Electronic Report Transmittal Form

Attention: Brendan Kenny (916) 464-4635
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, Ca 95670-6114

Discharger:	Wild Wings County Service Area
Name of Facility:	Wild Wings Water Recycling Facility
MRP No:	R5-2002-0077
CIWQS Place ID:	272537
County:	Yolo

I am hereby submitting to the Central Valley Water Board the following information:

Check all that apply:

Technical Report Title and Date **Self-Monitoring Report for Wild Wings**

Monthly Monitoring Report for the Month of _____.

1st / 2nd / 3rd / 4th (**circle one**) Quarterly Monitoring Report for the year_____.

1st / 2nd (**circle one**) Semi-annual Monitoring Report for the year_____.

Annual Monitoring Report for the year 2016.

Violation Notification:

During the Monitoring period, there were / were not (circle one) any violations of the WDRs.

1. The Violations were: See report, Attachment 5
2. Have the violations been corrected? Yes / No. If no, what will be done to correct the violations:

Certification Statement:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: Paul Bishop Phone: **540-492-2332**

Printed Name: **Paul Bishop** Date: **02/07/2017**

Electronic Report Submittal:

To submit the electronic reports please do the following:

1. First, make a PDF copy of your report and include this form as the first page of the report.
2. Attach the PDF file to the email.
3. Send the email and PDF attachment to: Centralvalleysacramento@waterboards.ca.gov (Please note that in order to ensure your reports are cataloged correctly and routed to the appropriate Regional Board staff, only one report/attachment shall be included with each e-mail.)

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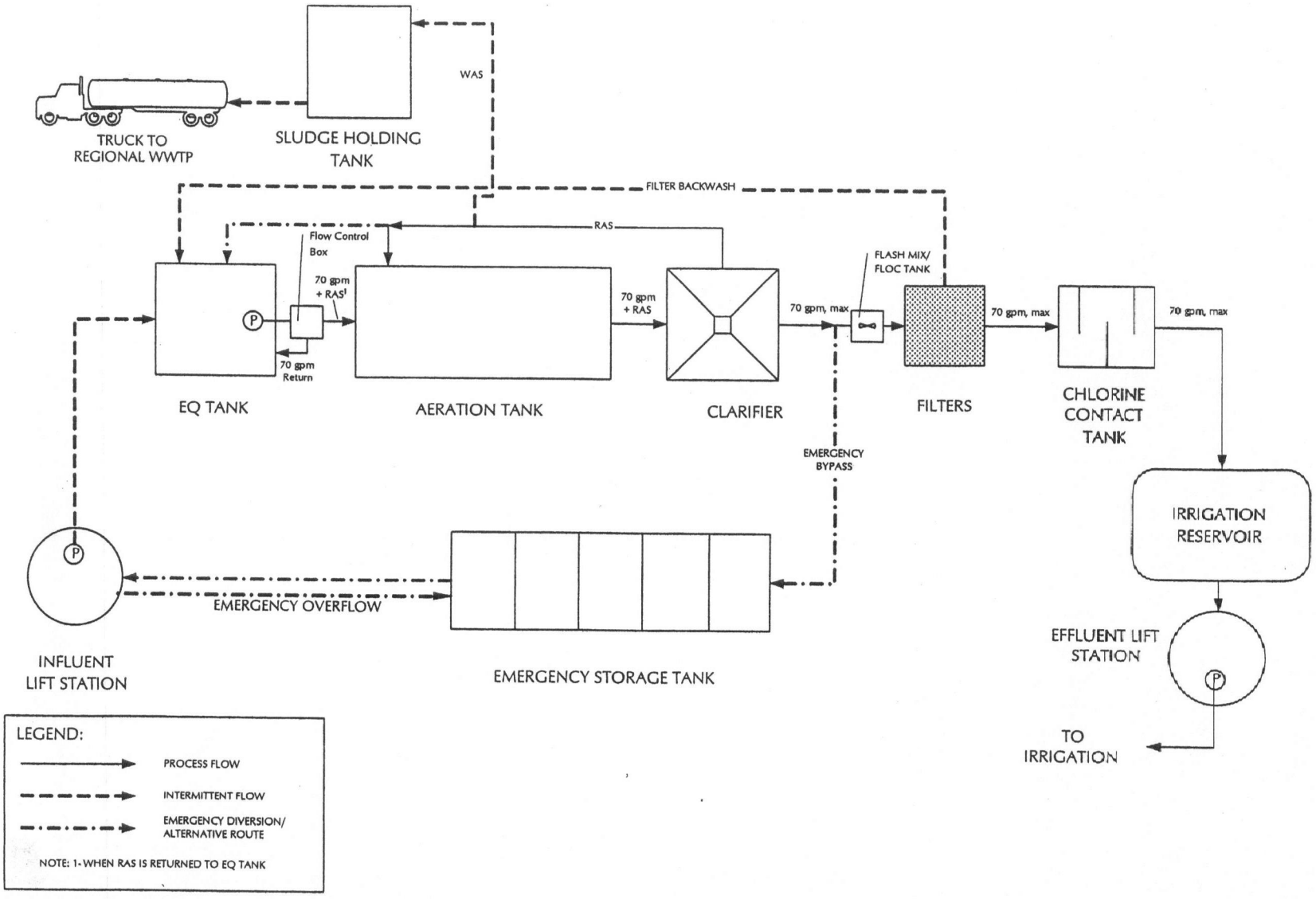
ATTACHMENT 1

Wild Wings Flow Diagram



FLOW DIAGRAM FOR 101,000 GPD TERTIARY WASTEWATER PLANT, WILD WINGS DEV. YOLO COUNTY

ATTACHMENT 2

Annual Water Supply Monitoring

2 GROUNDWATER MONITORING

Groundwater monitoring was performed on November 17, 2016, by GEI employees experienced with groundwater sampling. The following sections describe the monitoring protocol used to measure the depth to water, purge, and collect water quality samples from the monitoring wells.

2.1 GROUNDWATER LEVELS

GEI personnel measured the depth to groundwater at the monitoring wells using an electric water level sounder accurate to 0.01 foot. The sounder was cleaned and decontaminated prior to the first monitoring well measurement and between each well site by thoroughly washing and scrubbing the sounding probe and line with a laboratory-grade detergent (Alconox) and distilled water, followed by a triple rinse with distilled water. The sounding probe and line was then sprayed with a 10 percent bleach solution to kill any bacteria. The sounding probe was allowed to air dry between wells.

2.2 PRE-SAMPLING ACTIVITIES

After the depth to groundwater was measured at a monitoring well, the well was purged. Each monitoring well was purged by lifting the polyethylene tubing that resides in each well and connecting it to the WaTerra Hydrolift II electric pump. Prior to purging, the top 6 inches of the polyethylene tubing was decontaminated. The polyethylene tube was then connected to a vinyl tube via a double-barbed nipple and the vinyl tubing was routed to an empty 5-gallon bucket. The double-barbed nipple and vinyl tubing were cleaned and decontaminated prior to initial use and between each well (primary disinfection). The procedures for cleaning and decontaminating are the same as listed above (Groundwater Levels).

Prior to collecting the groundwater samples, each monitoring well was micro purged (verbal approval, RWQCB 2008) with the exception of MW-3 and MW-7. MW-7 was dry and MW-3 did not have a sufficient amount of water in the well to pump.

Micro purging consisted of pumping each well until field parameters such as pH, temperature, and EC stabilized. Field parameters were measured by collecting purge water from the discharge line at select intervals and using a calibrated multi-parameter meter to record the readings. The volume purged and field parameters are documented on purge logs, which are presented in Appendix A. The purge water was collected in 5-gallon

buckets and then transported back to the WWRF and discharged to the wastewater holding tanks.

2.3 GROUNDWATER SAMPLING

Once each monitoring well was purged, GEI personnel collected water samples in laboratory-prepared bottles. Prior to collecting the first sample, the vinyl tube connected to the 5-gallon bucket was disconnected from the bucket and the tip was sprayed with a 10 percent bleach solution to kill any bacteria that may have been present in the bucket and inadvertently transfered to the sampling tube (secondary disinfection). Pumping was then resumed for about 15 to 30 seconds to rinse (approximately 0.1 to 0.2 gallons) the vinyl tube of any residual chlorine prior to sampling. The bacteriological (total coliform) sample was the first sample collected and was collected directly from the end of the vinyl tube, followed by collection of samples for THMs. The samples for all other constituents analyzed were collected next. Water samples for metals were filtered in the field using a disposable 0.45 micron filter before being placed into acidified laboratory prepared sample bottles.

THMs (as chloroform) were detected at low concentrations in nearly all the wells sampled in the second quarter 2016 and at higher concentrations in all the wells sampled in the third quarter 2016. THMs have not been detected historically, except after the disinfection/chlorination of MW-3. Due to THMs not being detected historically and multiple wells having concentrations above the reporting limit the previous two quarters, a trip blank sample was included by CLS and an equipment blank sample was collected by GEI personnel and submitted to the laboratory for THMs analysis to determine the source of the THMs detections. The equipment blank sample was collected directly from the vinyl tube used to collect samples from the monitoring wells to represent the primary disinfection. The vinyl tube was cleaned as described in the Pre-Sampling Activities (Section 2.2) and then about 0.5 gallons of distilled water was poured through the tube to rinse it prior to collecting the equipment blank sample from the tube using the distilled water. The distilled water volume is less than what is typically purged from the wells.

Nitrile gloves were worn while collecting samples. A new set of gloves was used at every monitoring well. The samples were placed in an ice chest and cooled to 4 degrees Celsius and delivered to California Laboratory Services (CLS) of Rancho Cordova, California, a California-certified laboratory, under standard chain-of-custody procedures. Samples collected from the monitoring wells were analyzed for TDS, sodium, chloride, boron, iron, manganese, nitrate (as N), nitrite (as N), ammonia (as N), total N, total coliform organisms, and total trihalomethanes per the WDR requirements. Table 4 presents the results for the monitoring wells and Table 5 presents the results for the trip blank and equipment blank samples. Appendix B contains the laboratory data sheets and chain-of-custody forms.

2.4 GROUNDWATER LEVELS AND FLOW DIRECTION

The measured groundwater levels in each well were subtracted from the surveyed ground surface elevation at each well. Table 2 lists the elevation of the top of the well casing (reference point) at each well and presents the current and historic depths-to-water and groundwater surface elevations. The groundwater surface elevations were used to generate groundwater contours from which the groundwater gradient was calculated. Figure 10 shows the groundwater contours and flow direction for November 2016. Groundwater gradients and flow directions were estimated using wells MW-1, MW-4, and MW-5R. Table 3 summarizes these estimates.

3 FINDINGS

3.1 GROUNDWATER LEVELS

Groundwater levels in November 2016 (fourth quarter 2016) ranged from 29.60 to 55.54 feet btoc or 65.17 to 91.77 feet msl and were within historic depths. The shallowest water level was encountered in MW-3 and the deepest at MW-4. Table 2 lists the measurements. Figure 2 shows the current and historic groundwater levels.

MW-3 has consistently had higher groundwater surface elevations than the other monitoring wells. Because of this, supplemented by the shallow screen interval and poor recharge, MW-3 appears to be screened in a perched water zone. For this reason MW-3 was left out of groundwater contouring, flow direction, and gradient calculations.

Groundwater levels rose between 0.7 to 0.8 feet at wells MW-2, MW-5R, and MW-6 and lowered about 0.3 feet at wells MW-1 and MW-4 from the third quarter 2016. MW-3 lowered about 1.9 feet from last quarter and is currently at a historic low groundwater level. MW-7 was dry again. The wells located further north, and closer to Cache Creek, received some recharge since last quarter whereas the groundwater levels in the wells located towards the south, and further from Cache Creek, continued to lower, though not by much, from last quarter.

Groundwater levels have been on the decline since the second quarter 2011 through the fourth quarter 2014, but since 2014 the groundwater levels have started to rise, except at MW-4. The groundwater levels have continued to decline at MW-4, suggesting it may be influenced by pumping to the east of the site. This may also be the reason why MW-7 is dry.

3.2 GROUNDWATER FLOW DIRECTION AND GRADIENT

The groundwater flow direction and gradient for November 2016 were calculated using wells MW-1, MW-4, and MW-5R. Using these wells the groundwater flow direction was to the east northeast (72.4 degrees) with a gradient of 0.009 feet/feet. The groundwater gradient is consistent with historic results, but at its maximum. The groundwater flow direction is a couple degrees more easterly than any historic results. Figure 10 displays the groundwater surface elevations at each well, the groundwater contours, and flow direction. In the northern portion of the site the groundwater flow direction appears to be influenced by Cache Creek. Table 3 lists the historic and current groundwater flow directions and gradients.

3.3 GROUNDWATER QUALITY

Tables 4 and 5 summarizes the analytical results. Figures 11 through 16 show the concentration distribution for several of the WDR required constituents in November 2016.

Historically, MW-1 has had the highest concentrations of TDS, chloride, nitrate (as N), and total nitrogen. However, concentrations of nitrogen at MW-4 were equal to the concentrations at MW-1 this quarter and concentrations of chloride at MW-4 exceeded those at MW-1 this quarter.

The highest TDS result (1,100 milligrams per liter [mg/L]) was detected in the sample from up-gradient MW-1. The highest nitrate (as N) (17 mg/L) and total N (17 mg/L) concentrations were detected in the samples from MW-1 and down-gradient MW-4. Chloride concentrations at down gradient MW-4 (220 mg/L), which usually are close to that of MW-1, surpassed MW-1 in the first quarter of 2013 and have remained higher since that time (with the exception of February 2014). Nitrate concentrations dropped by 4 mg/L at MW-1 from the first to second quarter 2016 sampling event while the concentrations remained fairly stable at MW-4. Both chloride and nitrate concentrations at MW-4 are still below those historically detected at MW-1.

The highest sodium concentrations (140 mg/L) were detected at down-gradient wells MW-2 and MW-6 and both are within historic range. Historically the highest concentrations of sodium have been detected at MW-2 and occasionally at MW-6, even before the facility was constructed. MW-2 had the highest boron (4.9 mg/L) concentration detected, consistent with historic results.

Ammonia (as N) was detected in the samples from MW-2 (0.12 mg/L) and MW-6 (0.11 mg/L). Ammonia as N is not typically detected at any of the wells in the monitoring network (aside from MW-3). Total coliform, iron, and manganese were not detected in any of the samples.

THMs were not detected in any of the water samples from the wells nor in the trip blank sample. However, THMs (as chloroform) were detected at a concentration of 1.1 micrograms per liter (ug/L) in the equipment blank sample. Chloroform is a disinfection byproduct and the detection of it appears to be due to primary disinfection of the sampling tube and subsequent rinsing.

Current water quality results were compared to historic water quality results to assess potential increasing trends. TDS, nitrate (as nitrogen), total nitrogen, and chloride concentrations have been on a gradual rise at MW-4 since the beginning of 2010. However, TDS concentrations have dropped every quarter since the fourth quarter 2015 (aside from

this quarter) when it was at a historic high of 970 mg/L and is now at a concentration of 660 mg/L. The concentrations of nitrates and chloride at MW-4 are still less than historic concentrations in the up-gradient well MW-1 suggesting groundwater from MW-1 has migrated into the MW-4 vicinity. Nitrate levels have been gradually increasing at MW-5R, but are still at low concentrations compared to other wells in the monitoring network. No other significant trends are being seen other than at MW-4. Figures 3 through 9 show the trend results for constituents that have been detected since quarterly monitoring commenced.

3.4 COMPARISON TO INTERIM GROUNDWATER LIMITATIONS

The water quality results from the fourth quarter 2016 monitoring event show that every monitoring well sampled exceeded the interim groundwater limitation for boron, consistent with historic results. Up-gradient MW-1 exceeded the interim groundwater limitation for TDS, chloride and total nitrogen. Down-gradient MW-4 exceeded the interim groundwater limitations for chloride and total nitrogen. Down-gradient monitoring wells MW-2, MW-6, and MW-5R did not exceed any limitations other than boron.

4 CONCLUSION

The groundwater contours and flow directions show there are two potential sources of groundwater to the area. MW-5R monitors water entering the area that is recharged by Cache Creek, north of the WWRF area. Water also enters the area from the south near MW-1 and MW-2 from regions used for agriculture. MW-4, MW-6, and MW-7 are in a mixing zone between these water sources and as such minor shifts in groundwater gradients may result in a change in water quality that reflects these two different water sources. In 2015 almond orchards were planted in the fields just west of the monitoring area and water wells were installed to provide water for the orchards. Deep percolation from irrigation or pumping could affect groundwater levels and flow directions, but to date they do not appear to be affecting groundwater beneath the WWRF area. East of the facility increased groundwater pumping is evident in MW-4 and could be affecting MW-7.

The groundwater levels collected from the monitoring well network in November 2016 (fourth quarter 2016) are within historic results, with the exception of MW-3 which is at a historic low groundwater level. Groundwater levels slightly lowered in the wells located towards the south end of the area and rose in the wells located towards the north end of the area this quarter compared to the third quarter 2016. This likely indicates wells located more north received recharge from Cache Creek whereas the wells located further south did not receive any recharge from Cache Creek. Prior to the monitoring event the area received about 2 inches of precipitation.

The groundwater gradient and flow direction for the fourth quarter 2016 are consistent with historic monitoring events; however, the gradient has been gradually increasing and the flow direction becoming more easterly since monitoring began. Groundwater levels steadily declined since the second quarter 2011 until 2015 when the levels started a slight rebound. The downward trend in groundwater levels is continuing at MW-4 suggesting the water levels are being affected by pumping. This pumping influence could also be affecting MW-7.

The analytical results from the fourth quarter 2016 sampling event show several results above the interim groundwater limitations. All wells exceeded the interim groundwater limitations for boron, which is consistent with historic monitoring results. Up-gradient MW-1 exceeded the groundwater limitations for TDS, chloride and total nitrogen. MW-1 has consistently exceeded the groundwater limitations for TDS, chloride and total nitrogen (and typically nitrate as well) since monitoring began. Down-gradient MW-4 exceeded the

interim groundwater limitations for chloride and total nitrogen. MW-4 has consistently exceeded the groundwater limitation for chloride since monitoring began.

Beginning in the first quarter 2010 TDS, chloride, nitrate and total nitrogen levels began an upward trend at MW-4. TDS concentrations have dropped in 2016; however, the concentrations of chloride, nitrate, and total nitrogen remain high at MW-4, but are still below historic levels present in up-gradient well MW-1 suggesting water from the MW-1 area has migrated into the MW-4 vicinity. A slight yet gradual increasing trend is present for nitrate at MW-5R, which is affected by groundwater recharge from Cache Creek.

MW-1 consistently has several constituents above the interim groundwater limitations since monitoring began, including the initial sampling event prior to the startup of the WWRF. The interim groundwater limitations are based on both WQOs and background water quality data. The borings used to establish background water quality data for the WWRF are down-gradient of MW-1 and therefore do not actually reflect background concentrations for up-gradient MW-1. The higher concentrations at MW-1 are indicative of the groundwater quality up-gradient from the WWRF and not due to the WWRF.

In an effort to determine the source of the THMs detections the past two quarters, a trip blank sample and equipment blank sample were analyzed this quarter. THMs were not detected in any of the water samples from the monitoring wells this quarter nor in the trip blank sample, but were detected (as chloroform) at a concentration of 1.1 ug/L in the equipment blank sample. The detection of chloroform, which is a disinfection byproduct, in the equipment blank sample appears to be due to insufficient rinsing of the sampling tube after disinfection. Therefore instead of a triple rinse with distilled water the rinse will be doubled to six times and will be incorporated into the disinfection protocol. Also as a precaution the sampling protocol will be modified to require all wells after secondary disinfection to elevate and pinch the tubing so that the entire tubing surface comes in contact with the purge water prior to sampling. At a minimum one-half gallon shall be purged from the wells (except for wells that are pumped dry), after preparing the tip of the sampling tube, prior to collection of water samples. The positive detection of THMs in the equipment blank sample suggests that the detection of THMs in the last two quarters were a false positive, but additional equipment and trip blanks are needed and will be collected next sampling event to fully resolve these previous detections.

Most constituents in down-gradient wells are at lower concentrations than in the up-gradient well (MW-1), except for sodium and boron at MW-2 and MW-6 and chloride and nitrate at MW-4. MW-2 and MW-6 have always had higher concentrations of sodium and boron than MW-1, even before the WWRF was constructed. Therefore, the higher levels of sodium and

boron in down-gradient MW-2 and MW-6 do not indicate leakage from the WWRF storage pond. Chloride concentrations have increased in MW-4 since early 2010 and began consistently exceeding the concentrations at MW-1 in late 2012; however, the concentrations at MW-4 are not above the historic concentrations at MW-1. Nitrate concentrations have been on a gradual upward trend in MW-4 since 2010 and in 2016 began exceeding or being at the same concentration as at MW-1. The higher concentrations are likely related to greater groundwater flow contributions from the south as opposed to from Cache Creek in the north. Currently there are no signs that indicate leakage from the WWRF storage pond.

5 ANNUAL MONITORING PROGRAM EVALUATION

The WDR requires an annual discussion of any data gaps and potential deficiencies, redundancies and/or excesses in the monitoring requirements or reporting program. This section provides that discussion.

The monitoring program is sufficient for detection of releases from the WWRF storage facility. However, the monitoring program currently requires monitoring at MW-3 which is not providing useful information. MW-3 monitors water in a perched water body that is not being monitored by any other well. Groundwater level trends and water quality are not similar to any of the other monitoring wells and MW-3 has a much slower recharge rate than the other monitoring wells (purges dry every sampling event). The well is not being used to develop groundwater contours nor are the water quality results being compared to other monitoring wells. Furthermore, during the May 2010 sampling event visible organisms were identified in the water from the well. The well was subsequently chlorinated which eliminated the presence of visible organisms until May 2012 when they were identified again; however, no organisms have been observed since May 2012. Ammonia nitrogen has also been present in the well since August 2008 (with a few exceptions). The presence of the organisms and ammonia nitrogen suggest surface water is entering the well, possibly due to a poor sanitary seal. GEI recommends MW-3 be removed from the WDR monitoring requirements and be properly destroyed as per Yolo County requirements.

MW-7 is down-gradient of the WWRF. Groundwater levels in MW-7 have been consistently below the bottom of the well since the third quarter of 2013 due to the drought conditions and potential pumping to the east of the WWRF. Groundwater levels may rise and once again be high enough to be measured and sampled. MW-7 should remain as part of the monitoring network.

Iron and manganese are naturally occurring elements that do not solely indicate that recycled water has been released. GEI recommends that these two elements be removed from the groundwater monitoring requirements.

In April 2009, Yolo County submitted to the RWQCB a Background Groundwater Quality Study/Groundwater Degradation Assessment Report. The report contains a statistical analysis that derived and recommends Final Groundwater Limitations. That analyses used groundwater quality obtained during normal to above normal precipitation years and did not include conditions during drought periods. Since this time 31 additional sampling events

have occurred during the drought years, more than doubling the data set used in the original analyses. GEI recommends the statistical analysis be performed again, including the drought years to provide a more representative data set, before RWQCB considers approval of the Final Groundwater Limitations.

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	*(fecal)*	*(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-1	6/15/2004	STL	7.7	1,410	112	391	2.1	<0.10	-	18.7	<0.05	<0.10	18.7	>23.0	<1.1	<1.1	<0.5	
MW-1	3/29/2005	BSK	7.9	1,200	160	360	3.7	<0.05	<0.01	27	<0.15	<1	27	2.2	<1.1	-	<0.5	
MW-1	6/16/2005	BSK	7.7	1,200	130	340	3.2	<0.05	<0.01	25	<0.20	<1	25	<1.1	<1.1	-	5.1	3
MW-1	9/29/2005	BSK	7.8	1,200	130	310	3.2	<0.05	<0.01	27	<0.15	<1	27	<1.1	<1.1	-	<0.5	
MW-1	12/6/2005	BSK	8.1	1,100	120	340	2.9	<0.05	<0.01	27	<0.15	<1	27	<1.1	<1.1	<1.1	6.12	3
MW-1	2/16/2006	BSK	8.0	1,300	110	340	2.7	<0.05	<0.01	27	<0.10	<1	27	<1.1	<1.1	-	<0.5	
MW-1	5/16/2006	BSK	8.0	1,100	130	300	3.4	<0.05	<0.01	27	<0.15	<1	27	<1.1	<1.1	-	<0.5	
MW-1	8/21/2006	BSK	8.0	1,000	120	270	3.6	<0.05	<0.01	25	<0.05	<0.10		<1.1	<1.1	-	<0.5	
MW-1	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	>23.0	<1.1	-	-	
MW-1	2/16/2007									No sample retrieved								
MW-1	5/7/2007	BSK	8.0	1,100	140	250	4.2	<0.05	<0.01	27	<0.05	<1.0	27	2.2	<1.1	-	<0.5	
MW-1	8/29/2007	BSK	8.0	1,100	110	240	3.6	<0.05	<0.01	24	*	<1.0	24	<1.1	<1.1	-	<0.5	
MW-1	11/28/2007	BSK	8.0	1,100	130	220	4.0	<0.05	<0.01	26	*	<1.0	26	<1.1	<1.1	-	<0.5	
MW-1	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-1	5/27/2008	CLS	7.3	1,100	120	250	3.5	0.10	<0.02	23	<0.10	<0.10	23	13	-	-	<0.50	
MW-1	8/27/2008	CLS	7.4	1,100	120	230	3.6	<0.10	<0.02	24	<0.10	<0.10	24	<1.8	-	-	<0.50	
MW-1	11/24/2008	CLS	7.4	1,100	120	260	3.2	0.44	<0.02	25	<0.10	<0.10	25	<1.8	-	-	<0.50	
MW-1	2/18/2009	CLS	-	980 [5]	130	170	4.0	<0.10	<0.02	19	<0.10	<0.10	19	<1.8	-	-	<0.50	
MW-1	5/21/2009	CLS	7.3	1,100	110	210	3.5	<0.10	<0.02	21	<0.10	<0.10	21	<1.8	-	-	<0.50	
MW-1	8/4/2009	CLS	7.3	1,100	96	240	3.1	0.13	<0.02	23	<0.10	<0.10	23	2.0	-	-	<0.50	
MW-1	11/5/2009	CLS	7.1 [6]	1,100 [5]	110	260	3.1	0.15	<0.02	24	<0.10	<0.10	24	<1.8	-	-	<0.50	
MW-1	2/8/2010	CLS	7.4	1,200	120	290	3.5	<0.10	<0.02	25	<0.10	<0.10	25	<1.8	-	-	<0.50	
MW-1	5/7/2010	CLS	7.4	1,100	120	280	3.0	<0.10	<0.02	25	<0.10	<0.10	25	<1.8	-	-	<0.50	
MW-1	8/18/2010	CLS	7.2	1,100	140	250	3.6	<0.10	<0.02	24	<0.10	<0.10	24	2.0	-	-	<0.50	
MW-1	11/2/2010	CLS	7.4	1,200	130	280	3.3	<0.10	<0.02	26	<0.10	<0.10	27	<1.8	-	-	<0.50	
MW-1	2/23/2011	CLS	7.4	1,100	130	270	3.6	<0.10	<0.02	26	<0.10	<0.10	26	<1.8	-	-	<0.50	
MW-1	5/5/2011	CLS	7.4	1,100	130	250	3.7	<0.10	<0.02	24	<0.10	<0.10	24	<1.8	-	-	<0.50	
MW-1	8/16/2011	CLS	7.4	1,200	140	200	4.2	<0.10	<0.02	24	<0.10	<0.10	24	<1.8	-	-	<0.50	
MW-1	11/8/2011	CLS	7.3	1,200	130	220	4.0	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	2/27/2012	CLS	7.3	1,100	140	220	4.4	<0.10	<0.02	21	<0.10	<0.10	21	<1.8	-	-	<0.50	
MW-1	5/21/2012	CLS	7.5	1,100	130	230	4.0	<0.10	<0.02	23	<0.10	0.13	23	<1.8	-	-	<0.50	
MW-1	8/9/2012	CLS	7.6	1,100	130	210	3.9	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	11/19/2012	CLS	7.3	1,200	120	220	3.5	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	2/21/2013	CLS	7.2	1,100	140	200	4.1	<0.10	<0.02	19	<0.10	0.14	19	<1.8	-	-	<0.50	
MW-1	5/15/2013	CLS	7.2	1,200	130	220	4.1	<0.10	<0.02	23	<0.10	<0.10	23	<1.8	-	-	<0.50	
MW-1	8/15/2013	CLS	7.3	1,100	130	230	3.7	0.15	<0.02	22	<0.10	<0.10	22	<1.8	-	-	<0.50	
MW-1	11/7/2013	CLS	7.4	1,100	150	240	3.4	<0.10	<0.02	22	<0.10	<0.10	22	<1.8	-	-	<0.50	
MW-1	2/25/2014	CLS	7.4	1,100	100	260	3.5	<0.10	<0.02	22	<0.10	<0.10	22	<1.8	-	-	<0.50	
MW-1	5/22/2014	CLS	7.4	1,100	110	220	3.3	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	8/27/2014	CLS	7.5	1,200	110	230	3.5	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	11/12/2014	CLS	7.3 [6]	1,000 [7]	93	240	2.8	<0.10	<0.02	20	<0.10	<0.10	20	<1	-	-	<0.50	
MW-1	2/26/2015	CLS	7.3	990	110	200	3.5	<0.10	<0.02	17	<0.10	<0.10	17	<1.8	-	-	<0.50	
MW-1	5/13/2015	CLS	7.4	1,100	100	200	3.5	<0.10	<0.02	17	<0.10	<0.10	17	<1.8	-	-	<0.50	
MW-1	8/4/2015	CLS	7.3	1,200	110	200	3.6	<0.10	<0.02	19	<0.10	<0.10	19	<1.8	-	-	<0.50	
MW-1	11/5/2015	CLS	7.3	1,200	100	220	3.2	<0.10	<0.02	20	<0.10	<0.10	20	<1.8	-	-	<0.50	
MW-1	2/4/2016	CLS	7.3	1,200	110	200	3.9	<0.10	<0.02	20	<0.40	<0.10	20	<1.8	-	-	<0.50	
MW-1	6/30/2016	CLS	7.2	1,100	110	180	3.9	<0.10	<0.02	16	<0.40	<0.10	16	<1.8	-	-	<0.50	
MW-1	8/25/2016	CLS	7.3	990	100	170	3.3	<0.10	<0.02	16	<0.40	<0.10	16	2.0	-	-	8.5	
MW-1	11/17/2016	CLS	7.4	1,100	110	180	3.7	<0.10	<0.02	17	<0.40	<0.10	17	<1.8	-	-	<0.50	

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH Std. Unit	TDS mg/L	Na (d) mg/L	Cl mg/L	B (d) mg/L	Fe (d) mg/L	Mn (d) mg/L	NO3-N mg/L	NO2-N mg/L	NH3-N mg/L	Total Nitrogen mg/L	Coliform Bacteria (total) (MPN/100 mL)	*(fecal)* (MPN/100 mL)	*(E. coli)* (MPN/100 mL)	TTHM [1] (µg/L)	Lab Notes -
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-2	6/15/2004	STL	7.6	884	147	78.4	5.9	<0.10	-	11.9	<0.05	<0.10	11.9	23.0	<1.1	<1.1	<0.5	
MW-2	3/29/2005	BSK	7.8	880	200	95	7.2	<0.05	<0.01	11	<0.15	<1	11	1.1	<1.1	-	<0.5	
MW-2	6/16/2005	BSK	7.6	920	150	100	5.5	<0.05	<0.01	11	<0.10	<1	11	>23.0	>23.0	-	<0.5	
MW-2	9/29/2005	BSK	7.8	960	170	110	5.8	<0.05	<0.01	12	<0.15	<1	12	5.1	<1.1	-	<0.5	
MW-2	12/6/2005	BSK	8.0	970	180	130	6.1	<0.05	<0.01	12	<0.10	<1	12	1.1	<1.1	<1.1	0.88	3
MW-2	2/16/2006	BSK	7.9	940	150	120	5.4	<0.05	<0.01	11	<0.10	<1	11	<1.1	<1.1	-	0.92	3
MW-2	5/16/2006	BSK	8.0	1,000	170	120	5.9	<0.05	<0.01	13	<0.15	4.0	13	<1.1	<1.1	-	0.63	3
MW-2	8/21/2006	BSK	7.9	1,000	150	140	5.2	<0.05	<0.01	14	<0.05	<0.10	-	<1.1	<1.1	-	<0.5	
MW-2	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	>23.0	<1.1	-	-	
MW-2	2/16/2007		No sample retrieved															
MW-2	5/7/2007	BSK	7.9	920	170	120	6.0	<0.05	<0.01	11	<0.05	<1.0	11	<1.1	<1.1	-	<0.5	
MW-2	8/29/2007	BSK	7.9	850	130	110	4.8	<0.05	<0.01	10	*	<1.0	10	<1.1	<1.1	-	<0.5	
MW-2	11/28/2007	BSK	7.8	890	150	100	5.3	<0.05	<0.01	11	*	<1.0	11	<1.1	<1.1	-	<0.5	
MW-2	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	1.1	<1.1	-	-	
MW-2	5/28/2008	CLS	7.0	910	170	97	5.7	<0.10	<0.01	9.1	<0.10	<0.10	9.2	<1.8	-	-	<0.50	
MW-2	8/27/2008	CLS	7.0	910	150	100	5.0	<0.10	<0.02	9.5	<0.10	0.11	9.6	<1.8	-	-	<0.50	
MW-2	11/25/2008	CLS	7.2	950	150	100	5.0	<0.10	<0.02	9.1	<0.10	<0.10	9.1	79	-	-	<0.50	
MW-2	2/19/2009	CLS	-	880 [5]	140	100	4.9	<0.10	<0.02	8.2	<0.10	<0.10	8.5	6.8	-	-	<0.50	
MW-2	5/21/2009	CLS	7.1	870	140	89	4.7	<0.10	<0.02	8.1	<0.10	<0.10	8.3	<1.8	-	-	<0.50	
MW-2	8/4/2009	CLS	7.0	860	120	91	4.2	<0.10	<0.02	8.0	<0.10	<0.10	8.0	<1.8	-	-	<0.50	
MW-2	11/5/2009	CLS	-	790 [5]	150	100	4.8	<0.10	<0.02	7.9	<0.10	<0.10	8.0	<1.8	-	-	<0.50	
MW-2	2/8/2010	CLS	7.2	960	170	110	5.6	0.10	<0.02	7.9	<0.10	<0.10	7.9	7.8	-	-	<0.50	
MW-2	5/7/2010	CLS	7.1	950	160	120	5.1	<0.10	<0.02	7.5	<0.10	<0.10	7.5	<1.8	-	-	<0.50	
MW-2	8/18/2010	CLS	7.1	1,000	180	130	5.7	0.22	<0.02	8.3	<0.10	0.11	8.5	<1.8	-	-	<0.50	
MW-2	11/2/2010	CLS	7.1	1,100	210	140	6.1	<0.10	<0.02	8.4	<0.10	<0.10	8.7	<1.8	-	-	<0.50	
MW-2	2/23/2011	CLS	7.1	1,200	160	160	5.7	<0.10	<0.02	8.5	<0.10	0.17	11	13	-	-	<0.50	
MW-2	5/5/2011	CLS	7.1	970	160	150	5.6	<0.10	<0.02	7.3	<0.10	<0.10	7.6	<1.8	-	-	<0.50	
MW-2	8/16/2011	CLS	7.1	1,100	190	170	6.6	0.17	<0.02	9.4	<0.10	<0.10	9.6	<1.8	-	-	<0.50	
MW-2	11/8/2011	CLS	7.0	1,200	180	170	6.3	<0.10	<0.02	8.8	<0.10	<0.10	8.8	<1.8	-	-	<0.50	
MW-2	2/27/2012	CLS	7.0	1,100	190	140	7.0	<0.10	<0.02	8.0	<0.10	<0.10	8.2	<1.8	-	-	<0.50	
MW-2	5/21/2012	CLS	7.1	990	180	130	7.3	<0.10	<0.02	8.2	<0.10	0.20	8.4	2.0	-	-	<0.50	
MW-2	8/9/2012	CLS	7.4	1,000	140	120	4.7	<0.10	<0.02	8.8	<0.10	0.11	9.0	<1.8	-	-	<0.50	
MW-2	11/19/2012	CLS	7.0	1,000	170	110	6.0	<0.10	<0.02	8.6	<0.10	<0.10	8.9	2.0	-	-	<0.50	
MW-2	2/21/2013	CLS	7.0	930	170	100	6.2	0.14	<0.02	8.7	<0.10	0.12	8.9	14.0	-	-	<0.50	
MW-2	5/15/2013	CLS	7.1	940	170	120	6.2	<0.10	<0.02	8.6	<0.10	<0.10	8.7	<1.8	-	-	<0.50	
MW-2	8/15/2013	CLS	7.0	990	160	120	5.2	<0.10	<0.02	8.3	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-2	11/7/2013	CLS	7.0	900	150	110	5.7	<0.10	<0.02	8.1	<0.10	0.17	8.4	<1.8	-	-	<0.50	
MW-2	2/25/2014	CLS	7.1	830	140	86	5.9	<0.10	<0.02	8.4	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-2	5/22/2014	CLS	7.0	830	140	73	5.6	<0.10	<0.02	8.1	<0.10	<0.10	8.1	<1.8	-	-	<0.50	
MW-2	8/27/2014		No sample retrieved															
MW-2	11/12/2014		No sample retrieved															
MW-2	2/26/2015	CLS	7.0	800	130	87	5.3	<0.10	<0.02	8.3	<0.10	<0.10	8.4	<1.8	-	-	<0.50	
MW-2	5/13/2015	CLS	7.2	830	130	86	5.3	<0.10	<0.02	9.2	<0.10	<0.10	9.3	<1.8	-	-	<0.50	
MW-2	8/4/2015	CLS	7.2	830	150	88	5.4	<0.10	<0.02	8.3	<0.10	<0.10	8.5	<1.8	-	-	<0.50	
MW-2	11/5/2015	CLS	7.1	920	130	84	4.5	<0.10	<0.02	8.5	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-2	2/4/2016	CLS	7.1	840	140	83	5.4	<0.10	<0.02	9.0	<0.40	<0.10	9.2	<1.8	-	-	<0.50	
MW-2	6/30/2016	CLS	7.0	770	130	83	5.1	<0.10	<0.02	9.2	<0.40	<0.10	9.2	<1.8	-	-	0.94	
MW-2	8/25/2016	CLS	7.1	820	150	88	4.8	<0.10	<0.02	9.7	<0.40	0.17	9.7	<1.8	-	-	9.9	
MW-2	11/17/2016	CLS	7.3	820	140	94	4.9	<0.10	<0.02	10.0	<0.40	0.12	11.0	<1.8	-	-	<0.50	

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	Coliform Bacteria *(fecal)*	Coliform Bacteria *(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-3	6/15/2004	STL	7.7	435	90.6	34.8	1.7	<0.10	-	1.7	<0.05	<0.10	1.7	23.0	<1.1	<1.1	<0.5	
MW-3	3/29/2005	BSK	7.8	390	96	38	1.5	<0.05	<0.01	2.9	<0.05	<1	2.9	>23.0	1.1	-	<0.5	
MW-3	6/16/2005	BSK	7.6	380	81	26	1.2	<0.05	<0.01	0.70	<0.10	<1	0.70	5.1	<1.1	-	1.6	3
MW-3	9/29/2005	BSK	7.8	620	120	57	2.0	<0.05	<0.01	1.8	<0.10	<1	1.8	>23.0	12.0	-	0.79	3
MW-3	12/6/2005	BSK	8.1	610	140	62	2.1	<0.05	<0.01	1.6	<0.10	<1	1.6	>23.0	3.6	3.6	5.4	3
MW-3	2/16/2006	BSK	7.9	380	74	31	1.1	0.10	<0.01	1.4	<0.05	<1	1.4	16.1	1.1	-	<0.5	
MW-3	5/16/2006	BSK	8.0	420	72	32	1.1	<0.05	<0.01	1.6	<0.05	<1	1.6	>23.0	5.1	-	2.6	3
MW-3	8/21/2006	BSK	8.0	480	110	49	1.7	0.15	<0.01	0.9	<0.05	<0.10	-	<1.1	<1.1	-	<0.5	
MW-3	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	>23.0	<1.1	-	-	
MW-3	2/16/2007								No sample retrieved									
MW-3	5/7/2007	BSK	7.9	550	160	65	2.0	<0.05	<0.01	0.54	<0.05	<1.0		2.2	<1.1	-	<0.5	
MW-3	8/29/2007	BSK	7.9	690	160	92	2.4	<0.05	<0.01	1.4	*	<1.0	1.4	>23.0	<1.1	-	<0.5	
MW-3	11/28/2007	BSK	7.8	770	170	94	2.4	0.27	0.45	2.3	*	<1.0	5.3	23.0	2.2	-	<0.5	
MW-3	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	12.0	<1.1	-	-	
MW-3	5/28/2008	CLS	7.0	530	120	56	1.7	7.1	0.17	2.1	<0.10	<0.10	9.4	280	-	-	<0.50	
MW-3	8/28/2008	CLS	7.0	640	160	69	2.0	<0.10	<0.02	2.0	<0.10	0.12	2.7	540	-	-	<0.50	
MW-3	11/25/2008	CLS	7.1	680	170	67	2.1	0.34	0.19	0.58	<0.10	0.17	1.6	240	-	-	<0.50	
MW-3	2/19/2009	CLS	-	580 [5]	130	75	1.8	0.69	0.14	1.3	<0.10	0.14	2.6	>1600	-	-	<0.50	
MW-3	5/21/2009	CLS	7.1	500	130	53	1.6	20	0.68	<0.50	<0.10	<0.10	1.2	79	-	-	<0.50	
MW-3	8/5/2009	CLS	7.0	690	130	73	1.8	0.31	0.04	0.55	<0.10	0.14	1.8	430	-	-	<0.50	
MW-3	11/5/2009	CLS	-	600 [5]	160	77	2.1	0.33	0.25	1.0	<0.10	0.64	2.8	>1600	-	-	<0.50	
MW-3	2/8/2010	CLS	7.0	530	130	52	1.7	0.55	0.04	0.69	<0.10	0.15	1.5	1600	-	-	<0.50	
MW-3	5/7/2010	CLS	6.9	580	140	78	1.6	<0.10	0.06	1.1	<0.10	0.26	2.6	23	-	-	<0.50	
MW-3	8/18/2010	CLS	7.1	670	200	87	2.4	2.7	0.50	1.2	<0.10	0.93	3.4	350	-	-	5.2	
MW-3	11/2/2010	CLS	7.0	870	200	120	2.8	0.28	0.46	5.3	<0.10	0.36	7.2	280	-	-	1.5	
MW-3	2/24/2011	CLS	6.7	590	140	73	1.8	<0.10	<0.02	1.6	<0.10	0.17	2.5	1600	-	-	<0.50	
MW-3	5/5/2011	CLS	6.9	650	130	95	1.9	0.11	0.03	4.0	<0.10	0.30	4.6	33	-	-	<0.50	
MW-3	8/16/2011	CLS	7.4	910	170	120	3.2	<0.10	<0.02	5.0	<0.10	<0.10	5.4	94	-	-	<0.50	
MW-3	11/8/2011	CLS	7.0	920	180	130	2.7	2.0	0.35	3.7	<0.10	0.56	4.9	63	-	-	<0.50	
MW-3	2/27/2012	CLS	6.9	740	180	110	2.4	5.5	0.33	2.0	<0.10	0.43	3.2	49	-	-	<0.50	
MW-3	5/21/2012	CLS	7.0	760	160	98	2.3	<0.10	0.03	2.1	<0.10	0.13	3	13	-	-	<0.50	
MW-3	8/9/2012	CLS	7.3	850	180	110	2.3	0.22	0.03	2.9	<0.10	0.37	3.5	<1.8	-	-	1.7	
MW-3	11/19/2012	CLS	7.0	900	180	120	2.3	0.59	0.18	4.1	<0.10	0.31	5.4	130	-	-	<0.50	
MW-3	2/21/2013	CLS	6.9	670	170	110	2.0	0.18	0.04	2.4	<0.10	0.35	3.2	4	-	-	<0.50	
MW-3	5/15/2013	CLS	7.0	710	160	110	2.1	<0.10	0.07	1.8	<0.10	<0.10	2.1	<1.8	-	-	0.93	
MW-3	8/16/2013	CLS	7.4	630 [5]	140	82	1.8	9.10	0.15	1.6	<0.10	0.16	3.7	<1.8	-	-	0.63	
MW-3	11/7/2013	CLS	6.9	620	150	81	1.4	<0.10	0.07	1.8	<0.10	0.12	2.5	<1.8	-	-	<0.50	
MW-3	2/25/2014	CLS	7.2	760	180	170	2.3	3.10	0.13	2.7	<0.10	0.32	3.3	>1600	-	-	<0.50	
MW-3	5/22/2014	CLS	7.0	860	170	170	2.3	0.96	0.03	1.9	<0.10	<0.10	2.3	<1.8	-	-	<0.50	
MW-3	8/27/2014	CLS	7.1	900	150	170	1.9	0.55	0.13	1.8	<0.10	0.20	2.4	<1.8	-	-	0.62	
MW-3	11/12/2014								No sample retrieved									
MW-3	2/26/2015	CLS	7.0	650	130	110	1.9	<0.10	<0.02	1.1	<0.10	<0.10	1.7	920	-	-	<0.50	
MW-3	5/13/2015	CLS	7.0	700	140	150	1.7	0.26	<0.02	2.4	<0.10	<0.10	2.6	<1.8	-	-	<0.50	
MW-3	8/4/2015	CLS	7.0	700	150	120	1.9	16.00	0.32	2.1	<0.10	0.30	2.7	<1.8	-	-	<0.50	
MW-3	11/5/2015								No sample retrieved									
MW-3	2/4/2016	CLS	7.1	980	210	230	2.1	<0.10	<0.02	1.7	<0.40	0.25	2.4	220	-	-	<0.50	
MW-3	6/30/2016	CLS	7.0	740	150	150	2.1	11.00	0.18	2.2	<0.40	0.16	3.1	9.0	-	-	3.1	
MW-3	8/25/2016								No sample retrieved									
MW-3	11/17/2016								No sample retrieved									

Table 4
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Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	Coliform Bacteria *(fecal)*	Coliform Bacteria *(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-4	6/15/2004	STL	8.0	647	53.3	138	1.0	0.87	-	8.4	<0.05	<0.10	8.4	9.2	<1.1	<1.1	<0.5	
MW-4	3/29/2005	BSK	8.1	570	69	170	1.2	<0.05	<0.01	9.7	<0.10	<1	9.7	23.0	<1.1	-	<0.5	
MW-4	6/16/2005	BSK	8.0	600	59	170	1.0	<0.05	<0.01	9.7	<0.10	<1	9.7	<1.1	<1.1	-	0.81	3
MW-4	9/29/2005								No sample retrieved									
MW-4	12/6/2005	BSK	8.2	570	55	180	1.1	<0.05	<0.01	9.9	<0.10	<1	9.9	<1.1	<1.1	<1.1	1.4	3
MW-4	2/16/2006	BSK	8.1	590	49	180	0.96	<0.05	<0.01	9.7	<0.10	<1	9.7	<1.1	<1.1	-	1.8	3
MW-4	5/16/2006	BSK	8.2	650	56	180	1.1	<0.05	<0.01	9.9	<0.10	<1	9.9	<1.1	<1.1	-	0.99	3
MW-4	8/21/2006	BSK	8.2	590	49	170	1.0	<0.05	<0.01	9.7	<0.05	<0.10	-	>23.0	9.2	-	<0.5	
MW-4	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-4	2/16/2007								No sample retrieved									
MW-4	5/7/2007	BSK	8.2	560	54	170	1.1	<0.05	<0.01	44 [4]	<0.05	<1.0	44 [4]	<1.1	<1.1	-	<0.5	
MW-4	8/29/2007	BSK	8.2	570	47	180	1.1	<0.05	<0.01	9.5	*	<1.0	9.5	6.9	<1.1	-	<0.5	
MW-4	11/28/2007	BSK	8.1	570	52	190	1.0	<0.05	<0.01	11	*	<1.0	11	<1.1	<1.1	-	<0.5	
MW-4	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-4	5/27/2008	CLS	7.7	550	51	180	1.0	<0.10	<0.02	9.4	<0.10	<0.10	9.5	<1.8	-	-	<0.50	
MW-4	8/28/2008	CLS	7.5	560	52	170	0.94	<0.10	<0.02	9.5	<0.10	<0.10	9.7	<1.8	-	-	<0.50	
MW-4	11/25/2008	CLS	7.8	620	51	190	0.98	<0.10	<0.02	10	<0.10	<0.10	10	<1.8	-	-	<0.50	
MW-4	2/19/2009	CLS	-	650 [5]	53	190	1.2	<0.10	<0.02	10	<0.10	<0.10	10	<1.8	-	-	<0.50	
MW-4	5/21/2009	CLS	7.9	620	50	170	0.98	<0.10	<0.02	9.3	<0.10	<0.10	9.3	<1.8	-	-	<0.50	
MW-4	8/5/2009	CLS	7.6	600	41	190	0.88	<0.10	<0.02	10	<0.10	<0.10	10	<1.8	-	-	<0.50	
MW-4	11/5/2009	CLS	7.8 [6]	710 [5]	53	190	1.0	<0.10	<0.02	10	<0.10	<0.10	10	<1.8	-	-	<0.50	
MW-4	2/8/2010	CLS	7.8	630	59	210	1.2	0.15	<0.02	11	<0.10	<0.10	11	<1.8	-	-	<0.50	
MW-4	5/7/2010	CLS	7.6	710	54	220	0.96	0.12	<0.02	12	<0.10	<0.10	12	<1.8	-	-	<0.50	
MW-4	8/18/2010	CLS	7.6	560	59	200	1.1	<0.10	<0.02	11	<0.10	<0.10	11	<1.8	-	-	<0.50	
MW-4	11/2/2010	CLS	7.8	650	66	210	1.2	<0.10	<0.02	11	<0.10	<0.10	11	<1.8	-	-	<0.50	
MW-4	2/23/2011	CLS	7.7	680	57	220	1.1	<0.10	<0.02	12	<0.10	<0.10	12	<1.8	-	-	<0.50	
MW-4	5/5/2011	CLS	7.8	810	53	230	0.98	<0.10	<0.02	12	<0.10	<0.10	12	<1.8	-	-	<0.50	
MW-4	8/16/2011	CLS	8.0	690	58	210	1.1	<0.10	<0.02	12	<0.10	<0.10	12	<1.8	-	-	<0.50	
MW-4	11/8/2011	CLS	7.7	630	57	210	1.0	<0.10	<0.02	11	<0.10	<0.10	11	<1.8	-	-	<0.50	
MW-4	2/27/2012	CLS	7.7	610	62	210	1.2	<0.10	<0.02	11	<0.10	<0.10	11	<1.8	-	-	<0.50	
MW-4	5/21/2012	CLS	7.7	650	58	210	1.2	<0.10	<0.02	12	<0.10	0.26	12	<1.8	-	-	<0.50	
MW-4	8/9/2012	CLS	8.0	600	63	220	1.1	<0.10	<0.02	12	<0.10	0.19	12	<1.8	-	-	<0.50	
MW-4	11/19/2012	CLS	7.6	610	55	210	1.0	<0.10	<0.02	12	<0.10	<0.10	12	<1.8	-	-	<0.50	
MW-4	2/21/2013	CLS	7.6	670	66	230	1.1	<0.10	<0.02	15	<0.10	<0.10	15	<1.8	-	-	<0.50	
MW-4	5/15/2013	CLS	7.6	680	57	240	1.1	0.21	<0.02	15	<0.10	<0.10	15	<1.8	-	-	<0.50	
MW-4	8/16/2013	CLS	7.7	870 [5]	58	250	1.1	<0.10	<0.02	14	<0.10	0.14	14	<1.8	-	-	<0.50	
MW-4	11/7/2013	CLS	7.6	670	56	250	1.0	<0.10	<0.02	14	<0.10	0.14	14	<1.8	-	-	<0.50	
MW-4	2/25/2014	CLS	7.7	830	70	250	1.0	<0.10	<0.02	14	<0.10	<0.10	14	<1.8	-	-	<0.50	
MW-4	5/22/2014	CLS	7.8	700	57	230	1.1	<0.10	<0.02	13	<0.10	<0.10	13	<1.8	-	-	<0.50	
MW-4	8/27/2014	CLS	7.8	840	58	250	1.0	<0.10	<0.02	14	<0.10	<0.10	14	<1.8	-	-	<0.50	
MW-4	11/12/2014	CLS	7.7 [6]	749 [7]	54	260	1.0	<0.10	<0.02	15	<0.10	<0.10	15	<1	-	-	<0.50	
MW-4	2/26/2015	CLS	7.7	720	52	260	1.0	<0.10	<0.02	16	<0.10	<0.10	16	<1.8	-	-	<0.50	
MW-4	5/13/2015	CLS	7.8	770	53	250	1.0	<0.10	<0.02	15	<0.10	<0.10	15	<1.8	-	-	<0.50	
MW-4	8/4/2015	CLS	7.8	750	56	240	1.0	<0.10	<0.02	16	<0.10	<0.10	16	<1.8	-	-	<0.50	
MW-4	11/5/2015	CLS	7.8	970	60	240	1.1	<0.10	<0.02	17	<0.10	<0.10	17	<1.8	-	-	<0.50	
MW-4	2/4/2016	CLS	7.8	760	49	240	0.82	<0.10	<0.02	17	<0.40	0.17	17	<1.8	-	-	<0.50	
MW-4	6/30/2016	CLS	7.6	690	50	240	0.95	<0.10	<0.02	16	<0.40	<0.10	16	<1.8	-	-	<0.50	
MW-4	8/25/2016	CLS	7.7	560	56	220	0.88	<0.10	<0.02	16	<0.40	0.14	16	<1.8	-	-	12	
MW-4	11/17/2016	CLS	7.7	660	50	220	0.85	<0.10	<0.02	17	<0.40	<0.10	17	<1.8	-	-	<0.50	

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	Coliform Bacteria *(fecal)*	Coliform Bacteria *(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-5R	6/15/2004	STL	8.1	461	91.7	42.3	2.1	<0.10	-	1.6	<0.05	<0.10	1.6	>23.0	<1.1	<1.1	<0.5	
MW-5R	3/29/2005	BSK	8.2	490	120	48	2.6	<0.05	<0.01	2.0	<0.10	<1	2.0	5.1	<1.1	-	<0.5	
MW-5R	6/16/2005	BSK	8.2	450	95	49	2.0	<0.05	<0.01	1.4	<0.10	<1	1.4	1.1	<1.1	-	4.0	3
MW-5R	9/29/2005	BSK	8.2	430	92	48	2.0	<0.05	<0.01	1.1	<0.10	<1	1.1	1.1	<1.1	-	<0.5	
MW-5R	12/6/2005	BSK	8.4	430	92	51	2.1	<0.05	<0.01	1.6	<0.10	<1	1.6	<1.1	<1.1	<1.1	1.8	3
MW-5R	2/16/2006	BSK	8.3	450	91	48	2.0	<0.05	<0.01	1.7	<0.10	<1	1.7	<1.1	<1.1	-	1.6	3
MW-5R	5/16/2006	BSK	8.3	360	92	47	2.1	<0.05	<0.01	1.1	<0.10	<1	1.1	<1.1	<1.1	-	1.6	3
MW-5R	8/21/2006	BSK	8.3	420	78	47	1.8	<0.05	<0.01	1.1	<0.05	<0.10	-	<1.1	<1.1	-	<0.5	
MW-5R	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	23.0	<1.1	-	-	
MW-5R	2/16/2007		No sample retrieved															
MW-5R	5/7/2007	BSK	8.3	420	89	49	2.0	<0.05	<0.01	1.1	<0.05	<1.0	1.1	<1.1	<1.1	-	<0.5	
MW-5R	8/29/2007	BSK	8.3	470	91	44	1.9	<0.05	<0.01	2.0	*	<1.0	2.0	<1.1	<1.1	-	1.14	
MW-5R	11/28/2007	BSK	8.2	460	95	45	2.1	<0.05	<0.01	2.1	*	<1.0	2.1	1.1	<1.1	-	<0.5	
MW-5R	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-5R	5/28/2008	CLS	7.7	450	97	44	2.1	<0.05	<0.01	1.4	<0.10	<0.10	1.5	<1.8	-	-	<0.50	
MW-5R	8/27/2008	CLS	7.9	450	91	44	2.0	<0.10	<0.02	1.5	<0.10	<0.10	1.7	<1.8	-	-	<0.50	
MW-5R	11/24/2008	CLS	7.9	470	93	46	2.0	<0.10	<0.02	1.8	<0.10	<0.10	1.9	<1.8	-	-	<0.50	
MW-5R	2/18/2009	CLS	-	470 [5]	92	48	2.1	<0.10	<0.02	1.8	<0.10	<0.10	2.0	<1.8	-	-	<0.50	
MW-5R	5/21/2009	CLS	7.9	470	86	44	1.9	<0.10	<0.02	1.6	<0.10	<0.10	1.6	<1.8	-	-	<0.50	
MW-5R	8/4/2009	CLS	7.9	480	78	44	1.9	<0.10	<0.02	1.7	<0.10	<0.10	1.7	<1.8	-	-	<0.50	
MW-5R	11/5/2009	CLS	7.7 [6]	450 [5]	98	44	2.1	<0.10	<0.02	1.7	<0.10	<0.10	1.8	<1.8	-	-	<0.50	
MW-5R	2/8/2010	CLS	7.9	490	110	45	2.4	0.12	<0.02	2.0	<0.10	<0.10	2.0	<1.8	-	-	<0.50	
MW-5R	5/7/2010	CLS	7.9	490	100	43	2.1	<0.10	<0.02	2.2	<0.10	<0.10	2.2	<1.8	-	-	<0.50	
MW-5R	8/18/2010	CLS	7.8	520	120	43	2.2	<0.10	<0.02	2.6	<0.10	<0.10	2.9	110	-	-	<0.50	
MW-5R	11/2/2010	CLS	8.0	560	120	42	2.2	<0.10	<0.02	2.8	<0.10	<0.10	2.8	<1.8	-	-	<0.50	
MW-5R	2/23/2011	CLS	7.9	520	100	42	2.2	<0.10	<0.02	3.0	<0.10	<0.10	3.4	<1.8	-	-	<0.50	
MW-5R	5/5/2011	CLS	7.9	380	92	45	1.9	<0.10	<0.02	2.9	<0.10	<0.10	2.9	2.0	-	-	<0.50	
MW-5R	8/16/2011	CLS	7.9	470	100	50	2.2	<0.10	<0.02	1.8	<0.10	<0.10	1.8	<1.8	-	-	<0.50	
MW-5R	11/8/2011	CLS	7.9	460	97	46	2.1	<0.10	<0.02	2.1	<0.10	<0.10	2.1	<1.8	-	-	<0.50	
MW-5R	2/27/2012	CLS	7.9	460	110	45	2.3	<0.10	<0.02	2.3	<0.10	<0.10	2.3	<1.8	-	-	<0.50	
MW-5R	5/21/2012	CLS	8.0	440	100	44	2.3	<0.10	<0.02	2.4	<0.10	<0.10	2.6	<1.8	-	-	<0.50	
MW-5R	8/9/2012	CLS	8.1	510	120	42	2.5	<0.10	<0.02	2.5	<0.10	<0.10	2.7	<1.8	-	-	<0.50	
MW-5R	11/19/2012	CLS	7.9	480	100	39	2.1	<0.10	<0.02	2.5	<0.10	<0.10	2.6	<1.8	-	-	<0.50	
MW-5R	2/21/2013	CLS	7.8	490	100	39	2.1	<0.10	<0.02	2.2	<0.10	<0.10	2.2	4.5	-	-	<0.50	
MW-5R	5/15/2013	CLS	7.7	460	100	48	2.2	<0.10	<0.02	2.5	<0.10	<0.10	2.6	<1.8	-	-	<0.50	
MW-5R	8/15/2013	CLS	7.9	480	110	45	2.0	<0.10	<0.02	2.7	<0.10	<0.10	3.1	<1.8	-	-	<0.50	
MW-5R	11/7/2013	CLS	7.8	480	110	45	2.1	<0.10	<0.02	2.7	<0.10	<0.10	3.0	<1.8	-	-	<0.50	
MW-5R	2/25/2014	CLS	8.0	520	110	41	2.3	<0.10	<0.02	2.7	<0.10	<0.10	2.8	<1.8	-	-	<0.50	
MW-5R	5/22/2014	CLS	8.0	490	96	38	2.0	<0.10	<0.02	2.5	<0.10	<0.10	2.5	<1.8	-	-	<0.50	
MW-5R	8/27/2014	CLS	8.0	530	98	40	2.0	<0.10	<0.02	2.7	<0.10	<0.10	2.7	<1.8	-	-	<0.50	
MW-5R	11/12/2014	CLS	7.9 [6]	534 [7]	99	35	2.1	<0.10	<0.02	3.2	<0.10	<0.10	3.2	<1	-	-	<0.50	
MW-5R	2/26/2015	CLS	7.9	520	100	39	2.2	<0.10	<0.02	3.4	<0.10	<0.10	3.5	<1.8	-	-	<0.50	
MW-5R	5/13/2015	CLS	8.0	520	98	43	2.1	<0.10	<0.02	3.3	<0.10	<0.10	3.3	<1.8	-	-	<0.50	
MW-5R	8/4/2015	CLS	7.9	530	110	40	2.1	<0.10	<0.02	3.3	<0.10	<0.10	3.6	<1.8	-	-	<0.50	
MW-5R	11/5/2015	CLS	7.9	560	95	38	1.9	<0.10	<0.02	3.1	<0.10	<0.10	3.2	<1.8	-	-	<0.50	
MW-5R	2/4/2016	CLS	8.0	550	99	38	2.1	0.18	<0.02	3.1	<0.40	<0.10	3.2	<1.8	-	-	<0.50	
MW-5R	6/30/2016	CLS	7.8	500	96	38	2.1	<0.10	<0.02	2.9	<0.40	<0.10	3.2	<1.8	-	-	0.68	
MW-5R	8/25/2016	CLS	7.9	490	110	40	2.0	<0.10	<0.02	2.9	<0.40	<0.10	2.9	<1.8	-	-	2.1	
MW-5R	11/17/2016	CLS	8.0	500	100	39	2.0	<0.10	<0.02	3.0	<0.40	<0.10	3.2	<1.8	-	-	<0.50	

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	Coliform Bacteria *(fecal)*	Coliform Bacteria *(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-6	6/15/2004	STL	7.6	865	143	87.7	5.6	<0.10	-	12.2	<0.05	<0.10	12.2	16.1	<1.1	<1.1	<0.5	
MW-6	3/29/2005	BSK	7.8	870	180	110	6.6	<0.05	<0.01	11	<0.15	<1	11	5.1	<1.1	-	<0.5	
MW-6	6/16/2005	BSK	7.7	910	150	130	5.4	<0.05	<0.01	12	<0.15	<1	12	<1.1	<1.1	-	<0.5	
MW-6	9/29/2005	BSK	7.8	870	150	100	5.2	<0.05	<0.01	11	<0.15	<1	11	<1.1	<1.1	-	<0.5	
MW-6	12/6/2005	BSK	8.1	900	160	110	5.6	<0.05	<0.01	12	<0.10	<1	12	<1.1	<1.1	<1.1	<0.5	
MW-6	2/16/2006	BSK	7.9	900	140	130	4.9	<0.05	<0.01	12	<0.10	<1	12	<1.1	<1.1	-	<0.5	
MW-6	5/16/2006	BSK	8.0	1,000	160	150	5.5	<0.05	<0.01	13.0	<0.10	<1	13	<1.1	<1.1	-	<0.5	
MW-6	8/21/2006	BSK	7.9	860	140	160	4.7	<0.05	<0.01	13.0	<0.05	<0.10	-	<1.1	<1.1	-	<0.5	
MW-6	11/20/2006	BSK	-	-	-	-	-	-	-	-	-	-	-	>23.0	<1.1	-	-	
MW-6	2/16/2007		No sample retrieved															
MW-6	5/7/2007	BSK	7.9	900	160	120	5.5	<0.05	<0.01	11.0	<0.05	<1.0	11	16.1	<1.1	-	<0.5	
MW-6	8/29/2007	BSK	7.8	880	130	100	4.5	<0.05	<0.01	9.7	*	<1.0	9.7	<1.1	<1.1	-	<0.5	
MW-6	11/28/2007	BSK	7.8	850	150	96	5.1	<0.05	<0.01	8.7	*	<1.0	8.7	<1.1	<1.1	-	<0.5	
MW-6	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-6	5/27/2008	CLS	7.1	900	150	130	4.8	<0.10	<0.02	9.0	<0.10	<0.10	9.1	<1.8	-	-	<0.50	
MW-6	8/27/2008	CLS	7.2	820	150	97	4.6	<0.10	<0.02	8.5	<0.10	0.12	8.6	<1.8	-	-	<0.50	
MW-6	11/24/2008	CLS	7.2	810	140	92	4.3	<0.10	<0.02	8.0	<0.10	<0.10	8.1	<1.8	-	-	<0.50	
MW-6	2/18/2009	CLS	-	820 [5]	140	100	4.3	<0.10	<0.02	7.7	<0.10	<0.10	8.0	<1.8	-	-	<0.50	
MW-6	5/21/2009	CLS	7.2	880	140	97	4.3	<0.10	<0.02	7.9	<0.10	<0.10	7.9	<1.8	-	-	<0.50	
MW-6	8/4/2009	CLS	7.1	860	120	95	3.9	<0.10	<0.02	7.8	<0.10	<0.10	7.8	<1.8	-	-	<0.50	
MW-6	11/5/2009	CLS	-	750 [5]	150	89	4.4	<0.10	<0.02	7.0	<0.10	<0.10	7.2	4.5	-	-	<0.50	
MW-6	2/8/2010	CLS	7.2	850	170	96	5.0	<0.10	<0.02	7.1	<0.10	<0.10	7.4	<1.8	-	-	<0.50	
MW-6	5/7/2010	CLS	7.1	910	160	120	4.6	<0.10	<0.02	7.5	<0.10	<0.10	7.7	<1.8	-	-	<0.50	
MW-6	8/18/2010	CLS	7.0	930	180	120	4.9	<0.10	<0.02	8.0	<0.10	<0.10	8.3	<1.8	-	-	<0.50	
MW-6	11/2/2010	CLS	7.2	930	180	110	4.8	<0.10	<0.02	7.7	<0.10	<0.10	7.9	1.8	-	-	<0.50	
MW-6	2/23/2011	CLS	7.2	920	160	120	4.8	<0.10	<0.02	7.5	<0.10	<0.10	8.0	2.0	-	-	<0.50	
MW-6	5/5/2011	CLS	7.1	990	150	200	4.1	<0.10	<0.02	4.3	<0.10	<0.10	4.5	<1.8	-	-	<0.50	
MW-6	8/16/2011	CLS	7.2	1,100	160	200	4.5	<0.10	<0.02	9.9	<0.10	<0.10	9.9	<1.8	-	-	<0.50	
MW-6	11/8/2011	CLS	7.0	990	160	140	4.6	<0.10	<0.02	8.0	<0.10	<0.10	8.2	<1.8	-	-	<0.50	
MW-6	2/27/2012	CLS	7.1	880	180	120	5.4	<0.10	<0.02	8.5	<0.10	0.13	8.5	<1.8	-	-	<0.50	
MW-6	5/21/2012	CLS	7.2	870	160	120	5.8	0.11	<0.02	8.6	<0.10	0.18	8.8	<1.8	-	-	<0.50	
MW-6	8/9/2012	CLS	7.5	970	130	110	3.9	<0.10	<0.02	8.5	<0.10	0.11	8.8	<1.8	-	-	<0.50	
MW-6	11/19/2012	CLS	7.1	950	170	100	5.1	<0.10	<0.02	8.1	<0.10	<0.10	8.3	<1.8	-	-	<0.50	
MW-6	2/21/2013	CLS	6.9	900	160	110	5.3	<0.10	<0.02	7.9	<0.10	0.11	7.9	<1.8	-	-	<0.50	
MW-6	5/15/2013	CLS	7.0	890	160	120	5.1	<0.10	<0.02	8.9	<0.10	0.18	9.0	<1.8	-	-	<0.50	
MW-6	8/15/2013	CLS	7.1	890	150	110	5.0	<0.10	<0.02	8.9	<0.10	<0.10	9.3	<1.8	-	-	<0.50	
MW-6	11/7/2013	CLS	7.0	850	180	110	3.6	<0.10	<0.02	8.8	<0.10	0.18	9.0	<1.8	-	-	<0.50	
MW-6	2/25/2014	CLS	7.2	910	140	100	5.4	<0.10	<0.02	8.4	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-6	5/22/2014	CLS	7.1	880	150	93	5.3	<0.10	<0.02	8.5	<0.10	<0.10	8.8	<1.8	-	-	<0.50	
MW-6	8/27/2014		No sample retrieved															
MW-6	11/12/2014		No sample retrieved															
MW-6	2/26/2015	CLS	7.1	850	140	94	5.2	1.0	0.04	8.3	<0.10	<0.10	8.4	<1.8	-	-	<0.50	
MW-6	5/13/2015	CLS	7.2	860	130	87	4.8	<0.10	<0.02	8.5	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-6	8/4/2015	CLS	7.3	810	140	90	4.6	<0.10	<0.02	7.7	<0.10	<0.10	7.9	<1.8	-	-	<0.50	
MW-6	11/5/2015	CLS	7.2	830	160	81	5.0	<0.10	<0.02	8.5	<0.10	<0.10	8.6	<1.8	-	-	<0.50	
MW-6	2/4/2016	CLS	7.2	810	140	82	4.7	<0.10	<0.02	8.9	<0.40	<0.10	9.0	<1.8	-	-	<0.50	
MW-6	6/30/2016	CLS	7.1	780	120	87	4.3	<0.10	<0.02	8.5	<0.40	<0.10	8.5	<1.8	-	-	0.80	
MW-6	8/25/2016	CLS	7.1	730	150	86	4.3	<0.10	<0.02	8.5	<0.40	<0.10	8.5	<1.8	-	-	3.3	
MW-6	11/1//2016	CLS	7.3	760	140	86	4.2	<0.10	<0.02	9.0	<0.40	0.11	9.2	<1.8	-	-	<0.50	

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	Coliform Bacteria *(fecal)*	Coliform Bacteria *(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-
MW-7	6/15/2004	STL	7.6	615	61.7	113	1.8	0.12	-	11.7	<0.05	<0.10	12.4	1.1	<1.1	<1.1	<0.5	
MW-7	3/29/2005	BSK	7.9	540	79	88	2.2	<0.05	<0.01	7.2	<0.10	<1	7.2	1.1	<1.1	-	<0.5	
MW-7	6/16/2005	BSK	8.1	540	69	85	1.8	<0.05	<0.01	7.9	<0.10	<1	7.9	<1.1	<1.1	-	0.74	3
MW-7	9/29/2005								No sample retrieved.									
MW-7	12/6/2005								No sample retrieved.									
MW-7	2/16/2006	BSK	8.0	590	69	100	1.9	<0.05	<0.01	8.8	0.27	<1	9.1	<1.1	<1.1	-	1.7	3
MW-7	5/16/2006	BSK	8.0	610	74	92	2.0	<0.05	<0.01	8.6	<0.10	<1	8.6	<1.1	<1.1	-	<0.5	
MW-7	8/21/2006	BSK	8.0	530	60	81	1.6	<0.05	<0.01	6.8	<0.05	<0.10		<1.1	<1.1		<0.5	
MW-7	11/20/2006								No sample retrieved.									
MW-7	2/16/2007								No sample retrieved.									
MW-7	5/7/2007								No sample retrieved.									
MW-7	8/29/2007								No sample retrieved.									
MW-7	11/28/2007								No sample retrieved.									
MW-7	2/21/2008	BSK	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	-	-	
MW-7	5/27/2008								No sample retrieved.									
MW-7	8/27/2008								No sample retrieved.									
MW-7	11/24/2008								No sample retrieved.									
MW-7	2/18/2009								No sample retrieved.									
MW-7	5/21/2009								No sample retrieved.									
MW-7	8/4/2009								No sample retrieved									
MW-7	11/5/2009								No Sample retrieved									
MW-7	2/8/2010								No Sample retrieved									
MW-7	5/7/2010								No Sample retrieved									
MW-7	8/18/2010								No Sample retrieved									
MW-7	11/2/2010								No Sample retrieved									
MW-7	2/23/2011								No Sample retrieved									
MW-7	5/6/2011	CLS	7.1	660	87	100	1.8	<0.10	<0.02	7.2	<0.10	<0.10	7.4	<1.8	-	-	<0.50	
MW-7	8/16/2011	CLS	7.4	680	95	100	1.9	<0.10	<0.02	6.6	<0.10	<0.10	6.9	<1.8	-	-	<0.50	
MW-7	11/8/2011								No Sample retrieved									
MW-7	2/27/2012								No Sample retrieved									
MW-7	5/21/2012								No Sample retrieved									
MW-7	8/9/2012								No Sample retrieved									
MW-7	11/19/2012								No Sample retrieved									
MW-7	2/21/2013								No Sample retrieved									
MW-7	5/15/2013								No Sample retrieved									
MW-7	8/15/2013								No Sample retrieved									
MW-7	11/7/2013								No Sample retrieved									
MW-7	2/25/2014								No Sample retrieved									
MW-7	5/22/2014								No Sample retrieved									
MW-7	8/27/2014								No sample retrieved									
MW-7	11/12/2014								No sample retrieved									
MW-7	2/26/2015								No sample retrieved									
MW-7	5/13/2015								No sample retrieved									
MW-7	8/4/2015								No sample retrieved									
MW-7	11/5/2015								No sample retrieved									
MW-7	2/4/2016								No sample retrieved									
MW-7	6/30/2016								No sample retrieved									
MW-7	8/25/2016								No sample retrieved									
MW-7	11/17/2016								No sample retrieved									

Table 4
Groundwater Quality Monitoring Results
Wild Wings Water Recycling Facility, Yolo County, CA

Sampling Point	Sample Date	Lab	pH	TDS	Na (d)	Cl	B (d)	Fe (d)	Mn (d)	NO3-N	NO2-N	NH3-N	Total Nitrogen	Coliform Bacteria (total)	*(fecal)*	*(E. coli)*	TTHM [1]	Lab Notes
			Std. Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(MPN/100 mL)			(µg/L)	-
Recommended Interim Limitation [2]	**WQ Objective**		6.5-8.5	450	69	106	0.6	0.3	0.05	10	1	0.5	10	nd	nd	nd	100	-
	Background		7.6	1100	155	138	-	<0.1	0.64	18	-	0.5	-	<2.0	<2.0	-	-	-

STL = Severn Trent Laboratory of West Sacramento, CA; BSK = BSK Laboratories of Fresno, CA; TDS = total dissolved solids; NO3-N = nitrate as nitrogen; NO2-N = nitrite as nitrogen; NH3-N = ammonia as nitrogen; (d) = dissolved fraction; TTHM = total trihalomethanes; nd = nondetect

italic font style = Analysis for magnesium, total Kjeldahl nitrogen, fecal coliform and E. coli organisms is not required by RWQCB Order R5-2002-0077.

[1] = Total trihalomethanes consist of the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

[2] = See WDRs Item E. 1. Ground Water Limitations; WQ Objective = a variety of applicable regional water quality goals compiled by RWQCB staff; Background = Tolerance Limit (calculated from August 2001 borings and monitoring wells MW-1 and MW-5R)

3 (in Lab Notes column) = Chloroform detection; this compound was also detected in the laboratory method blank; this compound is a common laboratory contaminant.

[4] = Nitrate (as nitrogen) laboratory result for 5/7/2007 at MW-4 is reported as shown on the laboratory report although the concentration is about four times higher than historic results. It is probable that the concentration was reported for nitrate (as nitrate). Due to the age of the sample, laboratory validation of the result could not be performed.

[5] = Sample was extracted/analyzed outside the EPA recommended holding time

[6] = Measured in the field

[7] = Calculated using field Electrical Conductivity measurment

* = Nitrate as nitrogen and Nitrite as Nitrogen results were combined as one

- = Sample not collected or not measured for this constituent

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 12, 2016

CLS Work Order #: CZK0744
COC #: 174820

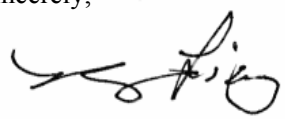
Paul Bishop
National O&M, Inc
P.O. Box 21187
Roanoke, VA 24018

Project Name: Wild Wings Recycling Facility

Enclosed are the results of analyses for samples received by the laboratory on 11/17/16 15:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

National O&M, Inc
P.O. Box 21187
Roanoke, VA 24018

Project: Wild Wings Recycling Facility
Project Number: [none]
Project Manager: Paul Bishop

CLS Work Order #: CZK0744
COC #: 174820

CLS - Labs

CHAIN OF CUSTODY CLS ID No.: CZK0744 LOG NO. 174820

REPORT TO:
NAME AND ADDRESS: National O+M Inc.
P.O. Box 21187
Roanoke, VA
PROJECT MANAGER: Justin Crose PHONE#: 916-624-4582
PROJECT NAME: Wild Wings Water Recycling Facility
SAMPLED BY: Dennis Ho
JOB DESCRIPTION: Quarterly Sampling 4th Quarter 2016
SITE LOCATION: 18530 Wildwings Dr Woodland CA

CLIENT JOB NUMBER

DESTINATION LABORATORY
☐ CLS (916) 638-7301 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED: Total Coliform Organisms; TTHMs; pH, TDS, Total Nitrogen; Nitrate as N; Nitrite as N; Cl; B, Fe, Mn, Na; Ammonia as N

GEOTRACKER:
EDF REPORT ☐ YES ☐ NO
GLOBAL ID: _____

COMPOSITE:

FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY | 2 DAY | 3 DAY | 5 DAY

SPECIAL INSTRUCTIONS
OR
ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	Total Coliform Organisms	TTHMs	pH, TDS, Total Nitrogen	Nitrate as N; Nitrite as N; Cl	B, Fe, Mn, Na	Ammonia as N	5 DAY
11/17/16	9:55	MW-1	H_2O	7			✓	✓	✓	✓	✓	✓	✓
11/17/16	10:45	MW-5R	H_2O	7			✓	✓	✓	✓	✓	✓	✓
11/17/16	11:35	MW-6	H_2O	7			✓	✓	✓	✓	✓	✓	✓
11/17/16	12:50	MW-2	H_2O	7			✓	✓	✓	✓	✓	✓	✓
11/17/16	13:30	MW-4	H_2O	7			✓	✓	✓	✓	✓	✓	✓
11/17/16	13:50	EB-1	H_2O	3				✓					✓
11/17/16	13:50	Trip Blanks						✓					✓

INVOICE TO:
P.O. #
QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	Dennis Ho / GEI Consultants	11/17/16 15:25		

REC'D AT LAB BY: DATE / TIME: 11.17.16. 1525 CONDITIONS / COMMENTS: 0.8.

SHIPPED BY: ☐ FED X ☐ UPS ☐ OTHER _____ AIR BILL #

PROGRESSIVE PRINT SOLUTIONS (916) 852-6355

National O&M, Inc	Project: Wild Wings Recycling Facility	
P.O. Box 21187	Project Number: [none]	**CLS Work Order #: CZK0744**
Roanoke, VA 24018	Project Manager: Paul Bishop	COC #: 174820

CLS LABS
SAMPLE RECEIVING EXCEPTION REPORTS

CLS Labs Job # CZK0744-PINK

Problem discovered by: GG - **Date:** 11/17/16.

Nature of problem

Sulfite **Chlorine, Total** **Chlorine, Residual** **Ph** **Dissolved O2**

(Circle analysis above) **Received out of HOLD time.**

Client contacted? Yes _____ **No** _____ **Spoke With:** _____

By whom: _____ **Date:** ___/___/___ **Time:** _____ **HRS**

Client instructions:

Resolution of problem:

Logged in regardless and will be ran for analysis requested.

H:\Will\Orellana\SampleException.Doc

National O&M, Inc
P.O. Box 21187
Roanoke, VA 24018

Project: Wild Wings Recycling Facility
Project Number: [none]
Project Manager: Paul Bishop

CLS Work Order #: CZK0744
COC #: 174820

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 1 (CZK0744-01) Water Sampled: 11/17/16 09:55 Received: 11/17/16 15:25									
Ammonia as N	ND	0.10	mg/L	1	CZ08568	11/18/16	11/18/16	SM4500-NH3C	
Chloride	**180**	5.0	"	10	CZ08538	11/18/16	11/18/16	EPA 300.0	
Nitrate as N	**17**	4.0	"	"	"	"	"	"	
Nitrate/Nitrite as N	**17**	4.0	"	"	"	"	"	"	
Nitrite as N	ND	0.40	"	1	"	"	11/18/16	"	
pH	**7.41**	0.01	pH Units	"	CZ08539	11/18/16	11/18/16	SM4500-H B	HT-F
Total Dissolved Solids	**1100**	10	mg/L	"	CZ08600	11/21/16	11/22/16	SM2540C	
Total Kjeldahl Nitrogen	**0.26**	0.20	"	"	CZ08623	11/22/16	11/22/16	SM4500-NH3C	
Total Nitrogen	**17**	0.40	"	"	CZ08624	11/22/16	11/22/16	EPA 351.3/300	
MW - 5R (CZK0744-02) Water Sampled: 11/17/16 10:45 Received: 11/17/16 15:25									
Ammonia as N	ND	0.10	mg/L	1	CZ08568	11/18/16	11/18/16	SM4500-NH3C	
Chloride	**39**	5.0	"	10	CZ08538	11/18/16	11/18/16	EPA 300.0	
Nitrate as N	**3.0**	0.40	"	1	"	"	11/18/16	"	
Nitrate/Nitrite as N	**3.0**	0.40	"	"	"	"	"	"	
Nitrite as N	ND	0.40	"	"	"	"	"	"	
pH	**7.97**	0.01	pH Units	"	CZ08539	11/18/16	11/18/16	SM4500-H B	HT-F
Total Dissolved Solids	**500**	10	mg/L	"	CZ08600	11/21/16	11/22/16	SM2540C	
Total Kjeldahl Nitrogen	ND	0.20	"	"	CZ08623	11/22/16	11/22/16	SM4500-NH3C	
Total Nitrogen	**3.2**	0.40	"	"	CZ08624	11/22/16	11/22/16	EPA 351.3/300	
MW - 6 (CZK0744-03) Water Sampled: 11/17/16 11:35 Received: 11/17/16 15:25									
Ammonia as N	**0.11**	0.10	mg/L	1	CZ08568	11/18/16	11/18/16	SM4500-NH3C	
Chloride	**86**	5.0	"	10	CZ08538	11/18/16	11/18/16	EPA 300.0	
Nitrate as N	**9.0**	0.40	"	1	"	"	11/18/16	"	
Nitrate/Nitrite as N	**9.0**	0.40	"	"	"	"	"	"	
Nitrite as N	ND	0.40	"	"	"	"	"	"	
pH	**7.27**	0.01	pH Units	"	CZ08539	11/18/16	11/18/16	SM4500-H B	HT-F
Total Dissolved Solids	**760**	10	mg/L	"	CZ08600	11/21/16	11/22/16	SM2540C	
Total Kjeldahl Nitrogen	ND	0.20	"	"	CZ08623	11/22/16	11/22/16	SM4500-NH3C	
Total Nitrogen	**9.2**	0.40	"	"	CZ08624	11/22/16	11/22/16	EPA 351.3/300	

National O&M, Inc
P.O. Box 21187
Roanoke, VA 24018

Project: Wild Wings Recycling Facility
Project Number: [none]
Project Manager: Paul Bishop

CLS Work Order #: CZK0744
COC #: 174820

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 2 (CZK0744-04) Water Sampled: 11/17/16 12:50 Received: 11/17/16 15:25									
Ammonia as N	**0.12**	0.10	mg/L	1	CZ08568	11/18/16	11/18/16	SM4500-NH3C	
Chloride	**94**	5.0	"	10	CZ08538	11/18/16	11/18/16	EPA 300.0	
Nitrate as N	**10**	4.0	"	"	"	"	"	"	
Nitrate/Nitrite as N	**11**	0.40	"	1	"	"	11/18/16	"	
Nitrite as N	ND	0.40	"	"	"	"	"	"	
pH	**7.34**	0.01	pH Units	"	CZ08539	11/18/16	11/18/16	SM4500-H B	HT-F
Total Dissolved Solids	**820**	10	mg/L	"	CZ08600	11/21/16	11/22/16	SM2540C	
Total Kjeldahl Nitrogen	ND	0.20	"	"	CZ08623	11/22/16	11/22/16	SM4500-NH3C	
Total Nitrogen	**11**	0.40	"	"	CZ08624	11/22/16	11/22/16	EPA 351.3/300	
MW - 4 (CZK0744-05) Water Sampled: 11/17/16 13:30 Received: 11/17/16 15:25									
Ammonia as N	ND	0.10	mg/L	1	CZ08568	11/18/16	11/18/16	SM4500-NH3C	
Chloride	**220**	5.0	"	10	CZ08538	11/18/16	11/18/16	EPA 300.0	
Nitrate as N	**17**	4.0	"	"	"	"	"	"	
Nitrate/Nitrite as N	**17**	4.0	"	"	"	"	"	"	
Nitrite as N	ND	0.40	"	1	"	"	11/18/16	"	
pH	**7.74**	0.01	pH Units	"	CZ08539	11/18/16	11/18/16	SM4500-H B	HT-F
Total Dissolved Solids	**660**	10	mg/L	"	CZ08600	11/21/16	11/22/16	SM2540C	
Total Kjeldahl Nitrogen	ND	0.20	"	"	CZ08623	11/22/16	11/22/16	SM4500-NH3C	
Total Nitrogen	**17**	0.40	"	"	CZ08624	11/22/16	11/22/16	EPA 351.3/300	

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Project: Wild Wings Recycling Facility
Project Number: [none]
Project Manager: Paul Bishop

CLS Work Order #: CZK0744
COC #: 174820

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 1 (CZK0744-01) Water Sampled: 11/17/16 09:55 Received: 11/17/16 15:25									
Boron	**3700**	50	µg/L	1	CZ08544	11/18/16	11/18/16	EPA 200.7	
Iron	ND	100	"	"	"	"	"	"	
Manganese	ND	20	"	"	"	"	"	"	
Sodium	**110000**	1000	"	"	"	"	"	"	
MW - 5R (CZK0744-02) Water Sampled: 11/17/16 10:45 Received: 11/17/16 15:25									
Boron	**2000**	50	µg/L	1	CZ08544	11/18/16	11/18/16	EPA 200.7	
Iron	ND	100	"	"	"	"	"	"	
Manganese	ND	20	"	"	"	"	"	"	
Sodium	**100000**	1000	"	"	"	"	"	"	
MW - 6 (CZK0744-03) Water Sampled: 11/17/16 11:35 Received: 11/17/16 15:25									
Boron	**4200**	50	µg/L	1	CZ08544	11/18/16	11/18/16	EPA 200.7	
Iron	ND	100	"	"	"	"	"	"	
Manganese	ND	20	"	"	"	"	"	"	
Sodium	**140000**	1000	"	"	"	"	"	"	
MW - 2 (CZK0744-04) Water Sampled: 11/17/16 12:50 Received: 11/17/16 15:25									
Boron	**4900**	50	µg/L	1	CZ08544	11/18/16	11/18/16	EPA 200.7	
Iron	ND	100	"	"	"	"	"	"	
Manganese	ND	20	"	"	"	"	"	"	
Sodium	**140000**	1000	"	"	"	"	"	"	
MW - 4 (CZK0744-05) Water Sampled: 11/17/16 13:30 Received: 11/17/16 15:25									
Boron	**850**	50	µg/L	1	CZ08544	11/18/16	11/18/16	EPA 200.7	
Iron	ND	100	"	"	"	"	"	"	
Manganese	ND	20	"	"	"	"	"	"	
Sodium	**50000**	1000	"	"	"	"	"	"	

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COC #: 174820

Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 1 (CZK0744-01) Water Sampled: 11/17/16 09:55 Received: 11/17/16 15:25									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CZ08532	11/17/16	11/19/16	SM 9221	
MW - 5R (CZK0744-02) Water Sampled: 11/17/16 10:45 Received: 11/17/16 15:25									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CZ08532	11/17/16	11/19/16	SM 9221	
MW - 6 (CZK0744-03) Water Sampled: 11/17/16 11:35 Received: 11/17/16 15:25									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CZ08532	11/17/16	11/19/16	SM 9221	
MW - 2 (CZK0744-04) Water Sampled: 11/17/16 12:50 Received: 11/17/16 15:25									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CZ08532	11/17/16	11/21/16	SM 9221	
MW - 4 (CZK0744-05) Water Sampled: 11/17/16 13:30 Received: 11/17/16 15:25									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CZ08532	11/17/16	11/19/16	SM 9221	

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CLS Work Order #: CZK0744
COC #: 174820

Trihalomethanes by EPA Method 524.2

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 1 (CZK0744-01) Water Sampled: 11/17/16 09:55 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*85 %*		*70-130*		*"*	*"*	*"*	*"*	
MW - 5R (CZK0744-02) Water Sampled: 11/17/16 10:45 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*85 %*		*70-130*		*"*	*"*	*"*	*"*	
MW - 6 (CZK0744-03) Water Sampled: 11/17/16 11:35 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*122 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*85 %*		*70-130*		*"*	*"*	*"*	*"*	

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COC #: 174820

Trihalomethanes by EPA Method 524.2

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW - 2 (CZK0744-04) Water Sampled: 11/17/16 12:50 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*123 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*84 %*		*70-130*		*"*	*"*	*"*	*"*	
MW - 4 (CZK0744-05) Water Sampled: 11/17/16 13:30 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*85 %*		*70-130*		*"*	*"*	*"*	*"*	
EB-1 (CZK0744-06) Water Sampled: 11/17/16 13:50 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	**1.1**	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	**1.1**	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*120 %*		*70-130*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*86 %*		*70-130*		*"*	*"*	*"*	*"*	

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COC #: 174820

Trihalomethanes by EPA Method 524.2

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Trip Blanks (CZK0744-07) Water Sampled: 11/17/16 13:50 Received: 11/17/16 15:25									
Bromodichloromethane	ND	0.50	µg/L	1	CZ08583	11/18/16	11/18/16	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*		*70-130*		*"*	*"*	*"*	*"*
Surrogate: Toluene-d8		*84 %*		*70-130*		*"*	*"*	*"*	*"*

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COC #: 174820

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CZ08538 - General Preparation										
Blank (CZ08538-BLK1)				Prepared & Analyzed: 11/18/16						
Chloride	ND	0.50	mg/L							
Nitrite as N	ND	0.40	"							
Nitrate/Nitrite as N	ND	0.40	"							
Nitrate as N	ND	0.40	"							
LCS (CZ08538-BS1)				Prepared & Analyzed: 11/18/16						
Chloride	4.90	0.50	mg/L	5.00		98	80-120			
Nitrate/Nitrite as N	1.10	0.40	"	1.06		104	80-120			
Nitrite as N	0.630	0.40	"	0.610		103	80-120			
Nitrate as N	0.469	0.40	"	0.451		104	80-120			
LCS Dup (CZ08538-BSD1)				Prepared & Analyzed: 11/18/16						
Chloride	4.89	0.50	mg/L	5.00		98	80-120	0.3	20	
Nitrate as N	0.481	0.40	"	0.451		107	80-120	3	20	
Nitrate/Nitrite as N	1.11	0.40	"	1.06		105	80-120	1	20	
Nitrite as N	0.630	0.40	"	0.610		103	80-120	0.1	20	
Matrix Spike (CZ08538-MS1)	**Source: CZK0735-01**			Prepared & Analyzed: 11/18/16						
Chloride	26.6	0.50	mg/L	5.00	28.2	NR	80-120			QM-4X
Nitrite as N	0.681	0.40	"	0.610	ND	112	80-120			
Nitrate as N	5.88	0.40	"	0.451	3.61	504	80-120			QM-4X
Nitrate/Nitrite as N	6.56	0.40	"	1.06	3.61	279	80-120			QM-4X
Matrix Spike Dup (CZ08538-MSD1)	**Source: CZK0735-01**			Prepared & Analyzed: 11/18/16						
Chloride	26.7	0.50	mg/L	5.00	28.2	NR	80-120	0.3	20	QM-4X
Nitrate as N	5.89	0.40	"	0.451	3.61	505	80-120	0.09	20	QM-4X
Nitrate/Nitrite as N	6.57	0.40	"	1.06	3.61	279	80-120	0.1	20	QM-4X
Nitrite as N	0.683	0.40	"	0.610	ND	112	80-120	0.2	20	

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COC #: 174820

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CZ08568 - General Preparation										
Blank (CZ08568-BLK1)				Prepared & Analyzed: 11/18/16						
Ammonia as N	ND	0.10	mg/L							
LCS (CZ08568-BS1)				Prepared & Analyzed: 11/18/16						
Ammonia as N	0.482	0.10	mg/L	0.500		96	80-120			
LCS Dup (CZ08568-BSD1)				Prepared & Analyzed: 11/18/16						
Ammonia as N	0.469	0.10	mg/L	0.500		94	80-120	3	25	
Matrix Spike (CZ08568-MS1)		**Source: CZK0739-02**		Prepared & Analyzed: 11/18/16						
Ammonia as N	0.641	0.10	mg/L	0.500	0.251	78	75-125			
Matrix Spike Dup (CZ08568-MSD1)		**Source: CZK0739-02**		Prepared & Analyzed: 11/18/16						
Ammonia as N	0.645	0.10	mg/L	0.500	0.251	79	75-125	0.6	25	
Batch CZ08600 - General Preparation										
Blank (CZ08600-BLK1)				Prepared: 11/21/16 Analyzed: 11/22/16						
Total Dissolved Solids	ND	10	mg/L							
Duplicate (CZ08600-DUP1)		**Source: CZK0789-01**		Prepared: 11/21/16 Analyzed: 11/22/16						
Total Dissolved Solids	312	10	mg/L		319			2	20	
Batch CZ08623 - General Preparation										
Blank (CZ08623-BLK1)				Prepared & Analyzed: 11/22/16						
Total Kjeldahl Nitrogen	ND	0.20	mg/L							

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COC #: 174820

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CZ08623 - General Preparation										
LCS (CZ08623-BS1)				Prepared & Analyzed: 11/22/16						
Total Kjeldahl Nitrogen	0.852	0.20	mg/L	1.00		85	80-120			
LCS Dup (CZ08623-BSD1)				Prepared & Analyzed: 11/22/16						
Total Kjeldahl Nitrogen	0.865	0.20	mg/L	1.00		87	80-120	2	20	
Matrix Spike (CZ08623-MS1)		**Source: CZK0742-01**		Prepared & Analyzed: 11/22/16						
Total Kjeldahl Nitrogen	1.03	0.20	mg/L	1.00	0.235	80	75-125			
Matrix Spike Dup (CZ08623-MSD1)		**Source: CZK0742-01**		Prepared & Analyzed: 11/22/16						
Total Kjeldahl Nitrogen	1.02	0.20	mg/L	1.00	0.235	78	75-125	2	25	

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COC #: 174820

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CZ08544 - EPA 3010A										
Blank (CZ08544-BLK1)				Prepared & Analyzed: 11/18/16						
Boron	ND	50	µg/L							
Iron	ND	100	"							
Manganese	ND	20	"							
Sodium	ND	1000	"							
LCS (CZ08544-BS1)				Prepared & Analyzed: 11/18/16						
Boron	986	50	µg/L	1000		99	85-115			
Iron	968	100	"	1000		97	85-115			
Manganese	1020	20	"	1000		102	85-115			
Sodium	4970	1000	"	5000		99	85-115			
Matrix Spike (CZ08544-MS1)		**Source: CZK0736-01**		Prepared & Analyzed: 11/18/16						
Boron	1650	50	µg/L	1000	949	70	70-130			
Iron	1060	100	"	1000	55.9	101	70-130			
Manganese	1390	20	"	1000	640	75	70-130			
Sodium	296000	1000	"	5000	356000	NR	70-130			QM-4X
Matrix Spike (CZ08544-MS2)		**Source: CZK0744-04**		Prepared & Analyzed: 11/18/16						
Boron	5880	50	µg/L	1000	4880	100	70-130			
Iron	988	100	"	1000	10.2	98	70-130			
Manganese	916	20	"	1000	0.983	91	70-130			
Sodium	148000	1000	"	5000	142000	123	70-130			
Matrix Spike Dup (CZ08544-MSD1)		**Source: CZK0736-01**		Prepared & Analyzed: 11/18/16						
Boron	1690	50	µg/L	1000	949	74	70-130	2	25	
Iron	1090	100	"	1000	55.9	104	70-130	3	25	
Manganese	1420	20	"	1000	640	78	70-130	2	25	
Sodium	309000	1000	"	5000	356000	NR	70-130	5	25	QM-4X

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Trihalomethanes by EPA Method 524.2 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CZ08583 - EPA 5030 Water MS										
Blank (CZ08583-BLK1)				Prepared & Analyzed: 11/18/16						
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	0.50	"							
Chloroform	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
Total Trihalomethanes (THM)	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*11.6*		*"*	*10.0*		*116*	*70-130*			
Surrogate: Toluene-d8	*8.35*		*"*	*10.0*		*84*	*70-130*			
LCS (CZ08583-BS1)				Prepared & Analyzed: 11/18/16						
Bromodichloromethane	17.6	0.50	µg/L	20.0		88	70-130			
Bromoform	17.3	0.50	"	20.0		86	70-130			
Chloroform	14.8	0.50	"	20.0		74	70-130			
Dibromochloromethane	17.9	0.50	"	20.0		89	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.09*		*"*	*10.0*		*91*	*70-130*			
Surrogate: Toluene-d8	*10.6*		*"*	*10.0*		*106*	*70-130*			
LCS Dup (CZ08583-BSD1)				Prepared & Analyzed: 11/18/16						
Bromodichloromethane	18.9	0.50	µg/L	20.0		94	70-130	7	30	
Bromoform	19.6	0.50	"	20.0		98	70-130	13	30	
Chloroform	15.9	0.50	"	20.0		79	70-130	7	30	
Dibromochloromethane	19.3	0.50	"	20.0		96	70-130	7	30	
Surrogate: 1,2-Dichloroethane-d4	*9.10*		*"*	*10.0*		*91*	*70-130*			
Surrogate: Toluene-d8	*10.3*		*"*	*10.0*		*103*	*70-130*			

National O&M, Inc	Project: Wild Wings Recycling Facility	
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Roanoke, VA 24018	Project Manager: Paul Bishop	COC #: 174820

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
HT-F	This is a field test method and it is performed in the lab outside holding time.
BT-4	<1.8
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ATTACHMENT 3

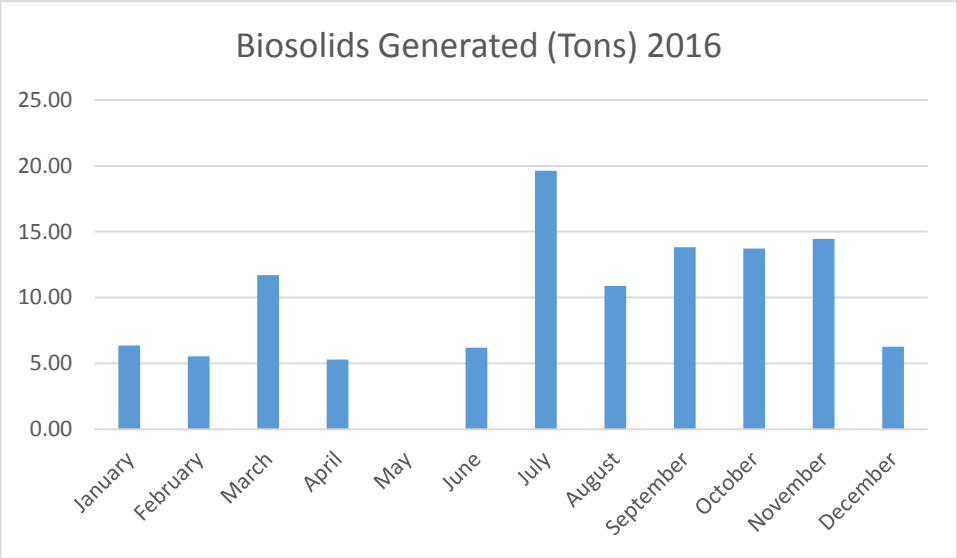
Annual Biosolids Summary

Wild Wings Water Recycling Facility
Biosolids Generated 2016

Month	Biosolids Generated (Tons)
January	6.35
February	5.54
March	11.71
April	5.29
May	0.00
June	6.18
July	19.62
August	10.87
September	13.81
October	13.72
November	14.45
December	6.27
Total	113.81
Minimum	0.00
Maximum	19.62
Average	9.48

All biosolids were hauled by Waste Management to the Yolo County Landfill for 2016.

Wild Wings Water Recycling Facility
Biosolids Generated 2016



BSK Associates Fresno
1414 Stanislaus St
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (FAX)

A6K1361
12/21/2016
Invoice: A631022

Jane May
National O&M
P.O. Box 21187
Roanoke, VA 24018

RE: Report for A6K1361 W.I.D Wings Annual Sludge Acceptance Testing 2016

Dear Jane May,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 11/11/2016. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, Michelle Kawaguchi , at 559-497-2888.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michelle Kawaguchi

Michelle Kawaguchi, Project Manager

Accredited in Accordance with NELAP
ORELAP #4021

BSK ASSOCIATES

Case Narrative

Project and Report Details		Invoice Details	
Client:	National O&M	**Invoice To:**	National O&M
Report To:	Jane May	**Invoice Attn:**	Jane May
Project #:	Annual Sludge	**Project PO#:**	-
Received:	11/11/2016 - 10:00		
Report Due:	12/13/2016		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 0.3

Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-SAC

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

B2.0	Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
B2.1	Analyte detected in associated method blank below the reporting limit. No material impact on reported result as sample is ND for this parameter.
B2.2	Analyte detected in associated method blank below the reporting limit. Sample result may be attributable to ambient laboratory background.
B2.3	Analyte detected in associated method blank below the reporting limit. Sample result may be, in part, attributable to ambient laboratory background.
B2.4	Analyte detected in associated method blank below the reporting limit. Sample concentration exceeds 10x the amount present and is not materially impacted by this condition.
BS	Blank spike recoveries did not meet acceptance limits.
BS1.0	Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
BS2.0	Blank spike recovery for this analyte was biased low. Associated result may be biased low; reanalysis not feasible.
CV0.0	CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
J	Estimated value
MS1.0	Matrix spike recoveries exceed control limits.
MS1.1	Matrix spike recovery exceeds upper control limit. Reported results for parent matrix should be considered estimated due to matrix interferences.
MS1.2	Matrix spike recovery exceeds lower control limit. Reported results for parent matrix should be considered estimated due to matrix interferences.
MS1.3	Matrix spike recovery data unavailable or unreliable due to significant dilution required for matrix interferences.
MS1.5	Matrix spike recovery exceeds upper control limit. No material impact as sample results are Non-Detected.
MS2.0	MS/MSD RPD exceeds control limit. No material impact as both sets of recovery data meet control criteria.
MS2.1	MS/MSD RPD exceeds control limit. Reportable results in parent sample may have some degree of variability, higher than that inherent in the method.
SR.x	Surrogate recovery exceeds lower control limit. Associated analytes should be considered biased low.
SR1.0	Surrogate recovery exceeds upper control limit. No material impact as associated analytes are Non-Detect.
SR2.3	Surrogate recovery exceeds lower control limit due to matrix interference as confirmed by re-extraction. Associated results should be considered biased low.

Report Distribution

Recipient(s)	Report Format	CC:
Jane May	FINAL.RPT	
Paul Bishop	FINAL.RPT	

Certificate of Analysis

Sample ID: A6K1361-01
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

BSK Associates Fresno

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C, DI Extract	SM 2510B	**2000**		5.0	umhos/cm	1	A615568	11/14/16	11/14/16	
Hexavalent Chromium	EPA 7199	**1.6**	0.17	1.0	mg/kg	50	A616016	11/22/16	11/22/16	B2.3
Nitrate as N, DI Extract	EPA 300.0	**3.8**	0.99	2.3	mg/kg	1	A615576	11/11/16	11/12/16	
Nitrite as N, DI Extract	EPA 300.0	ND	0.20	0.50	mg/kg	1	A615576	11/11/16	11/12/16	
Percent Moisture	SM 2540B	**77**		0.10	% by Weight	1	A615886	11/18/16	11/22/16	
pH, DI Extract	EPA 9045C	**9.83**			pH Units	1	A615973	11/23/16	11/23/16	
pH Temperature in °C		**23.0**								

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 6010B	**1500**	2.5	5.0	mg/kg	1	A615679	11/15/16	11/17/16	B2.4
Antimony	EPA 6020	ND	5.0	10	mg/kg	1	A615679	11/15/16	11/21/16	
Arsenic	EPA 6020	**2.6**	1.2	2.5	mg/kg	1	A615679	11/15/16	11/21/16	
Barium	EPA 6020	**6.0**	3.1	6.2	mg/kg	1	A615679	11/15/16	11/21/16	J
Beryllium	EPA 6020	ND	0.60	1.2	mg/kg	1	A615679	11/15/16	11/21/16	
Boron	EPA 6010B	**10**	5.0	10	mg/kg	1	A615679	11/15/16	11/17/16	
Cadmium	EPA 6020	ND	0.60	1.2	mg/kg	1	A615679	11/15/16	11/21/16	
Chromium	EPA 6020	ND	6.0	12	mg/kg	1	A615679	11/15/16	11/21/16	
Cobalt	EPA 6020	ND	6.0	12	mg/kg	1	A615679	11/15/16	11/21/16	
Copper	EPA 6020	**8.0**	2.5	5.0	mg/kg	1	A615679	11/15/16	11/21/16	
Iron	EPA 6010B	**15000**	2.5	5.0	mg/kg	1	A615679	11/15/16	11/17/16	
Lead	EPA 6020	ND	3.1	6.2	mg/kg	1	A615679	11/15/16	11/21/16	
Manganese	EPA 6010B	**76**	0.50	1.0	mg/kg	1	A615679	11/15/16	11/17/16	
Mercury	EPA 6020A	ND	0.25	0.50	mg/kg	1	A615679	11/15/16	11/21/16	
Molybdenum	EPA 6020	ND	6.0	12	mg/kg	1	A615679	11/15/16	11/21/16	
Nickel	EPA 6020	ND	6.0	12	mg/kg	1	A615679	11/15/16	11/21/16	
Selenium	EPA 6020	ND		2.5	mg/kg	1	A615679	11/15/16	11/21/16	
Silver	EPA 6020	ND	6.0	12	mg/kg	1	A615679	11/15/16	11/21/16	
Thallium	EPA 6020	ND	1.0	2.0	mg/kg	1	A615679	11/15/16	11/21/16	
Vanadium	EPA 6020	ND		12	mg/kg	1	A615679	11/15/16	11/21/16	
Zinc	EPA 6020	**44**	31	62	mg/kg	1	A615679	11/15/16	11/21/16	J

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Polychlorinated Biphenyls (PCBs) by GC-ECD										
Aroclor-1016	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Aroclor-1221	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Aroclor-1232	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Aroclor-1242	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Aroclor-1248	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Aroclor-1254	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	

Certificate of Analysis

Sample ID: A6K1361-01
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Polychlorinated Biphenyls (PCBs) by GC-ECD										
Aroclor-1260	EPA 8082	ND	0.016	0.10	mg/kg	20	A615825	11/17/16	11/22/16	
Surrogate: Decachlorobiphenyl	EPA 8082	97 %		*Acceptable range: 50-150 %*						
Volatile Organics (Standard List) by GC-MS										
Total Xylenes	EPA 8260B	ND		5.0	ug/kg					
Volatile Organics (Standard List) by GC-MS										
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	1.2	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1,1-Trichloroethane	EPA 8260B	ND	0.99	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	0.83	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1,2-Trichloroethane	EPA 8260B	ND	0.99	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1-Dichloroethane	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1-Dichloroethene	EPA 8260B	ND	0.87	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,1-Dichloropropene	EPA 8260B	ND	1.4	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2,3-Trichlorobenzene	EPA 8260B	**40**	0.93	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2,3-Trichloropropane	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2,4-Trichlorobenzene	EPA 8260B	ND	0.92	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2,4-Trimethylbenzene	EPA 8260B	ND	0.90	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2-Dibromoethane (EDB)	EPA 8260B	ND	0.69	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2-Dichlorobenzene	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2-Dichloroethane	EPA 8260B	ND	1.1	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,2-Dichloropropane	EPA 8260B	ND	0.43	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,3,5-Trimethylbenzene	EPA 8260B	ND	0.70	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,3-Dichlorobenzene	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,3-Dichloropropane	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
1,4-Dichlorobenzene	EPA 8260B	ND	0.62	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
2,2-Dichloropropane	EPA 8260B	ND	0.88	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
2-Butanone	EPA 8260B	**30**	2.7	20	ug/kg	1	A615599	11/11/16	11/11/16	
2-Chlorotoluene	EPA 8260B	ND	0.88	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
2-Hexanone	EPA 8260B	ND	1.0	20	ug/kg	1	A615599	11/11/16	11/11/16	
4-Chlorotoluene	EPA 8260B	ND	0.67	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
4-Methyl-2-pentanone	EPA 8260B	ND	1.8	20	ug/kg	1	A615599	11/11/16	11/11/16	
Benzene	EPA 8260B	ND	0.50	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Bromobenzene	EPA 8260B	ND	0.88	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Bromochloromethane	EPA 8260B	ND	0.67	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Bromodichloromethane	EPA 8260B	ND	0.61	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Bromoform	EPA 8260B	ND	1.3	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Bromomethane	EPA 8260B	ND	1.8	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Carbon disulfide	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Carbon Tetrachloride	EPA 8260B	ND	1.1	5.0	ug/kg	1	A615599	11/11/16	11/11/16	CV0.0
Chlorobenzene	EPA 8260B	ND	0.64	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Chloroethane	EPA 8260B	ND	1.4	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Chloroform	EPA 8260B	ND	0.60	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Chloromethane	EPA 8260B	ND	1.6	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
cis-1,2-Dichloroethene	EPA 8260B	ND	0.84	5.0	ug/kg	1	A615599	11/11/16	11/11/16	

Certificate of Analysis

Sample ID: A6K1361-01
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
cis-1,3-Dichloropropene	EPA 8260B	ND	0.73	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Dibromochloromethane	EPA 8260B	ND	1.1	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Dibromochloropropane (DBCP)	EPA 8260B	ND	1.6	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Dibromomethane	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Dichlorodifluoromethane	EPA 8260B	ND	0.99	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Dichloromethane	EPA 8260B	**3.8**	0.74	5.0	ug/kg	1	A615599	11/11/16	11/11/16	J, B2.2
Ethylbenzene	EPA 8260B	ND	0.59	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Hexachlorobutadiene	EPA 8260B	ND	0.89	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Hexachloroethane	EPA 8260B	ND	1.1	50	ug/kg	1	A615599	11/11/16	11/11/16	
Iodomethane	EPA 8260B	ND	2.1	50	ug/kg	1	A615599	11/11/16	11/11/16	
Isopropylbenzene	EPA 8260B	ND	0.53	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
m,p-Xylenes	EPA 8260B	ND	1.1	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Methyl-t-butyl ether	EPA 8260B	ND	1.7	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Naphthalene	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
n-Butylbenzene	EPA 8260B	ND	0.59	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
n-Propylbenzene	EPA 8260B	ND	0.69	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
o-Xylene	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
p-Isopropyltoluene	EPA 8260B	**1.5**	0.53	5.0	ug/kg	1	A615599	11/11/16	11/11/16	J
sec-Butylbenzene	EPA 8260B	ND	0.57	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Styrene	EPA 8260B	ND	0.52	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
tert-Butylbenzene	EPA 8260B	ND	0.61	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Tetrachloroethene (PCE)	EPA 8260B	ND	1.5	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Toluene	EPA 8260B	**2.3**	0.74	5.0	ug/kg	1	A615599	11/11/16	11/11/16	J
trans-1,2-Dichloroethene	EPA 8260B	ND	0.63	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
trans-1,3-Dichloropropene	EPA 8260B	ND	1.1	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Trichloroethene (TCE)	EPA 8260B	ND	0.55	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Trichlorofluoromethane	EPA 8260B	ND	1.0	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Vinyl Chloride	EPA 8260B	ND	1.6	5.0	ug/kg	1	A615599	11/11/16	11/11/16	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	102 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	133 %		*Acceptable range: 70-130 %*			*Qualifiers - SR1.0*			
Surrogate: Toluene-d8	EPA 8260B	110 %		*Acceptable range: 70-130 %*						
Semi-Volatile Organics (Standard List) by GC-MS										
1,2,4-Trichlorobenzene	EPA 8270C	ND	6.3	100	ug/kg	1	A615965	11/21/16	11/23/16	
2,4,6-Trichlorophenol	EPA 8270C	ND	4.4	200	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2
2,4-Dichlorophenol	EPA 8270C	ND	7.2	100	ug/kg	1	A615965	11/21/16	11/23/16	
2,4-Dimethylphenol	EPA 8270C	ND	44	100	ug/kg	1	A615965	11/21/16	11/23/16	
2,4-Dinitrophenol	EPA 8270C	ND	74	1000	ug/kg	1	A615965	11/21/16	11/23/16	BS2.0, MS1.2
2,4-Dinitrotoluene	EPA 8270C	ND	8.7	100	ug/kg	1	A615965	11/21/16	11/23/16	
2,6-Dinitrotoluene	EPA 8270C	ND	11	100	ug/kg	1	A615965	11/21/16	11/23/16	
2-Chloronaphthalene	EPA 8270C	ND	3.4	100	ug/kg	1	A615965	11/21/16	11/23/16	
2-Chlorophenol	EPA 8270C	ND	5.7	100	ug/kg	1	A615965	11/21/16	11/23/16	
2-Nitrophenol	EPA 8270C	ND	17	100	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2
3,3-Dichlorobenzidine	EPA 8270C	ND	45	650	ug/kg	1	A615965	11/21/16	11/23/16	

Certificate of Analysis

Sample ID: A6K1361-01
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Semi-Volatile Organics (Standard List) by GC-MS										
4,6-Dinitro-2-methylphenol	EPA 8270C	ND	37	500	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2
4-Bromophenyl phenyl ether	EPA 8270C	ND	4.7	100	ug/kg	1	A615965	11/21/16	11/23/16	
4-Chloro-3-methylphenol	EPA 8270C	ND	13	200	ug/kg	1	A615965	11/21/16	11/23/16	
4-Chlorophenyl phenyl ether	EPA 8270C	ND	3.6	100	ug/kg	1	A615965	11/21/16	11/23/16	
4-Nitrophenol	EPA 8270C	ND	8.4	1000	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2
Acenaphthene	EPA 8270C	ND	0.072	100	ug/kg	1	A615965	11/21/16	11/23/16	
Acenaphthylene	EPA 8270C	ND	0.056	100	ug/kg	1	A615965	11/21/16	11/23/16	
Anthracene	EPA 8270C	ND	0.24	100	ug/kg	1	A615965	11/21/16	11/23/16	
Benzo(a)anthracene	EPA 8270C	**0.59**	0.092	100	ug/kg	1	A615965	11/21/16	11/23/16	J
Benzo(a)pyrene	EPA 8270C	ND	0.17	100	ug/kg	1	A615965	11/21/16	11/23/16	
Benzo(b)fluoranthene	EPA 8270C	**1.2**	0.17	100	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2, J
Benzo(g,h,i)perylene	EPA 8270C	ND	0.12	100	ug/kg	1	A615965	11/21/16	11/23/16	
Benzo(k)fluoranthene	EPA 8270C	**0.19**	0.10	100	ug/kg	1	A615965	11/21/16	11/23/16	BS1.0, MS1.1, J
Bis(2-chloroethoxy)methane	EPA 8270C	ND	5.4	100	ug/kg	1	A615965	11/21/16	11/23/16	
Bis(2-chloroethyl) ether	EPA 8270C	ND	9.3	1700	ug/kg	1	A615965	11/21/16	11/23/16	
Bis(2-chloroisopropyl) ether	EPA 8270C	ND	9.8	330	ug/kg	1	A615965	11/21/16	11/23/16	
Bis(2-ethylhexyl) phthalate	EPA 8270C	**29**	17	500	ug/kg	1	A615965	11/21/16	11/23/16	J
Butyl benzyl phthalate	EPA 8270C	ND	4.6	100	ug/kg	1	A615965	11/21/16	11/23/16	
Chrysene	EPA 8270C	**0.38**	0.051	100	ug/kg	1	A615965	11/21/16	11/23/16	J
Dibenzo(a,h)anthracene	EPA 8270C	ND	0.073	100	ug/kg	1	A615965	11/21/16	11/23/16	
Diethyl phthalate	EPA 8270C	ND	1.1	100	ug/kg	1	A615965	11/21/16	11/23/16	
Dimethyl phthalate	EPA 8270C	ND	1.6	100	ug/kg	1	A615965	11/21/16	11/23/16	
Di-n-butyl phthalate	EPA 8270C	ND	12	100	ug/kg	1	A615965	11/21/16	11/23/16	
Di-n-octyl phthalate	EPA 8270C	ND	2.7	100	ug/kg	1	A615965	11/21/16	11/23/16	
Fluoranthene	EPA 8270C	**6.7**	0.073	100	ug/kg	1	A615965	11/21/16	11/23/16	MS1.5, J
Fluorene	EPA 8270C	ND	0.048	100	ug/kg	1	A615965	11/21/16	11/23/16	
Hexachlorobenzene	EPA 8270C	ND	6.4	100	ug/kg	1	A615965	11/21/16	11/23/16	
Hexachlorobutadiene	EPA 8270C	ND	7.3	100	ug/kg	1	A615965	11/21/16	11/23/16	
Indeno(1,2,3-cd)pyrene	EPA 8270C	ND	0.10	100	ug/kg	1	A615965	11/21/16	11/23/16	B2.1
Isophorone	EPA 8270C	ND	5.4	100	ug/kg	1	A615965	11/21/16	11/23/16	
Naphthalene	EPA 8270C	ND	0.066	100	ug/kg	1	A615965	11/21/16	11/23/16	
Nitrobenzene	EPA 8270C	ND	11	100	ug/kg	1	A615965	11/21/16	11/23/16	
N-Nitrosodi-n-propylamine (NDPA)	EPA 8270C	ND	11	500	ug/kg	1	A615965	11/21/16	11/23/16	
N-Nitrosodiphenylamine (as DPA)	EPA 8270C	ND	11	100	ug/kg	1	A615965	11/21/16	11/23/16	
Pentachlorophenol	EPA 8270C	ND	10	1000	ug/kg	1	A615965	11/21/16	11/23/16	MS1.2
Phenanthrene	EPA 8270C	**3.7**	0.24	100	ug/kg	1	A615965	11/21/16	11/23/16	J
Phenol	EPA 8270C	**28**	6.6	100	ug/kg	1	A615965	11/21/16	11/23/16	J
Pyrene	EPA 8270C	**5.7**	0.10	100	ug/kg	1	A615965	11/21/16	11/23/16	J
Surrogate: 2,4,6-Tribromophenol	EPA 8270C	34 %		*Acceptable range: 41-200 %*			*Qualifiers -*	*SR2.3*		
Surrogate: 2-Fluorobiphenyl	EPA 8270C	83 %		*Acceptable range: 46-144 %*						
Surrogate: 2-Fluorophenol	EPA 8270C	29 %		*Acceptable range: 30-155 %*			*Qualifiers -*	*SR2.3*		

Certificate of Analysis

Sample ID: A6K1361-01
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: Nitrobenzene-d5	EPA 8270C	78 %		*Acceptable range: 30-149 %*						
Surrogate: Phenol-d6	EPA 8270C	52 %		*Acceptable range: 40-162 %*						
Surrogate: p-Terphenyl-d14	EPA 8270C	83 %		*Acceptable range: 45-161 %*						

Certificate of Analysis

Sample ID: A6K1361-01RE1
Sampled By: Jane May
Sample Description: Wildwings Digested Sludge

Sample Date - Time: 11/09/16 - 12:30
Matrix: Solid
Sample Type: Other

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Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Acetone	EPA 8260B	**310**	9.9	50	ug/kg	10	A615833	11/17/16	11/17/16	B2.4
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	99 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	107 %		*Acceptable range: 70-130 %*						
Surrogate: Toluene-d8	EPA 8260B	96 %		*Acceptable range: 70-130 %*						

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General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control												
Batch: A615576											Prepared: 11/11/2016	
Prep Method: Method Specific Preparation											Analyst: INH	
Blank (A615576-BLK1)												
Nitrate as N, DI Extract	ND	0.99	2.3	mg/kg							11/12/16	
Nitrite as N, DI Extract	ND	0.20	0.50	mg/kg							11/12/16	
Blank Spike (A615576-BS1)												
Nitrate as N, DI Extract	22	0.099	0.23	mg/kg	23		99	90-110			11/12/16	
Nitrite as N, DI Extract	1.0	0.020	0.050	mg/kg	1.0		102	90-110			11/12/16	
Matrix Spike (A615576-MS1), Source: A6K1201-06												
Nitrate as N, DI Extract	190	0.99	2.3	mg/kg	110	75	97	80-120			11/12/16	
Nitrite as N, DI Extract	5.1	0.20	0.50	mg/kg	5.1	ND	101	50-110			11/12/16	
Matrix Spike Dup (A615576-MSD1), Source: A6K1201-06												
Nitrate as N, DI Extract	190	0.99	2.3	mg/kg	110	75	98	80-120	1	20	11/12/16	
Nitrite as N, DI Extract	5.1	0.20	0.50	mg/kg	5.1	ND	101	50-110	0	20	11/12/16	
EPA 7199 - Quality Control												
Batch: A616016											Prepared: 11/22/2016	
Prep Method: Method Specific Preparation											Analyst: RCN	
Blank (A616016-BLK1)												
Hexavalent Chromium	0.33	0.17	1.0	mg/kg							11/22/16	B2.0, J
Blank Spike (A616016-BS1)												
Hexavalent Chromium	11	0.17	1.0	mg/kg	10		109	70-130			11/22/16	
Duplicate (A616016-DUP1), Source: A6K1361-01												
Hexavalent Chromium	1.4	0.17	1.0	mg/kg		1.6			10	20	11/22/16	
Matrix Spike (A616016-MS1), Source: A6K1361-01												
Hexavalent Chromium	11	0.17	1.0	mg/kg	9.9	1.6	93	70-130			11/22/16	
EPA 9045C - Quality Control												
Batch: A615973											Prepared: 11/23/2016	
Prep Method: Method Specific Preparation											Analyst: RCN	
Duplicate (A615973-DUP1), Source: A6K1590-09												
pH, DI Extract	7.29			pH Units		7.53			3	20	11/23/16	
SM 2510B - Quality Control												
Batch: A615568											Prepared: 11/14/2016	
Prep Method: DI Extraction											Analyst: CEG	
Blank Spike (A615568-BS1)												
Conductivity @ 25C, DI Extract	1400		1.0	umhos/cm	1400		98	90-110			11/14/16	

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General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2510B - Quality Control												
Batch: A615568											Prepared: 11/14/2016	
Prep Method: DI Extraction											Analyst: CEG	
Blank Spike Dup (A615568-BSD1)												
Conductivity @ 25C, DI Extract	1400		1.0	umhos/cm	1400		98	90-110	0		11/14/16	
Duplicate (A615568-DUP1), Source: A6K1201-06												
Conductivity @ 25C, DI Extract	730		5.0	umhos/cm		660			10	20	11/14/16	
SM 2540B - Quality Control												
Batch: A615886											Prepared: 11/18/2016	
Prep Method: Method Specific Preparation											Analyst: CWC	
Duplicate (A615886-DUP1), Source: A6K1361-01												
Percent Moisture	77		0.10	% by Weight		77			0	20	11/22/16	

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Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6010B - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MDS	
Blank (A615679-BLK2)												
Aluminum	2.7	2.5	5.0	mg/kg							11/17/16	B2.0, J
Boron	ND	5.0	10	mg/kg							11/17/16	
Iron	ND	2.5	5.0	mg/kg							11/17/16	
Manganese	ND	0.50	1.0	mg/kg							11/17/16	
Blank Spike (A615679-BS2)												
Aluminum	110	2.5	5.0	mg/kg	100		109	75-125			11/17/16	
Boron	320	5.0	10	mg/kg	300		106	75-125			11/17/16	
Iron	1000	2.5	5.0	mg/kg	1000		105	75-125			11/17/16	
Manganese	110	0.50	1.0	mg/kg	100		106	75-125			11/17/16	
Blank Spike Dup (A615679-BSD2)												
Aluminum	110	2.5	5.0	mg/kg	100		111	75-125	1	20	11/17/16	
Boron	320	5.0	10	mg/kg	300		106	75-125	1	20	11/17/16	
Iron	1000	2.5	5.0	mg/kg	1000		102	75-125	3	20	11/17/16	
Manganese	100	0.50	1.0	mg/kg	100		103	75-125	3	20	11/17/16	
Matrix Spike (A615679-MS2), Source: A6K1386-02												
Aluminum	7800	2.5	5.0	mg/kg	100	4300	NR	75-125			11/17/16	MS1.0 ***High***
Boron	300	5.0	10	mg/kg	300	ND	98	75-125			11/17/16	
Iron	9700	2.5	5.0	mg/kg	1000	9000	69	75-125			11/17/16	MS1.0 ***Low***
Manganese	240	0.50	1.0	mg/kg	100	150	97	75-125			11/17/16	
Matrix Spike Dup (A615679-MSD2), Source: A6K1386-02												
Aluminum	8800	2.5	5.0	mg/kg	100	4300	NR	75-125	11	20	11/17/16	MS1.0 ***High***
Boron	290	5.0	10	mg/kg	300	ND	96	75-125	2	20	11/17/16	
Iron	11000	2.5	5.0	mg/kg	1000	9000	233	75-125	16	20	11/17/16	MS1.0 ***High***
Manganese	300	0.50	1.0	mg/kg	100	150	150	75-125	20	20	11/17/16	MS1.0 ***High***
EPA 6020 - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MAS	
Blank (A615679-BLK1)												
Antimony	ND	5.0	10	mg/kg							11/21/16	
Arsenic	ND	1.2	2.5	mg/kg							11/21/16	
Barium	ND	3.1	6.2	mg/kg							11/21/16	
Beryllium	ND	0.60	1.2	mg/kg							11/21/16	
Cadmium	ND	0.60	1.2	mg/kg							11/21/16	
Chromium	ND	6.0	12	mg/kg							11/21/16	
Cobalt	ND	6.0	12	mg/kg							11/21/16	
Copper	ND	2.5	5.0	mg/kg							11/21/16	
Lead	ND	3.1	6.2	mg/kg							11/21/16	
Molybdenum	ND	6.0	12	mg/kg							11/21/16	
Nickel	ND	6.0	12	mg/kg							11/21/16	

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Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MAS	
Blank (A615679-BLK1)												
Selenium	ND		2.5	mg/kg							11/21/16	
Silver	ND	6.0	12	mg/kg							11/21/16	
Thallium	ND	1.0	2.0	mg/kg							11/21/16	
Vanadium	ND		12	mg/kg							11/21/16	
Zinc	ND	31	62	mg/kg							11/21/16	
Blank Spike (A615679-BS1)												
Antimony	99	5.0	10	mg/kg	100		99	75-125			11/21/16	
Arsenic	92	1.2	2.5	mg/kg	100		92	75-125			11/21/16	
Barium	93	3.1	6.2	mg/kg	100		93	75-125			11/21/16	
Beryllium	94	0.60	1.2	mg/kg	100		94	75-125			11/21/16	
Cadmium	96	0.60	1.2	mg/kg	100		96	75-125			11/21/16	
Chromium	100	6.0	12	mg/kg	100		103	75-125			11/21/16	
Cobalt	97	6.0	12	mg/kg	100		97	75-125			11/21/16	
Copper	96	2.5	5.0	mg/kg	100		96	75-125			11/21/16	
Lead	89	3.1	6.2	mg/kg	100		89	75-125			11/21/16	
Molybdenum	100	6.0	12	mg/kg	100		103	75-125			11/21/16	
Nickel	99	6.0	12	mg/kg	100		99	75-125			11/21/16	
Selenium	93		2.5	mg/kg	100		93	75-125			11/21/16	
Silver	50	6.0	12	mg/kg	50		99	75-125			11/21/16	
Thallium	81	1.0	2.0	mg/kg	100		81	75-125			11/21/16	
Vanadium	100		12	mg/kg	100		100	75-125			11/21/16	
Zinc	92	31	62	mg/kg	100		92	75-125			11/21/16	
Blank Spike Dup (A615679-BSD1)												
Antimony	100	5.0	10	mg/kg	100		100	75-125	2	20	11/21/16	
Arsenic	91	1.2	2.5	mg/kg	100		91	75-125	0	20	11/21/16	
Barium	96	3.1	6.2	mg/kg	100		96	75-125	3	20	11/21/16	
Beryllium	93	0.60	1.2	mg/kg	100		93	75-125	1	20	11/21/16	
Cadmium	93	0.60	1.2	mg/kg	100		93	75-125	3	20	11/21/16	
Chromium	100	6.0	12	mg/kg	100		100	75-125	3	20	11/21/16	
Cobalt	95	6.0	12	mg/kg	100		95	75-125	2	20	11/21/16	
Copper	94	2.5	5.0	mg/kg	100		94	75-125	2	20	11/21/16	
Lead	90	3.1	6.2	mg/kg	100		90	75-125	1	20	11/21/16	
Molybdenum	100	6.0	12	mg/kg	100		102	75-125	1	20	11/21/16	
Nickel	97	6.0	12	mg/kg	100		97	75-125	2	20	11/21/16	
Selenium	90		2.5	mg/kg	100		90	75-125	3	20	11/21/16	
Silver	51	6.0	12	mg/kg	50		101	75-125	2	20	11/21/16	
Thallium	82	1.0	2.0	mg/kg	100		82	75-125	1	20	11/21/16	
Vanadium	98		12	mg/kg	100		98	75-125	2	20	11/21/16	
Zinc	91	31	62	mg/kg	100		91	75-125	1	20	11/21/16	
Matrix Spike (A615679-MS1), Source: A6K1386-02												
Antimony	67	5.0	10	mg/kg	100	ND	67	75-125			11/21/16	MS1.0 ***Low***
Arsenic	91	1.2	2.5	mg/kg	100	4.8	86	75-125			11/21/16	
Barium	120	3.1	6.2	mg/kg	100	32	92	75-125			11/21/16	

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Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MAS	
Matrix Spike (A615679-MS1), Source: A6K1386-02												
Beryllium	91	0.60	1.2	mg/kg	100	ND	91	75-125			11/21/16	
Cadmium	95	0.60	1.2	mg/kg	100	ND	95	75-125			11/21/16	
Chromium	120	6.0	12	mg/kg	100	19	106	75-125			11/21/16	
Cobalt	97	6.0	12	mg/kg	100	ND	97	75-125			11/21/16	
Copper	110	2.5	5.0	mg/kg	100	12	94	75-125			11/21/16	
Lead	220	3.1	6.2	mg/kg	100	11	211	75-125			11/21/16	MS1.0 ***High***
Molybdenum	96	6.0	12	mg/kg	100	ND	96	75-125			11/21/16	
Nickel	110	6.0	12	mg/kg	100	16	92	75-125			11/21/16	
Selenium	86		2.5	mg/kg	100	ND	84	75-125			11/21/16	
Silver	49	6.0	12	mg/kg	50	ND	98	75-125			11/21/16	
Thallium	81	1.0	2.0	mg/kg	100	ND	81	75-125			11/21/16	
Vanadium	120		12	mg/kg	100	18	104	75-125			11/21/16	
Zinc	110	31	62	mg/kg	100	ND	113	75-125			11/21/16	
Matrix Spike Dup (A615679-MSD1), Source: A6K1386-02												
Antimony	73	5.0	10	mg/kg	100	ND	73	75-125	8	20	11/21/16	MS1.0 ***Low***
Arsenic	110	1.2	2.5	mg/kg	100	4.8	108	75-125	21	20	11/21/16	MS2.0
Barium	160	3.1	6.2	mg/kg	100	32	123	75-125	22	20	11/21/16	MS2.0
Beryllium	110	0.60	1.2	mg/kg	100	ND	114	75-125	22	20	11/21/16	MS2.0
Cadmium	110	0.60	1.2	mg/kg	100	ND	111	75-125	15	20	11/21/16	
Chromium	160	6.0	12	mg/kg	100	19	144	75-125	27	20	11/21/16	MS1.0 ***High***
Cobalt	120	6.0	12	mg/kg	100	ND	123	75-125	23	20	11/21/16	MS2.0
Copper	130	2.5	5.0	mg/kg	100	12	120	75-125	22	20	11/21/16	MS2.0
Lead	120	3.1	6.2	mg/kg	100	11	104	75-125	63	20	11/21/16	MS2.1
Molybdenum	120	6.0	12	mg/kg	100	ND	122	75-125	24	20	11/21/16	MS2.0
Nickel	150	6.0	12	mg/kg	100	16	131	75-125	31	20	11/21/16	MS1.0 ***High***
Selenium	110		2.5	mg/kg	100	ND	104	75-125	20	20	11/21/16	
Silver	56	6.0	12	mg/kg	50	ND	112	75-125	13	20	11/21/16	
Thallium	93	1.0	2.0	mg/kg	100	ND	93	75-125	14	20	11/21/16	
Vanadium	160		12	mg/kg	100	18	142	75-125	26	20	11/21/16	MS1.0 ***High***
Zinc	140	31	62	mg/kg	100	ND	142	75-125	23	20	11/21/16	MS1.0 ***High***
EPA 6020A - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MAS	
Blank (A615679-BLK1)												
Mercury	ND	0.25	0.50	mg/kg							11/21/16	
Blank Spike (A615679-BS1)												
Mercury	2.1	0.25	0.50	mg/kg	2.5		84	75-125			11/21/16	
Blank Spike Dup (A615679-BSD1)												
Mercury	2.2	0.25	0.50	mg/kg	2.5		88	75-125	5	20	11/21/16	
Matrix Spike (A615679-MS1), Source: A6K1386-02												

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Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020A - Quality Control												
Batch: A615679											Prepared: 11/15/2016	
Prep Method: EPA 3050B											Analyst: MAS	
Matrix Spike (A615679-MS1), Source: A6K1386-02												
Mercury	2.2	0.25	0.50	mg/kg	2.5	ND	87	75-125			11/21/16	
Matrix Spike Dup (A615679-MSD1), Source: A6K1386-02												
Mercury	2.6	0.25	0.50	mg/kg	2.5	ND	103	75-125	17	20	11/21/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8082 - Quality Control												
Batch: A615825											Prepared: 11/17/2016	
Prep Method: EPA 3540C											Analyst: AAR	
Blank (A615825-BLK1)												
Aroclor-1016	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1221	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1232	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1242	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1248	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1254	ND	0.00079	0.020	mg/kg							11/21/16	
Aroclor-1260	ND	0.00079	0.020	mg/kg							11/21/16	
Surrogate: Decachlorobiphenyl	*0.0061*				*0.0038*		*161*	*50-150*			11/21/16	*SR1.0* ***High***
Blank Spike (A615825-BS1)												
Aroclor-1016	0.017	0.00079	0.020	mg/kg	0.015		111	50-150			11/21/16	J
Aroclor-1260	0.020	0.00079	0.020	mg/kg	0.015		131	50-150			11/21/16	J
Surrogate: Decachlorobiphenyl	*0.0053*				*0.0038*		*142*	*50-150*			11/21/16	
Blank Spike Dup (A615825-BSD1)												
Aroclor-1016	0.017	0.00079	0.020	mg/kg	0.015		111	50-150	0	30	11/21/16	J
Aroclor-1260	0.020	0.00079	0.020	mg/kg	0.015		136	50-150	4	30	11/21/16	
Surrogate: Decachlorobiphenyl	*0.0056*				*0.0038*		*149*	*50-150*			11/21/16	
Matrix Spike (A615825-MS1), Source: A6K1361-01												
Aroclor-1016	ND	0.016	0.10	mg/kg	0.015	ND	0	50-150			11/22/16	MS1.3 ***Low***
Aroclor-1260	ND	0.016	0.10	mg/kg	0.015	ND	0	50-150			11/22/16	MS1.3 ***Low***
Surrogate: Decachlorobiphenyl	*0.0039*				*0.0037*		*105*	*50-150*			11/22/16	
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615599-BLK1)												
1,1,1,2-Tetrachloroethane	ND	1.2	5.0	ug/kg							11/11/16	
1,1,1-Trichloroethane	ND	0.99	5.0	ug/kg							11/11/16	
1,1,2,2-Tetrachloroethane	ND	0.83	5.0	ug/kg							11/11/16	
1,1,2-Trichloroethane	ND	0.99	5.0	ug/kg							11/11/16	
1,1-Dichloroethane	ND	1.0	5.0	ug/kg							11/11/16	
1,1-Dichloroethene	ND	0.87	5.0	ug/kg							11/11/16	
1,1-Dichloropropene	ND	1.4	5.0	ug/kg							11/11/16	
1,2,3-Trichlorobenzene	ND	0.93	5.0	ug/kg							11/11/16	
1,2,3-Trichloropropane	ND	1.0	5.0	ug/kg							11/11/16	
1,2,4-Trichlorobenzene	ND	0.92	5.0	ug/kg							11/11/16	
1,2,4-Trimethylbenzene	ND	0.90	5.0	ug/kg							11/11/16	
1,2-Dibromoethane (EDB)	ND	0.69	5.0	ug/kg							11/11/16	
1,2-Dichlorobenzene	ND	1.0	5.0	ug/kg							11/11/16	
1,2-Dichloroethane	ND	1.1	5.0	ug/kg							11/11/16	
1,2-Dichloropropane	ND	0.43	5.0	ug/kg							11/11/16	
1,3,5-Trimethylbenzene	ND	0.70	5.0	ug/kg							11/11/16	
1,3-Dichlorobenzene	ND	1.0	5.0	ug/kg							11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615599-BLK1)												
1,3-Dichloropropane	ND	1.0	5.0	ug/kg							11/11/16	
1,4-Dichlorobenzene	ND	0.62	5.0	ug/kg							11/11/16	
2,2-Dichloropropane	ND	0.88	5.0	ug/kg							11/11/16	
2-Butanone	ND	2.7	5.0	ug/kg							11/11/16	
2-Chlorotoluene	ND	0.88	5.0	ug/kg							11/11/16	
2-Hexanone	ND	1.0	5.0	ug/kg							11/11/16	
4-Chlorotoluene	ND	0.67	5.0	ug/kg							11/11/16	
4-Methyl-2-pentanone	ND	1.8	5.0	ug/kg							11/11/16	
Acetone	1.3	0.99	5.0	ug/kg							11/11/16	J
Benzene	ND	0.50	5.0	ug/kg							11/11/16	
Bromobenzene	ND	0.88	5.0	ug/kg							11/11/16	
Bromochloromethane	ND	0.67	5.0	ug/kg							11/11/16	
Bromodichloromethane	ND	0.61	5.0	ug/kg							11/11/16	
Bromoform	ND	1.3	5.0	ug/kg							11/11/16	
Bromomethane	ND	1.8	5.0	ug/kg							11/11/16	
Carbon disulfide	ND	1.0	5.0	ug/kg							11/11/16	
Carbon Tetrachloride	ND	1.1	5.0	ug/kg							11/11/16	
Chlorobenzene	ND	0.64	5.0	ug/kg							11/11/16	
Chloroethane	ND	1.4	5.0	ug/kg							11/11/16	
Chloroform	ND	0.60	5.0	ug/kg							11/11/16	
Chloromethane	ND	1.6	5.0	ug/kg							11/11/16	
cis-1,2-Dichloroethene	ND	0.84	5.0	ug/kg							11/11/16	
cis-1,3-Dichloropropene	ND	0.73	5.0	ug/kg							11/11/16	
Dibromochloromethane	ND	1.1	5.0	ug/kg							11/11/16	
Dibromochloropropane (DBCP)	ND	1.6	5.0	ug/kg							11/11/16	
Dibromomethane	ND	1.0	5.0	ug/kg							11/11/16	
Dichlorodifluoromethane	ND	0.99	5.0	ug/kg							11/11/16	
Dichloromethane	3.1	0.74	5.0	ug/kg							11/11/16	B2.0, J
Ethylbenzene	ND	0.59	5.0	ug/kg							11/11/16	
Hexachlorobutadiene	ND	0.89	5.0	ug/kg							11/11/16	
Hexachloroethane	ND	1.1	5.0	ug/kg							11/11/16	
Iodomethane	ND	2.1	5.0	ug/kg							11/11/16	
Isopropylbenzene	ND	0.53	5.0	ug/kg							11/11/16	
m,p-Xylenes	ND	1.1	5.0	ug/kg							11/11/16	
Methyl-t-butyl ether	ND	1.7	5.0	ug/kg							11/11/16	
Naphthalene	ND	1.0	5.0	ug/kg							11/11/16	
n-Butylbenzene	ND	0.59	5.0	ug/kg							11/11/16	
n-Propylbenzene	ND	0.69	5.0	ug/kg							11/11/16	
o-Xylene	ND	1.0	5.0	ug/kg							11/11/16	
p-Isopropyltoluene	ND	0.53	5.0	ug/kg							11/11/16	
sec-Butylbenzene	ND	0.57	5.0	ug/kg							11/11/16	
Styrene	ND	0.52	5.0	ug/kg							11/11/16	
tert-Butylbenzene	ND	0.61	5.0	ug/kg							11/11/16	
Tetrachloroethene (PCE)	ND	1.5	5.0	ug/kg							11/11/16	
Toluene	ND	0.74	5.0	ug/kg							11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615599-BLK1)												
trans-1,2-Dichloroethene	ND	0.63	5.0	ug/kg							11/11/16	
trans-1,3-Dichloropropene	ND	1.1	5.0	ug/kg							11/11/16	
Trichloroethene (TCE)	ND	0.55	5.0	ug/kg							11/11/16	
Trichlorofluoromethane	ND	1.0	5.0	ug/kg							11/11/16	
Vinyl Chloride	ND	1.6	5.0	ug/kg							11/11/16	
Surrogate: 1,2-Dichloroethane-d4	*51*				*50*		*101*	*70-130*			11/11/16	
Surrogate: Bromofluorobenzene	*49*				*50*		*98*	*70-130*			11/11/16	
Surrogate: Toluene-d8	*48*				*50*		*96*	*70-130*			11/11/16	
Blank Spike (A615599-BS1)												
1,1,1,2-Tetrachloroethane	23	1.2	5.0	ug/kg	20		116	75-121			11/11/16	
1,1,1-Trichloroethane	24	0.99	5.0	ug/kg	20		118	75-145			11/11/16	
1,1,2,2-Tetrachloroethane	22	0.83	5.0	ug/kg	20		111	55-151			11/11/16	
1,1,2-Trichloroethane	22	0.99	5.0	ug/kg	20		111	44-159			11/11/16	
1,1-Dichloroethane	23	1.0	5.0	ug/kg	20		116	72-151			11/11/16	
1,1-Dichloroethene	23	0.87	5.0	ug/kg	20		113	68-157			11/11/16	
1,1-Dichloropropene	24	1.4	5.0	ug/kg	20		118	74-149			11/11/16	
1,2,3-Trichlorobenzene	26	0.93	5.0	ug/kg	20		132	53-138			11/11/16	
1,2,3-Trichloropropane	22	1.0	5.0	ug/kg	20		108	50-145			11/11/16	
1,2,4-Trichlorobenzene	26	0.92	5.0	ug/kg	20		132	49-141			11/11/16	
1,2,4-Trimethylbenzene	25	0.90	5.0	ug/kg	20		126	58-138			11/11/16	
1,2-Dibromoethane (EDB)	23	0.69	5.0	ug/kg	20		115	65-135			11/11/16	
1,2-Dichlorobenzene	24	1.0	5.0	ug/kg	20		118	64-127			11/11/16	
1,2-Dichloroethane	23	1.1	5.0	ug/kg	20		117	81-146			11/11/16	
1,2-Dichloropropane	24	0.43	5.0	ug/kg	20		119	75-147			11/11/16	
1,3,5-Trimethylbenzene	23	0.70	5.0	ug/kg	20		115	63-129			11/11/16	
1,3-Dichlorobenzene	24	1.0	5.0	ug/kg	20		119	64-127			11/11/16	
1,3-Dichloropropane	22	1.0	5.0	ug/kg	20		112	62-139			11/11/16	
1,4-Dichlorobenzene	27	0.62	5.0	ug/kg	20		134	62-134			11/11/16	
2,2-Dichloropropane	24	0.88	5.0	ug/kg	20		119	70-151			11/11/16	
2-Butanone	27	2.7	5.0	ug/kg	20		136	40-209			11/11/16	
2-Chlorotoluene	22	0.88	5.0	ug/kg	20		111	62-131			11/11/16	
2-Hexanone	23	1.0	5.0	ug/kg	20		114	48-166			11/11/16	
4-Chlorotoluene	22	0.67	5.0	ug/kg	20		112	57-137			11/11/16	
4-Methyl-2-pentanone	25	1.8	5.0	ug/kg	20		126	66-163			11/11/16	
Acetone	30	0.99	5.0	ug/kg	20		150	30-216			11/11/16	
Benzene	24	0.50	5.0	ug/kg	20		121	75-147			11/11/16	
Bromobenzene	23	0.88	5.0	ug/kg	20		114	60-129			11/11/16	
Bromochloromethane	26	0.67	5.0	ug/kg	20		128	74-147			11/11/16	
Bromodichloromethane	23	0.61	5.0	ug/kg	20		113	82-146			11/11/16	
Bromoform	22	1.3	5.0	ug/kg	20		108	61-135			11/11/16	
Bromomethane	12	1.8	5.0	ug/kg	20		62	54-194			11/11/16	
Carbon disulfide	23	1.0	5.0	ug/kg	20		116	67-153			11/11/16	
Carbon Tetrachloride	24	1.1	5.0	ug/kg	20		121	71-148			11/11/16	
Chlorobenzene	23	0.64	5.0	ug/kg	20		113	77-116			11/11/16	
Chloroethane	22	1.4	5.0	ug/kg	20		109	36-196			11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike (A615599-BS1)												
Chloroform	23	0.60	5.0	ug/kg	20		117	80-149			11/11/16	
Chloromethane	17	1.6	5.0	ug/kg	20		83	46-188			11/11/16	
cis-1,2-Dichloroethene	24	0.84	5.0	ug/kg	20		118	75-147			11/11/16	
cis-1,3-Dichloropropene	23	0.73	5.0	ug/kg	20		116	78-145			11/11/16	
Dibromochloromethane	23	1.1	5.0	ug/kg	20		114	65-136			11/11/16	
Dibromochloropropane (DBCP)	19	1.6	5.0	ug/kg	20		95	44-159			11/11/16	
Dibromomethane	24	1.0	5.0	ug/kg	20		119	78-144			11/11/16	
Dichlorodifluoromethane	19	0.99	5.0	ug/kg	20		97	46-171			11/11/16	
Dichloromethane	26	0.74	5.0	ug/kg	20		131	75-148			11/11/16	
Ethylbenzene	22	0.59	5.0	ug/kg	20		111	75-123			11/11/16	
Hexachlorobutadiene	22	0.89	5.0	ug/kg	20		110	55-138			11/11/16	
Hexachloroethane	22	1.1	5.0	ug/kg	20		109	56-134			11/11/16	
Iodomethane	13	2.1	5.0	ug/kg	20		67	43-190			11/11/16	
Isopropylbenzene	23	0.53	5.0	ug/kg	20		113	61-131			11/11/16	
m,p-Xylenes	45	1.1	5.0	ug/kg	40		112	75-118			11/11/16	
Methyl-t-butyl ether	47	1.7	5.0	ug/kg	40		119	73-147			11/11/16	
Naphthalene	23	1.0	5.0	ug/kg	20		117	37-169			11/11/16	
n-Butylbenzene	24	0.59	5.0	ug/kg	20		120	55-142			11/11/16	
n-Propylbenzene	22	0.69	5.0	ug/kg	20		112	60-134			11/11/16	
o-Xylene	22	1.0	5.0	ug/kg	20		111	73-121			11/11/16	
p-Isopropyltoluene	23	0.53	5.0	ug/kg	20		114	60-130			11/11/16	
sec-Butylbenzene	22	0.57	5.0	ug/kg	20		111	59-132			11/11/16	
Styrene	22	0.52	5.0	ug/kg	20		112	71-126			11/11/16	
tert-Butylbenzene	22	0.61	5.0	ug/kg	20		111	61-130			11/11/16	
Tetrachloroethene (PCE)	23	1.5	5.0	ug/kg	20		115	58-139			11/11/16	
Toluene	21	0.74	5.0	ug/kg	20		107	65-136			11/11/16	
trans-1,2-Dichloroethene	24	0.63	5.0	ug/kg	20		118	65-156			11/11/16	
trans-1,3-Dichloropropene	23	1.1	5.0	ug/kg	20		113	52-151			11/11/16	
Trichloroethene (TCE)	24	0.55	5.0	ug/kg	20		120	71-148			11/11/16	
Trichlorofluoromethane	23	1.0	5.0	ug/kg	20		115	62-159			11/11/16	
Vinyl Chloride	21	1.6	5.0	ug/kg	20		103	61-169			11/11/16	
Surrogate: 1,2-Dichloroethane-d4	*52*				*50*		*104*	*70-130*			11/11/16	
Surrogate: Bromofluorobenzene	*49*				*50*		*98*	*70-130*			11/11/16	
Surrogate: Toluene-d8	*48*				*50*		*96*	*70-130*			11/11/16	
Blank Spike Dup (A615599-BSD1)												
1,1,1,2-Tetrachloroethane	22	1.2	5.0	ug/kg	20		112	75-121	3	30	11/11/16	
1,1,1-Trichloroethane	22	0.99	5.0	ug/kg	20		112	75-145	5	30	11/11/16	
1,1,2,2-Tetrachloroethane	22	0.83	5.0	ug/kg	20		110	55-151	1	30	11/11/16	
1,1,2-Trichloroethane	23	0.99	5.0	ug/kg	20		117	44-159	5	30	11/11/16	
1,1-Dichloroethane	22	1.0	5.0	ug/kg	20		110	72-151	5	30	11/11/16	
1,1-Dichloroethene	22	0.87	5.0	ug/kg	20		108	68-157	4	30	11/11/16	
1,1-Dichloropropene	22	1.4	5.0	ug/kg	20		111	74-149	6	30	11/11/16	
1,2,3-Trichlorobenzene	26	0.93	5.0	ug/kg	20		128	53-138	4	30	11/11/16	
1,2,3-Trichloropropane	22	1.0	5.0	ug/kg	20		109	50-145	1	30	11/11/16	
1,2,4-Trichlorobenzene	25	0.92	5.0	ug/kg	20		125	49-141	5	30	11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike Dup (A615599-BSD1)												
1,2,4-Trimethylbenzene	25	0.90	5.0	ug/kg	20		125	58-138	0	30	11/11/16	
1,2-Dibromoethane (EDB)	22	0.69	5.0	ug/kg	20		111	65-135	4	30	11/11/16	
1,2-Dichlorobenzene	23	1.0	5.0	ug/kg	20		114	64-127	4	30	11/11/16	
1,2-Dichloroethane	23	1.1	5.0	ug/kg	20		113	81-146	3	30	11/11/16	
1,2-Dichloropropane	22	0.43	5.0	ug/kg	20		109	75-147	8	30	11/11/16	
1,3,5-Trimethylbenzene	21	0.70	5.0	ug/kg	20		107	63-129	7	30	11/11/16	
1,3-Dichlorobenzene	23	1.0	5.0	ug/kg	20		114	64-127	4	30	11/11/16	
1,3-Dichloropropane	22	1.0	5.0	ug/kg	20		110	62-139	1	30	11/11/16	
1,4-Dichlorobenzene	25	0.62	5.0	ug/kg	20		124	62-134	8	30	11/11/16	
2,2-Dichloropropane	22	0.88	5.0	ug/kg	20		110	70-151	8	30	11/11/16	
2-Butanone	24	2.7	5.0	ug/kg	20		121	40-209	11	30	11/11/16	
2-Chlorotoluene	22	0.88	5.0	ug/kg	20		110	62-131	0	30	11/11/16	
2-Hexanone	22	1.0	5.0	ug/kg	20		110	48-166	4	30	11/11/16	
4-Chlorotoluene	21	0.67	5.0	ug/kg	20		107	57-137	5	30	11/11/16	
4-Methyl-2-pentanone	19	1.8	5.0	ug/kg	20		96	66-163	27	30	11/11/16	
Acetone	26	0.99	5.0	ug/kg	20		132	30-216	13	30	11/11/16	
Benzene	24	0.50	5.0	ug/kg	20		118	75-147	3	30	11/11/16	
Bromobenzene	22	0.88	5.0	ug/kg	20		111	60-129	2	30	11/11/16	
Bromochloromethane	24	0.67	5.0	ug/kg	20		120	74-147	6	30	11/11/16	
Bromodichloromethane	23	0.61	5.0	ug/kg	20		115	82-146	2	30	11/11/16	
Bromoform	22	1.3	5.0	ug/kg	20		111	61-135	3	30	11/11/16	
Bromomethane	12	1.8	5.0	ug/kg	20		60	54-194	3	30	11/11/16	
Carbon disulfide	22	1.0	5.0	ug/kg	20		110	67-153	5	30	11/11/16	
Carbon Tetrachloride	23	1.1	5.0	ug/kg	20		115	71-148	5	30	11/11/16	
Chlorobenzene	23	0.64	5.0	ug/kg	20		113	77-116	0	30	11/11/16	
Chloroethane	21	1.4	5.0	ug/kg	20		104	36-196	5	30	11/11/16	
Chloroform	23	0.60	5.0	ug/kg	20		113	80-149	4	30	11/11/16	
Chloromethane	15	1.6	5.0	ug/kg	20		77	46-188	8	30	11/11/16	
cis-1,2-Dichloroethene	22	0.84	5.0	ug/kg	20		111	75-147	7	30	11/11/16	
cis-1,3-Dichloropropene	23	0.73	5.0	ug/kg	20		117	78-145	1	30	11/11/16	
Dibromochloromethane	22	1.1	5.0	ug/kg	20		110	65-136	4	30	11/11/16	
Dibromochloropropane (DBCP)	21	1.6	5.0	ug/kg	20		103	44-159	8	30	11/11/16	
Dibromomethane	24	1.0	5.0	ug/kg	20		121	78-144	2	30	11/11/16	
Dichlorodifluoromethane	18	0.99	5.0	ug/kg	20		88	46-171	10	30	11/11/16	
Dichloromethane	25	0.74	5.0	ug/kg	20		124	75-148	5	30	11/11/16	
Ethylbenzene	21	0.59	5.0	ug/kg	20		107	75-123	3	30	11/11/16	
Hexachlorobutadiene	21	0.89	5.0	ug/kg	20		106	55-138	4	30	11/11/16	
Hexachloroethane	21	1.1	5.0	ug/kg	20		104	56-134	4	30	11/11/16	
Iodomethane	13	2.1	5.0	ug/kg	20		67	43-190	0	30	11/11/16	
Isopropylbenzene	21	0.53	5.0	ug/kg	20		107	61-131	5	30	11/11/16	
m,p-Xylenes	43	1.1	5.0	ug/kg	40		107	75-118	5	30	11/11/16	
Methyl-t-butyl ether	46	1.7	5.0	ug/kg	40		115	73-147	3	30	11/11/16	
Naphthalene	22	1.0	5.0	ug/kg	20		110	37-169	6	30	11/11/16	
n-Butylbenzene	23	0.59	5.0	ug/kg	20		114	55-142	5	30	11/11/16	
n-Propylbenzene	22	0.69	5.0	ug/kg	20		111	60-134	1	30	11/11/16	
o-Xylene	21	1.0	5.0	ug/kg	20		106	73-121	4	30	11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike Dup (A615599-BSD1)												
p-Isopropyltoluene	21	0.53	5.0	ug/kg	20		104	60-130	9	30	11/11/16	
sec-Butylbenzene	21	0.57	5.0	ug/kg	20		105	59-132	5	30	11/11/16	
Styrene	22	0.52	5.0	ug/kg	20		108	71-126	4	30	11/11/16	
tert-Butylbenzene	21	0.61	5.0	ug/kg	20		106	61-130	4	30	11/11/16	
Tetrachloroethene (PCE)	21	1.5	5.0	ug/kg	20		105	58-139	8	30	11/11/16	
Toluene	21	0.74	5.0	ug/kg	20		103	65-136	4	30	11/11/16	
trans-1,2-Dichloroethene	23	0.63	5.0	ug/kg	20		113	65-156	4	30	11/11/16	
trans-1,3-Dichloropropene	22	1.1	5.0	ug/kg	20		112	52-151	0	30	11/11/16	
Trichloroethene (TCE)	24	0.55	5.0	ug/kg	20		118	71-148	1	30	11/11/16	
Trichlorofluoromethane	21	1.0	5.0	ug/kg	20		106	62-159	9	30	11/11/16	
Vinyl Chloride	19	1.6	5.0	ug/kg	20		93	61-169	11	30	11/11/16	
Surrogate: 1,2-Dichloroethane-d4	*50*				*50*		*100*	*70-130*			11/11/16	
Surrogate: Bromofluorobenzene	*48*				*50*		*97*	*70-130*			11/11/16	
Surrogate: Toluene-d8	*48*				*50*		*95*	*70-130*			11/11/16	
Matrix Spike (A615599-MS1), Source: A6K0865-04												
1,1,1,2-Tetrachloroethane	23	1.2	5.0	ug/kg	20	ND	113	26-148			11/11/16	
1,1,1-Trichloroethane	23	0.99	5.0	ug/kg	20	ND	115	32-163			11/11/16	
1,1,2,2-Tetrachloroethane	22	0.83	5.0	ug/kg	20	ND	111	18-154			11/11/16	
1,1,2-Trichloroethane	21	0.99	5.0	ug/kg	20	ND	104	38-135			11/11/16	
1,1-Dichloroethane	23	1.0	5.0	ug/kg	20	ND	114	43-159			11/11/16	
1,1-Dichloroethene	23	0.87	5.0	ug/kg	20	ND	114	39-166			11/11/16	
1,1-Dichloropropene	24	1.4	5.0	ug/kg	20	ND	118	28-165			11/11/16	
1,2,3-Trichlorobenzene	21	0.93	5.0	ug/kg	20	ND	105	10-148			11/11/16	
1,2,3-Trichloropropane	22	1.0	5.0	ug/kg	20	ND	109	14-158			11/11/16	
1,2,4-Trichlorobenzene	23	0.92	5.0	ug/kg	20	ND	115	10-149			11/11/16	
1,2,4-Trimethylbenzene	25	0.90	5.0	ug/kg	20	ND	126	13-158			11/11/16	
1,2-Dibromoethane (EDB)	22	0.69	5.0	ug/kg	20	ND	108	28-138			11/11/16	
1,2-Dichlorobenzene	22	1.0	5.0	ug/kg	20	ND	112	25-134			11/11/16	
1,2-Dichloroethane	23	1.1	5.0	ug/kg	20	ND	114	34-155			11/11/16	
1,2-Dichloropropane	23	0.43	5.0	ug/kg	20	ND	115	30-162			11/11/16	
1,3,5-Trimethylbenzene	22	0.70	5.0	ug/kg	20	ND	112	10-157			11/11/16	
1,3-Dichlorobenzene	23	1.0	5.0	ug/kg	20	ND	114	27-135			11/11/16	
1,3-Dichloropropane	22	1.0	5.0	ug/kg	20	ND	110	32-139			11/11/16	
1,4-Dichlorobenzene	24	0.62	5.0	ug/kg	20	ND	121	27-139			11/11/16	
2,2-Dichloropropane	23	0.88	5.0	ug/kg	20	ND	115	40-153			11/11/16	
2-Butanone	19	2.7	5.0	ug/kg	20	ND	94	10-155			11/11/16	
2-Chlorotoluene	23	0.88	5.0	ug/kg	20	ND	117	21-148			11/11/16	
2-Hexanone	20	1.0	5.0	ug/kg	20	ND	100	10-123			11/11/16	
4-Chlorotoluene	22	0.67	5.0	ug/kg	20	ND	109	18-149			11/11/16	
4-Methyl-2-pentanone	19	1.8	5.0	ug/kg	20	ND	95	10-179			11/11/16	
Acetone	24	0.99	5.0	ug/kg	20	2.1	108	10-196			11/11/16	
Benzene	24	0.50	5.0	ug/kg	20	ND	122	27-162			11/11/16	
Bromobenzene	22	0.88	5.0	ug/kg	20	ND	110	16-154			11/11/16	
Bromochloromethane	24	0.67	5.0	ug/kg	20	ND	120	38-156			11/11/16	
Bromodichloromethane	24	0.61	5.0	ug/kg	20	ND	118	21-164			11/11/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615599											Prepared: 11/11/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Matrix Spike (A615599-MS1), Source: A6K0865-04												
Bromoform	21	1.3	5.0	ug/kg	20	ND	107	22-146			11/11/16	
Bromomethane	15	1.8	5.0	ug/kg	20	ND	74	11-190			11/11/16	
Carbon disulfide	23	1.0	5.0	ug/kg	20	ND	114	31-157			11/11/16	
Carbon Tetrachloride	23	1.1	5.0	ug/kg	20	ND	116	22-169			11/11/16	
Chlorobenzene	23	0.64	5.0	ug/kg	20	ND	116	16-147			11/11/16	
Chloroethane	23	1.4	5.0	ug/kg	20	ND	113	30-192			11/11/16	
Chloroform	23	0.60	5.0	ug/kg	20	ND	117	36-164			11/11/16	
Chloromethane	18	1.6	5.0	ug/kg	20	ND	90	31-179			11/11/16	
cis-1,2-Dichloroethene	23	0.84	5.0	ug/kg	20	ND	114	36-159			11/11/16	
cis-1,3-Dichloropropene	24	0.73	5.0	ug/kg	20	ND	121	12-163			11/11/16	
Dibromochloromethane	22	1.1	5.0	ug/kg	20	ND	109	31-136			11/11/16	
Dibromochloropropane (DBCP)	21	1.6	5.0	ug/kg	20	ND	107	22-148			11/11/16	
Dibromomethane	23	1.0	5.0	ug/kg	20	ND	113	29-156			11/11/16	
Dichlorodifluoromethane	18	0.99	5.0	ug/kg	20	ND	92	45-161			11/11/16	
Dichloromethane	26	0.74	5.0	ug/kg	20	3.0	114	45-153			11/11/16	
Ethylbenzene	22	0.59	5.0	ug/kg	20	ND	112	14-156			11/11/16	
Hexachlorobutadiene	21	0.89	5.0	ug/kg	20	ND	107	18-134			11/11/16	
Hexachloroethane	22	1.1	5.0	ug/kg	20	ND	109	10-148			11/11/16	
Iodomethane	22	2.1	5.0	ug/kg	20	ND	108	10-192			11/11/16	
Isopropylbenzene	23	0.53	5.0	ug/kg	20	ND	116	15-160			11/11/16	
m,p-Xylenes	45	1.1	5.0	ug/kg	40	ND	112	18-156			11/11/16	
Methyl-t-butyl ether	45	1.7	5.0	ug/kg	40	ND	113	48-149			11/11/16	
Naphthalene	20	1.0	5.0	ug/kg	20	ND	98	10-148			11/11/16	
n-Butylbenzene	24	0.59	5.0	ug/kg	20	ND	122	12-147			11/11/16	
n-Propylbenzene	23	0.69	5.0	ug/kg	20	ND	116	21-150			11/11/16	
o-Xylene	22	1.0	5.0	ug/kg	20	ND	110	22-147			11/11/16	
p-Isopropyltoluene	22	0.53	5.0	ug/kg	20	ND	110	19-145			11/11/16	
sec-Butylbenzene	22	0.57	5.0	ug/kg	20	ND	110	19-147			11/11/16	
Styrene	22	0.52	5.0	ug/kg	20	ND	109	14-149			11/11/16	
tert-Butylbenzene	23	0.61	5.0	ug/kg	20	ND	113	16-147			11/11/16	
Tetrachloroethene (PCE)	25	1.5	5.0	ug/kg	20	ND	123	10-198			11/11/16	
Toluene	21	0.74	5.0	ug/kg	20	ND	107	11-172			11/11/16	
trans-1,2-Dichloroethene	23	0.63	5.0	ug/kg	20	ND	114	39-162			11/11/16	
trans-1,3-Dichloropropene	22	1.1	5.0	ug/kg	20	ND	111	26-137			11/11/16	
Trichloroethene (TCE)	24	0.55	5.0	ug/kg	20	ND	119	17-172			11/11/16	
Trichlorofluoromethane	22	1.0	5.0	ug/kg	20	ND	111	36-170			11/11/16	
Vinyl Chloride	20	1.6	5.0	ug/kg	20	ND	100	43-164			11/11/16	
Surrogate: 1,2-Dichloroethane-d4	*50*				*50*		*100*	*70-130*			11/11/16	
Surrogate: Bromofluorobenzene	*48*				*50*		*97*	*70-130*			11/11/16	
Surrogate: Toluene-d8	*48*				*50*		*96*	*70-130*			11/11/16	
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615833-BLK1)												

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615833-BLK1)												
1,1,1,2-Tetrachloroethane	ND	1.2	5.0	ug/kg							11/17/16	
1,1,1-Trichloroethane	ND	0.99	5.0	ug/kg							11/17/16	
1,1,2,2-Tetrachloroethane	ND	0.83	5.0	ug/kg							11/17/16	
1,1,2-Trichloroethane	ND	0.99	5.0	ug/kg							11/17/16	
1,1-Dichloroethane	ND	1.0	5.0	ug/kg							11/17/16	
1,1-Dichloroethene	ND	0.87	5.0	ug/kg							11/17/16	
1,1-Dichloropropene	ND	1.4	5.0	ug/kg							11/17/16	
1,2,3-Trichlorobenzene	ND	0.93	5.0	ug/kg							11/17/16	
1,2,3-Trichloropropane	ND	1.0	5.0	ug/kg							11/17/16	
1,2,4-Trichlorobenzene	ND	0.92	5.0	ug/kg							11/17/16	
1,2,4-Trimethylbenzene	ND	0.90	5.0	ug/kg							11/17/16	
1,2-Dibromoethane (EDB)	ND	0.69	5.0	ug/kg							11/17/16	
1,2-Dichlorobenzene	ND	1.0	5.0	ug/kg							11/17/16	
1,2-Dichloroethane	ND	1.1	5.0	ug/kg							11/17/16	
1,2-Dichloropropane	ND	0.43	5.0	ug/kg							11/17/16	
1,3,5-Trimethylbenzene	ND	0.70	5.0	ug/kg							11/17/16	
1,3-Dichlorobenzene	ND	1.0	5.0	ug/kg							11/17/16	
1,3-Dichloropropane	ND	1.0	5.0	ug/kg							11/17/16	
1,4-Dichlorobenzene	ND	0.62	5.0	ug/kg							11/17/16	
2,2-Dichloropropane	ND	0.88	5.0	ug/kg							11/17/16	
2-Butanone	ND	2.7	5.0	ug/kg							11/17/16	
2-Chlorotoluene	ND	0.88	5.0	ug/kg							11/17/16	
2-Hexanone	ND	1.0	5.0	ug/kg							11/17/16	
4-Chlorotoluene	ND	0.67	5.0	ug/kg							11/17/16	
4-Methyl-2-pentanone	ND	1.8	5.0	ug/kg							11/17/16	
Acetone	4.4	0.99	5.0	ug/kg							11/17/16	B2.0, J
Benzene	ND	0.50	5.0	ug/kg							11/17/16	
Bromobenzene	ND	0.88	5.0	ug/kg							11/17/16	
Bromochloromethane	ND	0.67	5.0	ug/kg							11/17/16	
Bromodichloromethane	ND	0.61	5.0	ug/kg							11/17/16	
Bromoform	ND	1.3	5.0	ug/kg							11/17/16	
Bromomethane	ND	1.8	5.0	ug/kg							11/17/16	
Carbon disulfide	ND	1.0	5.0	ug/kg							11/17/16	
Carbon Tetrachloride	ND	1.1	5.0	ug/kg							11/17/16	
Chlorobenzene	ND	0.64	5.0	ug/kg							11/17/16	
Chloroethane	ND	1.4	5.0	ug/kg							11/17/16	
Chloroform	ND	0.60	5.0	ug/kg							11/17/16	
Chloromethane	ND	1.6	5.0	ug/kg							11/17/16	
cis-1,2-Dichloroethene	ND	0.84	5.0	ug/kg							11/17/16	
cis-1,3-Dichloropropene	ND	0.73	5.0	ug/kg							11/17/16	
Dibromochloromethane	ND	1.1	5.0	ug/kg							11/17/16	
Dibromochloropropane (DBCP)	ND	1.6	5.0	ug/kg							11/17/16	
Dibromomethane	ND	1.0	5.0	ug/kg							11/17/16	
Dichlorodifluoromethane	ND	0.99	5.0	ug/kg							11/17/16	
Dichloromethane	3.5	0.74	5.0	ug/kg							11/17/16	B2.0, J

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A615833-BLK1)												
Ethylbenzene	ND	0.59	5.0	ug/kg							11/17/16	
Hexachlorobutadiene	ND	0.89	5.0	ug/kg							11/17/16	
Hexachloroethane	ND	1.1	5.0	ug/kg							11/17/16	
Iodomethane	ND	2.1	5.0	ug/kg							11/17/16	
Isopropylbenzene	ND	0.53	5.0	ug/kg							11/17/16	
m,p-Xylenes	ND	1.1	5.0	ug/kg							11/17/16	
Methyl-t-butyl ether	ND	1.7	5.0	ug/kg							11/17/16	
Naphthalene	ND	1.0	5.0	ug/kg							11/17/16	
n-Butylbenzene	ND	0.59	5.0	ug/kg							11/17/16	
n-Propylbenzene	ND	0.69	5.0	ug/kg							11/17/16	
o-Xylene	ND	1.0	5.0	ug/kg							11/17/16	
p-Isopropyltoluene	ND	0.53	5.0	ug/kg							11/17/16	
sec-Butylbenzene	ND	0.57	5.0	ug/kg							11/17/16	
Styrene	ND	0.52	5.0	ug/kg							11/17/16	
tert-Butylbenzene	ND	0.61	5.0	ug/kg							11/17/16	
Tetrachloroethene (PCE)	ND	1.5	5.0	ug/kg							11/17/16	
Toluene	ND	0.74	5.0	ug/kg							11/17/16	
trans-1,2-Dichloroethene	ND	0.63	5.0	ug/kg							11/17/16	
trans-1,3-Dichloropropene	ND	1.1	5.0	ug/kg							11/17/16	
Trichloroethene (TCE)	ND	0.55	5.0	ug/kg							11/17/16	
Trichlorofluoromethane	ND	1.0	5.0	ug/kg							11/17/16	
Vinyl Chloride	ND	1.6	5.0	ug/kg							11/17/16	
Surrogate: 1,2-Dichloroethane-d4	*50*				*50*		*100*	*70-130*			11/17/16	
Surrogate: Bromofluorobenzene	*49*				*50*		*98*	*70-130*			11/17/16	
Surrogate: Toluene-d8	*48*				*50*		*96*	*70-130*			11/17/16	
Blank Spike (A615833-BS1)												
1,1,1,2-Tetrachloroethane	23	1.2	5.0	ug/kg	20		116	75-121			11/17/16	
1,1,1-Trichloroethane	24	0.99	5.0	ug/kg	20		122	75-145			11/17/16	
1,1,2,2-Tetrachloroethane	22	0.83	5.0	ug/kg	20		108	55-151			11/17/16	
1,1,2-Trichloroethane	20	0.99	5.0	ug/kg	20		102	44-159			11/17/16	
1,1-Dichloroethane	24	1.0	5.0	ug/kg	20		119	72-151			11/17/16	
1,1-Dichloroethene	23	0.87	5.0	ug/kg	20		117	68-157			11/17/16	
1,1-Dichloropropene	24	1.4	5.0	ug/kg	20		120	74-149			11/17/16	
1,2,3-Trichlorobenzene	25	0.93	5.0	ug/kg	20		123	53-138			11/17/16	
1,2,3-Trichloropropane	22	1.0	5.0	ug/kg	20		112	50-145			11/17/16	
1,2,4-Trichlorobenzene	26	0.92	5.0	ug/kg	20		130	49-141			11/17/16	
1,2,4-Trimethylbenzene	26	0.90	5.0	ug/kg	20		131	58-138			11/17/16	
1,2-Dibromoethane (EDB)	23	0.69	5.0	ug/kg	20		114	65-135			11/17/16	
1,2-Dichlorobenzene	23	1.0	5.0	ug/kg	20		113	64-127			11/17/16	
1,2-Dichloroethane	24	1.1	5.0	ug/kg	20		122	81-146			11/17/16	
1,2-Dichloropropane	23	0.43	5.0	ug/kg	20		116	75-147			11/17/16	
1,3,5-Trimethylbenzene	24	0.70	5.0	ug/kg	20		118	63-129			11/17/16	
1,3-Dichlorobenzene	24	1.0	5.0	ug/kg	20		119	64-127			11/17/16	
1,3-Dichloropropane	22	1.0	5.0	ug/kg	20		111	62-139			11/17/16	
1,4-Dichlorobenzene	24	0.62	5.0	ug/kg	20		121	62-134			11/17/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike (A615833-BS1)												
2,2-Dichloropropane	24	0.88	5.0	ug/kg	20		120	70-151			11/17/16	
2-Butanone	26	2.7	5.0	ug/kg	20		128	40-209			11/17/16	
2-Chlorotoluene	24	0.88	5.0	ug/kg	20		118	62-131			11/17/16	
2-Hexanone	23	1.0	5.0	ug/kg	20		117	48-166			11/17/16	
4-Chlorotoluene	22	0.67	5.0	ug/kg	20		112	57-137			11/17/16	
4-Methyl-2-pentanone	24	1.8	5.0	ug/kg	20		121	66-163			11/17/16	
Acetone	28	0.99	5.0	ug/kg	20		138	30-216			11/17/16	
Benzene	24	0.50	5.0	ug/kg	20		120	75-147			11/17/16	
Bromobenzene	22	0.88	5.0	ug/kg	20		109	60-129			11/17/16	
Bromochloromethane	24	0.67	5.0	ug/kg	20		122	74-147			11/17/16	
Bromodichloromethane	24	0.61	5.0	ug/kg	20		120	82-146			11/17/16	
Bromoform	23	1.3	5.0	ug/kg	20		113	61-135			11/17/16	
Bromomethane	17	1.8	5.0	ug/kg	20		86	54-194			11/17/16	
Carbon disulfide	24	1.0	5.0	ug/kg	20		120	67-153			11/17/16	
Carbon Tetrachloride	25	1.1	5.0	ug/kg	20		125	71-148			11/17/16	
Chlorobenzene	23	0.64	5.0	ug/kg	20		116	77-116			11/17/16	
Chloroethane	22	1.4	5.0	ug/kg	20		110	36-196			11/17/16	
Chloroform	24	0.60	5.0	ug/kg	20		118	80-149			11/17/16	
Chloromethane	20	1.6	5.0	ug/kg	20		98	46-188			11/17/16	
cis-1,2-Dichloroethene	24	0.84	5.0	ug/kg	20		122	75-147			11/17/16	
cis-1,3-Dichloropropene	23	0.73	5.0	ug/kg	20		115	78-145			11/17/16	
Dibromochloromethane	23	1.1	5.0	ug/kg	20		115	65-136			11/17/16	
Dibromochloropropane (DBCP)	22	1.6	5.0	ug/kg	20		108	44-159			11/17/16	
Dibromomethane	23	1.0	5.0	ug/kg	20		117	78-144			11/17/16	
Dichlorodifluoromethane	18	0.99	5.0	ug/kg	20		88	46-171			11/17/16	
Dichloromethane	27	0.74	5.0	ug/kg	20		135	75-148			11/17/16	
Ethylbenzene	23	0.59	5.0	ug/kg	20		113	75-123			11/17/16	
Hexachlorobutadiene	24	0.89	5.0	ug/kg	20		122	55-138			11/17/16	
Hexachloroethane	23	1.1	5.0	ug/kg	20		116	56-134			11/17/16	
Iodomethane	26	2.1	5.0	ug/kg	20		128	43-190			11/17/16	
Isopropylbenzene	23	0.53	5.0	ug/kg	20		114	61-131			11/17/16	
m,p-Xylenes	46	1.1	5.0	ug/kg	40		115	75-118			11/17/16	
Methyl-t-butyl ether	47	1.7	5.0	ug/kg	40		118	73-147			11/17/16	
Naphthalene	22	1.0	5.0	ug/kg	20		109	37-169			11/17/16	
n-Butylbenzene	24	0.59	5.0	ug/kg	20		119	55-142			11/17/16	
n-Propylbenzene	23	0.69	5.0	ug/kg	20		117	60-134			11/17/16	
o-Xylene	22	1.0	5.0	ug/kg	20		112	73-121			11/17/16	
p-Isopropyltoluene	22	0.53	5.0	ug/kg	20		109	60-130			11/17/16	
sec-Butylbenzene	23	0.57	5.0	ug/kg	20		114	59-132			11/17/16	
Styrene	23	0.52	5.0	ug/kg	20		116	71-126			11/17/16	
tert-Butylbenzene	23	0.61	5.0	ug/kg	20		115	61-130			11/17/16	
Tetrachloroethene (PCE)	23	1.5	5.0	ug/kg	20		117	58-139			11/17/16	
Toluene	22	0.74	5.0	ug/kg	20		112	65-136			11/17/16	
trans-1,2-Dichloroethene	24	0.63	5.0	ug/kg	20		120	65-156			11/17/16	
trans-1,3-Dichloropropene	23	1.1	5.0	ug/kg	20		117	52-151			11/17/16	
Trichloroethene (TCE)	25	0.55	5.0	ug/kg	20		123	71-148			11/17/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike (A615833-BS1)												
Trichlorofluoromethane	23	1.0	5.0	ug/kg	20		113	62-159			11/17/16	
Vinyl Chloride	21	1.6	5.0	ug/kg	20		103	61-169			11/17/16	
Surrogate: 1,2-Dichloroethane-d4	*49*				*50*		*98*	*70-130*			11/17/16	
Surrogate: Bromofluorobenzene	*48*				*50*		*97*	*70-130*			11/17/16	
Surrogate: Toluene-d8	*48*				*50*		*97*	*70-130*			11/17/16	
Blank Spike Dup (A615833-BSD1)												
1,1,1,2-Tetrachloroethane	22	1.2	5.0	ug/kg	20		111	75-121	5	30	11/17/16	
1,1,1-Trichloroethane	23	0.99	5.0	ug/kg	20		113	75-145	8	30	11/17/16	
1,1,2,2-Tetrachloroethane	22	0.83	5.0	ug/kg	20		108	55-151	0	30	11/17/16	
1,1,2-Trichloroethane	22	0.99	5.0	ug/kg	20		108	44-159	5	30	11/17/16	
1,1-Dichloroethane	23	1.0	5.0	ug/kg	20		114	72-151	4	30	11/17/16	
1,1-Dichloroethene	22	0.87	5.0	ug/kg	20		110	68-157	7	30	11/17/16	
1,1-Dichloropropene	23	1.4	5.0	ug/kg	20		117	74-149	3	30	11/17/16	
1,2,3-Trichlorobenzene	25	0.93	5.0	ug/kg	20		124	53-138	2	30	11/17/16	
1,2,3-Trichloropropane	21	1.0	5.0	ug/kg	20		106	50-145	5	30	11/17/16	
1,2,4-Trichlorobenzene	25	0.92	5.0	ug/kg	20		124	49-141	4	30	11/17/16	
1,2,4-Trimethylbenzene	24	0.90	5.0	ug/kg	20		122	58-138	7	30	11/17/16	
1,2-Dibromoethane (EDB)	21	0.69	5.0	ug/kg	20		107	65-135	6	30	11/17/16	
1,2-Dichlorobenzene	22	1.0	5.0	ug/kg	20		110	64-127	3	30	11/17/16	
1,2-Dichloroethane	23	1.1	5.0	ug/kg	20		114	81-146	7	30	11/17/16	
1,2-Dichloropropane	23	0.43	5.0	ug/kg	20		116	75-147	0	30	11/17/16	
1,3,5-Trimethylbenzene	21	0.70	5.0	ug/kg	20		107	63-129	10	30	11/17/16	
1,3-Dichlorobenzene	23	1.0	5.0	ug/kg	20		116	64-127	3	30	11/17/16	
1,3-Dichloropropane	22	1.0	5.0	ug/kg	20		111	62-139	0	30	11/17/16	
1,4-Dichlorobenzene	24	0.62	5.0	ug/kg	20		120	62-134	1	30	11/17/16	
2,2-Dichloropropane	23	0.88	5.0	ug/kg	20		114	70-151	5	30	11/17/16	
2-Butanone	21	2.7	5.0	ug/kg	20		104	40-209	21	30	11/17/16	
2-Chlorotoluene	22	0.88	5.0	ug/kg	20		110	62-131	7	30	11/17/16	
2-Hexanone	22	1.0	5.0	ug/kg	20		108	48-166	8	30	11/17/16	
4-Chlorotoluene	21	0.67	5.0	ug/kg	20		106	57-137	5	30	11/17/16	
4-Methyl-2-pentanone	21	1.8	5.0	ug/kg	20		105	66-163	14	30	11/17/16	
Acetone	28	0.99	5.0	ug/kg	20		142	30-216	2	30	11/17/16	
Benzene	24	0.50	5.0	ug/kg	20		119	75-147	1	30	11/17/16	
Bromobenzene	22	0.88	5.0	ug/kg	20		109	60-129	0	30	11/17/16	
Bromochloromethane	24	0.67	5.0	ug/kg	20		120	74-147	1	30	11/17/16	
Bromodichloromethane	24	0.61	5.0	ug/kg	20		119	82-146	1	30	11/17/16	
Bromoform	22	1.3	5.0	ug/kg	20		108	61-135	4	30	11/17/16	
Bromomethane	15	1.8	5.0	ug/kg	20		77	54-194	11	30	11/17/16	
Carbon disulfide	22	1.0	5.0	ug/kg	20		111	67-153	7	30	11/17/16	
Carbon Tetrachloride	23	1.1	5.0	ug/kg	20		117	71-148	7	30	11/17/16	
Chlorobenzene	23	0.64	5.0	ug/kg	20		113	77-116	3	30	11/17/16	
Chloroethane	21	1.4	5.0	ug/kg	20		105	36-196	5	30	11/17/16	
Chloroform	23	0.60	5.0	ug/kg	20		116	80-149	2	30	11/17/16	
Chloromethane	17	1.6	5.0	ug/kg	20		87	46-188	12	30	11/17/16	
cis-1,2-Dichloroethene	23	0.84	5.0	ug/kg	20		114	75-147	7	30	11/17/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A615833											Prepared: 11/17/2016	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike Dup (A615833-BSD1)												
cis-1,3-Dichloropropene	24	0.73	5.0	ug/kg	20		121	78-145	5	30	11/17/16	
Dibromochloromethane	22	1.1	5.0	ug/kg	20		112	65-136	2	30	11/17/16	
Dibromochloropropane (DBCP)	20	1.6	5.0	ug/kg	20		101	44-159	7	30	11/17/16	
Dibromomethane	23	1.0	5.0	ug/kg	20		116	78-144	1	30	11/17/16	
Dichlorodifluoromethane	17	0.99	5.0	ug/kg	20		84	46-171	4	30	11/17/16	
Dichloromethane	26	0.74	5.0	ug/kg	20		129	75-148	4	30	11/17/16	
Ethylbenzene	21	0.59	5.0	ug/kg	20		107	75-123	6	30	11/17/16	
Hexachlorobutadiene	20	0.89	5.0	ug/kg	20		102	55-138	18	30	11/17/16	
Hexachloroethane	22	1.1	5.0	ug/kg	20		109	56-134	6	30	11/17/16	
Iodomethane	23	2.1	5.0	ug/kg	20		115	43-190	10	30	11/17/16	
Isopropylbenzene	22	0.53	5.0	ug/kg	20		108	61-131	6	30	11/17/16	
m,p-Xylenes	44	1.1	5.0	ug/kg	40		109	75-118	5	30	11/17/16	
Methyl-t-butyl ether	48	1.7	5.0	ug/kg	40		119	73-147	1	30	11/17/16	
Naphthalene	24	1.0	5.0	ug/kg	20		118	37-169	8	30	11/17/16	
n-Butylbenzene	21	0.59	5.0	ug/kg	20		107	55-142	10	30	11/17/16	
n-Propylbenzene	22	0.69	5.0	ug/kg	20		110	60-134	6	30	11/17/16	
o-Xylene	21	1.0	5.0	ug/kg	20		107	73-121	4	30	11/17/16	
p-Isopropyltoluene	21	0.53	5.0	ug/kg	20		103	60-130	6	30	11/17/16	
sec-Butylbenzene	21	0.57	5.0	ug/kg	20		106	59-132	8	30	11/17/16	
Styrene	23	0.52	5.0	ug/kg	20		113	71-126	3	30	11/17/16	
tert-Butylbenzene	22	0.61	5.0	ug/kg	20		108	61-130	6	30	11/17/16	
Tetrachloroethene (PCE)	21	1.5	5.0	ug/kg	20		107	58-139	9	30	11/17/16	
Toluene	21	0.74	5.0	ug/kg	20		106	65-136	5	30	11/17/16	
trans-1,2-Dichloroethene	22	0.63	5.0	ug/kg	20		110	65-156	8	30	11/17/16	
trans-1,3-Dichloropropene	22	1.1	5.0	ug/kg	20		112	52-151	5	30	11/17/16	
Trichloroethene (TCE)	23	0.55	5.0	ug/kg	20		115	71-148	7	30	11/17/16	
Trichlorofluoromethane	21	1.0	5.0	ug/kg	20		104	62-159	9	30	11/17/16	
Vinyl Chloride	20	1.6	5.0	ug/kg	20		98	61-169	5	30	11/17/16	
Surrogate: 1,2-Dichloroethane-d4	*53*				*50*		*106*	*70-130*			11/17/16	
Surrogate: Bromofluorobenzene	*49*				*50*		*99*	*70-130*			11/17/16	
Surrogate: Toluene-d8	*47*				*50*		*95*	*70-130*			11/17/16	
EPA 8270C - Quality Control												
Batch: A615965											Prepared: 11/21/2016	
Prep Method: EPA 3550B											Analyst: KHH	
Blank (A615965-BLK1)												
1,2,4-Trichlorobenzene	ND	6.3	100	ug/kg							11/23/16	
2,4,6-Trichlorophenol	ND	4.4	200	ug/kg							11/23/16	
2,4-Dichlorophenol	ND	7.2	100	ug/kg							11/23/16	
2,4-Dimethylphenol	ND	44	100	ug/kg							11/23/16	
2,4-Dinitrophenol	ND	74	1000	ug/kg							11/23/16	
2,4-Dinitrotoluene	ND	8.7	100	ug/kg							11/23/16	
2,6-Dinitrotoluene	ND	11	100	ug/kg							11/23/16	
2-Chloronaphthalene	ND	3.4	100	ug/kg							11/23/16	
2-Chlorophenol	ND	5.7	100	ug/kg							11/23/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8270C - Quality Control												
Batch: A615965											Prepared: 11/21/2016	
Prep Method: EPA 3550B											Analyst: KHH	
Blank (A615965-BLK1)												
2-Nitrophenol	ND	17	100	ug/kg							11/23/16	
3,3-Dichlorobenzidine	ND	45	650	ug/kg							11/23/16	
4,6-Dinitro-2-methylphenol	ND	37	500	ug/kg							11/23/16	
4-Bromophenyl phenyl ether	ND	4.7	100	ug/kg							11/23/16	
4-Chloro-3-methylphenol	ND	13	200	ug/kg							11/23/16	
4-Chlorophenyl phenyl ether	ND	3.6	100	ug/kg							11/23/16	
4-Nitrophenol	ND	8.4	1000	ug/kg							11/23/16	
Acenaphthene	ND	0.072	100	ug/kg							11/23/16	
Acenaphthylene	ND	0.056	100	ug/kg							11/23/16	
Anthracene	ND	0.24	100	ug/kg							11/23/16	
Benzo(a)anthracene	ND	0.092	100	ug/kg							11/23/16	
Benzo(a)pyrene	ND	0.17	100	ug/kg							11/23/16	
Benzo(b)fluoranthene	ND	0.17	100	ug/kg							11/23/16	
Benzo(g,h,i)perylene	ND	0.12	100	ug/kg							11/23/16	
Benzo(k)fluoranthene	ND	0.10	100	ug/kg							11/23/16	
Bis(2-chloroethoxy)methane	ND	5.4	100	ug/kg							11/23/16	
Bis(2-chloroethyl) ether	ND	9.3	1700	ug/kg							11/23/16	
Bis(2-chloroisopropyl) ether	ND	9.8	330	ug/kg							11/23/16	
Bis(2-ethylhexyl) phthalate	ND	17	500	ug/kg							11/23/16	
Butyl benzyl phthalate	ND	4.6	100	ug/kg							11/23/16	
Chrysene	ND	0.051	100	ug/kg							11/23/16	
Dibenzo(a,h)anthracene	ND	0.073	100	ug/kg							11/23/16	
Diethyl phthalate	ND	1.1	100	ug/kg							11/23/16	
Dimethyl phthalate	ND	1.6	100	ug/kg							11/23/16	
Di-n-butyl phthalate	ND	12	100	ug/kg							11/23/16	
Di-n-octyl phthalate	ND	2.7	100	ug/kg							11/23/16	
Fluoranthene	ND	0.073	100	ug/kg							11/23/16	
Fluorene	ND	0.048	100	ug/kg							11/23/16	
Hexachlorobenzene	ND	6.4	100	ug/kg							11/23/16	
Hexachlorobutadiene	ND	7.3	100	ug/kg							11/23/16	
Indeno(1,2,3-cd)pyrene	0.23	0.10	100	ug/kg							11/23/16	B2.0, J
Isophorone	ND	5.4	100	ug/kg							11/23/16	
Naphthalene	ND	0.066	100	ug/kg							11/23/16	
Nitrobenzene	ND	11	100	ug/kg							11/23/16	
N-Nitrosodi-n-propylamine (NDPA)	ND	11	500	ug/kg							11/23/16	
N-Nitrosodiphenylamine (as DPA)	ND	11	100	ug/kg							11/23/16	
Pentachlorophenol	ND	10	1000	ug/kg							11/23/16	
Phenanthrene	ND	0.24	100	ug/kg							11/23/16	
Phenol	ND	6.6	100	ug/kg							11/23/16	
Pyrene	ND	0.10	100	ug/kg							11/23/16	
Surrogate: 2,4,6-Tribromophenol	*600*				*500*		*120*	*41-200*			11/23/16	
Surrogate: 2-Fluorobiphenyl	*450*				*500*		*90*	*46-144*			11/23/16	
Surrogate: 2-Fluorophenol	*220*				*500*		*45*	*30-155*			11/23/16	
Surrogate: Nitrobenzene-d5	*400*				*500*		*80*	*30-149*			11/23/16	
Surrogate: Phenol-d6	*320*				*500*		*65*	*40-162*			11/23/16	
Surrogate: p-Terphenyl-d14	*460*				*500*		*93*	*45-161*			11/23/16	

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Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
EPA 8270C - Quality Control													
Batch: A615965											Prepared: 11/21/2016		
Prep Method: EPA 3550B											Analyst: KHH		
Blank Spike (A615965-BS1)													
1,2,4-Trichlorobenzene	420	6.3	100	ug/kg	500		85	46-117			11/23/16		
2,4,6-Trichlorophenol	400	4.4	200	ug/kg	500		80	53-123			11/23/16		
2,4-Dichlorophenol	390	7.2	100	ug/kg	500		79	50-121			11/23/16		
2,4-Dimethylphenol	220	44	100	ug/kg	500		44	12-109			11/23/16		
2,4-Dinitrophenol	ND	74	1000	ug/kg	500		0	28-147			11/23/16	BS	***Low***
2,4-Dinitrotoluene	400	8.7	100	ug/kg	500		80	44-152			11/23/16		
2,6-Dinitrotoluene	380	11	100	ug/kg	500		77	45-144			11/23/16		
2-Chloronaphthalene	430	3.4	100	ug/kg	500		86	54-113			11/23/16		
2-Chlorophenol	280	5.7	100	ug/kg	500		57	44-103			11/23/16		
2-Nitrophenol	390	17	100	ug/kg	500		78	36-128			11/23/16		
3,3-Dichlorobenzidine	1800	45	650	ug/kg	2000		90	10-127			11/23/16		
4,6-Dinitro-2-methylphenol	190	37	500	ug/kg	500		39	24-140			11/23/16	J	
4-Bromophenyl phenyl ether	450	4.7	100	ug/kg	500		91	55-122			11/23/16		
4-Chloro-3-methylphenol	420	13	200	ug/kg	500		84	58-121			11/23/16		
4-Chlorophenyl phenyl ether	440	3.6	100	ug/kg	500		87	56-122			11/23/16		
4-Nitrophenol	390	8.4	1000	ug/kg	500		77	57-127			11/23/16	J	
Acenaphthene	8.8	0.072	100	ug/kg	10		88	57-115			11/23/16	J	
Acenaphthylene	7.9	0.056	100	ug/kg	10		79	38-119			11/23/16	J	
Anthracene	8.5	0.24	100	ug/kg	10		85	31-129			11/23/16	J	
Benzo(a)anthracene	11	0.092	100	ug/kg	10		105	68-143			11/23/16	J	
Benzo(a)pyrene	9.8	0.17	100	ug/kg	10		98	29-150			11/23/16	J	
Benzo(b)fluoranthene	14	0.17	100	ug/kg	10		140	62-144			11/23/16	J	
Benzo(g,h,i)perylene	13	0.12	100	ug/kg	10		133	18-193			11/23/16	J	
Benzo(k)fluoranthene	14	0.10	100	ug/kg	10		139	62-133			11/23/16	BS, J	***High***
Bis(2-chloroethoxy)methane	420	5.4	100	ug/kg	500		85	56-110			11/23/16		
Bis(2-chloroethyl) ether	330	9.3	1700	ug/kg	500		67	45-110			11/23/16	J	
Bis(2-chloroisopropyl) ether	400	9.8	330	ug/kg	500		79	46-117			11/23/16		
Bis(2-ethylhexyl) phthalate	440	17	500	ug/kg	500		88	53-119			11/23/16	J	
Butyl benzyl phthalate	420	4.6	100	ug/kg	500		83	50-120			11/23/16		
Chrysene	8.4	0.051	100	ug/kg	10		84	61-117			11/23/16	J	
Dibenzo(a,h)anthracene	12	0.073	100	ug/kg	10		121	22-200			11/23/16	J	
Diethyl phthalate	460	1.1	100	ug/kg	500		92	55-121			11/23/16		
Dimethyl phthalate	450	1.6	100	ug/kg	500		89	43-133			11/23/16		
Di-n-butyl phthalate	440	12	100	ug/kg	500		88	67-110			11/23/16		
Di-n-octyl phthalate	420	2.7	100	ug/kg	500		83	48-135			11/23/16		
Fluoranthene	8.8	0.073	100	ug/kg	10		88	62-126			11/23/16	J	
Fluorene	9.0	0.048	100	ug/kg	10		90	60-117			11/23/16	J	
Hexachlorobenzene	430	6.4	100	ug/kg	500		87	55-124			11/23/16		
Hexachlorobutadiene	450	7.3	100	ug/kg	500		89	39-127			11/23/16		
Indeno(1,2,3-cd)pyrene	12	0.10	100	ug/kg	10		119	28-185			11/23/16	J	
Isophorone	420	5.4	100	ug/kg	500		84	47-122			11/23/16		
Naphthalene	8.6	0.066	100	ug/kg	10		86	56-112			11/23/16	J	
Nitrobenzene	380	11	100	ug/kg	500		77	52-117			11/23/16		
N-Nitrosodi-n-propylamine (NDPA)	380	11	500	ug/kg	500		76	37-125			11/23/16	J	
N-Nitrosodiphenylamine (as DPA)	490	11	100	ug/kg	500		98	58-142			11/23/16		
Pentachlorophenol	340	10	1000	ug/kg	500		68	28-147			11/23/16	J	

BSK Associates Fresno

Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
EPA 8270C - Quality Control													
Batch: A615965											Prepared: 11/21/2016		
Prep Method: EPA 3550B											Analyst: KHH		
Blank Spike (A615965-BS1)													
Phenanthrene	9.4	0.24	100	ug/kg	10		94	39-143			11/23/16	J	
Phenol	190	6.6	100	ug/kg	500		38	32-117			11/23/16		
Pyrene	8.2	0.10	100	ug/kg	10		82	50-127			11/23/16	J	
Surrogate: 2,4,6-Tribromophenol	*700*				*500*		*140*	*41-200*			11/23/16		
Surrogate: 2-Fluorobiphenyl	*450*				*500*		*89*	*46-144*			11/23/16		
Surrogate: 2-Fluorophenol	*120*				*500*		*24*	*30-155*			11/23/16	*SR.x*	
Surrogate: Nitrobenzene-d5	*390*				*500*		*79*	*30-149*			11/23/16		
Surrogate: Phenol-d6	*230*				*500*		*47*	*40-162*			11/23/16		
Surrogate: p-Terphenyl-d14	*420*				*500*		*85*	*45-161*			11/23/16		
Blank Spike Dup (A615965-BSD1)													
1,2,4-Trichlorobenzene	420	6.3	100	ug/kg	500		83	46-117	2	30	11/23/16		
2,4,6-Trichlorophenol	400	4.4	200	ug/kg	500		81	53-123	1	30	11/23/16		
2,4-Dichlorophenol	400	7.2	100	ug/kg	500		81	50-121	2	30	11/23/16		
2,4-Dimethylphenol	250	44	100	ug/kg	500		50	12-109	13	30	11/23/16		
2,4-Dinitrophenol	ND	74	1000	ug/kg	500		0	28-147		30	11/23/16	BS	***Low***
2,4-Dinitrotoluene	390	8.7	100	ug/kg	500		78	44-152	2	30	11/23/16		
2,6-Dinitrotoluene	380	11	100	ug/kg	500		75	45-144	2	30	11/23/16		
2-Chloronaphthalene	430	3.4	100	ug/kg	500		85	54-113	1	30	11/23/16		
2-Chlorophenol	300	5.7	100	ug/kg	500		61	44-103	7	30	11/23/16		
2-Nitrophenol	400	17	100	ug/kg	500		81	36-128	3	30	11/23/16		
3,3-Dichlorobenzidine	1700	45	650	ug/kg	2000		87	10-127	3	30	11/23/16		
4,6-Dinitro-2-methylphenol	190	37	500	ug/kg	500		39	24-140	0	30	11/23/16	J	
4-Bromophenyl phenyl ether	420	4.7	100	ug/kg	500		84	55-122	8	30	11/23/16		
4-Chloro-3-methylphenol	420	13	200	ug/kg	500		84	58-121	0	30	11/23/16		
4-Chlorophenyl phenyl ether	440	3.6	100	ug/kg	500		88	56-122	1	30	11/23/16		
4-Nitrophenol	390	8.4	1000	ug/kg	500		79	57-127	2	30	11/23/16	J	
Acenaphthene	8.6	0.072	100	ug/kg	10		86	57-115	2	30	11/23/16	J	
Acenaphthylene	7.7	0.056	100	ug/kg	10		77	38-119	2	30	11/23/16	J	
Anthracene	8.5	0.24	100	ug/kg	10		85	31-129	0	30	11/23/16	J	
Benzo(a)anthracene	11	0.092	100	ug/kg	10		105	68-143	0	30	11/23/16	J	
Benzo(a)pyrene	9.8	0.17	100	ug/kg	10		98	29-150	0	30	11/23/16	J	
Benzo(b)fluoranthene	13	0.17	100	ug/kg	10		130	62-144	8	30	11/23/16	J	
Benzo(g,h,i)perylene	11	0.12	100	ug/kg	10		111	18-193	18	30	11/23/16	J	
Benzo(k)fluoranthene	13	0.10	100	ug/kg	10		128	62-133	9	30	11/23/16	J	
Bis(2-chloroethoxy)methane	420	5.4	100	ug/kg	500		85	56-110	0	30	11/23/16		
Bis(2-chloroethyl) ether	370	9.3	1700	ug/kg	500		73	45-110	9	30	11/23/16	J	
Bis(2-chloroisopropyl) ether	400	9.8	330	ug/kg	500		81	46-117	2	30	11/23/16		
Bis(2-ethylhexyl) phthalate	420	17	500	ug/kg	500		84	53-119	4	30	11/23/16	J	
Butyl benzyl phthalate	400	4.6	100	ug/kg	500		80	50-120	4	30	11/23/16		
Chrysene	8.2	0.051	100	ug/kg	10		82	61-117	2	30	11/23/16	J	
Dibenzo(a,h)anthracene	12	0.073	100	ug/kg	10		115	22-200	5	30	11/23/16	J	
Diethyl phthalate	450	1.1	100	ug/kg	500		90	55-121	1	30	11/23/16		
Dimethyl phthalate	450	1.6	100	ug/kg	500		90	43-133	1	30	11/23/16		
Di-n-butyl phthalate	430	12	100	ug/kg	500		85	67-110	3	30	11/23/16		
Di-n-octyl phthalate	410	2.7	100	ug/kg	500		82	48-135	2	30	11/23/16		

BSK Associates Fresno

Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8270C - Quality Control												
Batch: A615965											Prepared: 11/21/2016	
Prep Method: EPA 3550B											Analyst: KHH	
Blank Spike Dup (A615965-BSD1)												
Fluoranthene	8.7	0.073	100	ug/kg	10		87	62-126	1	30	11/23/16	J
Fluorene	8.8	0.048	100	ug/kg	10		88	60-117	2	30	11/23/16	J
Hexachlorobenzene	420	6.4	100	ug/kg	500		83	55-124	4	30	11/23/16	
Hexachlorobutadiene	430	7.3	100	ug/kg	500		87	39-127	2	30	11/23/16	
Indeno(1,2,3-cd)pyrene	11	0.10	100	ug/kg	10		113	28-185	5	30	11/23/16	J
Isophorone	420	5.4	100	ug/kg	500		85	47-122	1	30	11/23/16	
Naphthalene	8.3	0.066	100	ug/kg	10		83	56-112	3	30	11/23/16	J
Nitrobenzene	390	11	100	ug/kg	500		78	52-117	2	30	11/23/16	
N-Nitrosodi-n-propylamine (NDPA)	410	11	500	ug/kg	500		82	37-125	8	30	11/23/16	J
N-Nitrosodiphenylamine (as DPA)	490	11	100	ug/kg	500		97	58-142	1	30	11/23/16	
Pentachlorophenol	330	10	1000	ug/kg	500		67	28-147	2	30	11/23/16	J
Phenanthrene	9.1	0.24	100	ug/kg	10		91	39-143	3	30	11/23/16	J
Phenol	220	6.6	100	ug/kg	500		43	32-117	14	30	11/23/16	
Pyrene	8.0	0.10	100	ug/kg	10		80	50-127	3	30	11/23/16	J
Surrogate: 2,4,6-Tribromophenol	*700*				*500*		*139*	*41-200*			11/23/16	
Surrogate: 2-Fluorobiphenyl	*440*				*500*		*88*	*46-144*			11/23/16	
Surrogate: 2-Fluorophenol	*160*				*500*		*31*	*30-155*			11/23/16	
Surrogate: Nitrobenzene-d5	*410*				*500*		*81*	*30-149*			11/23/16	
Surrogate: Phenol-d6	*270*				*500*		*53*	*40-162*			11/23/16	
Surrogate: p-Terphenyl-d14	*410*				*500*		*83*	*45-161*			11/23/16	
Matrix Spike (A615965-MS1), Source: A6K1361-01												
1,2,4-Trichlorobenzene	400	6.3	100	ug/kg	500	ND	80	46-117			11/23/16	
2,4,6-Trichlorophenol	96	4.4	200	ug/kg	500	ND	19	53-123			11/23/16	MS1.0 ***Low***, J
2,4-Dichlorophenol	300	7.2	100	ug/kg	500	ND	61	50-121			11/23/16	
2,4-Dimethylphenol	310	44	100	ug/kg	500	ND	63	12-109			11/23/16	
2,4-Dinitrophenol	ND	74	1000	ug/kg	500	ND	0	28-147			11/23/16	MS1.0 ***Low***
2,4-Dinitrotoluene	360	8.7	100	ug/kg	500	ND	73	44-152			11/23/16	
2,6-Dinitrotoluene	340	11	100	ug/kg	500	ND	68	45-144			11/23/16	
2-Chloronaphthalene	420	3.4	100	ug/kg	500	ND	85	54-113			11/23/16	
2-Chlorophenol	240	5.7	100	ug/kg	500	ND	49	44-103			11/23/16	
2-Nitrophenol	160	17	100	ug/kg	500	ND	32	36-128			11/23/16	MS1.0 ***Low***
3,3-Dichlorobenzidine	1300	45	650	ug/kg	2000	ND	68	10-127			11/23/16	
4,6-Dinitro-2-methylphenol	ND	37	500	ug/kg	500	ND	0	24-140			11/23/16	MS1.0 ***Low***
4-Bromophenyl phenyl ether	410	4.7	100	ug/kg	500	ND	84	55-122			11/23/16	
4-Chloro-3-methylphenol	430	13	200	ug/kg	500	ND	86	58-121			11/23/16	
4-Chlorophenyl phenyl ether	430	3.6	100	ug/kg	500	ND	87	56-122			11/23/16	
4-Nitrophenol	18	8.4	1000	ug/kg	500	ND	4	57-127			11/23/16	MS1.0 ***Low***, J
Acenaphthene	9.6	0.072	100	ug/kg	9.9	ND	97	57-115			11/23/16	J
Acenaphthylene	7.5	0.056	100	ug/kg	9.9	ND	76	38-119			11/23/16	J
Anthracene	11	0.24	100	ug/kg	9.9	ND	114	31-129			11/23/16	J
Benzo(a)anthracene	9.7	0.092	100	ug/kg	9.9	0.59	92	68-143			11/23/16	J
Benzo(a)pyrene	10	0.17	100	ug/kg	9.9	ND	104	29-150			11/23/16	J
Benzo(b)fluoranthene	18	0.17	100	ug/kg	9.9	1.2	167	62-144			11/23/16	MS1.0 ***High***, J

BSK Associates Fresno

Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8270C - Quality Control												
Batch: A615965											Prepared: 11/21/2016	
Prep Method: EPA 3550B											Analyst: KHH	
Matrix Spike (A615965-MS1), Source: A6K1361-01												
Benzo(g,h,i)perylene	11	0.12	100	ug/kg	9.9	ND	116	18-193			11/23/16	J
Benzo(k)fluoranthene	14	0.10	100	ug/kg	9.9	0.19	140	62-133			11/23/16	MS1.0 ***High***, J
Bis(2-chloroethoxy)methane	410	5.4	100	ug/kg	500	ND	83	56-110			11/23/16	
Bis(2-chloroethyl) ether	350	9.3	1700	ug/kg	500	ND	71	45-110			11/23/16	J
Bis(2-chloroisopropyl) ether	410	9.8	330	ug/kg	500	ND	84	46-117			11/23/16	
Bis(2-ethylhexyl) phthalate	460	17	500	ug/kg	500	29	88	53-119			11/23/16	J
Butyl benzyl phthalate	410	4.6	100	ug/kg	500	ND	83	50-120			11/23/16	
Chrysene	11	0.051	100	ug/kg	9.9	0.38	104	61-117			11/23/16	J
Dibenzo(a,h)anthracene	11	0.073	100	ug/kg	9.9	ND	113	22-200			11/23/16	J
Diethyl phthalate	430	1.1	100	ug/kg	500	ND	87	55-121			11/23/16	
Dimethyl phthalate	450	1.6	100	ug/kg	500	ND	91	43-133			11/23/16	
Di-n-butyl phthalate	430	12	100	ug/kg	500	ND	86	67-110			11/23/16	
Di-n-octyl phthalate	430	2.7	100	ug/kg	500	ND	86	48-135			11/23/16	
Fluoranthene	20	0.073	100	ug/kg	9.9	6.7	132	62-126			11/23/16	MS1.0 ***High***, J
Fluorene	9.5	0.048	100	ug/kg	9.9	ND	96	60-117			11/23/16	J
Hexachlorobenzene	410	6.4	100	ug/kg	500	ND	83	55-124			11/23/16	
Hexachlorobutadiene	430	7.3	100	ug/kg	500	ND	86	39-127			11/23/16	
Indeno(1,2,3-cd)pyrene	11	0.10	100	ug/kg	9.9	ND	108	28-185			11/23/16	J
Isophorone	390	5.4	100	ug/kg	500	ND	79	47-122			11/23/16	
Naphthalene	8.6	0.066	100	ug/kg	9.9	ND	87	56-112			11/23/16	J
Nitrobenzene	390	11	100	ug/kg	500	ND	78	52-117			11/23/16	
N-Nitrosodi-n-propylamine (NDPA)	380	11	500	ug/kg	500	ND	76	37-125			11/23/16	J
N-Nitrosodiphenylamine (as DPA)	520	11	100	ug/kg	500	ND	104	58-142			11/23/16	
Pentachlorophenol	29	10	1000	ug/kg	500	ND	6	28-147			11/23/16	MS1.0 ***Low***, J
Phenanthrene	14	0.24	100	ug/kg	9.9	3.7	108	39-143			11/23/16	J
Phenol	230	6.6	100	ug/kg	500	28	41	32-117			11/23/16	
Pyrene	17	0.10	100	ug/kg	9.9	5.7	114	50-127			11/23/16	J
Surrogate: 2,4,6-Tribromophenol	*120*				*500*		*25*	*41-200*			11/23/16	*SR2.3*
Surrogate: 2-Fluorobiphenyl	*420*				*500*		*86*	*46-144*			11/23/16	
Surrogate: 2-Fluorophenol	*110*				*500*		*22*	*30-155*			11/23/16	*SR2.3*
Surrogate: Nitrobenzene-d5	*400*				*500*		*81*	*30-149*			11/23/16	
Surrogate: Phenol-d6	*250*				*500*		*50*	*40-162*			11/23/16	
Surrogate: p-Terphenyl-d14	*420*				*500*		*86*	*45-161*			11/23/16	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAP program for the following parameters:

Conductivity @ 25C, DI Extract
Nitrate as N, DI Extract
Nitrite as N, DI Extract
Percent Moisture

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno			
State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAP	4021
EPA - UCMR3	CA00079	State of Washington	C997-16
Sacramento			
State of California - ELAP	2435		
San Bernardino			
State of California - ELAP	2993	State of Oregon - NELAP	4119-001
Vancouver			
State of Oregon - NELAP	WA100008-008	State of Washington	C824-16

BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 · FAX (559) 497-2893 · www.bsklabs.com

A6K1361
natio5839

11/11/2016
5

* Required Fields

Temp 0.3

Client/Company Name *:	Report Attention* :	Phone* 9287505837 Fax* :
National OM	Jane May	Email : jmay@nationalom.com

Address*	City*	State*	Zip*
P.O. Box 21187	Roanoke	VA	24018

Project Information: Wildwings Anual Sludge Acceptance Testing 2016

PO#

Quote#

Carbon Copies: (Circle One)
CDHS Fresno Co EPA
Merced Co Tulare Co
Other:

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only

REGULATORY COMPLIANCE
Electronic Data Transfer: Y N
System No.*

Sampler Name Printed / Signature*: Jane May / JMay

QC Request: STD Level II

Result Request **Surcharge: STD 5Day** 2Day** 1 Day** (Std 11.11.16)

Matrix Types: RSW= Raw Surface Water CFW= Chlorinated Finished Water CWW= Chlorinated Waste Water BW= Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

ANALYSIS REQUESTED

Sample #	# Btls	Sampled* Date	Sampled* Time	Sample Description/Location*	Matrix*	Comments / Station Code	EC Percent Moisture	PH Nitrate N Nitrite N	CAM 17 metals	A1,8,Cr(VI) Fe Mn	EPA 8260	STLC Decision	EPA 8082	EPA 8270	EPA 8290 Dioxin Furans
1	4	11-9-16	1230	Wildwings Digested Sludge	Sludge		X	X	X	X	X	X	X	X	X

Per Jane - a PAUL talked to someone here at the lab - Set everything up & Gonna pay by Credit Card. # 540-492 2332. -T Graham

Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
Jane May	National OM	11-10-16	1614	11-10-16	BSK-SAC
C. Grant	BSK-SAC	11/10/16	1619		
Samantha Zepeda		11/10/16	1000		

Payment Received at Delivery:
Date: Amount: Check/Cash/Card PIA# Init.

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material:

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent Delinquent balances are subject to monthly service/re-billings charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, cost of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, an the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chin of Custody. The turn around time for any samples received after 3:00pm will begin the next business day.

BSK Associates SR-FL-0002-16

Sample Integrity

BSK Bottles: (Yes) No Page 1 of 1

COC Info

Was temperature within range? Chemistry **≤ 6°C** Micro **< 10°C**	(Yes) No NA	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No (NA)	Were there bubbles in the VOA vials? **(Volatiles Only)**	Yes No (NA)
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	Yes (No)
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: By/Time:	Yes No (NA)

Bottles Received — "_" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?					
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—					
Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 **DW**	Cl, pH > 8	Y N					
Cr6 (P) Pink Label/Blue Cap NH4OH(NH4)2SO4 **WW**	pH 9.3-9.7	Y N					
Cr6 (P) Black Label/Blue Cap NH4OH(NH4)2SO4 **7199** ***24 HOUR HOLD TIME***	pH 9.0-9.5	Y N					
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—	—					
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
NaOH (P) Green Cap	Cl, pH >10	Y N					
NaOH + ZnAc (P)	pH > 9	Y N					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel	—	—					
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—					
Na_2O_3S 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	Y N					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Other:							
Asbestos 1Liter Plastic w/ Foil	—	—					
Low Level Hg / Metals Double Baggie	—	—					
Bottled Water	—	—					
Clear Glass 250mL / (500mL) / 1 Liter	—	—	1				
Soil Tube Brass / Steel / Plastic	—	—					
Tedlar Bag / Plastic Bag	—	—					

11/10/16 SD

11/11/16 SD

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Labeled by: JH @ 1027 Labels checked by: JH @ 10:28 RUSH Paged by: _____ @ _____

Maxxam
A Bureau Veritas Group Company

Your Project #: A6K1361
Your C.O.C. #: na

Attention:Michelle Kawaguchi

BSK Analytical Laboratories
1414 Stanislaus Street
Fresno, CA
USA 93706

Report Date: 2016/12/17
Report #: R4291264
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6O8621
Received: 2016/11/15, 14:39

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Dioxins/Furans in Soil (8290A) (1)	1	2016/11/21	2016/11/26	BRL SOP-00406	EPA 8290A m
Moisture	1	N/A	2016/11/18	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.
U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.
E = Analyte concentration exceeds the maximum concentration level.
K = Estimated maximum possible concentration due to ion abundance ratio failure.

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Maxxam
A Bureau Veritas Group Company

Your Project #: A6K1361
Your C.O.C. #: na

Attention:Michelle Kawaguchi

BSK Analytical Laboratories
1414 Stanislaus Street
Fresno, CA
USA 93706

Report Date: 2016/12/17
Report #: R4291264
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6O8621
Received: 2016/11/15, 14:39

Encryption Key M. Di Grazia Melissa DiGrazia
Project Manager - ATUT
19 Dec 2016 09:42:03

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Melissa DiGrazia, Project Manager - ATUT
Email: MDiGrazia@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B6O8621
Report Date: 2016/12/17

BSK Analytical Laboratories
Client Project #: A6K1361

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DLM929			
Sampling Date		2016/11/09 12:30			
COC Number		na			
	UNITS	**A6K1361-01**	**RDL**	**MDL**	**QC Batch**
Moisture	%	79	1.0	0.50	4754314

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		DLM929							
Sampling Date		2016/11/09 12:30							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	A6K1361-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.19 J	0.12	2.0	0.40	1.00	0.190	N/A	4764383
1,2,3,7,8-Penta CDD *	pg/g	0.11 U	0.11	5.0	0.40	1.00	0.110	N/A	4764383
1,2,3,4,7,8-Hexa CDD *	pg/g	0.12 U	0.12	5.0	0.40	0.100	0.0120	N/A	4764383
1,2,3,6,7,8-Hexa CDD *	pg/g	0.27 U (1)	0.27	5.0	0.40	0.100	0.0270	N/A	4764383
1,2,3,7,8,9-Hexa CDD *	pg/g	0.35 J	0.10	5.0	0.40	0.100	0.0350	N/A	4764383
1,2,3,4,6,7,8-Hepta CDD *	pg/g	6.83	0.13	5.0	0.40	0.0100	0.0683	N/A	4764383
Octa CDD *	pg/g	64.8	0.12	10	0.80	0.000300	0.0194	N/A	4764383
Total Tetra CDD *	pg/g	2.37	0.12	2.0	0.40	N/A	N/A	3	4764383
Total Penta CDD *	pg/g	2.23 J	0.11	5.0	0.40	N/A	N/A	1	4764383
Total Hexa CDD *	pg/g	2.18 J	0.10	5.0	0.40	N/A	N/A	3	4764383
Total Hepta CDD *	pg/g	14.2	0.13	5.0	0.40	N/A	N/A	2	4764383
2,3,7,8-Tetra CDF **	pg/g	0.65 U (2)	0.65	2.0	0.40	0.100	0.0650	N/A	4764383
1,2,3,7,8-Penta CDF **	pg/g	0.14 U (1)	0.14	5.0	0.40	0.0300	0.00420	N/A	4764383
2,3,4,7,8-Penta CDF **	pg/g	0.19 J	0.12	5.0	0.40	0.300	0.0570	N/A	4764383
1,2,3,4,7,8-Hexa CDF **	pg/g	0.26 J	0.12	5.0	0.40	0.100	0.0260	N/A	4764383
1,2,3,6,7,8-Hexa CDF **	pg/g	0.11 U	0.11	5.0	0.40	0.100	0.0110	N/A	4764383
2,3,4,6,7,8-Hexa CDF **	pg/g	0.16 J	0.13	5.0	0.40	0.100	0.0160	N/A	4764383
1,2,3,7,8,9-Hexa CDF **	pg/g	0.15 U	0.15	5.0	0.40	0.100	0.0150	N/A	4764383
1,2,3,4,6,7,8-Hepta CDF **	pg/g	1.54 J	0.11	5.0	0.40	0.0100	0.0154	N/A	4764383
1,2,3,4,7,8,9-Hepta CDF **	pg/g	0.16 U	0.16	5.0	0.40	0.0100	0.00160	N/A	4764383
Octa CDF **	pg/g	3.21 J	0.17	10	0.80	0.000300	0.000963	N/A	4764383
Total Tetra CDF **	pg/g	3.36	0.14	2.0	0.40	N/A	N/A	8	4764383
Total Penta CDF **	pg/g	1.04 J	0.12	5.0	0.40	N/A	N/A	3	4764383
Total Hexa CDF **	pg/g	1.47 J	0.12	5.0	0.40	N/A	N/A	4	4764383
Total Hepta CDF **	pg/g	2.51 J	0.13	5.0	0.40	N/A	N/A	2	4764383

EDL = Estimated Detection Limit

RDL = Reportable Detection Limit

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

QC Batch = Quality Control Batch

* CDD = Chloro Dibenzo-p-Dioxin

N/A = Not Applicable

** CDF = Chloro Dibenzo-p-Furan

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

(2) RT > 3 seconds - PCDD/DF analysis - Peak detected exceeds expected retention time (from internal standard) by greater than 3 seconds.

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DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		DLM929							
Sampling Date		2016/11/09 12:30							
COC Number		na				**TOXIC EQUIVALENCY**		# of	
	UNITS	**A6K1361-01**	**EDL**	**RDL**	**MDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
TOTAL TOXIC EQUIVALENCY	pg/g	N/A	N/A	N/A	N/A	N/A	0.674	N/A	N/A
Surrogate Recovery (%)									
C13-1234678 HeptaCDD *	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-1234678 HeptaCDF **	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-123478 HexaCDF **	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-123678 HexaCDD *	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-12378 PentaCDD *	%	103	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-12378 PentaCDF **	%	112	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-2378 TetraCDD *	%	115	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-2378 TetraCDF **	%	119	N/A	N/A	N/A	N/A	N/A	N/A	4764383
C13-OCDD *	%	91	N/A	N/A	N/A	N/A	N/A	N/A	4764383

EDL = Estimated Detection Limit

RDL = Reportable Detection Limit

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

QC Batch = Quality Control Batch

N/A = Not Applicable

* CDD = Chloro Dibenzo-p-Dioxin

** CDF = Chloro Dibenzo-p-Furan

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Maxxam Job #: B6O8621
Report Date: 2016/12/17

BSK Analytical Laboratories
Client Project #: A6K1361

TEST SUMMARY

Maxxam ID: DLM929
Sample ID: A6K1361-01
Matrix: Soil

Collected: 2016/11/09
Shipped:
Received: 2016/11/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dioxins/Furans in Soil (8290A)	HRMS/MS	4764383	2016/11/21	2016/11/26	Mark Reid
Moisture	BAL	4754314	N/A	2016/11/18	Nimarta Singh

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GENERAL COMMENTS

Results relate only to the items tested.

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Maxxam Job #: B6O8621
Report Date: 2016/12/17

BSK Analytical Laboratories
Client Project #: A6K1361

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4754314	GYA	RPD - Sample/Sample Dup	Moisture	2016/11/18	1.6		%	20
4764383	MR2	Spiked Blank	C13-1234678 HeptaCDD	2016/11/24		76	%	40 - 135
			C13-1234678 HeptaCDF	2016/11/24		77	%	40 - 135
			C13-123478 HexaCDF	2016/11/24		79	%	40 - 135
			C13-123678 HexaCDD	2016/11/24		74	%	40 - 135
			C13-12378 PentaCDD	2016/11/24		108	%	40 - 135
			C13-12378 PentaCDF	2016/11/24		119	%	40 - 135
			C13-2378 TetraCDD	2016/11/24		104	%	40 - 135
			C13-2378 TetraCDF	2016/11/24		106	%	40 - 135
			C13-OCDD	2016/11/24		67	%	40 - 135
			2,3,7,8-Tetra CDD	2016/11/24		103	%	80 - 140
			1,2,3,7,8-Penta CDD	2016/11/24		105	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2016/11/24		100	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2016/11/24		100	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2016/11/24		103	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2016/11/24		100	%	80 - 140
			Octa CDD	2016/11/24		103	%	80 - 140
			2,3,7,8-Tetra CDF	2016/11/24		93	%	80 - 140
			1,2,3,7,8-Penta CDF	2016/11/24		81	%	80 - 140
			2,3,4,7,8-Penta CDF	2016/11/24		98	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2016/11/24		94	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2016/11/24		92	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2016/11/24		97	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2016/11/24		106	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2016/11/24		92	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2016/11/24		101	%	80 - 140
			Octa CDF	2016/11/24		125	%	80 - 140
4764383	MR2	Spiked Blank DUP	C13-1234678 HeptaCDD	2016/11/25		73	%	40 - 135
			C13-1234678 HeptaCDF	2016/11/25		73	%	40 - 135
			C13-123478 HexaCDF	2016/11/25		72	%	40 - 135
			C13-123678 HexaCDD	2016/11/25		72	%	40 - 135
			C13-12378 PentaCDD	2016/11/25		96	%	40 - 135
			C13-12378 PentaCDF	2016/11/25		111	%	40 - 135
			C13-2378 TetraCDD	2016/11/25		90	%	40 - 135
			C13-2378 TetraCDF	2016/11/25		89	%	40 - 135
			C13-OCDD	2016/11/25		68	%	40 - 135
			2,3,7,8-Tetra CDD	2016/11/25		95	%	80 - 140
			1,2,3,7,8-Penta CDD	2016/11/25		112	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2016/11/25		96	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2016/11/25		90	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2016/11/25		101	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2016/11/25		102	%	80 - 140
			Octa CDD	2016/11/25		110	%	80 - 140
			2,3,7,8-Tetra CDF	2016/11/25		90	%	80 - 140
			1,2,3,7,8-Penta CDF	2016/11/25		81	%	80 - 140
			2,3,4,7,8-Penta CDF	2016/11/25		96	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2016/11/25		96	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2016/11/25		96	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2016/11/25		103	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2016/11/25		105	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2016/11/25		91	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2016/11/25		103	%	80 - 140
			Octa CDF	2016/11/25		117	%	80 - 140
4764383	MR2	RPD	2,3,7,8-Tetra CDD	2016/11/25	8.1		%	25

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			1,2,3,7,8-Penta CDD	2016/11/25	6.5		%	25
			1,2,3,4,7,8-Hexa CDD	2016/11/25	4.1		%	25
			1,2,3,6,7,8-Hexa CDD	2016/11/25	11		%	25
			1,2,3,7,8,9-Hexa CDD	2016/11/25	2.0		%	25
			1,2,3,4,6,7,8-Hepta CDD	2016/11/25	2.0		%	25
			Octa CDD	2016/11/25	6.6		%	25
			2,3,7,8-Tetra CDF	2016/11/25	3.3		%	25
			1,2,3,7,8-Penta CDF	2016/11/25	0		%	25
			2,3,4,7,8-Penta CDF	2016/11/25	2.1		%	25
			1,2,3,4,7,8-Hexa CDF	2016/11/25	2.1		%	25
			1,2,3,6,7,8-Hexa CDF	2016/11/25	4.3		%	25
			2,3,4,6,7,8-Hexa CDF	2016/11/25	6.0		%	25
			1,2,3,7,8,9-Hexa CDF	2016/11/25	0.95		%	25
			1,2,3,4,6,7,8-Hepta CDF	2016/11/25	1.1		%	25
			1,2,3,4,7,8,9-Hepta CDF	2016/11/25	2.0		%	25
			Octa CDF	2016/11/25	6.6		%	25
4764383	MR2	Method Blank	C13-1234678 HeptaCDD	2016/11/25		65	%	40 - 135
			C13-1234678 HeptaCDF	2016/11/25		68	%	40 - 135
			C13-123478 HexaCDF	2016/11/25		71	%	40 - 135
			C13-123678 HexaCDD	2016/11/25		75	%	40 - 135
			C13-12378 PentaCDD	2016/11/25		98	%	40 - 135
			C13-12378 PentaCDF	2016/11/25		93	%	40 - 135
			C13-2378 TetraCDD	2016/11/25		96	%	40 - 135
			C13-2378 TetraCDF	2016/11/25		95	%	40 - 135
			C13-OCDD	2016/11/25		60	%	40 - 135
			2,3,7,8-Tetra CDD	2016/11/25	0.12 U, EDL=0.12		pg/g	
			1,2,3,7,8-Penta CDD	2016/11/25	0.073 U, EDL=0.073		pg/g	
			1,2,3,4,7,8-Hexa CDD	2016/11/25	0.076 U, EDL=0.076		pg/g	
			1,2,3,6,7,8-Hexa CDD	2016/11/25	0.061 U, EDL=0.061		pg/g	
			1,2,3,7,8,9-Hexa CDD	2016/11/25	0.067 U, EDL=0.067		pg/g	
			1,2,3,4,6,7,8-Hepta CDD	2016/11/25	0.081 U, EDL=0.081		pg/g	
			Octa CDD	2016/11/25	0.11 U, EDL=0.11		pg/g	
			Total Tetra CDD	2016/11/25	0.12 U, EDL=0.12		pg/g	
			Total Penta CDD	2016/11/25	0.073 U, EDL=0.073		pg/g	
			Total Hexa CDD	2016/11/25	0.068 U, EDL=0.068		pg/g	
			Total Hepta CDD	2016/11/25	0.081 U, EDL=0.081		pg/g	
			2,3,7,8-Tetra CDF	2016/11/25	0.066 U, EDL=0.066		pg/g	
			1,2,3,7,8-Penta CDF	2016/11/25	0.077 U, EDL=0.077		pg/g	
			2,3,4,7,8-Penta CDF	2016/11/25	0.078 U, EDL=0.078		pg/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			1,2,3,4,7,8-Hexa CDF	2016/11/25	0.066 U, EDL=0.066		pg/g	
			1,2,3,6,7,8-Hexa CDF	2016/11/25	0.061 U, EDL=0.061		pg/g	
			2,3,4,6,7,8-Hexa CDF	2016/11/25	0.071 U, EDL=0.071		pg/g	
			1,2,3,7,8,9-Hexa CDF	2016/11/25	0.083 U, EDL=0.083		pg/g	
			1,2,3,4,6,7,8-Hepta CDF	2016/11/25	0.044 U, EDL=0.044		pg/g	
			1,2,3,4,7,8,9-Hepta CDF	2016/11/25	0.063 U, EDL=0.063		pg/g	
			Octa CDF	2016/11/25	0.10 U, EDL=0.10		pg/g	
			Total Tetra CDF	2016/11/25	0.066 U, EDL=0.066		pg/g	
			Total Penta CDF	2016/11/25	0.077 U, EDL=0.077		pg/g	
			Total Hexa CDF	2016/11/25	0.069 U, EDL=0.069		pg/g	
			Total Hepta CDF	2016/11/25	0.052 U, EDL=0.052		pg/g	
4764383	MR2	RPD - Sample/Sample Dup	2,3,7,8-Tetra CDD	2016/11/27	NC		%	25
			1,2,3,7,8-Penta CDD	2016/11/27	NC		%	25
			1,2,3,4,7,8-Hexa CDD	2016/11/27	NC (1)		%	25
			1,2,3,6,7,8-Hexa CDD	2016/11/27	NC (1)		%	25
			1,2,3,7,8,9-Hexa CDD	2016/11/27	NC		%	25
			1,2,3,4,6,7,8-Hepta CDD	2016/11/27	NC		%	25
			Octa CDD	2016/11/27	21		%	25
			2,3,7,8-Tetra CDF	2016/11/27	7.0		%	25
			1,2,3,7,8-Penta CDF	2016/11/27	NC		%	25
			2,3,4,7,8-Penta CDF	2016/11/27	NC		%	25
			1,2,3,4,7,8-Hexa CDF	2016/11/27	NC		%	25
			1,2,3,6,7,8-Hexa CDF	2016/11/27	NC		%	25
			2,3,4,6,7,8-Hexa CDF	2016/11/27	NC		%	25
			1,2,3,7,8,9-Hexa CDF	2016/11/27	NC		%	25
			1,2,3,4,6,7,8-Hepta CDF	2016/11/27	NC		%	25
			1,2,3,4,7,8,9-Hepta CDF	2016/11/27	NC		%	25
			Octa CDF	2016/11/27	NC		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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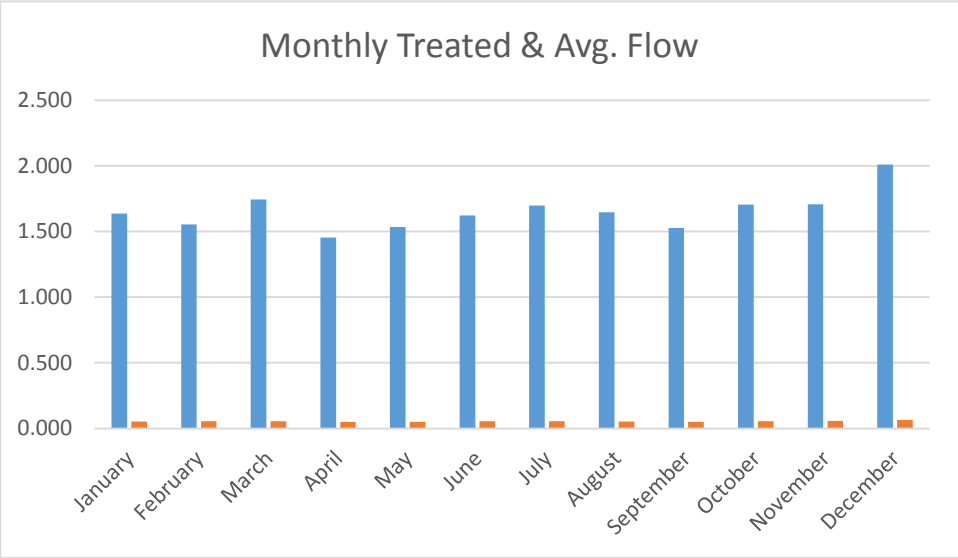
ATTACHMENT 4

Monitoring Data Summary

Wild Wings Water Recycling Facility
Total Treated Flow 2016

Month	Total Treated (MG)	Avg. Daily Flow (MGD)
January	1.637	0.053
February	1.554	0.054
March	1.745	0.056
April	1.455	0.049
May	1.536	0.050
June	1.623	0.054
July	1.697	0.055
August	1.647	0.053
September	1.527	0.051
October	1.706	0.055
November	1.708	0.057
December	2.010	0.065
Total	19.845	0.652
Minimum	1.455	0.049
Maximum	2.010	0.065
Average	1.654	0.054

Wild Wings Water Recycling Facility
Total Treated Flow 2016



Wild Wings Water Recycling Facilty
Tertiary Eff. Weekly Monthly Sampling Results 2016

	Weekly ph Avg.	Weekly BOD Avg.	Weekly TSS Avg.	EC	TDS	TKN	Nitrate (N)	Total Nitrogen	NH3 as N
Jan	8.3	ND	ND	1634	860	0.21	15	16.0	0.11
Feb	8.3	ND	ND	1848	1000	ND	32	32.0	0.22
Mar	8.5	0.7	ND	1162	1100	0.65	0.76	1.4	0.20
Apr	7.5	ND	ND	1323	930	ND	10	10.0	0.22
May	8.1	ND	ND	1698	870	0.27	7.6	7.9	0.14
Jun	8.1	ND	ND	1744	790	0.26	2.5	2.8	0.12
Jul	7.6	ND	ND	1806	770	0.35	0.6	1.0	0.13
Aug	8.2	1.0	1.0	1601	790	5.5	ND	5.5	0.47
Sep	8.2	2.4	ND	1521	740	10	ND	10.0	0.12
Oct	8.3	ND	1.5	1452	740	11.0	0.73	12.0	0.11
Nov	8.3	1.9	ND	1533	660	0.41	1.8	2.2	0.11
Dec	8.5	2.7	5.8	1358	540	1.6	ND	1.6	0.30

Wild Wings Water Recycling Facility
Recycled Water Storage Pond
Weekly Monthly Results 2016

	Avg. Freeboard Weekly	D.O. Weekly	pH Weekly	EC	TDS	Total Nitrogen
Jan	7.4	11.0	8.6	1317	760	9.6
Feb	7.2	10.8	8.6	1381	760	10.0
Mar	7.9	10.4	8.8	1296	780	9.2
Apr	7.5	5.3	8.9	1158	820	3.6
May	8.5	10.8	9.7	1005	665	10.0
Jun	9.1	18.4	9.8	1010	460	ND
Jul	8.9	15.0	8.5	1050	460	ND
Aug	6.3	18.3	8.4	1147	430	ND
Sep	8.4	15.7	9.4	1033	470	2.7
Oct	8.3	12.9	9.1	993	240	1.9
Nov	8.0	13.9	9.1	1147	540	2.3
Dec	10.7	12.2	8.8	1700	600	1.8

ATTACHMENT 5

Wastewater Performance & Compliance

Compliance and Performance of the Wild Wings Water Recycling Facility #R5-2002-0077

National O&M, Inc. assumed operations of the wastewater treatment facility on April 1, 2016. The treatment plant has performed well and has been in compliance with a few minor exceptions.

There have been single instances of high daily maximum coliform of 23 MPN or greater on seven occasions. All events were isolated to single day occurrences with the majority due to high flow. Further we have experienced an equipment failure and laboratory sampling errors.

There was an exceedance of pH reported in March as well as a high storage pond TDS result in April.

Please contact me if you need further information regarding these events.

Thank you,

Paul Bishop
Regional Manager
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