

Date: November 2, 2016

To: Mr. David R. Ansolabehere
General Manager
Cawelo Water District
17207 Industrial Farm Road
Bakersfield, California 93308

From: Heriberto Robles, M.S., Ph.D., D.A.B.T.

Subject: ***Root Crop Sampling and Analysis Results
Cawelo Water District
Bakersfield, California***

This Root Crop Sampling and Analysis Technical Memorandum is the third wave of testing being conducted by Enviro-Tox Services, Inc. (Enviro-Tox) on behalf of the Cawelo Water District (The District); the first being to analyze water quality testing data – specifically studying the levels of organic compounds in its blended produced irrigation water, along with initial crop testing of almonds, grapes and pistachios. The second and third wave of testing include an analysis of agricultural crops as they come into season, specifically to determine whether chemical constituents in Cawelo’s blended irrigation water are absorbed and accumulate (also known as plant uptake) into edible crops. This ongoing testing program, which adheres to testing protocols established by the U.S. Environmental Protection Agency, is a voluntary and collaborative effort undertaken by The District with results provided to the Central Valley Regional Water Quality Control Board (Regional Board), the regulator charged with ensuring water quality and safety.

Background

The District is a public water agency that provides irrigation water to certain lands located in the Bakersfield, California area. The District describes its produced water as water that is thoroughly treated and monitored by oil producers and based on its quality, is provided to The District as recycled water for agricultural use. The District also notes that when it receives produced water, it is blended with water from other groundwater and surface water sources and tested before being provided to farmers to use in agriculture.

The District’s produced water is known to contain traces of petroleum hydrocarbons (Amec 2015), however the organic chemical concentrations detected have been within levels considered acceptable for drinking water (Enviro-Tox 2016). In fact, the organic chemical concentrations detected in the water samples have been very low, in the parts per million and parts per billion range (Table 1).

Root Crop Sampling and Analysis

On June 3, 10, and 20 of 2016, Advanced Environmental Concepts, Inc. collected potato (*Solanum tuberosum*) and carrot (*Daucus carota* subsp. *sativus*) samples for chemical uptake analysis. The potato and carrot samples were collected from agricultural fields irrigated with water provided by The District and from control fields. The control samples were collected from Kern and Tulare County commercial agricultural fields that are not irrigated with produced water or water provided by The District. In this Report, potato and carrot samples collected from fields irrigated with water provided by The District are called “Test” samples; potato and carrot samples collected from fields not irrigated with produced water or water provided by the District are named “Control” samples. Control samples were submitted to the laboratory “blind” and were assigned unique sample identification numbers so that they were not readily identifiable as control samples by the laboratory. Due to limited availability of potato and carrot farms within the Test area, there were multiple sampling locations within a field. Test and Control sampling locations are presented in Figure 1.

Test and Control potato and carrot samples were analyzed by Weck Laboratories, Inc., a California state-certified analytical laboratory for selected petroleum-derived volatile organic compounds (VOCs) and selected semivolatile organic compounds (SVOCs). The VOCs analyzed were acetone, benzene, ethylbenzene, toluene, o-xylene and m,p-xylenes. Selected VOCs were analyzed using U.S. Environmental Protection Agency (EPA) Method 8260B. The SVOCs analyzed were acenaphthene, fluorene, naphthalene and phenanthrene. The potential presence of the selected SVOCs in potatoes and carrots was determined using U.S. EPA Method 8270C-SIM. Root crop samples analyzed for VOCs and SVOCs were collected, preserved and analyzed in accordance with U.S. EPA protocols. The analytes selected for this study are the same analytes reportedly present in produced water (Table 1).

In addition to the samples analyzed for VOCs and SVOCs, a subset of potato and carrot samples were analyzed for oils and fatty acids. A set of potato and carrot samples from the Test and Control fields were analyzed for total saturated and unsaturated fatty acids using AOAC Official Method 996.06. The analysis of total saturated and unsaturated fatty acids was conducted by Anresco Laboratories.

All carrot and potato samples were cleaned, processed and homogenized following the steps described below:

1. Washed 7 to 10 carrots or potato tubers with abundant tap water (trying to remove any soil residue), scrubbed using a vegetable brush, rinsed with distilled water, and dried the carrot or potato tubers with paper towels.
2. Peeled the carrots or potato tubers with a high-grade stainless steel or ceramic peeler, washed them again with distilled water, dried using paper towels.
3. Cut each carrot or potato tuber longitudinally in 4 sections with a high-grade stainless steel or ceramic knife.

4. Placed 3 to 4 slices of each carrot or potato tuber into a clean blender. Homogenized (liquefy) the samples by running the blender under liquefy settings for about 30 seconds or until the carrots or potatoes had the consistency of a puree or paste.
5. Placed 8-ounce aliquots of the homogenized carrots or potatoes into glass jars for transportation to the analytical laboratories. For each sampling location one 8-ounce aliquot was sent to Weck Laboratories, Inc. and one 8-ounce aliquot to Anresco Laboratories for analysis. Glass jars were labeled with the sample type, sampling location and analysis to be performed.

Findings

VOC and SVOC analytical results are summarized in Table 2. Copies of Weck Laboratory reports are included in Attachment A. The only chemical detected in the root crop samples was acetone, which is not unusual in fruit and plant tissues. Acetone is a naturally occurring compound produced by humans, animals, plants, and algae (Elis, et al., 2012). In fact, acetone can be found as a naturally occurring substance in a variety of commodities, such as pineapple, tomatoes, cauliflower, and rice, among many others (USDA 2016; Table 3). Acetone is soluble in water and has been detected in smoke from volcanoes and forest fires and the burning of tobacco, wood, fuels, and other materials (Hazardous Substances Database [HSDB] 2016).

Acetone was detected in both the Test and Control samples for carrots and potatoes at extremely low levels (Table 2), which indicates that it is a naturally occurring substance in the crops. The low-level of acetone detected is not cause for concern because it is a naturally occurring substance found in a variety of agriculture commodities (Table 3), as noted above. Acetone concentrations in root crops collected from the Test fields appear to be slightly higher than those from the Control fields. The slight difference observed cannot be attributed to the irrigation water source, but instead, at least in part, to differences in agricultural practices, plant variety, plant maturity, soil lithology and/or soil nutrient content. Since none of these plant or soil variables were evaluated in this study, the source (if any) for the observed difference in acetone concentrations remain unknown.

Oil and fat analytical results are summarized in Table 4. Copies of the Anresco Laboratory reports are included in Attachment B. Oils reported as total fat were detected in low concentrations in all root crop samples (Table 4). No significant difference was apparent in the total fat content of carrots and potatoes collected from the Test or Control fields.

Conclusions

The organic chemicals studied here were either not found in the root crop samples or were found in both the Test and Control samples. These results indicate that organic chemical constituents in blended produced water are not being absorbed nor accumulate in the roots of plants irrigated with bended produced water.

To date, this is the third round in a series of tests examining The District's blended produced water supply. While initial water quality testing results and this subsequent root crop analyses indicate that the District's blended produced water supply is safe for agricultural irrigation, ongoing testing and

collaboration between The District and the Regional Board is recommended. Conclusions to date are preliminary and Enviro-Tox recommends continued testing as additional crops come into season.

Limitations

The conclusions and recommendations presented in this report are professional opinions based solely upon the data described in this report. They are intended exclusively for the purpose outlined herein and the project indicated. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of users other than The District. Any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user. No express or implied representation or warranty is included or intended in this report except that the work was performed within the limits prescribed by The District with the customary thoroughness and competence of professionals working in the same area on similar projects.

Tables

- Table 1. Water Quality Analytical Results Summary: Volatile Organic Compounds, Semivolatile Organic Compounds, and Total Petroleum Hydrocarbons
- Table 2. Root Crop Analytical Results Summary: Volatile Organic Compounds and Semivolatile Organic Compounds
- Table 3. Acetone Occurrence in Various Plants
- Table 4. Root Crop Analytical Results Summary: Oils and Fats

Figures

- Figure 1. Root Crop Sampling Location Map (provided by Cawelo Water District)

Attachments

Attachment A – Weck Laboratories, Inc. Analytical Reports

Attachment B – Anresco Laboratories, Inc. Analytical Reports

References

Amec Foster Wheeler Environmental & Infrastructure, Inc. (Amec). 2015. Technical Report: Reclaimed Water Impoundments Sampling. Cawelo Water District Ponds. Kern River Oil Field, Kern County, California. June 15.

Technical Memorandum
November 2, 2016

U.S. Department of Agriculture (USDA). 2016. Agricultural Research Service. 1992-2016. Dr. Duke's Phytochemical and Ethnobotanical Databases. Home Page, <http://phytochem.nal.usda.gov/>

Elis, J.T., Hengge, N.N., Sims, R.C., and C.D. Miller. 2012. Acetone, Butanol and Ethanol Production from Wastewater Algae. *Bioresource Technology*. Volume 111, pages 491-495. May. <http://www.sciencedirect.com/science/article/pii/S0960852412002180>

Enviro-Tox Services, Inc. 2016. Irrigation Water Quality Evaluation. Cawelo Water District, Bakersfield, California. April 7.

Hazardous Substances Data Bank (HSDB). 2016. TOXNET Toxicology Data Network. U.S. National Library of Medicine. <http://toxnet.nlm.nih.gov>

This memorandum was prepared by:

Enviro-Tox Services, Inc.



Heriberto Robles, Ph. D., D.A.B.T.
Principal Toxicologist

TABLES

Table 1. Analytical Results Summary, Volatile Organic Compounds, Semivolatile Organic Compounds, and Total Petroleum Hydrocarbons

Well/Sample ID	Sample ID	Volatile Organic Compounds ¹ (ug/L)							Polycyclic Aromatic Hydrocarbons ² (ug/L)						TPH ³ (mg/L)	
		Acetone	Benzene	Ethyl-benzene	m,p-Xylene	o-Xylene	Toluene	Total Xylenes	Acenaphthene	Acenaphthylene	Chrysene	Fluorene	Naphthalene	Phenanthrene		Pyrene
Plant 36	W039	31	0.47 J	0.71	2.6	1.3	0.67	3.9	0.63	<0.098	<0.098	0.37	0.11 J	0.38	<0.098	0.12
Polish Pond	W042	86	0.33 J	0.39 J	1.3	0.74	0.49 J	2.0	0.53	<0.097	<0.097	0.29	0.11 J	0.27	<0.097	0.19
Polish Pond	W043 ⁴	100	0.31 J	0.38 J	1.2	0.59	0.47 J	1.8	0.57	<0.097	<0.097	0.35	0.12 J	0.28	<0.097	0.097
Reservoir B	W044	150	<0.25	0.25 J	0.75 J	0.43 J	0.39 J	1.2	0.49	<0.097	<0.097	0.50	<0.097	0.29	<0.097	0.15
Reservoir B Outflow	W045	50	<0.25	<0.25	<0.50	<0.25	<0.25	<0.50	<0.096	<0.096	<0.096	<0.096	<0.096	<0.096	<0.096	0.080

Notes:

1. Volatile organic compounds analyzed using U.S. EPA Method 8260B.
2. Polycyclic aromatic hydrocarbons analyzed using U.S. EPA Method 8270C SIM.
3. Total Petroleum Hydrocarbons (TPH; carbon range C29-C40) analyzed using U.S. EPA Method 8015B.
4. Duplicate sample of W042.

Abbreviations:

< = less than the Reporting Limit.

J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

TPH = total petroleum hydrocarbons

ug/L = micrograms per liter

Table 2. Root Crop Analytical Results Summary: Volatile Organic Compounds and Semivolatile Organic Compounds

Sample ID	Volatile Organic Compounds ¹ (ug/Kg)						Polycyclic Aromatic Hydrocarbons ² (ug/Kg)			
	Acetone	Benzene	Ethyl-benzene	m,p-Xylene	o-Xylene	Toluene	Acenaphthene	Fluorene	Naphthalene	Phenanthrene
<i>Test Sampling Locations</i>										
T-78-C-WQ	62	ND<50	ND<50	ND<50	ND<50	ND<50	ND<62	ND<62	ND<62	ND<62
T-78-C-EDR	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
T-55-C-SE	130	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<66	ND<66	ND<66	ND<66
T-55-C-NE	250	ND<9.9	ND<9.9	ND<9.9	ND<9.9	ND<9.9	ND<71	ND<71	ND<71	ND<71
T-78-P-EDR	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
T-78-P-WQ	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
T-40-P-SW	28	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<72	ND<72	ND<72	ND<72
T-60-P-SE	37	ND<9.7	ND<9.7	ND<9.7	ND<9.7	ND<9.7	ND<69	ND<69	ND<69	ND<69
T-60-P-NE	38	ND<9.7	ND<9.7	ND<9.7	ND<9.7	ND<9.7	ND<66	ND<66	ND<66	ND<66
T-40-P-NW	29	ND<9.9	ND<9.9	ND<9.9	ND<9.9	ND<9.9	ND<67	ND<67	ND<67	ND<67
T-40-P-NW-D	34	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<9.8	ND<65	ND<65	ND<65	ND<65
<i>Control Sampling Locations</i>										
C-40-C-WGC-S	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<70	ND<70	ND<70	ND<70
C-120-C-SM	59	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
C-80-C-WM	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<70	ND<70	ND<70	ND<70
C-80-C-S46	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
C-160-P-SWP	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<62	ND<62	ND<62	ND<62
C-160-P-EDR-N	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<74	ND<74	ND<74	ND<74
C-160-P-EDR-S	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<69	ND<69	ND<69	ND<69
C-160-P-EDR-S-D	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<66	ND<66	ND<66	ND<66
C-160-P-SWP-S	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<67	ND<67	ND<67	ND<67

Notes:

1. Volatile organic compounds analyzed using U.S. EPA Method 8260B.
2. Polycyclic aromatic hydrocarbons analyzed using U.S. EPA Method 8270C SIM.

Abbreviations:

< = less than the Method Reporting Limit.

ug/Kg = micrograms per Kilogram

Table 3. Acetone Occurrence in Various Plants*

Genus species	Family	Common name	Part	Concentration (mg/Kg)
Satureja cuneifolia TEN.	Lamiaceae	Cuneate Turkish Savory	Shoot	0-20
Nepeta racemosa LAM.	Lamiaceae	Catmint	Shoot	0-2
Origanum sipyleum L.	Lamiaceae	Bayircayi, Guveyoto	Shoot	0-2
Nepeta racemosa LAM.	Lamiaceae	Catmint	Shoot	0-1.5
Origanum sipyleum L.	Lamiaceae	Bayircayi, Guveyoto	Shoot	
Micromeria myrtifolia BOISS. & HOHEN	Lamiaceae	Dagecayi	Shoot	
Ananas comosus (L.) MERR.	Bromeliaceae	Pineapple	Fruit	
Brassica oleracea var. botrytis l. var. botrytis L.	Bromeliaceae	Cauliflower	Flower, Leaf	
Calamintha nepeta subsp. glandulosa (REQ.) P.W.BALL	Lamiaceae	Turkish Calamint	Plant	
Camellia sinensis (L.) KUNTZE	Theaceae	Tea	Leaf	
Cananga odorata (LAM.) HOOK. f. & THOMSON	Theaceae	Cananga	Flower	
Cymbopogon citratus (DC. ex NEES) STAPF	Poaceae	Lemongrass	Plant	
Datura stramonium L.	Solanaceae	Jimsonweed	Leaf	
Daucus carota L.	Apiaceae	Carrot	Root	
Glycine max (L.) MERR.	Fabaceae	Soybean	Plant	
Humulus lupulus L.	Cannabaceae	Hops	Flower	
Laurus nobilis L.	Lauraceae	Bay, Bay Laurel, Bayleaf	Leaf	
Lavandula x intermedia EMERIC ex LOIS	Lamiaceae	Lavandin	Plant	
Lycopersicon esculentum MILLER	Solanaceae	Tomato	Fruit	
Malus domestica BORKH.	Rosaceae	Apple	Plant	
Medicago sativa subsp. sativa	Fabaceae	Alfalfa, Lucerne	Essential Oil	
Mentha aquatica L.	Lamiaceae	Water Mint	Leaf	
Mentha spicata L.	Lamiaceae	Spearmint	Leaf	
Morus alba L.	Moraceae	White Mulberry	Leaf	
Myrtus communis L.	Myrtaceae	Myrtle	Plant	
Oryza sativa L.	Poaceae	Rice	Plant	
Pelargonium graveolens (L.) L'HER ex AIT.	Geraniaceae	Rose Geranium	Essential Oil	
Pimenta dioica (L.) MERR.	Myrtaceae	Allspice, Clover-Pepper, Pimento	Plant	
Psidium guajava L.	Myrtaceae	Guava	Fruit	
Pyrus communis L.	Rosaceae	Pear	Plant	
Ribes nigrum L.	Grossulariaceae	Black Currant	Fruit	
Solanum tuberosum L.	Solanaceae	Potato	Plant	
Zingiber officinale ROSCOE	Zingiberaceae	Ginger	Essential Oil	

Notes:

mg/Kg = Milligrams per kilogram

* Table taken from: Dr. Duke's Phytochemical and Ethnobotanical Databases. Plants containing acetone. (USDA 2016)

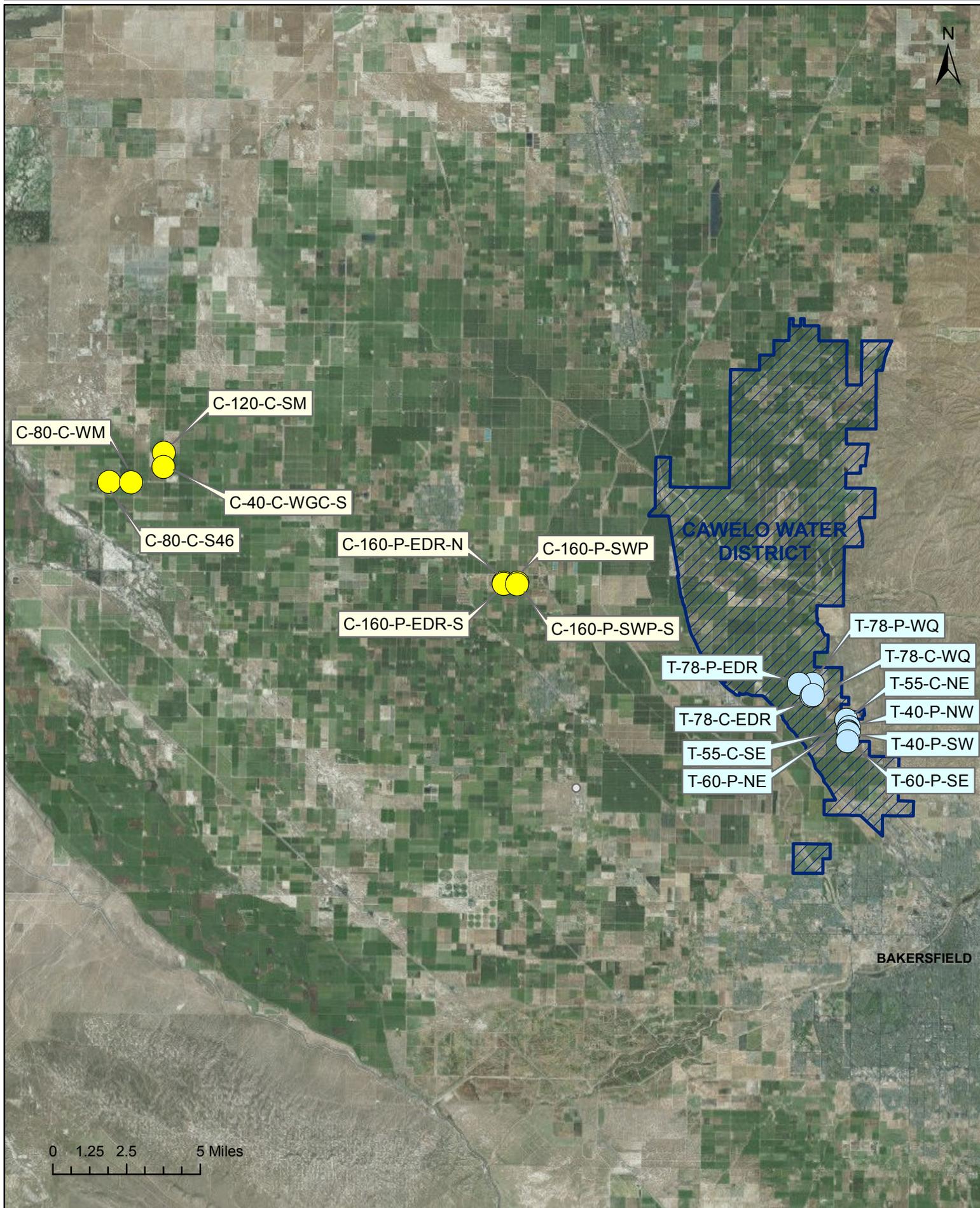
Table 4. Root Crop Analytical Results Summary: Oils and Fats

Sample ID	Percent Total Fat
<i>Test Sampling Locations</i>	
T-78-C-WQ	0.28
T-78-C-EDR	0.18
T-55-C-SE	0.26
T-55-C-NE	0.26
T-78-P-EDR	0.10
T-78-P-WQ	0.09
T-40-P-SW	0.11
T-60-P-SE	0.11
T-60-P-NE	0.12
T-40-P-NW	0.10
T-40-P-NW-D	0.10
<i>Control Sampling Locations</i>	
C-40-C-WGC-S	0.31
C-120-C-SM	0.31
C-80-C-WM	0.26
C-80-C-S46	0.29
C-160-P-SWP	0.10
C-160-P-EDR-N	0.14
C-160-P-EDR-S	0.10
C-160-P-EDR-S-D	0.11
C-160-P-SWP-S	0.10

FIGURE

FIGURE 1 Root Crop Sampling & Analysis Report

- Test Field Sample Location
- Control Field Sample Location



ATTACHMENT A

Weck Laboratories, Inc. Analytical Reports

CERTIFICATE OF ANALYSIS

Client: Law Offices of McMurtrey, Hartsock & Worth 2001 22nd Street, Suite 100 Bakersfield CA, 93301	Report Date: 07/07/16 14:56
Attention: Robert Hartsock	Received Date: 06/04/16 09:55
Phone: (661) 322-4417	Turn Around: Normal
Fax: -	Client Project: Fruit Samples
Work Order(s): 6F06017	

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

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Robert Hartsock :

Enclosed are the results of analyses for samples received 06/04/16 09:55 with the Chain of Custody document. The samples were received in good condition, at 3.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:


Chris Samatmanakit
Project Manager





Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Lab ID	Matrix	Date Sampled
T-55-C-SE	Jon Buck	6F06017-01	Solid	06/03/16 09:10
T-40-P-SW	Jon Buck	6F06017-02	Solid	06/03/16 09:20
T-60-P-SE	Jon Buck	6F06017-03	Solid	06/03/16 09:35
T-60-P-NE	Jon Buck	6F06017-04	Solid	06/03/16 09:40
T-55-C-NE	Jon Buck	6F06017-05	Solid	06/03/16 09:50
T-40-P-NW	Jon Buck	6F06017-06	Solid	06/03/16 09:55
T-40-P-NW-D	Jon Buck	6F06017-07	Solid	06/03/16 09:55

ANALYSES

Semivolatile Organics - Low Level by GC/MS SIM Mode

Volatile Organic Compounds by EPA Method 8260B



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-01 T-55-C-SE

Sampled: 06/03/16 09:10

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

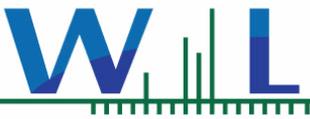
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	66	ug/kg	1	06/13/16 22:27	M-02
Fluorene	ND	66	ug/kg	1	06/13/16 22:27	M-02
Naphthalene	ND	66	ug/kg	1	06/13/16 22:27	M-02
Phenanthrene	ND	66	ug/kg	1	06/13/16 22:27	M-02
<i>Surr: 2-Fluorobiphenyl</i>	41 %	Conc:890	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	51 %	Conc:1120	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	82 %	Conc:1780	28-128	%		M-02



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-01RE1 T-55-C-SE**Sampled:** 06/03/16 09:10**Sampled By:** Jon Buck**Matrix:** Solid**Volatile Organic Compounds by EPA Method 8260B**

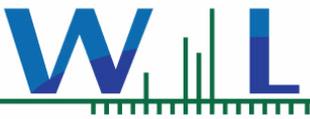
Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	130	50	ug/kg	10	06/13/16 18:37	M-05
Benzene	ND	50	ug/kg	10	06/13/16 18:37	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 18:37	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 18:37	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 18:37	M-05
Toluene	ND	50	ug/kg	10	06/13/16 18:37	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	104 %	Conc:51.5	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	99 %	Conc:49.0	85-116	%		
<i>Surr: Dibromofluoromethane</i>	102 %	Conc:50.6	84-120	%		
<i>Surr: Toluene-d8</i>	98 %	Conc:48.6	82-120	%		



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-02 T-40-P-SW

Sampled: 06/03/16 09:20

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

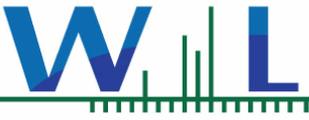
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	72	ug/kg	1	06/13/16 23:00	M-02
Fluorene	ND	72	ug/kg	1	06/13/16 23:00	M-02
Naphthalene	ND	72	ug/kg	1	06/13/16 23:00	M-02
Phenanthrene	ND	72	ug/kg	1	06/13/16 23:00	M-02
<i>Surr: 2-Fluorobiphenyl</i>	46 %	Conc:1100	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	46 %	Conc:1100	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	73 %	Conc:1750	28-128	%		M-02



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-02RE1 T-40-P-SW**Sampled:** 06/03/16 09:20**Sampled By:** Jon Buck**Matrix:** Solid**Volatile Organic Compounds by EPA Method 8260B**

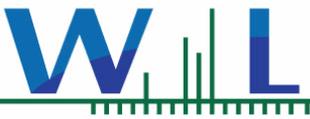
Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/13/16 19:40	M-05
Benzene	ND	50	ug/kg	10	06/13/16 19:40	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 19:40	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 19:40	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 19:40	M-05
Toluene	ND	50	ug/kg	10	06/13/16 19:40	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	112 %	Conc:55.6	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	108 %	Conc:53.5	85-116	%		
<i>Surr: Dibromofluoromethane</i>	107 %	Conc:53.0	84-120	%		
<i>Surr: Toluene-d8</i>	100 %	Conc:49.6	82-120	%		



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-03 T-60-P-SE**Sampled:** 06/03/16 09:35**Sampled By:** Jon Buck**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

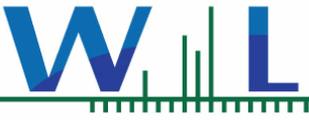
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/13/16 23:33	M-02
Fluorene	ND	69	ug/kg	1	06/13/16 23:33	M-02
Naphthalene	ND	69	ug/kg	1	06/13/16 23:33	M-02
Phenanthrene	ND	69	ug/kg	1	06/13/16 23:33	M-02
<i>Surr: 2-Fluorobiphenyl</i>	37 %	Conc:857	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	40 %	Conc:909	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	56 %	Conc:1270	28-128	%		M-02



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-03RE1 T-60-P-SE

Sampled: 06/03/16 09:35

Sampled By: Jon Buck

Matrix: Solid

Volatile Organic Compounds by EPA Method 8260B

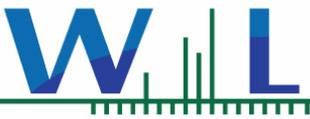
Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/13/16 20:11	M-05
Benzene	ND	50	ug/kg	10	06/13/16 20:11	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 20:11	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 20:11	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 20:11	M-05
Toluene	ND	50	ug/kg	10	06/13/16 20:11	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	107 %	Conc:52.6	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	106 %	Conc:52.4	85-116	%		
<i>Surr: Dibromofluoromethane</i>	106 %	Conc:51.9	84-120	%		
<i>Surr: Toluene-d8</i>	99 %	Conc:48.9	82-120	%		



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-04 T-60-P-NE

Sampled: 06/03/16 09:40

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

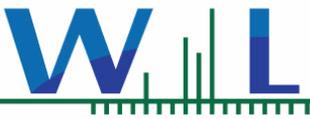
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	66	ug/kg	1	06/14/16 00:07	M-02
Fluorene	ND	66	ug/kg	1	06/14/16 00:07	M-02
Naphthalene	ND	66	ug/kg	1	06/14/16 00:07	M-02
Phenanthrene	ND	66	ug/kg	1	06/14/16 00:07	M-02
<i>Surr: 2-Fluorobiphenyl</i>	41 %	Conc:917	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	47 %	Conc:1030	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	74 %	Conc:1640	28-128	%		M-02



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-04RE1 T-60-P-NE**Sampled:** 06/03/16 09:40**Sampled By:** Jon Buck**Matrix:** Solid**Volatile Organic Compounds by EPA Method 8260B**

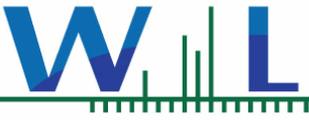
Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/13/16 20:43	M-05
Benzene	ND	50	ug/kg	10	06/13/16 20:43	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 20:43	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 20:43	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 20:43	M-05
Toluene	ND	50	ug/kg	10	06/13/16 20:43	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	112 %	Conc:55.5	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	108 %	Conc:53.7	85-116	%		
<i>Surr: Dibromofluoromethane</i>	107 %	Conc:53.0	84-120	%		
<i>Surr: Toluene-d8</i>	97 %	Conc:48.3	82-120	%		



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-05 T-55-C-NE

Sampled: 06/03/16 09:50

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	71	ug/kg	1	06/14/16 00:40	M-02
Fluorene	ND	71	ug/kg	1	06/14/16 00:40	M-02
Naphthalene	ND	71	ug/kg	1	06/14/16 00:40	M-02
Phenanthrene	ND	71	ug/kg	1	06/14/16 00:40	M-02
<i>Surr: 2-Fluorobiphenyl</i>	41 %	Conc:969	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	51 %	Conc:1220	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	83 %	Conc:1970	28-128	%		M-02



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-05RE1 T-55-C-NE

Sampled: 06/03/16 09:50

Sampled By: Jon Buck

Matrix: Solid

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	150	50	ug/kg	10	06/13/16 19:08	M-05
Benzene	ND	50	ug/kg	10	06/13/16 19:08	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 19:08	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 19:08	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 19:08	M-05
Toluene	ND	50	ug/kg	10	06/13/16 19:08	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	102 %	Conc:50.7	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	100 %	Conc:49.5	85-116	%		
<i>Surr: Dibromofluoromethane</i>	101 %	Conc:49.9	84-120	%		
<i>Surr: Toluene-d8</i>	98 %	Conc:48.4	82-120	%		



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-06 T-40-P-NW

Sampled: 06/03/16 09:55

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

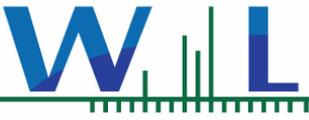
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	67	ug/kg	1	06/14/16 01:13	M-02
Fluorene	ND	67	ug/kg	1	06/14/16 01:13	M-02
Naphthalene	ND	67	ug/kg	1	06/14/16 01:13	M-02
Phenanthrene	ND	67	ug/kg	1	06/14/16 01:13	M-02
<i>Surr: 2-Fluorobiphenyl</i>	43 %	Conc:953	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	41 %	Conc:906	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	63 %	Conc:1410	28-128	%		M-02



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-06RE1 T-40-P-NW**Sampled:** 06/03/16 09:55**Sampled By:** Jon Buck**Matrix:** Solid**Volatile Organic Compounds by EPA Method 8260B**

Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/13/16 21:14	M-05
Benzene	ND	50	ug/kg	10	06/13/16 21:14	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 21:14	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 21:14	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 21:14	M-05
Toluene	ND	50	ug/kg	10	06/13/16 21:14	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	110 %	Conc:54.7	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	106 %	Conc:52.9	85-116	%		
<i>Surr: Dibromofluoromethane</i>	105 %	Conc:52.4	84-120	%		
<i>Surr: Toluene-d8</i>	99 %	Conc:49.1	82-120	%		



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-07 T-40-P-NW-D**Sampled:** 06/03/16 09:55**Sampled By:** Jon Buck**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

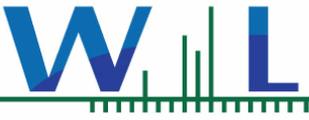
Method: EPA 8270C SIM

Batch: W6F0518

Prepared: 06/09/16 15:36

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	65	ug/kg	1	06/14/16 01:46	M-02
Fluorene	ND	65	ug/kg	1	06/14/16 01:46	M-02
Naphthalene	ND	65	ug/kg	1	06/14/16 01:46	M-02
Phenanthrene	ND	65	ug/kg	1	06/14/16 01:46	M-02
<i>Surr: 2-Fluorobiphenyl</i>	42 %	Conc:907	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	43 %	Conc:926	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	60 %	Conc:1310	28-128	%		M-02



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

6F06017-07RE1 T-40-P-NW-D

Sampled: 06/03/16 09:55

Sampled By: Jon Buck

Matrix: Solid

Volatile Organic Compounds by EPA Method 8260B

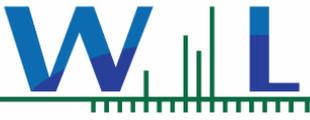
Method: EPA 8260B

Batch: W6F0661

Prepared: 06/13/16 11:44

Analyst: rhr

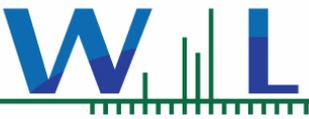
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/13/16 21:45	M-05
Benzene	ND	50	ug/kg	10	06/13/16 21:45	M-05
Ethylbenzene	ND	50	ug/kg	10	06/13/16 21:45	M-05
m,p-Xylene	ND	50	ug/kg	10	06/13/16 21:45	M-05
o-Xylene	ND	50	ug/kg	10	06/13/16 21:45	M-05
Toluene	ND	50	ug/kg	10	06/13/16 21:45	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	114 %	Conc:56.2	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	105 %	Conc:51.9	85-116	%		
<i>Surr: Dibromofluoromethane</i>	108 %	Conc:53.4	84-120	%		
<i>Surr: Toluene-d8</i>	99 %	Conc:49.0	82-120	%		



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QUALITY CONTROL SECTION



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Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

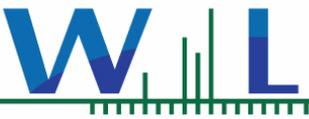
Batch W6F0518 - EPA 8270C SIM

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F0518-BLK1)				Analyzed: 06/13/16 20:14						
Acenaphthene	ND	5.0	ug/kg							
Fluorene	ND	5.0	ug/kg							
Naphthalene	ND	5.0	ug/kg							
Phenanthrene	ND	5.0	ug/kg							
Surr: 2-Fluorobiphenyl	83.9		ug/kg	167		50	0.1-109			
Surr: Nitrobenzene-d5	81.4		ug/kg	167		49	0.1-107			
Surr: Terphenyl-d14	115		ug/kg	167		69	28-128			
LCS (W6F0518-BS1)				Analyzed: 06/13/16 20:47						
Acenaphthene	227	5.0	ug/kg	333		68	27-103			
Fluorene	215	5.0	ug/kg	333		64	33-106			
Naphthalene	210	5.0	ug/kg	333		63	22-98			
Phenanthrene	232	5.0	ug/kg	333		70	32-110			
Surr: 2-Fluorobiphenyl	85.5		ug/kg	167		51	0.1-109			
Surr: Nitrobenzene-d5	80.3		ug/kg	167		48	0.1-107			
Surr: Terphenyl-d14	102		ug/kg	167		61	28-128			
Matrix Spike (W6F0518-MS1)				Source: 6F06017-01		Analyzed: 06/13/16 21:20				
Acenaphthene	3680	69	ug/kg	4590	ND	80	5-115			M-02
Fluorene	3410	69	ug/kg	4590	ND	74	4-125			M-02
Naphthalene	2950	69	ug/kg	4590	ND	64	0.1-117			M-02
Phenanthrene	3660	69	ug/kg	4590	ND	80	10-122			M-02
Surr: 2-Fluorobiphenyl	1280		ug/kg	2290		56	0.1-109			M-02
Surr: Nitrobenzene-d5	1160		ug/kg	2290		50	0.1-107			M-02
Surr: Terphenyl-d14	1610		ug/kg	2290		70	28-128			M-02
Matrix Spike Dup (W6F0518-MSD1)				Source: 6F06017-01		Analyzed: 06/13/16 21:53				
Acenaphthene	3830	69	ug/kg	4630	ND	83	5-115	4	30	M-02
Fluorene	3570	69	ug/kg	4630	ND	77	4-125	5	30	M-02
Naphthalene	2970	69	ug/kg	4630	ND	64	0.1-117	0.5	30	M-02
Phenanthrene	4120	69	ug/kg	4630	ND	89	10-122	12	30	M-02
Surr: 2-Fluorobiphenyl	1250		ug/kg	2310		54	0.1-109			M-02
Surr: Nitrobenzene-d5	1210		ug/kg	2310		52	0.1-107			M-02
Surr: Terphenyl-d14	1850		ug/kg	2310		80	28-128			M-02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F0661 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F0661-BLK1)				Analyzed: 06/13/16 15:27						
Acetone	ND	5.0	ug/kg							
Benzene	ND	5.0	ug/kg							
Ethylbenzene	ND	5.0	ug/kg							



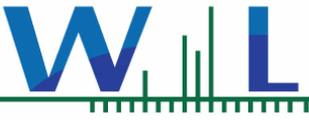
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Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F0661 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F0661-BLK1)				Analyzed: 06/13/16 15:27						
m,p-Xylene	ND	5.0	ug/kg							
o-Xylene	ND	5.0	ug/kg							
Toluene	ND	5.0	ug/kg							
<i>Surr: 1,2-Dichloroethane-d4</i>	48.7		ug/kg	50.0		97	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	50.8		ug/kg	50.0		102	85-116			
<i>Surr: Dibromofluoromethane</i>	50.3		ug/kg	50.0		101	84-120			
<i>Surr: Toluene-d8</i>	49.0		ug/kg	50.0		98	82-120			
LCS (W6F0661-BS1)				Analyzed: 06/13/16 13:20						
Acetone	39.1	5.0	ug/kg	50.0		78	57-138			
Benzene	48.6	5.0	ug/kg	50.0		97	83-121			
Ethylbenzene	46.4	5.0	ug/kg	50.0		93	80-120			
m,p-Xylene	48.8	5.0	ug/kg	50.0		98	78-120			
o-Xylene	51.6	5.0	ug/kg	50.0		103	77-126			
Toluene	47.8	5.0	ug/kg	50.0		96	81-126			
<i>Surr: 1,2-Dichloroethane-d4</i>	50.8		ug/kg	50.0		102	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	51.7		ug/kg	50.0		103	85-116			
<i>Surr: Dibromofluoromethane</i>	51.8		ug/kg	50.0		104	84-120			
<i>Surr: Toluene-d8</i>	50.4		ug/kg	50.0		101	82-120			
LCS Dup (W6F0661-BSD1)				Analyzed: 06/13/16 13:52						
Acetone	54.8	5.0	ug/kg	50.0		110	57-138	33	25	QR-BS
Benzene	53.9	5.0	ug/kg	50.0		108	83-121	10	25	
Ethylbenzene	50.6	5.0	ug/kg	50.0		101	80-120	9	25	
m,p-Xylene	53.7	5.0	ug/kg	50.0		107	78-120	10	25	
o-Xylene	57.5	5.0	ug/kg	50.0		115	77-126	11	25	
Toluene	53.2	5.0	ug/kg	50.0		106	81-126	11	25	
<i>Surr: 1,2-Dichloroethane-d4</i>	54.3		ug/kg	50.0		109	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	52.9		ug/kg	50.0		106	85-116			
<i>Surr: Dibromofluoromethane</i>	52.7		ug/kg	50.0		105	84-120			
<i>Surr: Toluene-d8</i>	50.9		ug/kg	50.0		102	82-120			



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/04/16 09:55
Date Reported: 07/07/16 14:56

Notes and Definitions

QR-BS	The RPD value for the BS/BSD (LCS/LCSD) was outside of QC acceptance limits however both recoveries were acceptable. The QC batch was accepted based on acceptable results for the recoveries of the BS (LCS) and BSD (LCSD).
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

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

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

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

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

CERTIFICATE OF ANALYSIS

Client: Law Offices of McMurtrey, Hartsock & Worth 2001 22nd Street, Suite 100 Bakersfield CA, 93301	Report Date: 07/08/16 10:56
Attention: Robert Hartsock	Received Date: 06/21/16 10:15
Phone: (661) 322-4417	Turn Around: Normal
Fax: -	Client Project: McMurtrey, Hartsock & Worth
Work Order(s): 6F21030	

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

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Robert Hartsock :

Enclosed are the results of analyses for samples received 06/21/16 10:15 with the Chain of Custody document. The samples were received in good condition, at 9.1 °C. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:


 Chris Samatmanakit
 Project Manager



CERTIFICATE OF ANALYSIS

Client: Law Offices of McMurtrey, Hartsock & Worth 2001 22nd Street, Suite 100 Bakersfield CA, 93301	Report Date: 07/07/16 16:42
Attention: Robert Hartsock	Received Date: 06/11/16 08:40
Phone: (661) 322-4417	Turn Around: Normal
Fax: -	Client Project: Cawelo
Work Order(s): 6F13007	

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

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Robert Hartsock :

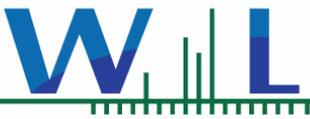
Enclosed are the results of analyses for samples received 06/11/16 08:40 with the Chain of Custody document. The samples were received in good condition, at 13.3 °C. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:


Chris Samatmanakit
Project Manager





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Bakersfield CA, 93301

Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

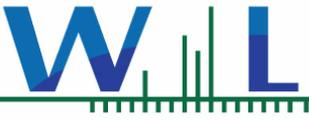
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Lab ID	Matrix	Date Sampled
T-78-C-WQ	Jon Buck	6F13007-01	Solid	06/10/16 13:00
T-78-C-EDR	Jon Buck	6F13007-02	Solid	06/10/16 13:15
T-78-P-EDR	Jon Buck	6F13007-03	Solid	06/10/16 13:30
T-78-P-WQ	Jon Buck	6F13007-04	Solid	06/10/16 13:45

ANALYSES

Semivolatile Organics - Low Level by GC/MS SIM Mode

Volatile Organic Compounds by EPA Method 8260B



Law Offices of McMurtrey, Hartsock & Worth
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Bakersfield CA, 93301

Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

6F13007-01 T-78-C-WQ

Sampled: 06/10/16 13:00

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F0918

Prepared: 06/16/16 15:16

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	62	ug/kg	1	06/20/16 22:50	M-02
Fluorene	ND	62	ug/kg	1	06/20/16 22:50	M-02
Naphthalene	ND	62	ug/kg	1	06/20/16 22:50	M-02
Phenanthrene	ND	62	ug/kg	1	06/20/16 22:50	M-02
Surr: 2-Fluorobiphenyl	45 %	Conc:927	0.1-109	%		M-02
Surr: Nitrobenzene-d5	51 %	Conc:1050	0.1-107	%		M-02
Surr: Terphenyl-d14	39 %	Conc:813	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

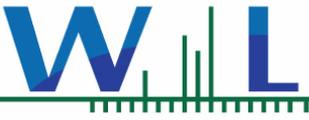
Method: EPA 8260B

Batch: W6F1120

Prepared: 06/20/16 12:42

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	62	50	ug/kg	10	06/21/16 06:47	M-05
Benzene	ND	50	ug/kg	10	06/21/16 06:47	M-05
Ethylbenzene	ND	50	ug/kg	10	06/21/16 06:47	M-05
m,p-Xylene	ND	50	ug/kg	10	06/21/16 06:47	M-05
o-Xylene	ND	50	ug/kg	10	06/21/16 06:47	M-05
Toluene	ND	50	ug/kg	10	06/21/16 06:47	M-05
Surr: 1,2-Dichloroethane-d4	100 %	Conc:49.9	78-140	%		
Surr: 4-Bromofluorobenzene	97 %	Conc:48.3	85-116	%		
Surr: Dibromofluoromethane	101 %	Conc:50.3	84-120	%		
Surr: Toluene-d8	99 %	Conc:49.2	82-120	%		



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Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

6F13007-02 T-78-C-EDR**Sampled:** 06/10/16 13:15**Sampled By:** Jon Buck**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

Method: EPA 8270C SIM

Batch: W6F0918

Prepared: 06/16/16 15:16

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/20/16 23:23	M-02
Fluorene	ND	69	ug/kg	1	06/20/16 23:23	M-02
Naphthalene	ND	69	ug/kg	1	06/20/16 23:23	M-02
Phenanthrene	ND	69	ug/kg	1	06/20/16 23:23	M-02
<i>Surr: 2-Fluorobiphenyl</i>	35 %	Conc:817	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	45 %	Conc:1040	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	37 %	Conc:855	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

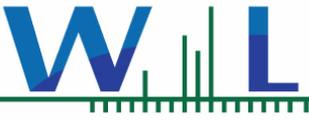
Method: EPA 8260B

Batch: W6F1120

Prepared: 06/20/16 12:42

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/21/16 07:18	M-05
Benzene	ND	50	ug/kg	10	06/21/16 07:18	M-05
Ethylbenzene	ND	50	ug/kg	10	06/21/16 07:18	M-05
m,p-Xylene	ND	50	ug/kg	10	06/21/16 07:18	M-05
o-Xylene	ND	50	ug/kg	10	06/21/16 07:18	M-05
Toluene	ND	50	ug/kg	10	06/21/16 07:18	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	103 %	Conc:51.1	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	97 %	Conc:48.2	85-116	%		
<i>Surr: Dibromofluoromethane</i>	101 %	Conc:50.2	84-120	%		
<i>Surr: Toluene-d8</i>	100 %	Conc:49.4	82-120	%		



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Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

6F13007-03 T-78-P-EDR

Sampled: 06/10/16 13:30

Sampled By: Jon Buck

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F0918

Prepared: 06/16/16 15:16

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/20/16 23:57	M-02
Fluorene	ND	69	ug/kg	1	06/20/16 23:57	M-02
Naphthalene	ND	69	ug/kg	1	06/20/16 23:57	M-02
Phenanthrene	ND	69	ug/kg	1	06/20/16 23:57	M-02
Surr: 2-Fluorobiphenyl	50 %	Conc:1150	0.1-109	%		M-02
Surr: Nitrobenzene-d5	44 %	Conc:1010	0.1-107	%		M-02
Surr: Terphenyl-d14	37 %	Conc:861	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B

Batch: W6F1120

Prepared: 06/20/16 12:42

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/21/16 07:49	M-05
Benzene	ND	50	ug/kg	10	06/21/16 07:49	M-05
Ethylbenzene	ND	50	ug/kg	10	06/21/16 07:49	M-05
m,p-Xylene	ND	50	ug/kg	10	06/21/16 07:49	M-05
o-Xylene	ND	50	ug/kg	10	06/21/16 07:49	M-05
Toluene	ND	50	ug/kg	10	06/21/16 07:49	M-05
Surr: 1,2-Dichloroethane-d4	112 %	Conc:55.5	78-140	%		
Surr: 4-Bromofluorobenzene	104 %	Conc:51.6	85-116	%		
Surr: Dibromofluoromethane	106 %	Conc:52.7	84-120	%		
Surr: Toluene-d8	100 %	Conc:49.6	82-120	%		



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Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

6F13007-04 T-78-P-WQ**Sampled:** 06/10/16 13:45**Sampled By:** Jon Buck**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

Method: EPA 8270C SIM

Batch: W6F0918

Prepared: 06/16/16 15:16

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/21/16 00:30	M-02
Fluorene	ND	69	ug/kg	1	06/21/16 00:30	M-02
Naphthalene	ND	69	ug/kg	1	06/21/16 00:30	M-02
Phenanthrene	ND	69	ug/kg	1	06/21/16 00:30	M-02
<i>Surr: 2-Fluorobiphenyl</i>	42 %	Conc:971	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	40 %	Conc:922	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	36 %	Conc:823	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

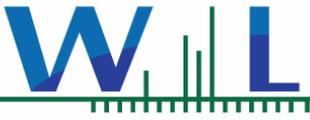
Method: EPA 8260B

Batch: W6F1120

Prepared: 06/20/16 12:42

Analyst: rhr

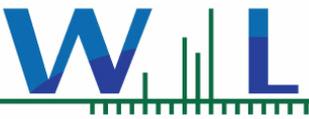
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/21/16 08:21	M-05
Benzene	ND	50	ug/kg	10	06/21/16 08:21	M-05
Ethylbenzene	ND	50	ug/kg	10	06/21/16 08:21	M-05
m,p-Xylene	ND	50	ug/kg	10	06/21/16 08:21	M-05
o-Xylene	ND	50	ug/kg	10	06/21/16 08:21	M-05
Toluene	ND	50	ug/kg	10	06/21/16 08:21	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	110 %	Conc:54.7	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	106 %	Conc:52.9	85-116	%		
<i>Surr: Dibromofluoromethane</i>	106 %	Conc:52.9	84-120	%		
<i>Surr: Toluene-d8</i>	100 %	Conc:49.8	82-120	%		



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Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

QUALITY CONTROL SECTION



Law Offices of McMurtrey, Hartsock & Worth
2001 22nd Street, Suite 100
Bakersfield CA, 93301

Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

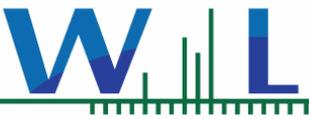
Batch W6F0918 - EPA 8270C SIM

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F0918-BLK1)				Analyzed: 06/20/16 20:35						
Acenaphthene	ND	5.0	ug/kg							
Fluorene	ND	5.0	ug/kg							
Naphthalene	ND	5.0	ug/kg							
Phenanthrene	ND	5.0	ug/kg							
Surr: 2-Fluorobiphenyl	85.2		ug/kg	167		51	0.1-109			
Surr: Nitrobenzene-d5	75.8		ug/kg	167		46	0.1-107			
Surr: Terphenyl-d14	56.5		ug/kg	167		34	28-128			
LCS (W6F0918-BS1)				Analyzed: 06/20/16 21:09						
Acenaphthene	206	5.0	ug/kg	333		62	27-103			
Fluorene	195	5.0	ug/kg	333		58	33-106			
Naphthalene	178	5.0	ug/kg	333		54	22-98			
Phenanthrene	216	5.0	ug/kg	333		65	32-110			
Surr: 2-Fluorobiphenyl	70.0		ug/kg	167		42	0.1-109			
Surr: Nitrobenzene-d5	65.4		ug/kg	167		39	0.1-107			
Surr: Terphenyl-d14	54.1		ug/kg	167		32	28-128			
Matrix Spike (W6F0918-MS1)				Source: 6F13007-01		Analyzed: 06/20/16 21:42				
Acenaphthene	4080	67	ug/kg	4480	ND	91	5-115			M-02
Fluorene	3830	67	ug/kg	4480	ND	85	4-125			M-02
Naphthalene	3180	67	ug/kg	4480	ND	71	0.1-117			M-02
Phenanthrene	4100	67	ug/kg	4480	ND	91	10-122			M-02
Surr: 2-Fluorobiphenyl	1460		ug/kg	2240		65	0.1-109			M-02
Surr: Nitrobenzene-d5	1220		ug/kg	2240		54	0.1-107			M-02
Surr: Terphenyl-d14	920		ug/kg	2240		41	28-128			M-02
Matrix Spike Dup (W6F0918-MSD1)				Source: 6F13007-01		Analyzed: 06/20/16 22:16				
Acenaphthene	3650	66	ug/kg	4410	ND	83	5-115	11	30	M-02
Fluorene	3610	66	ug/kg	4410	ND	82	4-125	6	30	M-02
Naphthalene	2810	66	ug/kg	4410	ND	64	0.1-117	12	30	M-02
Phenanthrene	4020	66	ug/kg	4410	ND	91	10-122	2	30	M-02
Surr: 2-Fluorobiphenyl	1310		ug/kg	2200		60	0.1-109			M-02
Surr: Nitrobenzene-d5	1120		ug/kg	2200		51	0.1-107			M-02
Surr: Terphenyl-d14	899		ug/kg	2200		41	28-128			M-02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F1120 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1120-BLK1)				Analyzed: 06/21/16 03:06						
Acetone	ND	5.0	ug/kg							
Benzene	ND	5.0	ug/kg							
Ethylbenzene	ND	5.0	ug/kg							



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Bakersfield CA, 93301

Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F1120 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1120-BLK1)				Analyzed: 06/21/16 03:06						
m,p-Xylene	ND	5.0	ug/kg							
o-Xylene	ND	5.0	ug/kg							
Toluene	ND	5.0	ug/kg							
<i>Surr: 1,2-Dichloroethane-d4</i>	46.7		ug/kg	50.0		93	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	48.7		ug/kg	50.0		97	85-116			
<i>Surr: Dibromofluoromethane</i>	49.0		ug/kg	50.0		98	84-120			
<i>Surr: Toluene-d8</i>	49.7		ug/kg	50.0		99	82-120			
LCS (W6F1120-BS1)				Analyzed: 06/21/16 01:00						
Acetone	54.3	5.0	ug/kg	50.0		109	57-138			
Benzene	50.2	5.0	ug/kg	50.0		100	83-121			
Ethylbenzene	48.9	5.0	ug/kg	50.0		98	80-120			
m,p-Xylene	49.3	5.0	ug/kg	50.0		99	78-120			
o-Xylene	50.8	5.0	ug/kg	50.0		102	77-126			
Toluene	49.3	5.0	ug/kg	50.0		99	81-126			
<i>Surr: 1,2-Dichloroethane-d4</i>	54.9		ug/kg	50.0		110	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	52.2		ug/kg	50.0		104	85-116			
<i>Surr: Dibromofluoromethane</i>	52.8		ug/kg	50.0		106	84-120			
<i>Surr: Toluene-d8</i>	50.1		ug/kg	50.0		100	82-120			
Matrix Spike (W6F1120-MS1)				Source: 6F13007-02		Analyzed: 06/21/16 08:52				
Acetone	56.1	5.0	ug/kg	49.6	46.3	20	50-150			MS-05
Benzene	49.1	5.0	ug/kg	49.6	ND	99	30-134			
Ethylbenzene	45.1	5.0	ug/kg	49.6	ND	91	50-150			
m,p-Xylene	45.4	5.0	ug/kg	49.6	ND	91	50-150			
o-Xylene	47.1	5.0	ug/kg	49.6	ND	95	50-150			
Toluene	47.5	5.0	ug/kg	49.6	ND	96	11-140			
<i>Surr: 1,2-Dichloroethane-d4</i>	55.8		ug/kg	49.6		113	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	49.9		ug/kg	49.6		101	85-116			
<i>Surr: Dibromofluoromethane</i>	52.6		ug/kg	49.6		106	84-120			
<i>Surr: Toluene-d8</i>	49.4		ug/kg	49.6		100	82-120			
Matrix Spike Dup (W6F1120-MSD1)				Source: 6F13007-02		Analyzed: 06/21/16 09:24				
Acetone	67.8	5.0	ug/kg	49.5	46.3	43	50-150	19	25	MS-05
Benzene	52.7	5.0	ug/kg	49.5	ND	106	30-134	7	25	
Ethylbenzene	48.8	5.0	ug/kg	49.5	ND	99	50-150	8	25	
m,p-Xylene	49.1	5.0	ug/kg	49.5	ND	99	50-150	8	25	
o-Xylene	51.2	5.0	ug/kg	49.5	ND	103	50-150	8	25	
Toluene	51.4	5.0	ug/kg	49.5	ND	104	11-140	8	25	
<i>Surr: 1,2-Dichloroethane-d4</i>	58.9		ug/kg	49.5		119	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	50.6		ug/kg	49.5		102	85-116			
<i>Surr: Dibromofluoromethane</i>	54.1		ug/kg	49.5		109	84-120			
<i>Surr: Toluene-d8</i>	49.1		ug/kg	49.5		99	82-120			



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Date Received: 06/11/16 08:40
Date Reported: 07/07/16 16:42

Notes and Definitions

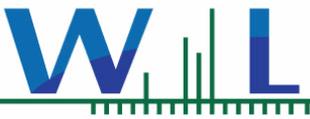
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

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

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

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

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



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Lab ID	Matrix	Date Sampled
C-160-P-SWP	Client	6F21030-01	Solid	06/20/16 08:46
C-160-P-EDR-N	Client	6F21030-02	Solid	06/20/16 09:00
C-160-P-EDR-S	Client	6F21030-03	Solid	06/20/16 09:13
C-160-P-EDR-S-D	Client	6F21030-04	Solid	06/20/16 09:13
C-160-P-SWP-S	Client	6F21030-05	Solid	06/20/16 09:23
C-40-C-WGC-S	Client	6F21030-06	Solid	06/20/16 09:50
C-120-C-SM	Client	6F21030-07	Solid	06/20/16 09:57
C-80-C-WM	Client	6F21030-08	Solid	06/20/16 10:10
C-80-C-S46	Client	6F21030-09	Solid	06/20/16 10:20

ANALYSES

Semivolatile Organics - Low Level by GC/MS SIM Mode

Volatile Organic Compounds by EPA Method 8260B



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-01 C-160-P-SWP

Sampled: 06/20/16 08:46

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	62	ug/kg	1	06/30/16 02:20	M-02
Fluorene	ND	62	ug/kg	1	06/30/16 02:20	M-02
Naphthalene	ND	62	ug/kg	1	06/30/16 02:20	M-02
Phenanthrene	ND	62	ug/kg	1	06/30/16 02:20	M-02
Surr: 2-Fluorobiphenyl	49 %	Conc:1000	0.1-109	%		M-02
Surr: Nitrobenzene-d5	47 %	Conc:964	0.1-107	%		M-02
Surr: Terphenyl-d14	61 %	Conc:1250	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

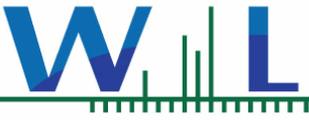
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 20:54	M-05
Benzene	ND	50	ug/kg	10	06/22/16 20:54	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 20:54	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 20:54	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 20:54	M-05
Toluene	ND	50	ug/kg	10	06/22/16 20:54	M-05
Surr: 1,2-Dichloroethane-d4	106 %	Conc:52.8	78-140	%		
Surr: 4-Bromofluorobenzene	105 %	Conc:52.4	85-116	%		
Surr: Dibromofluoromethane	103 %	Conc:51.5	84-120	%		
Surr: Toluene-d8	99 %	Conc:49.3	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-02 C-160-P-EDR-N

Sampled: 06/20/16 09:00

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	74	ug/kg	1	06/30/16 02:54	M-02
Fluorene	ND	74	ug/kg	1	06/30/16 02:54	M-02
Naphthalene	ND	74	ug/kg	1	06/30/16 02:54	M-02
Phenanthrene	ND	74	ug/kg	1	06/30/16 02:54	M-02
Surr: 2-Fluorobiphenyl	50 %	Conc:1230	0.1-109	%		M-02
Surr: Nitrobenzene-d5	48 %	Conc:1180	0.1-107	%		M-02
Surr: Terphenyl-d14	61 %	Conc:1490	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

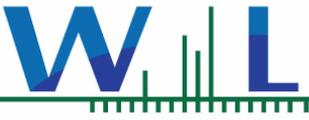
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 21:25	M-05
Benzene	ND	50	ug/kg	10	06/22/16 21:25	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 21:25	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 21:25	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 21:25	M-05
Toluene	ND	50	ug/kg	10	06/22/16 21:25	M-05
Surr: 1,2-Dichloroethane-d4	106 %	Conc:52.4	78-140	%		
Surr: 4-Bromofluorobenzene	101 %	Conc:49.9	85-116	%		
Surr: Dibromofluoromethane	103 %	Conc:50.9	84-120	%		
Surr: Toluene-d8	99 %	Conc:48.7	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-03 C-160-P-EDR-S**Sampled:** 06/20/16 09:13**Sampled By:** Client**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/30/16 03:27	M-02
Fluorene	ND	69	ug/kg	1	06/30/16 03:27	M-02
Naphthalene	ND	69	ug/kg	1	06/30/16 03:27	M-02
Phenanthrene	ND	69	ug/kg	1	06/30/16 03:27	M-02
<i>Surr: 2-Fluorobiphenyl</i>	42 %	Conc:975	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	41 %	Conc:943	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	56 %	Conc:1300	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

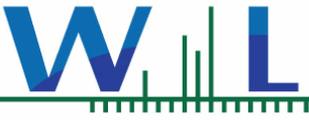
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 21:56	M-05
Benzene	ND	50	ug/kg	10	06/22/16 21:56	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 21:56	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 21:56	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 21:56	M-05
Toluene	ND	50	ug/kg	10	06/22/16 21:56	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	102 %	Conc:50.7	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	105 %	Conc:52.2	85-116	%		
<i>Surr: Dibromofluoromethane</i>	101 %	Conc:50.6	84-120	%		
<i>Surr: Toluene-d8</i>	98 %	Conc:49.0	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-04 C-160-P-EDR-S-D

Sampled: 06/20/16 09:13

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	66	ug/kg	1	06/30/16 04:00	M-02
Fluorene	ND	66	ug/kg	1	06/30/16 04:00	M-02
Naphthalene	ND	66	ug/kg	1	06/30/16 04:00	M-02
Phenanthrene	ND	66	ug/kg	1	06/30/16 04:00	M-02
Surr: 2-Fluorobiphenyl	39 %	Conc:869	0.1-109	%		M-02
Surr: Nitrobenzene-d5	38 %	Conc:846	0.1-107	%		M-02
Surr: Terphenyl-d14	51 %	Conc:1130	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 22:28	M-05
Benzene	ND	50	ug/kg	10	06/22/16 22:28	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 22:28	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 22:28	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 22:28	M-05
Toluene	ND	50	ug/kg	10	06/22/16 22:28	M-05
Surr: 1,2-Dichloroethane-d4	105 %	Conc:52.5	78-140	%		
Surr: 4-Bromofluorobenzene	102 %	Conc:50.8	85-116	%		
Surr: Dibromofluoromethane	103 %	Conc:51.4	84-120	%		
Surr: Toluene-d8	99 %	Conc:49.6	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-05 C-160-P-SWP-S

Sampled: 06/20/16 09:23

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	67	ug/kg	1	06/30/16 04:33	M-02
Fluorene	ND	67	ug/kg	1	06/30/16 04:33	M-02
Naphthalene	ND	67	ug/kg	1	06/30/16 04:33	M-02
Phenanthrene	ND	67	ug/kg	1	06/30/16 04:33	M-02
Surr: 2-Fluorobiphenyl	39 %	Conc:862	0.1-109	%		M-02
Surr: Nitrobenzene-d5	35 %	Conc:775	0.1-107	%		M-02
Surr: Terphenyl-d14	51 %	Conc:1130	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

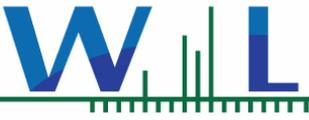
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 22:59	M-05
Benzene	ND	50	ug/kg	10	06/22/16 22:59	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 22:59	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 22:59	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 22:59	M-05
Toluene	ND	50	ug/kg	10	06/22/16 22:59	M-05
Surr: 1,2-Dichloroethane-d4	103 %	Conc:50.9	78-140	%		
Surr: 4-Bromofluorobenzene	105 %	Conc:52.1	85-116	%		
Surr: Dibromofluoromethane	102 %	Conc:50.3	84-120	%		
Surr: Toluene-d8	98 %	Conc:48.7	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-06 C-40-C-WGC-S**Sampled:** 06/20/16 09:50**Sampled By:** Client**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	70	ug/kg	1	06/30/16 05:07	M-02
Fluorene	ND	70	ug/kg	1	06/30/16 05:07	M-02
Naphthalene	ND	70	ug/kg	1	06/30/16 05:07	M-02
Phenanthrene	ND	70	ug/kg	1	06/30/16 05:07	M-02
<i>Surr: 2-Fluorobiphenyl</i>	33 %	Conc:762	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	44 %	Conc:1040	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	57 %	Conc:1320	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

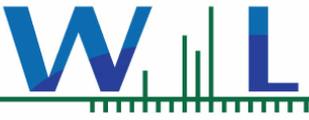
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/22/16 23:31	M-05
Benzene	ND	50	ug/kg	10	06/22/16 23:31	M-05
Ethylbenzene	ND	50	ug/kg	10	06/22/16 23:31	M-05
m,p-Xylene	ND	50	ug/kg	10	06/22/16 23:31	M-05
o-Xylene	ND	50	ug/kg	10	06/22/16 23:31	M-05
Toluene	ND	50	ug/kg	10	06/22/16 23:31	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	97 %	Conc:47.8	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	96 %	Conc:47.7	85-116	%		
<i>Surr: Dibromofluoromethane</i>	97 %	Conc:48.2	84-120	%		
<i>Surr: Toluene-d8</i>	97 %	Conc:48.2	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-07 C-120-C-SM**Sampled:** 06/20/16 09:57**Sampled By:** Client**Matrix:** Solid**Semivolatile Organics - Low Level by GC/MS SIM Mode**

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/30/16 05:40	M-02
Fluorene	ND	69	ug/kg	1	06/30/16 05:40	M-02
Naphthalene	ND	69	ug/kg	1	06/30/16 05:40	M-02
Phenanthrene	ND	69	ug/kg	1	06/30/16 05:40	M-02
<i>Surr: 2-Fluorobiphenyl</i>	30 %	Conc:687	0.1-109	%		M-02
<i>Surr: Nitrobenzene-d5</i>	40 %	Conc:915	0.1-107	%		M-02
<i>Surr: Terphenyl-d14</i>	57 %	Conc:1310	28-128	%		M-02



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-07RE1 C-120-C-SM

Sampled: 06/20/16 09:57

Sampled By: Client

Matrix: Solid

Volatile Organic Compounds by EPA Method 8260B

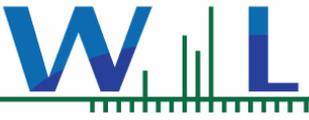
Method: EPA 8260B

Batch: W6F1396

Prepared: 06/24/16 18:02

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	59	50	ug/kg	10	06/25/16 06:28	M-05
Benzene	ND	50	ug/kg	10	06/25/16 06:28	M-05
Ethylbenzene	ND	50	ug/kg	10	06/25/16 06:28	M-05
m,p-Xylene	ND	50	ug/kg	10	06/25/16 06:28	M-05
o-Xylene	ND	50	ug/kg	10	06/25/16 06:28	M-05
Toluene	ND	50	ug/kg	10	06/25/16 06:28	M-05
<i>Surr: 1,2-Dichloroethane-d4</i>	103 %	Conc:51.2	78-140	%		
<i>Surr: 4-Bromofluorobenzene</i>	97 %	Conc:48.2	85-116	%		
<i>Surr: Dibromofluoromethane</i>	103 %	Conc:51.1	84-120	%		
<i>Surr: Toluene-d8</i>	99 %	Conc:49.2	82-120	%		



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Bakersfield CA, 93301

Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-08 C-80-C-WM

Sampled: 06/20/16 10:10

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	70	ug/kg	1	06/30/16 06:13	M-02
Fluorene	ND	70	ug/kg	1	06/30/16 06:13	M-02
Naphthalene	ND	70	ug/kg	1	06/30/16 06:13	M-02
Phenanthrene	ND	70	ug/kg	1	06/30/16 06:13	M-02
Surr: 2-Fluorobiphenyl	32 %	Conc:750	0.1-109	%		M-02
Surr: Nitrobenzene-d5	41 %	Conc:966	0.1-107	%		M-02
Surr: Terphenyl-d14	53 %	Conc:1250	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

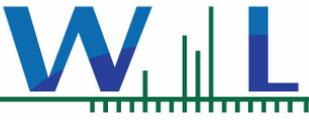
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/23/16 00:34	M-05
Benzene	ND	50	ug/kg	10	06/23/16 00:34	M-05
Ethylbenzene	ND	50	ug/kg	10	06/23/16 00:34	M-05
m,p-Xylene	ND	50	ug/kg	10	06/23/16 00:34	M-05
o-Xylene	ND	50	ug/kg	10	06/23/16 00:34	M-05
Toluene	ND	50	ug/kg	10	06/23/16 00:34	M-05
Surr: 1,2-Dichloroethane-d4	95 %	Conc:47.1	78-140	%		
Surr: 4-Bromofluorobenzene	96 %	Conc:47.1	85-116	%		
Surr: Dibromofluoromethane	98 %	Conc:48.5	84-120	%		
Surr: Toluene-d8	98 %	Conc:48.5	82-120	%		



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Date Received: 06/21/16 10:15
Date Reported: 07/08/16 10:56

6F21030-09 C-80-C-S46

Sampled: 06/20/16 10:20

Sampled By: Client

Matrix: Solid

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 8270C SIM

Batch: W6F1507

Prepared: 06/28/16 11:38

Analyst: etn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acenaphthene	ND	69	ug/kg	1	06/30/16 06:46	M-02
Fluorene	ND	69	ug/kg	1	06/30/16 06:46	M-02
Naphthalene	ND	69	ug/kg	1	06/30/16 06:46	M-02
Phenanthrene	ND	69	ug/kg	1	06/30/16 06:46	M-02
Surr: 2-Fluorobiphenyl	38 %	Conc:864	0.1-109	%		M-02
Surr: Nitrobenzene-d5	47 %	Conc:1070	0.1-107	%		M-02
Surr: Terphenyl-d14	58 %	Conc:1340	28-128	%		M-02

Volatile Organic Compounds by EPA Method 8260B

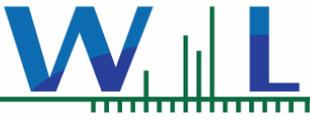
Method: EPA 8260B

Batch: W6F1205

Prepared: 06/22/16 14:35

Analyst: rhr

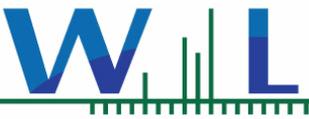
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Acetone	ND	50	ug/kg	10	06/23/16 01:05	M-05
Benzene	ND	50	ug/kg	10	06/23/16 01:05	M-05
Ethylbenzene	ND	50	ug/kg	10	06/23/16 01:05	M-05
m,p-Xylene	ND	50	ug/kg	10	06/23/16 01:05	M-05
o-Xylene	ND	50	ug/kg	10	06/23/16 01:05	M-05
Toluene	ND	50	ug/kg	10	06/23/16 01:05	M-05
Surr: 1,2-Dichloroethane-d4	98 %	Conc:48.9	78-140	%		
Surr: 4-Bromofluorobenzene	97 %	Conc:48.5	85-116	%		
Surr: Dibromofluoromethane	99 %	Conc:49.5	84-120	%		
Surr: Toluene-d8	98 %	Conc:48.7	82-120	%		



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QUALITY CONTROL SECTION



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Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

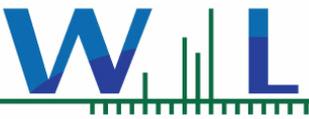
Batch W6F1507 - EPA 8270C SIM

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1507-BLK1)				Analyzed: 06/30/16 00:07						
Acenaphthene	ND	5.0	ug/kg							
Fluorene	ND	5.0	ug/kg							
Naphthalene	ND	5.0	ug/kg							
Phenanthrene	ND	5.0	ug/kg							
<i>Surr: 2-Fluorobiphenyl</i>	63.3		ug/kg	167		38	0.1-109			
<i>Surr: Nitrobenzene-d5</i>	65.4		ug/kg	167		39	0.1-107			
<i>Surr: Terphenyl-d14</i>	91.2		ug/kg	167		55	28-128			
LCS (W6F1507-BS1)				Analyzed: 06/30/16 00:40						
Acenaphthene	232	5.0	ug/kg	333		69	27-103			
Fluorene	232	5.0	ug/kg	333		70	33-106			
Naphthalene	217	5.0	ug/kg	333		65	22-98			
Phenanthrene	250	5.0	ug/kg	333		75	32-110			
<i>Surr: 2-Fluorobiphenyl</i>	92.1		ug/kg	167		55	0.1-109			
<i>Surr: Nitrobenzene-d5</i>	89.6		ug/kg	167		54	0.1-107			
<i>Surr: Terphenyl-d14</i>	91.2		ug/kg	167		55	28-128			
Matrix Spike (W6F1507-MS1)				Source: 6F21030-01		Analyzed: 06/30/16 01:13				
Acenaphthene	3210	67	ug/kg	4460	ND	72	5-115			M-02
Fluorene	3240	67	ug/kg	4460	ND	73	4-125			M-02
Naphthalene	2460	67	ug/kg	4460	ND	55	0.1-117			M-02
Phenanthrene	3350	67	ug/kg	4460	ND	75	10-122			M-02
<i>Surr: 2-Fluorobiphenyl</i>	1150		ug/kg	2230		51	0.1-109			M-02
<i>Surr: Nitrobenzene-d5</i>	1080		ug/kg	2230		48	0.1-107			M-02
<i>Surr: Terphenyl-d14</i>	1240		ug/kg	2230		56	28-128			M-02
Matrix Spike Dup (W6F1507-MSD1)				Source: 6F21030-01		Analyzed: 06/30/16 01:47				
Acenaphthene	2830	68	ug/kg	4500	ND	63	5-115	12	30	M-02
Fluorene	2940	68	ug/kg	4500	ND	65	4-125	10	30	M-02
Naphthalene	2260	68	ug/kg	4500	ND	50	0.1-117	8	30	M-02
Phenanthrene	3110	68	ug/kg	4500	ND	69	10-122	7	30	M-02
<i>Surr: 2-Fluorobiphenyl</i>	1010		ug/kg	2250		45	0.1-109			M-02
<i>Surr: Nitrobenzene-d5</i>	991		ug/kg	2250		44	0.1-107			M-02
<i>Surr: Terphenyl-d14</i>	1260		ug/kg	2250		56	28-128			M-02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F1205 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1205-BLK1)				Analyzed: 06/22/16 20:22						
Acetone	ND	5.0	ug/kg							
Benzene	ND	5.0	ug/kg							
Ethylbenzene	ND	5.0	ug/kg							



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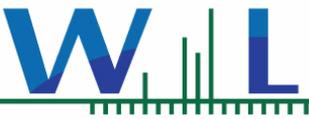
Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F1205 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1205-BLK1)				Analyzed: 06/22/16 20:22						
m,p-Xylene	ND	5.0	ug/kg							
o-Xylene	ND	5.0	ug/kg							
Toluene	ND	5.0	ug/kg							
Surr: 1,2-Dichloroethane-d4	45.9		ug/kg	50.0		92	78-140			
Surr: 4-Bromofluorobenzene	47.9		ug/kg	50.0		96	85-116			
Surr: Dibromofluoromethane	47.8		ug/kg	50.0		96	84-120			
Surr: Toluene-d8	49.0		ug/kg	50.0		98	82-120			
LCS (W6F1205-BS1)				Analyzed: 06/22/16 18:17						
Acetone	43.7	5.0	ug/kg	50.0		87	57-138			
Benzene	46.1	5.0	ug/kg	50.0		92	83-121			
Ethylbenzene	46.1	5.0	ug/kg	50.0		92	80-120			
m,p-Xylene	46.9	5.0	ug/kg	50.0		94	78-120			
o-Xylene	46.2	5.0	ug/kg	50.0		92	77-126			
Toluene	45.6	5.0	ug/kg	50.0		91	81-126			
Surr: 1,2-Dichloroethane-d4	50.3		ug/kg	50.0		101	78-140			
Surr: 4-Bromofluorobenzene	50.0		ug/kg	50.0		100	85-116			
Surr: Dibromofluoromethane	50.4		ug/kg	50.0		101	84-120			
Surr: Toluene-d8	50.2		ug/kg	50.0		100	82-120			
LCS Dup (W6F1205-BSD1)				Analyzed: 06/22/16 18:48						
Acetone	47.2	5.0	ug/kg	50.0		94	57-138	8	25	
Benzene	45.2	5.0	ug/kg	50.0		90	83-121	2	25	
Ethylbenzene	46.7	5.0	ug/kg	50.0		93	80-120	1	25	
m,p-Xylene	47.5	5.0	ug/kg	50.0		95	78-120	1	25	
o-Xylene	46.5	5.0	ug/kg	50.0		93	77-126	0.6	25	
Toluene	44.7	5.0	ug/kg	50.0		89	81-126	2	25	
Surr: 1,2-Dichloroethane-d4	48.0		ug/kg	50.0		96	78-140			
Surr: 4-Bromofluorobenzene	50.3		ug/kg	50.0		101	85-116			
Surr: Dibromofluoromethane	48.8		ug/kg	50.0		98	84-120			
Surr: Toluene-d8	49.5		ug/kg	50.0		99	82-120			

Batch W6F1396 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1396-BLK1)				Analyzed: 06/25/16 02:49						
Acetone	ND	5.0	ug/kg							
Benzene	ND	5.0	ug/kg							
Ethylbenzene	ND	5.0	ug/kg							
m,p-Xylene	ND	5.0	ug/kg							
o-Xylene	ND	5.0	ug/kg							
Toluene	ND	5.0	ug/kg							
Surr: 1,2-Dichloroethane-d4	47.2		ug/kg	50.0		94	78-140			
Surr: 4-Bromofluorobenzene	49.4		ug/kg	50.0		99	85-116			



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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W6F1396 - EPA 8260B

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W6F1396-BLK1)				Analyzed: 06/25/16 02:49						
<i>Surr: Dibromofluoromethane</i>	49.5		ug/kg	50.0		99	84-120			
<i>Surr: Toluene-d8</i>	49.6		ug/kg	50.0		99	82-120			
LCS (W6F1396-BS1)				Analyzed: 06/25/16 00:44						
Acetone	47.9	5.0	ug/kg	50.0		96	57-138			
Benzene	48.1	5.0	ug/kg	50.0		96	83-121			
Ethylbenzene	47.6	5.0	ug/kg	50.0		95	80-120			
m,p-Xylene	49.1	5.0	ug/kg	50.0		98	78-120			
o-Xylene	48.0	5.0	ug/kg	50.0		96	77-126			
Toluene	47.2	5.0	ug/kg	50.0		94	81-126			
<i>Surr: 1,2-Dichloroethane-d4</i>	51.2		ug/kg	50.0		102	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	51.2		ug/kg	50.0		102	85-116			
<i>Surr: Dibromofluoromethane</i>	50.4		ug/kg	50.0		101	84-120			
<i>Surr: Toluene-d8</i>	50.1		ug/kg	50.0		100	82-120			
LCS Dup (W6F1396-BSD1)				Analyzed: 06/25/16 01:15						
Acetone	48.2	5.0	ug/kg	50.0		96	57-138	0.6	25	
Benzene	48.1	5.0	ug/kg	50.0		96	83-121	NR	25	
Ethylbenzene	47.9	5.0	ug/kg	50.0		96	80-120	0.7	25	
m,p-Xylene	49.3	5.0	ug/kg	50.0		99	78-120	0.5	25	
o-Xylene	48.0	5.0	ug/kg	50.0		96	77-126	0.08	25	
Toluene	46.9	5.0	ug/kg	50.0		94	81-126	0.6	25	
<i>Surr: 1,2-Dichloroethane-d4</i>	50.0		ug/kg	50.0		100	78-140			
<i>Surr: 4-Bromofluorobenzene</i>	50.5		ug/kg	50.0		101	85-116			
<i>Surr: Dibromofluoromethane</i>	49.6		ug/kg	50.0		99	84-120			
<i>Surr: Toluene-d8</i>	49.4		ug/kg	50.0		99	82-120			



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Notes and Definitions

M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

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

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

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

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

ATTACHMENT B

Anresco Laboratories, Inc. Analytical Reports

June 28, 2016

MCMURTREY HARTSOCK & WORTH
2001 22nd Street Ste 100
Bakerfield, CA 93301

Anresco No. 620160324

Sample information

Product Four Samples for fatty acid analysis
Sampling Received from Client.
Received June 14, 2016

Analytical Results

Analysis Date June 14, 2016 to June 28, 2016
Analyst Emmy Gomez

Findings

Analysis*	% Total Fat*
1. T-78-P-EDR (2, 4oz Jars)Date/Time Collected : 6/10/16 1330	0.10
2. T-78-C-EDR (2, 4oz Jars)Date/Time Collected: 6/10/16 1315	0.18
3. T-78-P-WQ (2, 4oz Jars)Date/Time Collected: 6/10/16 1345	0.09
4. T-78-C-WQ (2, 4oz Jars)Date/Time Collected: 6/10/16 1300	0.28
Method	AOAC 983.23

*Total Fat content too low to perform fatty acid analysis

Reported by
Anresco, Inc.




Cynthia Kushi
Senior Chemist




Yelena Bindman
Senior Chemist

June 16, 2016

MCMURTREY HARTSOCK & WORTH
2001 22nd Street Ste 100
Bakerfield, CA 93301

Anresco No. 620160173

Sample information

Product Seven Samples for fatty acid profile
Sampling Received from Client.
Received June 07, 2016

Analytical Results

Analysis Date June 07, 2016 to June 16, 2016
Analyst Emmy Gomez

Findings

Sample ID	% Total Fat*
1. T-55-C-SE Date Collected: 6/3/16 0910	0.26
2. T-40-P-SW Date Collected: 6/3/16 0920	0.11
3. T-60-P-SE Date Collected: 6/3/16 0935	0.11
4. T-60-P-NE Date Collected: 6/3/16 0940	0.12
5. T-55-C-NE Date Collected: 6/3/16 0950	0.26
6. T-40-P-NW Date Collected: 6/3/16 0655	0.10
7. T-40-P-NW Date Collected: 6/3/16 0955	0.10
Method	AOAC 983.23

*Total fat content too low to perform fatty acid profile

Reported by
Anresco, Inc.




Cynthia Kushi
Senior Chemist




Yelena Bindman
Senior Chemist

July 5, 2016

MCMURTREY HARTSOCK & WORTH
2001 22nd Street Ste 100
Bakerfield, CA 93301

Anresco No. 620160452

Sample information

Product: Nine Samples for Total Fat and Fatty Acid Profile
Sampling: Received from Client.
Received: June 21, 2016

Analytical Results

Analysis Date: June 21, 2016 to July 5, 2016
Analyst: Emmy Gomez

Findings

Sample ID	% Total Fat*
C-160-P-SWPDate: 6/20/16 0846	0.10
C-160-P-EDR-NDate: 6/2016 0900	0.14
C-160-P-EDR-SDate: 6/20/16 0913	0.10
C-160-P-EDR-S-DDate: 6/20/16 0913	0.11
C-160-P-SWP-SDate: 6/20/16 0923	0.10
C-40-C-WGC-SDate: 6/20/16 0950	0.31
C-120-C-SMDate: 6/20/16 0957	0.31
C-80-C-WMDate: 6/20/16 1010	0.26
C-80-C-S46Date: 6/20/16 1020	0.29
Method	AOAC 983.23

*Total fat content is too low to perform the fatty acid profile.

Reported by
Anresco, Inc.




Cynthia Kushi
Senior Chemist




Jennifer Mahoney
Chemist