONLY

The shipper authorizes UPS to act as its agent for export control and customs purposes. The shipper certifies that these documents were prepared in accordance with the Export Administration Regulations and that the information is accurate and complete.

13854

SHIPMENT FROM
UPS ACCOUNT NO.

7022742

REFERENCE NUMBER

1470-27

315-431-46

TELEPHONE

STEPHEN JOUNOK

CA EST

6012 PROCKLAWN PKWY

SHACOCK, KY 40311

10101552

P. GREEN S. LEFT
614-RDL

DEC 08 04:32:40 2016
1030

UPS Next Day Air®

1
DEL

DELIVERY TO

CAB

908-391-475

TELEPHONE

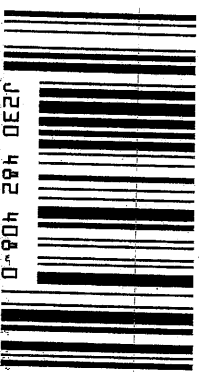
CHEMTECH

224 SHEFFIELD STREET

MOUNTAINSIDE, NJ 07012

010191120 1/10 S

United Parcel Service, Louisville, KY



J230 482 408 0

DATE OF SHIPMENT

12/7/16



UPS Next Day Air®
UPS Worldwide Express®
 Shipping Document

WEIGHT	LTR	PAK	WEIGHT	DIMENSIONAL WEIGHT If Applicable	LARGE PACKAGE	SHIPPER RELEASE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	449	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SATURDAY DELIVERY

☐ EXPRESS (INTL)
☐ DOCUMENTS ONLY

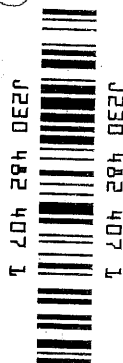
The shipper certifies that the following agent for export control and commodity control is the shipper's agent for export control and commodity control. The shipper certifies that these commodities, technology or software are not being exported from the United States in accordance with the Export Administration Regulations, Division (Country to U.S. law is prohibited).

SHIPMENT FROM
 UPS ACCOUNT NO. **500741**

REFERENCE NUMBER

14904-61

TELEPHONE 4314-013



J230 482 407 1

EXPORT EXPORT

WITHIN BRACKETS

UPS Next Day Air®

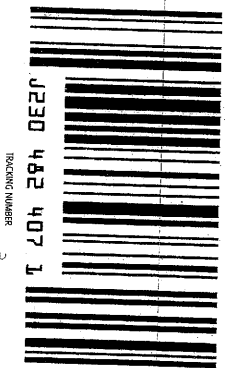
DELIVERY TO

LAB
 CLEMTECH
 244 SWEENEY ST.
 HARRISON NJ 07030
 010191120 1/10 S

TELEPHONE

708 731 1180

J230 482 407 1



J230 482 407 1

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

10101552

055410_P1

13854

7 of 100

010191120 1/10 S

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY

DATE OF SHIPMENT

12/7/16

United Parcel Service, Louisville, KY



UPS Next Day Air®
UPS Worldwide Express®

Shipping Document

13853

SATURDAY DELIVERY

WEIGHT	LTR	PAK	WEIGHT	DIMENSIONAL WEIGHT If Applicable	LARGE PACKAGE	SHIPPER RELEASE
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	44		<input type="checkbox"/>	<input type="checkbox"/>

The shipper certifies that this shipment is not an export and is not subject to export control and that the shipper has obtained all necessary export licenses and permits. This shipment is not an export and is not subject to export control and that the shipper has obtained all necessary export licenses and permits. This shipment is not an export and is not subject to export control and that the shipper has obtained all necessary export licenses and permits.

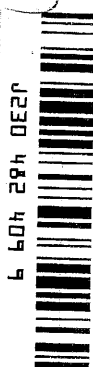
SHIPMENT FROM
UPS
ACCOUNT NO.

100724 915-432-4615

REFERENCE NUMBER

100724

TELEPHONE



J230 462 409 9

☐ EXPRESS (INTL)
☐ DOCUMENTS ONLY

EXPORT EXPORT

10101552

055408_P1

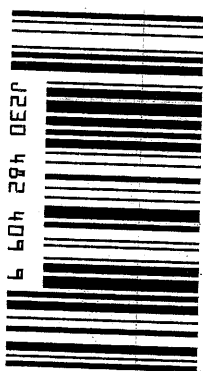
9 of 100

DELIVERY TO

TELEPHONE

UPS Next Day Air®

J230 462 409 9



TRACKING NUMBER

DATE OF SHIPMENT

010191120 1/10 S

United Parcel Service, Louisville, KY

12/7/10

55 of 56

DELIVERY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Florida	E87935
Maine	2012025
Maryland	296
New Hampshire	255413
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-13-00380
Texas	T104704488-13-5