

City of Kalamazoo, Michigan Lead Solubility Testing

PRESENTED TO

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1.0 INTRODUCTION

1.1 BACKGROUND

Historically, the City has used hexametaphosphate for sequestering iron and as a corrosion inhibitor at all their pumping stations throughout the service area. The City of Kalamazoo (City) requested Tetra Tech perform a desk top corrosion control study to evaluate the use of a liquid blended phosphate corrosion inhibitor instead of continuing to feed sodium hexametaphosphate at each of their pumping stations. Tetra Tech was also engaged to perform the design services to implement the conversion to the commercial phosphate inhibitor at each of their stations and other improvements. In March 2017, Tetra Tech recommended the City could switch to a liquid inhibitor product that contained a blend of ortho- and polyphosphate to provide an orthophosphate dose similar to what was measured in the existing system and supplying sufficient polyphosphate to sequester iron and calcium. The City switched to the use of the Carus 8400, which consists of a blend of 60% polyphosphate and 40% orthophosphate at several of their stations. Four of the stations were initially converted to the new feed system and began feeding the Carus 8400 blended phosphate corrosion inhibitor product. Some initial lead sampling results obtained after the change order indicated that the product may not be providing the improved lead corrosion benefit that was anticipated.

Therefore, Tetra Tech was requested to provide a testing program for implementation of a coupon test set up at each of the stations to evaluate the performance of the corrosion inhibitor product. The lead solubility test was intended to study the current product versus other competing products to assess their corrosion control effectiveness. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) reviewed the proposed test plan and recommended that the City perform bench-scale lead solubility tests with different corrosion inhibitors to determine the effectiveness of various blends and different concentrations of orthophosphate before completing a field corrosion inhibitor coupon study. To this end, Tetra Tech completed an initial bench-scale test to evaluate the effect of various corrosion inhibitor products with varying orthophosphate-polyphosphate ratios in the untreated water from Pump Station 14, as a screening level study to guide decision making for final selection of a product to be used system wide. The first round of testing compared the performance of sodium hexametaphosphate at the historical dose, Carus 8400, 8600 and 8700 (blended phosphates) at doses of 1.5 and 3.0 mg/L as PO4, Carus 3900 (zinc polyphosphate) against the chlorinated raw water with no corrosion inhibitor added. The results of the testing showed that the lower dose of the Carus 8400 and the higher dose of the Carus 8700 were most effective. However, the products were not able to reduce the lead release rates to below those of the untreated water after 30 days of exposure when the lead release rates leveled off.

The results of the testing were presented to the City and to EGLE for review and comment. The initial report noted that at higher levels of alkalinity and DIC exhibited by the raw water that lead carbonate would tend to be the dominant corrosion product formed and might not offer the same level of protection that a lead phosphate complex could provide. It was agreed that a second round of solubility testing would be performed in which higher concentrations of orthophosphate would be used and two products containing a higher percentage of orthophosphate would be tested to evaluate their effectiveness.

1.2 PURPOSE

The purpose of this report is to present the results of the second round of bench-scale corrosion inhibitor testing and the assessment of their corrosion control effectiveness. The bench-scale test was completed following the protocol developed by Cornwell as described in "Coupon Procedures for Evaluating Lead and Copper Solubility," Cornwell, David A. and Wagner, Jacob R., October 2019, Volume 111, Issue 10, pp. 12-24. Based on the results from the bench-scale test, this report discusses which corrosion control product and dose was more effective in

treating the City's water and provides observational conclusions and recommendations to help the City decide how to proceed.



2.0 CORROSION INHIBITOR BENCH-SCALE EVALUATION

2.1 BENCH-SCALE TEST OVERVIEW

The project team conducted bench-scale testing of Kalamazoo's untreated water from Pump Station 14 to evaluate the corrosion control effectiveness of different inhibitor products at different doses. The solubility study tested lead release rates using products in which the percentage of orthophosphate varied. A total of thirteen water qualities were tested using four different phosphate-blended products having higher percentages of orthophosphate. The orthophosphate dose for each product was varied from the maximum of 3.0 mg/L used in the first round testing up to a maximum of 6.0 mg/L.

The test included one raw water sample as a blank to understand how the water would behave without the use of a corrosion inhibitor for comparison and three samples of each of corrosion inhibitor using increasing doses of orthophosphate to assess their corrosion control performance with higher orthophosphate concentration and varying polyphosphate concentration. *Table 2-1* summarizes the inhibitor products and their doses that were used in this study.

Description	Jar No.	Product	Poly:Ortho Ratio	Product Dose, mg/L	Orthophosphate Dose, mg/L PO ₄ /L	Polyphosphate Dose, mg/L PO₄/L
Blank	0	-	-	-	-	-
Prior Ortho	1	Carus 8600-P	30:70	4.3	3.00	1.3
Med Ortho	2	Carus 8600-M	30:70	6.4	4.50	1.9
High Ortho	3	Carus 8400-H	30:70	8.6	6.00	2.6
Prior Ortho	4	Carus 8700-P	15:85	3.5	1.50	0.5
Med Ortho	5	Carus 8700-M	15:85	5.3	4.50	0.8
High Ortho	6	Carus 8700-H	15:85	7.1	6.00	1.1
Prior Ortho	7	WSU-178-P	26:74	4.1	3.00	1.1
Med Ortho	8	WSU-178-M	26:74	6.1	4.50	1.6
High Ortho	9	WSU-178-H	26:74	8.1	6.00	2.1
Prior Ortho	11	WSU-110-P	10:90	3.3	3.00	0.3
Med Ortho	12	WSU-110-M	10:90	5.0	4.50	0.5
High Ortho	13	WSU-110-H	10:90	6.7	6.00	0.7

Table 2-1 Lead Solubility Product Testing Matrix

2.2 TEST PROCEDURE

A large sample volume was collected for use throughout the duration of the testing at the beginning of the first round of solubility testing. It was observed during the first round of testing that the dissolved iron in the sample was being oxidized at an increased rate as the test progressed and was causing the raw water sample color and turbidity to increase. The second round of testing required more jars to be tested and therefore, a larger sample volume than the first round of solubility testing. Therefore, a decision was made to collect raw water samples as additional sample volume was required to reduce the impact of iron oxidation upon the sample color and turbidity. Samples were

collected from Pump Station 14 (PS14) on April 26, 2021; May 18, 2021; May 25, 2021; June 8, 2021; June 14, 2021 and June 25, 2021.

Bench scale solubility tests were performed over a period of 12 weeks using raw water from PS14 beginning on May 6, 2021 and concluding with the last set of lead samples collected on July 13, 2021. Thirteen (13) samples were tested twice per week where raw water from PS14 was dosed with different inhibitor products at different doses as described in *Table 2-1*. The more detailed laboratory procedure followed is contained in Appendix A and an overall summary of the procedure is provided here.

Each sample contained 800-mL of untreated water from PS14 and was dosed with the specified corrosion inhibitor solution at the defined doses, and with sodium hypochlorite to simulate current disinfection practices. The pH was adjusted using hydrochloric acid to simulate gas chlorination as currently used at the pump stations. After a 20-minute mixing time, fresh solutions were transferred into 12 ounce (355 mL) wide mouth mason jars and the lead coupons, which were suspended from plexiglass covers, were placed over the top of the jars and excess solution was expelled out thus creating an airtight seal. The remaining fresh solution, or treated sample water, volume was analyzed for the parameters listed in *Table 2-2*. A sample of the treated water sample was withdrawn and sent to an accredited laboratory for analysis of total phosphorus concentration.

The mason jars containing the test solution and the lead coupons were normally allowed to sit for a 3- to 4-day period when a new set of fresh solution samples were prepared. However, due to holidays during the test period and raw water sample collection stagnation periods of a minimum of 2 days and a maximum of 5 days occurred. The lead coupons were then transferred from the spent solution (3 to 4 days old) into the fresh treated water samples. The contents of the spent solution mason jars were analyzed at the end of each exposure period for the parameters listed in *Table 2-2* by withdrawing 100 mL of sample. The remaining spent solution water was acidified with nitric acid to a pH 2 and allowed to stand for approximately 20 hours to dissolve any particulate lead. A sample of this acidified spent solution was sent to an accredited laboratory for analysis of lead concentration.

A total of 13 tests were planned to be performed where Pump Station 14's source water was dosed with corrosion inhibitor products, chlorine, and hydrochloric acid over a 6 week period. The study was planned to last long enough so that the lead concentration curve would flatten out, but not too long to avoid increasing the cost of this preliminary bench-scale study. However, the test was extended to a total of 18 tests after a sample was received with a high level of phosphate in the raw water sample.



Table 2-2 Solubility Test Sampling and Analysis

		Sampling Fre	equency	
Parameter	PS 14 Source Water	Treated Sample Water	End of Each Exposure Period	End of Test Period
	Bench Labo	ratory Measurement	s	
Alkalinity	Each Change Out	Each Jar	Each Jar	
Ammonia	Each Change Out			
Calcium	Each Change Out			
Chloride	Each Change Out			
Conductivity	Each Change Out	Each Jar	Each Jar	
Iron	Each Change Out			
Orthophosphate	Each Change Out	Each Jar	Each Jar	
рН	Each Change Out	Each Jar	Each Jar	
Sulfate	Each Change Out			
Total Chlorine	Each Change Out	Each Jar	Each Jar	
Temperature	Each Change Out	Each Jar	Each Jar	
	Outside	e Laboratory Tests		
Lead	Each Change Out		Each Jar	
Total Phosphorus	Each Change Out	Each Jar		
Coupon Weight Loss	N/A			All Jars

2.3 RESULTS

2.3.1 Raw Water

The raw water from Pump Station 14 was tested for various water quality parameters when each new batch of test solutions was prepared to understand the quality of water prior to chemical addition. The raw water quality is summarized in *Table 2-3*.

Table 2-3 Raw Water Quality

Parameter	Average	Minimum	Maximum
рН	8.04	7.53	8.42
Temperature, °C	22.9	21.1	24.5
Total Chlorine, mg/L	0.03	0.0	0.10
Conductivity, µS/cm	842	667	908
Turbidity, NTU	1.17	0.48	4.03
Alkalinity, mg/L as CaCO₃	284	240	312
Calcium, mg/L as CaCO ₃	203	31	304
Free Ammonia, mg/L	0.07	0.02	0.19
Iron, mg/L	0.08	0.01	0.12
Chloride, mg/L	41.8	10.4	128
Sulfate, mg/L	31	16	82
Color, Pt-Co	9.6	0	44
Orthophosphate, mg/L as PO ₄ ³ -	1.13	0.07	7.64

The test water after chemical addition was analyzed for the water quality parameters described in *Table 2-2*



Table 2-2. Water quality results of fresh test water and spent solution measured in-house are presented in **Appendix A**. Lead and total phosphorus concentrations as tested by an accredited laboratory are summarized in **Appendix B**.

2.3.2 Total Phosphorus

Total phosphorus, Total P, samples were collected for analysis after chemicals were added to the raw water to prepare fresh solution to go in each jar. The raw water generally had minimal total phosphorus levels (< 0.1 mg PO₄/L) which were considered the Total-P baseline that would increase with the addition of phosphate corrosion inhibitors. The sum of raw water Total-P and orthophosphate and polyphosphate levels of each inhibitor product yields Total-P concentrations in the fresh test samples. Figure 2-1 presents the initial concentration of Total P in the test samples. The results generally reflect the expected concentrations of total phosphorus after chemical addition with some outlying results. The second water sample that was collected had a higher level of total P which may have been the result of the station not being in operation at the time the sample was collected which resulted in some water that had residual chemical in it being pulled back into the sample tap. The water sample collected on June 8, 2021 was measured to contain a very high level of Total P as shown in Figure 2-1 for test 11. The normal procedure to make the most efficient use of time and staff was to perform the orthophosphate test following making up the new solutions since the test takes more time to perform. The high orthophosphate level was not discovered until after the jars had been filled with the new solution. The remaining raw water sample was discarded and a new sample was collected as soon as possible. The coupons remained in contact with the solution with the higher phosphate concentration for a period of 6 days waiting for the new sample to arrive. Strict instructions were provided for the collection of any subsequent samples to confirm that Station 14 was in operation so that the sample reflects the raw water quality only without any chemical addition. The testing period was also extended so that several water changes could be performed with the raw without any chemicals in the raw water.



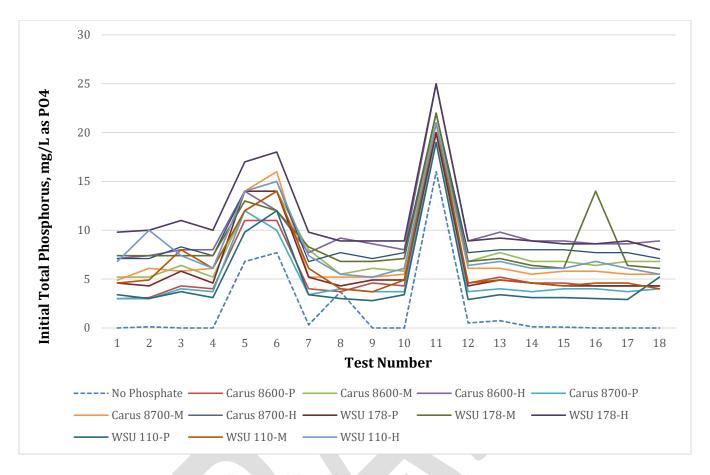


Figure 2-1 Total Phosphorus Concentration

2.3.3 Orthophosphate

The purpose of this study was to test different corrosion inhibitors at varying orthophosphate-to-polyphosphate ratios and with higher concentrations of orthophosphate to determine which product provided better results for corrosion control in the distribution system and if a higher orthophosphate dose provided better lead release control. Orthophosphate is commonly used for lead and copper control and polyphosphate is mainly used for sequestering iron, manganese and calcium. Orthophosphate control on lead and copper release rates depends on the pH and dissolved inorganic carbon (DIC) of the water, on the characteristics of existing corrosion scale, and on the concentration of orthophosphate added. The solutions used in each jar were measured for orthophosphate concentration before introduction of the lead coupons and after the lead coupons were removed. Initial orthophosphate levels are presented in *Figure 2-2*. Resulting orthophosphate concentrations are approximate to the target dosing levels described in *Table 2-1*. As shown in *Figure 2-2* there were variations in the phosphate concentrations in the raw water which may have resulted from water samples being collected when the station was not running and there was some residual chemical in the lines. The water samples obtained for test 13 thru 17 were checked to see that there was not phosphate added and the resulting initial orthophosphate concentrations were consistent at the end of the test with the exception of the WSU 178 product at a dose of 3.0 mg/L as PO4 which was high in the last test.

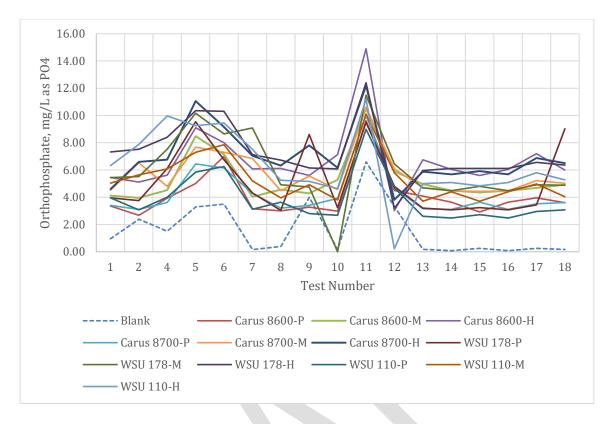


Figure 2-2 Measured Initial Orthophosphate Concentration

2.3.4 Chlorine Residual

While necessary for disinfection, chlorine is an oxidant considered to be a corrosive agent in water. Chlorine is known to affect iron the most, but it also appears to have an effect on lead and copper metals. Chlorine's corrosion potential is typically diminished by increasing the pH of the water or adding orthophosphate. In order to simulate system conditions, chlorine was added to the test samples with a target minimum residual of 1 mg/L after 3 to 4 days of contact time. Chlorine was added in the form of sodium hypochlorite solution after the corrosion inhibitor was added in order to limit the oxidation of dissolved iron. A small amount of hydrochloric acid was added to compensate for the pH effect of adding hypochlorite solution instead of gaseous chlorine solution as currently practiced by the City. The same chlorine dose was added to all the jars and the dose was not adjusted for each jar to achieve the same residual. The chlorine residual was below target levels in the first experiments and, therefore, the chlorine dose was adjusted to meet the 1 to 1.5 mg/L chlorine residual target for all subsequent tests. Figure 2-3 shows chlorine residual of the spent solution after being in contact with lead coupons for a 2 to 6-day period. Although each jar was dosed with the same amount of chlorine the residuals remaining in the jars varied over a range of close to zero to 2.0 mg/L during the test period. The two spikes in chlorine residual measured for test 6 and test 8 do not appear to correlate to other water quality variables measured during the testing. Iron concentrations which can exert a significant chlorine demand were consistently very low during the test. During the middle of the test the water treated with a corrosion inhibitor generally had a higher chlorine residual than the blank, but at the beginning and end of the test the chlorine residual of the blank was generally higher than most of the samples treated with a phosphate inhibitor. Although some variations are present the chlorine residual for each test period the measurements for all jars increased or decreased in a similar pattern.

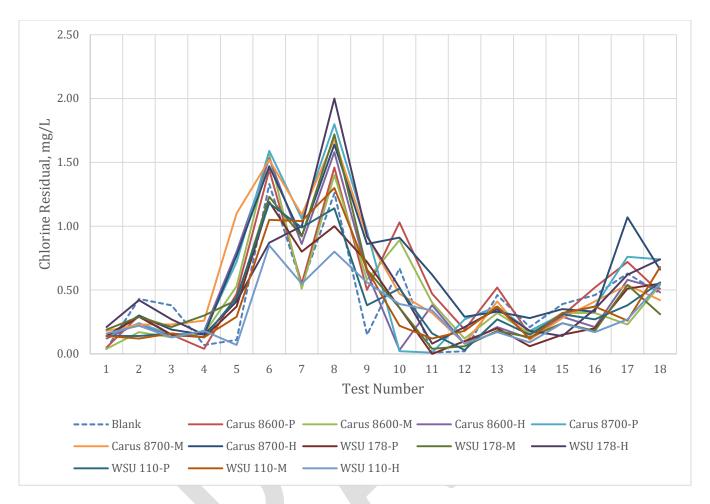


Figure 2-3 Chlorine Residual of Spent Solutions

2.3.5 pH and Alkalinity

Alkalinity is the capacity of water to buffer pH changes that helps maintain a stable pH level. Alkalinity is primarily the sum of carbonate, bicarbonate, and hydrogen and hydroxide ions. Dissolved inorganic carbon (DIC) is a water parameter related to alkalinity, but more relevant to corrosion as it directly measures the carbonate species found in water that can react with lead and copper to form passivating scales. DIC is the total amount of inorganic carbon in the water which equals to the sum of carbon dioxide, carbonic acid, carbonate, and bicarbonate.

The pH, alkalinity, and DIC of water can vary within the distribution system due to interactions between the water and the pipes, biological activity, and decreased disinfectant levels. However, systems try to maintain a buffer intensity, or buffer capacity, that limits pH fluctuations. Literature indicates that waters with a pH range of 8.8 to 10 and low DIC (less than 10 mg/L as C) have high buffer intensity and therefore exhibit less variability in pH levels in the distribution system. And, conversely, high DIC levels may aggravate the solubility of metals found in pipe scales as literature indicates that DIC concentrations above approximately 20 mg/L as C can cause an increase in lead solubility.

Table 2-4 and **Table 2-5** summarize experimental results of pH and alkalinity and calculated results of DIC for the fresh test samples (initial) and the spent solutions (final), respectively. The average pH, alkalinity, and DIC remained stable when comparing the initial and final water qualities which indicates that there was not a significant change in dissolved carbon dioxide while the solutions were in the jars. However, pH values of 7.8 - 8.0 and high DIC values, >60, are not within recommended ranges for metals solubility control. To lower DIC concentrations and increase

pH of the water, carbonic acid needs to be stripped out of the water as carbon dioxide. Another alternative is to increase the water pH with the use of chemicals, including potassium hydroxide, sodium hydroxide, and calcium hydroxide to form a protective scale on the pipe walls to reduce the rate of lead release into the water. However, adjusting the pH or DIC of the test solutions to achieve higher pH or lower DIC to reduce corrosion rates was not part of this study.

Table 2-4 Initial Carbonate System Chemistry

Description		рН		Alkalin	ity, mg/L a	s CaCO₃	DI	C, mg/L a	s C
Description	Max	Min	Average	Max	Min	Average	Max	Min	Average
Raw	8.42	7.53	8.04	312	240	284	77.0	58.5	68.8
Blank	8.41	7.59	7.98	292	222	268	71.8	54.3	64.9
C8600-P	8.30	7.49	7.97	288	220	260	71.8	54.5	63.4
C8600-M	8.27	7.49	8.00	280	192	256	69.0	48.2	62.3
C8400-H	8.33	7.48	7.98	288	234	262	71.9	56.3	63.9
C8700-P	8.34	7.48	7.95	292	236	266	73.7	57.2	65.0
C8700-M	8.31	7.50	7.97	308	232	268	77.0	56.2	65.4
C8700-H	8.28	7.51	7.98	288	234	268	71.5	56.1	65.2
W178-P	8.36	7.50	7.97	292	232	270	71.0	55.8	65.7
W178-M	8.27	7.50	7.96	292	232	270	72.6	56.0	65.9
W178-H	8.27	7.52	8.03	388	232	277	72.9	56.1	65.9
W110-P	8.28	7.55	7.90	290	244	274	72.0	59.1	66.8
W110-M	8.33	7.55	7.99	292	244	277	72.9	58.3	67.1
W110-H	9.32	7.43	8.01	290	248	277	74.3	52.7	67.1

Description		рН		Alkalin	nity, mg/L a	ıs CaCO₃	D	IC, mg/L a	s C
Description	Max	Min	Average	Max	Min	Average	Max	Min	Average
Blank	8.30	7.55	7.95	310	208	273-	78.2	51.0	66.6
C8600-P	8.22	7.61	7.97	294	218	273	73.4	53.0	66.6
C8600-M	8.24	7.61	7.97	292	252	275	72.5	61.1	67.1
C8400-H	8.20	7.58	7.98	290	232	277	71.6	56.3	67.4
C8700-P	8.26	7.49	7.97	286	244	278	72.1	59.4	67.8
C8700-M	8.22	7.50	7.92	289	202	271	72.2	51.2	66.3
C8700-H	8.29	7.41	7.96	294	234	277	73.4	60.1	67.6
W178-P	8.26	7.62	8.01	304	254	278	74.4	61.2	67.6
W178-M	8.24	7.49	7.99	300	266	281	74.7	64.0	68.6
W178-H	8.26	7.57	8.00	308	256	281	75.7	62.7	68.4
W110-P	8.32	7.56	7.99	294	262	281	74.1	63.6	68.3
W110-M	8.27	7.65	8.03	296	264	283	73.8	63.6	68.9
W110-H	8.25	7.57	8.03	292	256	282	71.5	62.3	68.5

Table 2-5 Final Carbonate System Chemistry

2.3.6 Color

Color is a secondary standard that has been found to be objectionable when exceeding 15 color units. High levels of color in drinking water can be a result of dissolved inorganic material, inadequate treatment, iron and manganese precipitates. Metals, including lead, copper, and iron, are also common causes of colored waters as they are released from corroded pipe walls into the bulk water. Corrosion of metal surfaces, dissolution of corrosion scale, and scouring of corrosion sediments can cause metals to release into the bulk water and, therefore, increase color in the water.

Figure 2-4 presents apparent color concentrations of the spent solutions. Apparent color measures insoluble and soluble substances as opposed to true color which only measures soluble substances following sample filtration. In the early part of the test there was significant variation in color values and many jars exceeded the color in the blank, however in the latter portion of the test the values were lower with less variation and the large majority were less than the secondary standard. Average color concentrations ranged between 13.6 and 20.73 Pt-Co units for the treated samples prior to introduction of the coupons and the raw water averaged 9.64 and the chlorinated blank averaged 20.71. The Carus 8700 product was at the high end of the average color and the WSU products were at the lower end. Average color concentrations for the spent solutions ranged between 8.24 and 11.29 Pt Co units and the untreated, chlorinated raw water blank averaged 8.24. The Carus 8700 product was at the high end, but below the secondary standard and the other products had color values less than 10. The average color values for the solutions before the coupons were introduced were higher than the untreated raw water, but lower than the chlorinated, untreated raw water blank and the average color values for the spent solutions after the lead coupons were removed were all below the secondary standard of 15 Pt Co units.

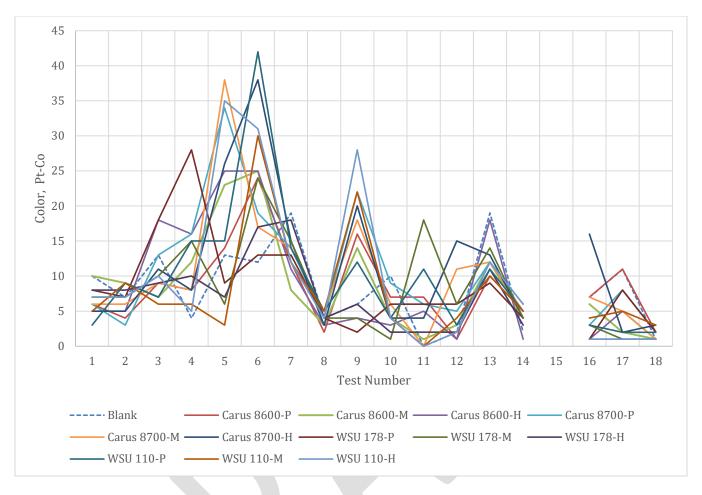


Figure 2-4 Color Levels in Spent Solutions

2.3.7 Turbidity

Turbidity, a measurement of the light scattering ability of insoluble substances in the water, serves as an indicator of the cloudiness of the water. High turbidity can lead to customer complaints and can reduce the effectiveness of the disinfection process. Turbidity of the initial chlorinated, blank sample and the spent solutions is shown in *Figure* 2-5. Turbidity of the raw water following chlorination and prior to the introduction of the lead coupon (initial) varied between 0.32 and 2.74 NTU. The turbidity of the spent solutions after the lead coupons were removed were tightly grouped together as shown in *Figure* 2-5 and were all less than 1 NTU. The turbidities of all the treated water samples after exposure to the lead coupons were less than the initial chlorinated raw water and therefore, it does not appear that the addition of the corrosion inhibitors would not increase the turbidities of the finished water. The turbidities of the spent solutions also closely tracked the turbidity of the blank further reinforcing the conclusion that the addition of the corrosion inhibitors did not contribute to any significant increase in turbidity.

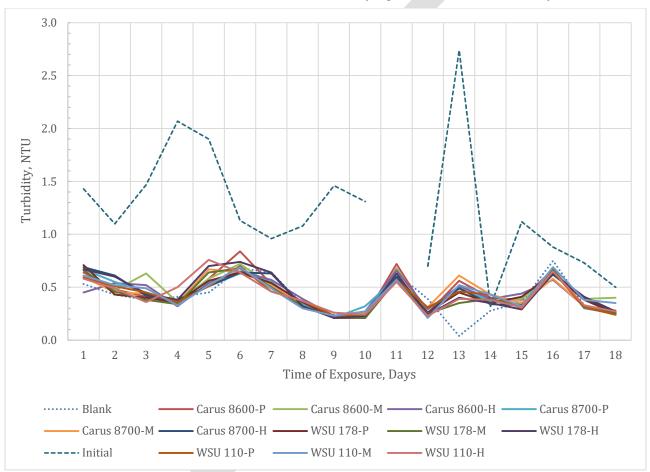


Figure 2-5 Final Turbidity Levels

Table 2-6 presents deviations in turbidity with time for Tests 1, 5, and 11. The final turbidity was measured in spent solutions that were in contact with the lead coupons for a 3 to 4-day period. The remaining sample volume was allowed to stand for an extra 3 to 4 days and turbidity was once again measured. Turbidity can further decrease when the water is allowed to sit for a longer period of time which is representative of distribution conditions where large particles settle in the pipelines as pipe velocities decrease.

The final turbidities in test 1 were all higher with phosphate addition compared to the blank, with the Carus 8700-H and WSU 178 H having the smallest increases with turbidities less than 0.5 NTU. The middle dose of each product

had a higher turbidity increase up to 1-1.5 NTU and the highest turbidity increase was associated with the low dose of Carus 8600. In test 5 the final turbidities were all higher than the blank, the lowest increase was for the low dose of the Carus 8600 and the highest turbidity increase was for the high dose of the Carus 8600. The turbidities of the other products and doses varied between 0.5 and 1.2 NTU which do not represent significant turbidity levels that would lead to customer complaints. The blank solution turbidity after the holding period was not measured in test 11 however, the initial turbidity of the blank was 0.63 for comparison. The turbidities of the solutions varied between 0.29 and 1.22 NTU. All values were less than 1 NTU, except for the low dose of the Carus 8700. The data indicate that the addition of the corrosion inhibitor products did increase the turbidities of many of the samples, the turbidity increases were not large and would not be expected to be high enough that they would be noticeable by customers.

Inhibitor	Fit	nal Turbidity, N	TU	Final + 3	Final + 3-4 Days Turbidity, NTU					
Product	1	5	11	1	5	11				
Blank	1.02	-	0.63	0.19-	0.22	-				
C8600-P	1.10	0.45	0.72	2.00	0.37	0.32				
C8600-M	1.01	0.58	0.68	1.09	0.88	0.73				
C8600-H	0.96	0.58	0.66	0.9	1.53	0.88				
C8700-P	0.89	0.54	0.59	0.74	1.00	1.22				
C8700-M	0.88	0.51	0.55	1.01	0.83	0.64				
C8700-H	1.07	0.67	0.60	0.39	0.59	0.71				
W178-P	0.86	0.51	0.57	0.92	1.02	0.29				
W178-M	0.88	0.56	0.57	1.53	0.54	0.88				
W178-H	0.82	0.64	0.63	0.46	0.72	0.75				
W110-P	0.87	0.70	0.57	0.93	0.59	0.36				
W110-M	0.83	0.51	0.57	1.19	1.01	0.60				
W110-H	0.81	0.52	0.55	0.97	1.15	0.98				

Table 2-6 Turbidity Concentration with Time

2.3.8 Lead Solubility

The lead release rates versus test number are graphed in *Figure 2-6* for comparison to the other water quality results and versus time in *Figure 2-7*. The untreated sample and the 3.0 mg/L dose of Carus 8600 had very high initial lead concentrations whereas all the other products had release rates of around 80 to 150 μ g/L-day. Beginning with the second water change out all the products began a downward trend in terms of lead release rates. The WSU 110 product had two higher lead release rates that did not follow the general trend during the first 40 days. The trend did not continue from 40 days thru 70 days as each test appeared to alternate between high and low release rates and then at the end most of the release rates were increasing.

The Carus 8700 product at a dose of 4.5 mg/L as PO4 maintained the lowest lead release rates over the course of the test for eleven out of the seventeen water change outs and with one exception had a lower release rate than the untreated blank. The performance of this product was more consistent than some of the other products and doses whose release rates varied considerably over the course of the test. The lowest release rate provided by this product was 22 µg/L-day. The Carus 8700 product dosed at 3.0 mg/L also provided consistently low lead release rates over the course of the test, although the values were somewhat higher than those for the 4.5 mg/L dose as

PO4. The WSU products with the higher percentage of orthophosphate produced some of the higher lead release rates and also provided less consistent results. The trend of the lead release rates generally decreased over the first 60 days of the test and increased for the last two water change outs.

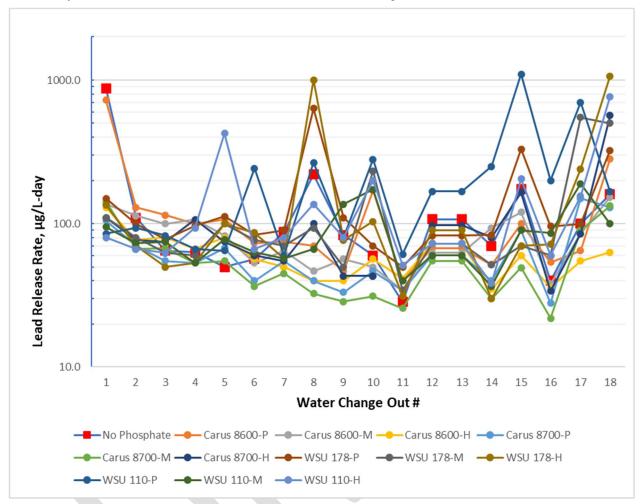


Figure 2-6 Lead Release Rate vs. Test Number

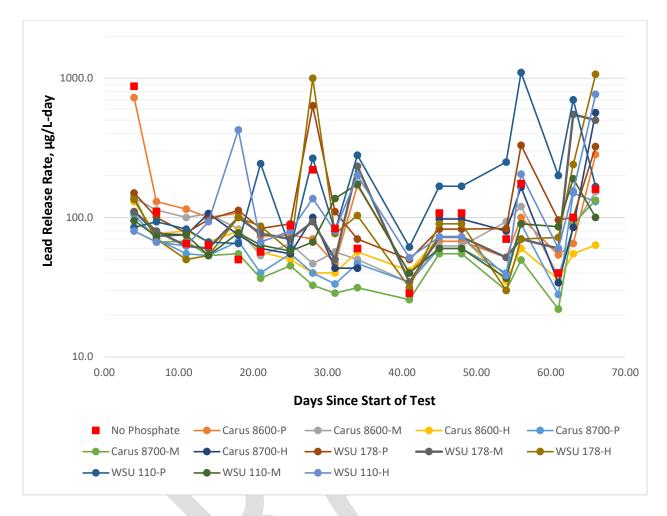


Figure 2-7 Lead Release Rate vs. Time

2.3.9 Lead Corrosion Rate

The rate of corrosion of lead coupons was measured based on a change in mass or weight loss over the test period. Weighed lead coupons were supplied for the test by Metal Samples Company. The coupons were 3-inch long by 1/2 -inch wide and 1/16-inch thick providing an exposed surface area of approximately 3 square inches. As part of this study, thirteen (13) of these lead coupons were inserted into separate mason jars attached to a PVC hanger attached to a plexiglass cover. The coupons were suspended in the test water, which was changed twice per week. The coupons were exposed to the solution in each jar for an average period of 66 days. Lead coupons were weighed prior to and following the bench-scale study to evaluate their rate of corrosion using **Equation 2-1**.

Corrosion Rate,
$$\left(\frac{\text{mils}}{\text{year}}\right) = \frac{(W)(K)}{(D)(A)(T)}$$
 Equation 2-1

Where W is the weight loss in g, D is the density if the metal in g/cm^3 , A is the area of the test specimen in in^2 , T is the exposure time in hours, and K is a constant that equals to 5.34×10^5 .

The information for each coupon used in the test is summarized in **Table 2-7**, and each coupon was photographed at the end of the exposure period before and after weighing. **Figure 2-8** shows the coupons at the end of the exposure period after they had been shipped to Metals Samples for weighing and before cleaning. The coupons

appear to be in relatively good condition without a significant amount of corrosion or corrosion byproduct build up. They appear to have a relatively thin layer of scale covering varying percentages of the surface area. Some of the scale build up and discoloration of the coupons is more brownish in color indicating that some coprecipitation of iron may have occurred.

Table 2-7 Lead Coupon Corrosion Rates

Jar#	Product	Lead Coupon Serial #	Initial Weight, g	Final Weight, g	Weight Loss, mg	Corrosion Rate, mpy
0	Blank	B5711	16.6938	16.6799	0.0139	0.1208
1	Carus 8600-P	B5710	16.7648	16.7570	0.0078	0.0678
2	Carus 8600-M	B5709	17.1558	17.1491	0.0067	0.0582
3	Carus 8400-H	B5708	16.9361	16.9281	0.0080	0.0695
4	Carus 8700-P	B5707	17.2505	17.2393	0.0112	0.0974
5	Carus 8700-M	B5706	16.9124	16.9098	0.0026	0.0226
6	Carus 8700-H	B5705	16.5829	16.5761	0.0068	0.0591
7	WSU-178-P	B5704	16.5373	16.5278	0.0095	0.0826
8	WSU-178-M	B5703	17.1173	17.1073	0.01	0.0869
9	WSU-178-H	B5702	16.9627	16.9523	0.0104	0.0904
11	WSU-110-P	B5701	16.8571	16.8493	0.0078	0.0678
12	WSU-110-M	B5700	17.3124	17.2947	0.0177	0.1539
13	WSU-110-H	B5699	16.6554	16.6462	0.0092	0.0800

The lowest corrosion rate was exhibited by Jar 5 which was dosed with Carus 8700 at 4.5 mg/L as PO4. This product also provided the lowest lead release rates in the solubility testing. The next two lowest corrosion rates were for Jar 2 dosed with Carus 8600 at a dose of 4.5 mg/L as PO4 and Jar 6 dosed with Carus 8700 at a dose of 6.0 mg/L as PO4. The blank that was not treated with a corrosion inhibitor had a corrosion rate that was 5 times greater than Jar 5 and approximately 2 times greater than the rates for Jars 2 and 6. Looking at the data for the three doses of each product there does not appear to be a discernible relationship between increasing orthophosphate dose and the lead coupon corrosion rate. The jar that had the lowest corrosion rate, Jar 5, was dosed with 4.5 mg/L as PO4 and the jar that had the highest corrosion rate, Jar 12, was also dosed with 4.5 mg/L as PO4. The product used in Jar 5 provided about 0.8 mg/L of polyphosphate and the product used in Jar 12 had about 0.5 mg/L of polyphosphate.

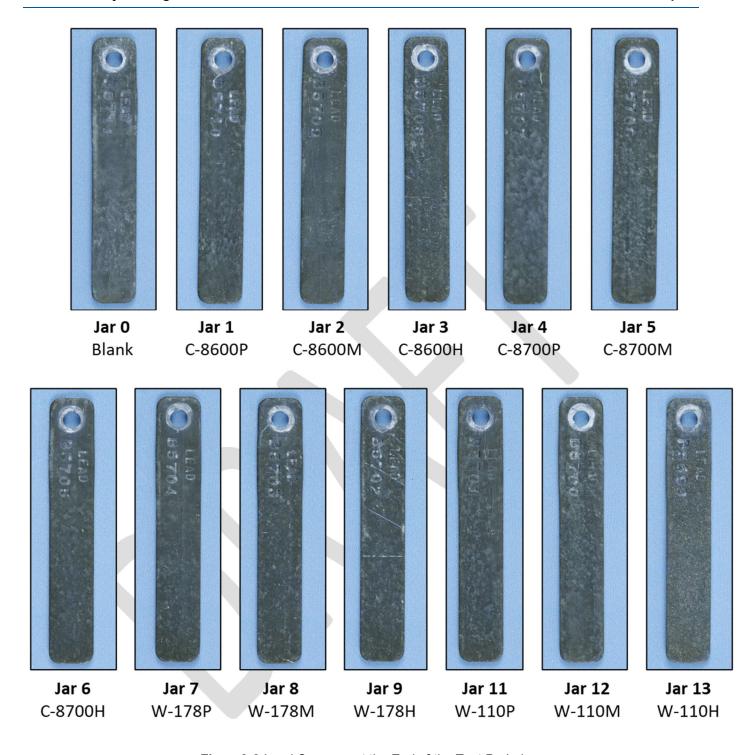


Figure 2-8 Lead Coupons at the End of the Test Period

2.4 DISCUSSION AND RECOMMENDATIONS

Two primary objectives of the second round of lead solubility testing were to determine if feeding a higher dose of orthophosphate would decrease lead solubility more than the 1.5 and 3.0 mg/L dose used in the first round of testing. The second objective was to see if having a higher percentage of orthophosphate in the blended phosphate inhibitor product increased, decreased or had limited impact upon the release of lead into solution. To evaluate the effect of increasing the orthophosphate dose the lead release results were plotted for each individual product tested for the 3.0, 4.5 and 6.0 mg/L orthophosphate dose target. The resulting graphs are shown in *Figure 2-9.* The 3.0 mg/L dose is the green line, the 4.5 mg/L is the grey line and the 6.0 mg/L dose is the orange line.

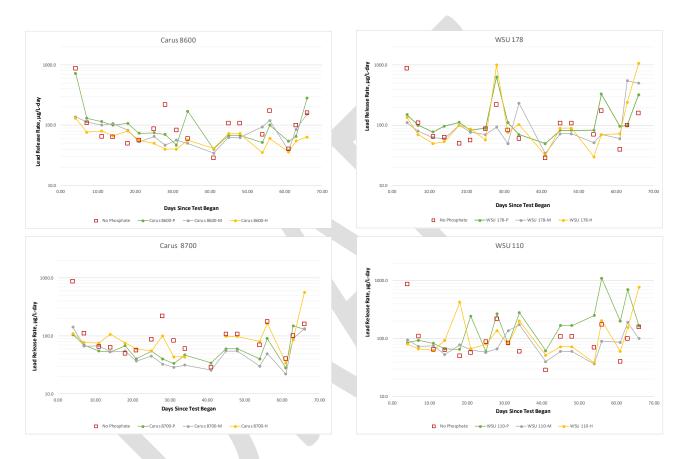


Figure 2-9 Lead Release Rate vs. Dose for Each Product

For the Carus 8600 the highest dose provided the lowest overall lead release rates with 60% of the values less than the blank. The 3.0 and 4.5 mg/L orthophosphate doses of the Carus 8600 had higher release rates than the 6.0 mg/L dose over almost the entire test and showed more variability. The lowest single release rate provided by the Carus 8600 was over 30 μ g/L-day. For the Carus 8700 product the lowest overall lead release rates were produced by the 4.5 mg/L orthophosphate dose with about half of the values below the untreated water. The lowest single lead release rate for the Carus 8700 medium dose was a little over 20 μ g/L-day. The 3.0 mg/L dose of the Carus 8700 appears to follow the same pattern as the medium dose, but with higher release rates throughout the test. The highest dose, 6.0 mg/L, of the Carus 8700 produced lead release rates that were significantly higher than the other two doses and exhibited more variability over the course of the test.

The low dose, 3.0 mg/L, of the WSU 178 overall produced higher lead release rates than the other two doses, but the data were less consistent in terms of which product produced the lowest rates as the test progressed. The high dose of the WSU 178 produced the lowest lead release rate around 30 µg/L-day during the test period and traded

position with the medium dose in terms of which product provided the lowest release rate for each change out. The WSU 178 product was able to provide release rates lower than the untreated water about 55% of the time. The medium dose, 4.5 mg/L, of the WSU 110 provided the best overall results with 50% of the release rates lower than the untreated water and the lowest single release rate of approximately 35 µg/L. The low dose of the WSU 110 had the highest release rates of the three doses tested and there was a significant amount of variability in the release rates from one solution change out to the next. The low dose did not provide an acceptable response in terms of lower release rates as the exposure time to the corrosion inhibitor increased. The high dose, 6.0 mg/L, produced lead release rates that were close to the those provided by the medium dose, but slightly higher, most of the test. However, there were several tests in which release rate for the high dose significantly exceeded the release rates provided by the medium dose. Overall, the data do not provide a clear dose response in terms of orthophosphate and lead release rates. The low dose of 3.0 mg/L did not seem to provide the best results for any of the products tested and the high dose also did not provide the best results or lower lead release rates than the medium dose consistently for every product and every dose.

The second objective was to evaluate the effect of different percentages of polyphosphate present had on the lead release rates. A plot was constructed in which the lead release rates was plotted for each of the three orthophosphate doses tested. The products had increasing percentages of polyphosphate of 30%, 26%, 15% and 10% for the Carus 8600, WSU 178, Carus 8700 and WSU 110, respectively. The plots of lead release versus dose are contained in *Figure 2-10*. The graphs show that for the 3.0 and 4.5 mg/L dose of orthophosphate the product with the 15% polyphosphate percentage, Carus 8700, consistently provided the lowest release rates for each of those doses. The next best performance for the 3.0 and 4.5 mg/L doses was the product with the highest polyphosphate percentage, the Carus 8700. The WSU 178 with the higher polyphosphate concentration appeared to provide better results for most of the test at the 3.0 mg/L dose and the WSU 110 product provided better overall results when the dose was increased to 4.5 mg/L. The Carus 8600 with the highest percentage of polyphosphate provided the best overall results over the course of the test. The Carus 8700 and the WSU 178 appeared to provide the next best results over the course of the test at an orthophosphate dose of 6.0 mg/L. The WSU 110 product with the lowest percentage of polyphosphate present did not provide the best overall results as might have been expected since polyphosphate has the tendency to increase the solubility of metals and the orthophosphate is the primary agent responsible for creating the very low solubility passivation layer on the surface of the lead.



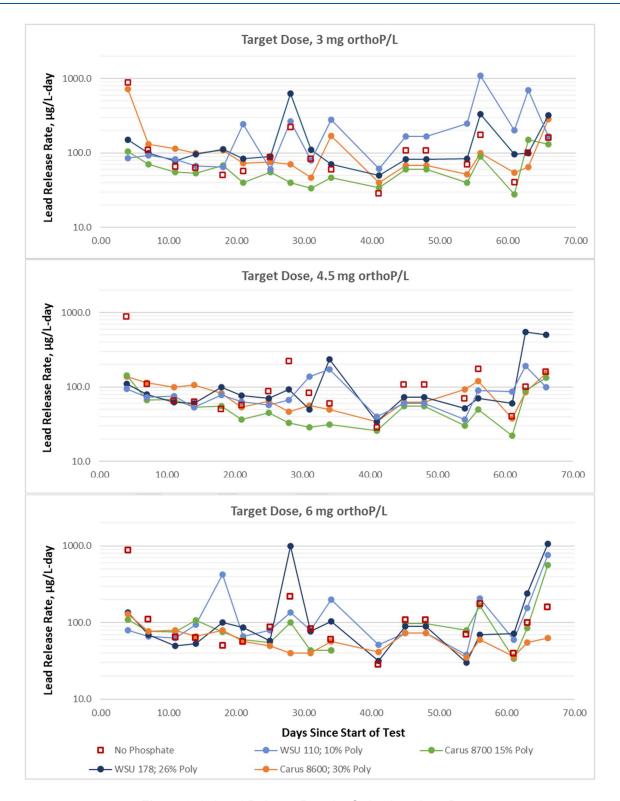


Figure 2-10 Lead Release Rate by Orthophosphate Dose

An additional plot of lead release rate versus orthophosphate concentration was performed using all the data collected. The plot was constructed to see if an identifiable pattern or trend could be identified for lead release rate versus orthophosphate concentration of the solution. The plot is presented in *Figure 2-11*.

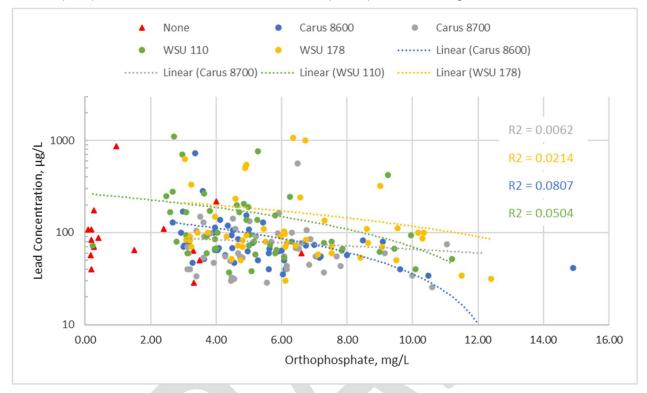


Figure 2-11 Lead Release Rate versus Orthophosphate Concentration

The plot shows each of the products separately and the untreated water. Trend lines were placed on the plot to show what potential relationship might exist between orthophosphate dose and the lead release rates. The trend lines for the Carus 8600 and the WSU 110 are decreasing indicating decreased lead release with increasing dose and the trend lines for the WSU 178 and for the Carus 8700 are decreasing with a flatter slope. The plot shows that there is a significant amount of scatter in the data and the correlation coefficients are extremely low indicating that there is not a statistically demonstrable relationship for the data. We could not conclude from this information that a definite relationship between increasing orthophosphate dose and lead release rates exists for this data set.

The lead release data show that the lowest lead values were reached when there was some polyphosphate present and a high percentage of orthophosphate did not provide consistent results or the lowest levels of lead release. The water has a high concentration of calcium in it which may be consuming a portion of the orthophosphate present in the form of calcium phosphate or a bimetallic phosphate. These compounds may not form as protective of a coating as when orthophosphate and hydroxide combine with lead to form lead hydroxyphosphate on the lead surface. As mentioned in the previous round of testing the water is also high in alkalinity and DIC which favor the formation of lead carbonates which do not form the most effective passivation layer. Therefore, some level of polyphosphate should be present in the water to sequester calcium so that the maximum effect of the orthophosphate dose can be realized.

2.4.1 Recommendations

The results from this set of solubility tests indicate that an orthophosphate dose of 4.5 mg/L with some concentration of polyphosphate present was able to reduce lead release rates to below those of the untreated solution. A polyphosphate concentration of 1.0 to 1.5 mg/L appeared to enhance the ability of the orthophosphate dose to reduce the release of lead into solution. Going toward a product that was primarily orthophosphate did not appear to reduce the lead release rate, provided consistent lead release rates or the lowest single lead release rate. The 4.5 mg/L dose of the Carus 8700 product provided the lowest lead coupon corrosion rate, the lowest and most consistent lead release rates and the lowest single lead release rate of all the products tested. It is recommended that the Carus 8700 product be used in any further testing and is the product of choice based upon the results of this round of testing. A similar product providing 4.5 mg/L of orthophosphate and 1 mg/L of polyphosphate should provide similar results. However, most proprietary blended phosphate products use phosphoric acid to provide the orthophosphate component, but do not all use the same type or chain length of polyphosphate compound. Unfortunately, the suppliers of these products do not share the exact make up of their products and therefore, testing must be performed to verify that two products having the same percentage of poly and orthophosphate will perform the same. Finally, this study did not control for the pH of the solution after the addition of the inhibitors. Due to the varying concentrations of primarily phosphoric acid in the inhibitors they all have different pH values and will affect the pH of the water after treatment. Alkalinity, pH and DIC all have an impact upon the effectiveness of the of the corrosion inhibitors to prevent lead release. If further reduction in lead solubility or lead release rates is required adjustment of these water quality parameters may be considered to optimize the performance of the corrosion inhibitor.



APPENDIX A – BENCH-SCALE TESTING RESULTS

Lead Solubility Testing

Draft Report

Table A- 1. Fresh Treated Samples Water Quality

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
1	-	Raw Water	7.53	21.1	0.00	777	1.02	300	0.05	96	0.12	33.77	34	8	0.1
	0	Blank	7.65	21.8	1.40	793	1.43	286	-	-	-	-	-	20	0.96
	1	Carus 8600-P	7.75	21.9	1.23	805	1.66	272	-	-	-	-	-	13	3.36
	2	Carus 8600-M	7.96	22.1	1.06	776	1.60	270	-	-	-	-	-	9	4.12
	3	Carus 8400-H	7.64	22.2	1.50	788	1.56	288	-	-	-	-	-	10	5.44
	4	Carus 8700-P	7.54	22.4	1.43	805	2.07	292	-	-	-	-	-	16	3.40
	5	Carus 8700-M	7.69	22.1	1.15	806	1.26	292	-	-	-	-	-	12	4.52
	6	Carus 8700-H	7.77	21.1	1.17	814	1.82	288	-	-	-	-	-	17	4.60
	7	WSU-178-P	7.74	21.8	1.33	812	1.24	286	-	-	-	-	-	13	3.96
	8	WSU-178-M	7.68	21.4	1.44	812	1.30	292	-	-	-	-	-	13	5.45
	9	WSU-178-H	7.52	21.9	1.37	811	1.15	388	-	-	-	-	-	24	7.32
	11	WSU-110-P	7.56	22.2	1.15	800	1.53	286	-	-	-	-	-	34	3.96
	12	WSU-110-M	7.64	22.4	1.23	804	1.34	292	-	-	-	-	-	17	5.04
	13	WSU-110-H	7.43	22.3	1.42	797	1.61	290	-	-	-	-	-	44	6.32
2	-	Raw Water	7.67	22.2	0.02	737	1.02	306.00	0.04	98	0.09	31.32	27	10	0.12
	0	Blank	7.59	21.5	1.36	737	1.10	282	-	-	-	-	-	10	2.40
	1	Carus 8600-P	7.65	23.4	1.65	798	1.01	220	-	-	-	-	-	9	2.68
	2	Carus 8600-M	7.58	22.6	1.48	806	0.96	192	-	-	-	-	-	7	3.96
	3	Carus 8400-H	7.64	22.3	1.61	812	0.89	256	-	-	-	-	-	7	5.12
	4	Carus 8700-P	7.48	21.6	1.63	803	0.88	280	-	-	-	-	-	9	3.12
	5	Carus 8700-M	7.62	22.1	1.55	807	1.07	308	-	-	-	-	-	13	6.52
	6	Carus 8700-H	7.62	22.1	1.44	807	0.86	286	-	-	-	-	-	9	6.60
	7	WSU-178-P	7.52	22.6	1.51	807	0.88	278	-	-	-	-	-	9	3.76
	8	WSU-178-M	7.52	22.5	1.67	801	0.82	286	-	-	-	-	-	8	5.52
	9	WSU-178-H	7.64	22.3	1.66	791	0.87	282	-	-	-	-	-	7	7.52
	11	WSU-110-P	7.55	22.4	1.53	807	83.00	284	-	-	-	-	-	11	3.08
	12	WSU-110-M	7.88	22.3	1.59	767	0.81	288	-	-	-	-	_	9	5.64
	13	WSU-110-H	7.63	22.6	1.62	787	0.83	286	-	-	-	-	-	13	7.87

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
3	-	Raw Water	7.78	21.7	0.01	667	1.23	312	0.036	122	0.08	12.30	18	16	
	0	Blank	7.66	21.3	1.73	691	1.47	288	-	-	-	-	-	10	
	1	Carus 8600-P	7.66	21.3	1.79	691	1.47	288.0	-	-	-	-	-	4	
	2	Carus 8600-M	7.86	21.3	1.96	697	1.18	280	-	-	-	-	-	7	
	3	Carus 8400-H	7.76	21.3	1.88	697	1.01	280.0	-	-	-	-	-	8	
	4	Carus 8700-P	7.74	21.3	2.04	697	1.29	278	-	-	-	-	-	6	
	5	Carus 8700-M	7.69	21.3	1.91	697	1.04	276.0	-	-	-	-	-	9	
	6	Carus 8700-H	7.68	21.2	2.00	697	1.43	274	-	-	-	-	-	10	
	7	WSU-178-P	7.94	21.2	1.98	687	1.53	288.0	-	-	-	-	-	9	
	8	WSU-178-M	7.93	21.3	1.97	697	2.90	284.0	-	-	-	-	-	8	
	9	WSU-178-H	8.09	21.2	1.82	681	1.36	282	-	-	-	-	-	13	
	11	WSU-110-P	7.68	21.3	2.04	627	1.54	276.0	-	-	-	-	-	10	
	12	WSU-110-M	7.69	21.2	2.02	721	1.57	272	-	-	-	-	-	10	
	13	WSU-110-H	7.76	21.2	1.82	727	1.61	280.0	-	-	-	-	-	9	
4	-	Raw Water	8.03	24.5	0.04	671	0.77	280	0.042	176	0.11	28.34	16	14	0.16
	0	Blank	7.88	22.9	1.82	701	2.07	222	-	-	-	-	-	33	1.51
	1	Carus 8600-P	7.90	23.2	1.84	707	0.84	226	-	-	-	-	-	9	3.93
	2	Carus 8600-M	7.89	22.8	1.76	697	1.75	232	-	-	-	-	-	6	4.52
	3	Carus 8400-H	7.90	23.3	1.71	707	1.83	238	-	-	-	-	-	23	5.62
	4	Carus 8700-P	7.96	22.4	1.87	687	1.78	258	-	-	-	-	-	32	3.62
	5	Carus 8700-M	7.94	22.6	1.80	697	2.21	282	-	-	-	-	-	37	4.80
	6	Carus 8700-H	7.68	22.2	1.77	707	0.87	280	-	-	-	-	-	39	6.76
	7	WSU-178-P	7.72	22.1	1.87	707	6.74	284	-	-	-	-	-	41	6.10
	8	WSU-178-M	7.73	22.2	1.88	707	2.88	284	-	-	-	-	-	39	7.52
	9	WSU-178-H	7.80	22.2	1.61	707	4.33	284	-	-	-	-	-	33	8.40
	11	WSU-110-P	7.81	22.0	1.64	707	2.86	282	-	-	-	-	-	39	4.00
	12	WSU-110-M	7.80	21.9	1.88	711	2.63	284	-	-	-	-	-	29	6.08
	13	WSU-110-H	8.11	21.8	1.77	707	5.22	282	-	-	-	-	-	21	9.96



Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
5	-	Raw Water	7.89	23.0	0.02	872	1.66	288	0.042	184	0.11	22.40	21	12	3.98
	0	Blank	7.82	23.0	1.38	899	1.90	282	-	-	-	-	-	10	3.30
	1	Carus 8600-P	7.74	22.9	2.88	899	1.76	280	-	-	-	-	-	22	5.01
	2	Carus 8600-M	7.64	23.1	2.92	888	2.44	276	-	-	-	-	-	16	8.48
	3	Carus 8400-H	7.80	23.0	2.75	901	1.76	278	-	-	-	-	-	14	9.10
	4	Carus 8700-P	7.82	22.4	2.52	898	1.71	280	-	-	-	-	-	18	6.44
	5	Carus 8700-M	7.75	22.9	2.84	901	1.74	276	-	-	-	-	-	18	7.68
	6	Carus 8700-H	7.92	23.0	2.75	899	1.91	280	-	-	-	-	-	14	11.05
	7	WSU-178-P	7.90	22.8	2.58	901	1.72	270	-	-	-	-	-	14	9.55
	8	WSU-178-M	7.91	22.6	2.82	893	1.89	272	-	-	-	-	-	28	10.16
	9	WSU-178-H	8.01	22.7	2.64	896	1.77	280	-	-	-	-	-	59	10.35
	11	WSU-110-P	7.87	23.0	2.31	900	1.74	270	-	-	-	-	-	49	5.85
	12	WSU-110-M	7.92	22.8	2.52	897	1.73	284	-	-	-	-	-	19	7.30
	13	WSU-110-H	7.77	22.7	2.58	887	1.75	282	-	-	-	-	-	32	9.25
6	-	Raw Water	8.42	22.6	0.02	874	1.37	296	0.041	182	0.10	19.00	19	44	4.23
	0	Blank	7.95	22.4	2.78	904	1.13	284	-	-	-	-	-	94	3.50
	1	Carus 8600-P	8.30	22.4	2.84	903	1.22	262	-	-	-	-	-	68	7.00
	2	Carus 8600-M	8.23	22.2	1.88	899	1.17	242	-	-	-	-	-	66	7.15
	3	Carus 8400-H	8.17	22.3	1.88	899	1.07	234	-	-	-	-	-	60	8.00
	4	Carus 8700-P	8.16	22.3	2.80	903	1.18	238	-	-	-	-	-	74	6.15
	5	Carus 8700-M	8.20	22.3	2.16	902	1.15	234	-	-	-	-	-	77	7.30
	6	Carus 8700-H	8.24	22.2	2.26	901	1.16	234	-	-	-	-	-	64	9.15
	7	WSU-178-P	8.16	22.2	2.64	901	1.17	232	-	-	-	-	-	67	6.75
	8	WSU-178-M	8.10	22.2	2.46	902	1.11	232	-	-	-	-	-	47	8.65
	9	WSU-178-H	8.13	22.3	2.32	899	1.26	234	-	-	-	-	-	37	10.30
	11	WSU-110-P	7.93	22.5	2.64	903	1.42	252	-	-	-	-	-	28	6.25
	12	WSU-110-M	8.10	22.3	2.36	902	1.20	272	-	-	-	-	-	29	7.85
	13	WSU-110-H	8.13	22.4	2.38	900	1.14	274	-	-	-	-	-	22	9.45



A-4 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
7	-	Raw Water	7.93	22.8	0.02	908	1.07	240	0.194	91	0.12	128	82	11	0.16
	0	Blank	7.98	22.9	2.12	902	0.96	258	-	-	-	-	-	10	0.17
	1	Carus 8600-P	7.49	22.8	2.49	900	1.17	266	-	-	-	-	-	41	3.16
	2	Carus 8600-M	7.49	22.8	1.12	898	1.05	264	-	-	-	-	-	12	4.04
	3	Carus 8400-H	7.48	22.8	2.12	895	1.24	250	-	-	-	-	-	12	6.08
	4	Carus 8700-P	7.50	22.8	2.52	884	1.14	250	-	-	-	-	-	8	4.28
	5	Carus 8700-M	7.50	23.0	3.10	896	1.24	248	-	-	-	-	-	15	6.84
	6	Carus 8700-H	7.51	22.8	3.00	896	1.06	250	-	-	-	-	-	16	7.04
	7	WSU-178-P	7.50	22.9	2.64	906	0.91	244	-	-	-	-	-	6	4.32
	8	WSU-178-M	7.50	22.9	2.48	901	1.06	266	-	-	-	-	-	11	9.08
	9	WSU-178-H	7.53	22.8	2.88	892	1.38	280	-	-	-	-	-	14	7.12
	11	WSU-110-P	7.55	22.8	2.84	900	0.96	270	-	-	-	-	-	12	3.12
	12	WSU-110-M	7.55	22.8	2.88	897	1.45	272	-	-	-	-	-	7	5.20
	13	WSU-110-H	7.55	22.9	2.94	891	0.91	264	-	-	-	-	-	11	7.52
8	-	Raw Water	8.07	22.9	0.01	876	0.56	286	0.178	31	0.09	96.00	23	0	0.28
	0	Blank	8.05	22.0	2.94	911	1.08	256	-	-	-	-	-	6	0.40
	1	Carus 8600-P	8.07	22.6	2.80	896	0.92	244	-	-	-	-	-	0	3.00
	2	Carus 8600-M	8.05	22.7	2.76	897	0.68	240	-	-	-	-	-	7	4.56
	3	Carus 8400-H	8.06	22.6	2.94	899	0.63	238	-	-	-	-	-	5	6.12
	4	Carus 8700-P	8.02	22.8.	3.28	900	0.58	236	-	-	-	-	-	4	3.20
	5	Carus 8700-M	8.01	22.8	2.16	909	0.95	232	-	-	-	-	-	3	4.48
	6	Carus 8700-H	8.03	22.6	2.96	898	1.16	234	-	-	-	-	-	7	6.32
	7	WSU-178-P	8.02	22.1	2.86	898	0.83	236	-	-	-	-	-	4	3.04
	8	WSU-178-M	8.04	22.4	3.28	900	1.48	232	-	-	-	-	-	8	4.92
	9	WSU-178-H	8.05	22.4	3.14	899	1.48	232	-	-	-	-	-	11	6.72
	11	WSU-110-P	8.03	22.5	2.72	901	0.55	244	-	-	-	-	-	7	3.64
	12	WSU-110-M	8.02	22.4	3.06	899	1.16	274	-	-	-	-	-	6	3.96
	13	WSU-110-H	8.04	22.2	2.68	897	0.93	280	-	-	-	-	-	6	5.25



A-5 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
9	-	Raw Water	8.09	22.8	0.00	871	0.54	262	0.02	304	0.06	126.30	49	6	0.14
	0	Blank	8.12	22.4	2.36	890	1.46	282	-	-	-	-	-	4	4.00
	1	Carus 8600-P	8.12	22.4	2.04	888	1.87	252	-	-	-	-	-	11	3.28
	2	Carus 8600-M	8.13	22.4	2.04	889	1.05	266	-	-	-	-	-	5	4.28
	3	Carus 8400-H	8.01	21.8	2.12	886	1.04	276	-	-	-	-	-	4	5.60
	4	Carus 8700-P	8.06	22.3	2.22	890	0.59	276	-	-	-	-	-	3	3.40
	5	Carus 8700-M	8.10	22.1	2.08	893	3.70	272	-	-	-	-	-	3	5.55
	6	Carus 8700-H	8.13	22.0	1.32	889	1.16	276	-	-	-	-	-	2	7.80
	7	WSU-178-P	8.12	22.3	2.28	893	1.30	276	-	-	-	-	-	5	8.60
	8	WSU-178-M	8.14	21.9	2.30	888	1.70	276	-	-	-	-	-	2	4.75
	9	WSU-178-H	8.16	22.1	2.32	888	2.26	280	-	-	-	-	-	6	6.15
	11	WSU-110-P	8.00	21.9	2.30	890	2.21	290	-	-	-	-	-	2	2.80
	12	WSU-110-M	8.14	22.1	2.28	895	1.40	284	-	-	-	-	-	4	4.92
	13	WSU-110-H	8.11	22.4	2.30	892	2.01	280	-	-	-	-	-	1	5.16
10	-	Raw Water	8.28	23.6		835	4.03	266	0.162	292	0.09	98.00	37		0.22
	0	Blank	8.25	22.0		862	20.50	260	-	-	-	-	-		0.18
	1	Carus 8600-P	8.23	22.8	2.59	868	3.61	254	-	-	-	-	-	3	2.98
	2	Carus 8600-M	8.26	22.6	1.96	865	2.20	254	-	-	-	-	-	5	5.28
	3	Carus 8400-H	8.22	22.4	2.08	867	1.34	250	-	-	-	-	-	9	7.12
	4	Carus 8700-P	8.20	22.4	2.48	868	1.75	252	-	-	-	-	-	16	3.92
	5	Carus 8700-M	8.21	22.3	1.92	867	2.88	254	-	-	-	-	-	16	4.56
	6	Carus 8700-H	8.22	22.0	2.14	866	1.99	270	-	-	-	-	-	29	6.16
	7	WSU-178-P	8.22	22.2	1.72	864	1.96	250	-	-	-	-	-	37	3.24
	8	WSU-178-M	8.21	22.1	1.64	862	3.70	250	-	-	-	-	-	8	4.6.
	9	WSU-178-H	8.21	22.1	1.42	862	14.70	252	-	-	-	-	-	44	6.08
	11	WSU-110-P	8.24	22.1	1.54	864	2.90	248	-	-	-	-	-	32	2.68
	12	WSU-110-M	8.26	21.8	1.54	862	3.31	248	-	-	-	-	-	46	3.80
	13	WSU-110-H	8.26	21.5	1.62	863	11.40	252	-	-	-	-	-	38	4.64



A-6 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
11	-	Raw Water	8.14	23.2		891	3.20	292.0							7.64
	0	Blank						292.0	-	-	-	-	-		6.60
	1	Carus 8600-P	8.08	22.7		908	3.39	280.0	-	-	-	-	-		9.62
	2	Carus 8600-M	8.03	22.5		910	3.22	270.0	-	-	-	-	-		10.48
	3	Carus 8400-H	8.00	22.7		911	3.11	274.0	-	-	-	-	-		14.90
	4	Carus 8700-P	7.93	22.6		909	3.19	278.0	-	-	-	-	-		10.00
	5	Carus 8700-M	8.07	22.2		911	3.05	280.0	-	-	-	-	-		10.60
	6	Carus 8700-H	8.02	22.2		918	3.04	268.0	-	-	-	-	-		12.20
	7	WSU-178-P	7.98	22.3		901	3.15	292.0	-	-	-	-	-		9.50
	8	WSU-178-M	8.00	22.3		906	2.82	282.0	-	-	-	-	-		11.50
	9	WSU-178-H							-	-	-	-	-		12.40
	11	WSU-110-P						284.0	-	-	-	-	-		9.00
	12	WSU-110-M						290.0	-	-	-	-	-		10.10
	13	WSU-110-H						286.0	-	-	-	-	-		11.20
12	-	Raw Water	7.97	22.8	0.01	885	0.49	292	0.059	282	0.01	11.93	23	2	0.26
	0	Blank	7.89	22.7	1.50	903	0.70	278	-	-	-	-	-	18	3.32
	1	Carus 8600-P	7.93	23.0	1.10	909	0.67	278	-	-	-	-	-	17	4.50
	2	Carus 8600-M	7.78	22.9	1.18	905	0.66	280	-	-	-	-	-	34	5.90
	3	Carus 8400-H	8.10	22.8	1.12	899	1.00	282	-	-	-	-	-	7	3.02
	4	Carus 8700-P	8.03	22.8	1.32	896	1.53	276	-	-	-	-	-	26	4.68
	5	Carus 8700-M	8.15	22.7	1.52	900	1.49	278	-	-	-	-	-	15	6.08
	6	Carus 8700-H	8.13	22.8	1.27	900	1.43	278	-	-	-	-	-	29	3.82
	7	WSU-178-P	8.19	22.4	1.01	905	2.70	286	-	-	-	-	-	4	4.80
	8	WSU-178-M	8.01	21.7	0.82	903	1.44	284	-	-	-	-	-	36	6.44
	9	WSU-178-H	8.12	22.2	1.04	901	2.31	284	-	-	-	-	<u>-</u>	0	3.20
	11	WSU-110-P	7.69	21.4	1.01	905	0.61	282	-	-	-	-	-	29	4.70
	12	WSU-110-M	8.00	22.0	0.48	898	3.69	290	-	-	-	-	-	24	5.80
	13	WSU-110-H	7.91	21.9	0.93	902	2.65	290	-	-	-	-	-	17	0.23



A-7 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
13	-	Raw Water	7.94	23.4	0.08	888	0.54	292	0.078	296	0.08	22.00	32	2	0.07
	0	Blank	8.41	21.6	1.62	898	2.74	256	-	-	-	-	-	26	0.19
	1	Carus 8600-P	7.94	22.3	1.30	908	1.01	268	-	-	-	-	-	44	4.08
	2	Carus 8600-M	8.15	22.4	1.55	901	0.92	268	-	-	-	-	-	76	4.96
	3	Carus 8400-H	8.29	22.0	1.48	901	0.84	252	-	-	-	-	-	31	6.75
	4	Carus 8700-P	8.34	22.2	1.30	910	0.56	250	-	-	-	-	-	55	3.16
	5	Carus 8700-M	7.80	23.1	1.22	908	0.57	252	-	-	-	-	-	42	4.72
	6	Carus 8700-H	8.16	22.6	1.40	913	0.60	254	-	-	-	-	-	48	5.88
	7	WSU-178-P	7.96	22.8	1.35	913	0.53	250	-	-	-	-	-	25	3.20
	8	WSU-178-M	7.90	21.8	1.33	904	0.56	250	-	-	-	-	-	23	4.68
	9	WSU-178-H	8.17	22.1	1.30	904	0.55	254	-	-	-	-	-	25	5.96
	11	WSU-110-P	8.28	22.1	1.08	901	0.55	250	-	-	-	-	-	19	2.60
	12	WSU-110-M	8.30	22.0	1.29	902	0.62	244	-	-	-	-	-	5	3.72
	13	WSU-110-H	9.32	21.9	1.15	902	0.65	248	-	-	-	-	-	16	5.00
14	-	Raw Water	8.16	22.8		882	0.48	288	-	-	-	-	-		
	0	Blank	8.34	22.4		900	0.32	266	-	-	-	-	-		
	1	Carus 8600-P	8.27	22.6		905	0.40	276	-	-	-	-	-		
	2	Carus 8600-M	8.27	22.5		903	0.50	266	-	-	-	-	-		
	3	Carus 8400-H	8.33	22.4		905	0.48	270	-	-	-	-	-		
	4	Carus 8700-P	8.27	22.6		906	0.38	268	-	-	-	-	-		
	5	Carus 8700-M	8.31	22.4		907	0.46	266	-	-	-	-	-		
	6	Carus 8700-H	8.23	22.6		910	0.34	266	-	-	-	-	-		
	7	WSU-178-P	8.27	22.6		905	0.41	264	-	-	-	-	-		
	8	WSU-178-M	8.27	22.6		905	0.41	268	-	-	-	-	-		
	9	WSU-178-H	8.27	22.5		907	0.42	260	-	-	-	-	-		
	11	WSU-110-P	8.15	22.1		902	0.41	288	-	-	-	-	-		
	12	WSU-110-M	8.31	22.2		904	0.96	272	-	-	-	-	-		
	13	WSU-110-H	8.29	22.4		902	0.54	278	-	-	-	-	-		



A-8 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
15	-	Raw Water	8.19	22.8	0.10	867	0.97	292	0.062	284	0.08	35.00	41	2	0.11
	0	Blank	7.86	23.3	1.52	909	1.12	276	-	-	-	-	-	36	0.26
	1	Carus 8600-P	7.81	23.4	1.37	917	1.13	270	-	-	-	-	-	8	2.92
	2	Carus 8600-M	8.07	22.8	1.10	912	1.38	280	-	-	-	-	-	9	4.36
	3	Carus 8400-H	8.17	22.7	1.22	914	1.21	278	-	-	-	-	-	1	5.60
	4	Carus 8700-P	7.80	23.4	1.27	918	1.24	278	-	-	-	-	-	3	3.64
	5	Carus 8700-M	8.01	22.6	1.37	924	1.10	272	-	-	-	-	-	7	4.44
	6	Carus 8700-H	7.67	23.3	1.29	929	1.16	266	-	-	-	-	-	4	5.92
	7	WSU-178-P	7.78	23.4	1.26	915	1.05	280	-	-	-	-	-	3	3.24
	8	WSU-178-M	8.21	22.5	1.31	910	1.14	278	-	-	-	-	-	1	4.80
	9	WSU-178-H	8.22	22.6	1.36	910	1.26	282	-	-	-	-	-	1	6.12
	11	WSU-110-P	7.92	22.8	1.19	912	1.11	284	-	-	-	-	-	3	2.72
	12	WSU-110-M	7.97	22.7	1.29	915	1.16	278	-	-	-	-	-	4	3.72
	13	WSU-110-H	8.02	22.3	1.38	911	1.14	282	-	-	-	-	-	1	4.84
16	-	Raw Water	8.2	22.8		886	0.84	266		276				8	0.09
	0	Blank	7.99	22.9	1.81	909	0.88	244	-	-	-	-	-	8	0.09
	1	Carus 8600-P	8.41	22.8	1.67	906	0.89	248	-	-	-	-	-	7	3.64
	2	Carus 8600-M	8.33	22.7	1.55	909	0.95	236	-	-	-	-	-	14	4.48
	3	Carus 8400-H	7.99	23.0	1.65	903	0.92	248	-	-	-	-	-	1	6.04
	4	Carus 8700-P	7.94	23.1	1.43	909	0.91	244	-	-	-	-	-	1	3.12
	5	Carus 8700-M	8.28	22.8	1.68	906	0.95	240	-	-	-	-	-	36	4.46
	6	Carus 8700-H	8.35	22.6	1.38	904	1.01	256	-	-	-	-	-	5	5.68
	7	WSU-178-P	7.97	23.0	1.48	909	0.90	288	-	-	-	-	-	17	3.08
	8	WSU-178-M	7.92	22.9	1.40	907	0.87	284	-	-	-	-	-	1	4.48
	9	WSU-178-H	8.20	22.9	1.66	906	0.98	284	-	-	-	-	-	5	6.12
	11	WSU-110-P	7.96	22.8	1.69	907	1.33	284	-	-	-	-	-	13	2.48
	12	WSU-110-M	8.08	22.7	1.48	907	0.98	288	-	-	-	-	-	19	4.40
	13	WSU-110-H	7.96	22.7	1.59	908	0.90	284	-	-	-	-	-	16	5.08



A-9 200-19743-19004

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
18	-	Raw Water	8.19	24.2		897	0.80	250	0.016	278	0.05	10.39	19		0.41
	0	Blank	8.02	23.6	1.67	911	0.73	232	-	-	-	-	-	13	0.26
	1	Carus 8600-P	7.96	23.7	1.14	916	0.87	224	-	-	-	-	-	16	3.96
	2	Carus 8600-M	8.17	22.6	1.40	909	0.79	220	-	-	-	-	-	6	4.68
	3	Carus 8400-H	8.10	23.0	1.66	915	0.74	252	-	-	-	-	-	13	7.20
	4	Carus 8700-P	8.29	21.4	1.70	883	0.64	284	-	-	-	-	-	26	3.52
	5	Carus 8700-M	8.05	19.4	1.07	886	0.64	286	-	-	-	-	-	36	5.22
	6	Carus 8700-H	7.98	19.4	1.55	897	0.63	288	-	-	-	-	-	19	6.88
	7	WSU-178-P	8.02	22.6	1.69	909	0.80	276	-	-	-	-	-	1	3.44
	8	WSU-178-M	8.15	22.4	1.61	910	0.91	274	-	-	-	-	-	0	4.92
	9	WSU-178-H	8.12	22.6	1.57	915	0.85	276	-	-	-	-	-	1	6.56
	11	WSU-110-P	8.04	23.5	1.38	913	0.82	272	-	-	-	-	-	5	2.96
	12	WSU-110-M	7.90	24.1	1.42	915	0.85	276	-	-	-	-	-	7	4.98
	13	WSU-110-H	7.85	25.0	1.41	921	0.85	270	-	-	-	-	-	17	5.80
18		Raw Water	8.31	22.6	0.08	879	0.55	296	0.016	262	0.05	10.39	19	0	0.10
	0	Blank	8.13	22.7	1.70	907	0.50	278	-	-	-	-	-	0	0.18
	1	Carus 8600-P	8.07	22.8	1.77	903	0.83	276	-	-	-	-	-	0	3.60
	2	Carus 8600-M	8.08	22.7	1.72	903	0.55	276	-	-	-	-	-	4	4.92
	3	Carus 8400-H	8.06	22.8	1.76	904	0.55	276	-	-	-	-	-	0	6.00
	4	Carus 8700-P	8.08	22.9	1.89	907	0.63	272	-	-	-	-	-	9	3.62
	5	Carus 8700-M	8.10	22.3	1.55	904	0.76	280	-	-	-	-	-	5	5.02
	6	Carus 8700-H	8.28	22.3	1.77	908	0.95	268	-	-	-	-	-	4	6.50
	7	WSU-178-P	8.36	22.1	1.79	906	1.32	272	-	-	-	-	-	1	9.02
	8	WSU-178-M	8.07	22.3	1.73	905	0.52	270	-	-	-	-	-	2	4.88
	9	WSU-178-H	8.24	22.3	1.59	909	0.68	274	-	-	-	-	-	1	6.36
	11	WSU-110-P	8.09	22.3	1.62	904	1.52	278	-	-	-	-	-	1	3.08
	12	WSU-110-M	8.33	22.1	1.59	904	0.61	274	-	-	-	-	-	1	4.04
	13	WSU-110-H	8.09	22.3	1.65	905	1.12	274	-	-	-	-	-	1	5.28



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Lead Solubility Testing

Draft Report

Table A- 2. Spent Solution Water Quality

Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
1	0	Blank	7.55	21.4	0.04	737	0.53	310	-	-	-	-	-	10	3.52
	1	Carus 8600-P	7.64	21.7	0.05	757	0.64	294	-	-	-	-	-	6	3.40
	2	Carus 8600-M	7.70	21.7	0.04	741	0.59	292	-	-	-	-	-	10	4.72
	3	Carus 8400-H	7.58	21.9	0.12	747	0.45	285	-	-	-	-	-	5	6.84
	4	Carus 8700-P	7.73	21.7	0.14	697	0.67	286	-	-	-	-	-	6	3.92
	5	Carus 8700-M	7.64	21.7	0.18	747	0.60	289	-	-	-	-	-	6	4.92
	6	Carus 8700-H	7.64	21.5	0.14	747	0.69	294	-	-	-	-	-	5	6.20
	7	WSU-178-P	7.63	21.9	0.14	687	0.71	292	-	-	-	-	-	8	4.40
	8	WSU-178-M	7.49	21.8	0.19	777	0.66	294	-	-	-	-	-	7	5.72
	9	WSU-178-H	7.57	21.8	0.21	767	0.67	288	-	-	-	-	-	8	7.20
	11	WSU-110-P	7.56	21.9	0.14	777	0.59	294	-	-	-	-	-	3	4.04
	12	WSU-110-M	7.65	21.8	0.14	761	0.61	296	-	-	-	-	-	5	4.32
	13	WSU-110-H	7.57	22.0	0.16	791	0.58	282	-	-	-	-	-	7	5.56
2	0	Blank	7.64	20.9	0.43	717	0.43	278	-	-	-	-	-	7	
	1	Carus 8600-P	7.73	21.2	0.30	727	0.48	278	-	-	-	-	-	4	
	2	Carus 8600-M	7.77	21.0	0.17	727	0.47	274	-	-	-	-	-	9	
	3	Carus 8400-H	7.80	21.2	0.24	737	0.54	284	-	-	-	-	-	5	
	4	Carus 8700-P	7.81	21.1	0.24	737	0.55	282	-	-	-	-	-	3	
	5	Carus 8700-M	7.75	21.1	0.23	747	0.45	288	-	-	-	-	-	6	
	6	Carus 8700-H	7.79	21.0	0.30	767	0.61	290	-	-	-	-	-	5	
	7	WSU-178-P	7.75	21.2	0.29	777	0.43	290	-	-	-	-	-	7	
	8	WSU-178-M	7.72	20.9	0.29	761	0.46	290	-	-	-	-	-	7	
	9	WSU-178-H	7.82	20.8	0.42	757	0.60	308	-	-	-	-	-	8	
	11	WSU-110-P	7.78	20.8	0.14	797	0.51	292	-	-	-	-	-	9	
	12	WSU-110-M	7.81	20.8	0.12	807	0.52	290	-	-	-	-	-	9	
	13	WSU-110-H	7.96	20.6	0.22	777	0.49	290	-	-	-	-	-	7	

Test	Beaker No.	Product	рН	Temp., °C	Total CI2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
3	0	Blank	7.75	21.2	0.38	731	0.38	280	-	-	-	-	-	13	0.07
	1	Carus 8600-P	7.75	20.8	0.15	727	0.41	290	-	-	-	-	-	9	2.76
	2	Carus 8600-M	7.64	20.8	0.13	731	0.63	286	-	-	-	-	-	7	5.20
	3	Carus 8400-H	7.79	20.9	0.13	737	0.52	284	-	-	-	-	-	18	6.40
	4	Carus 8700-P	7.76	20.9	0.15	737	0.45	286	-	-	-	-	-	13	3.08
	5	Carus 8700-M	7.76	20.9	0.23	761	0.44	288	-	-	-	-	-	9	5.30
	6	Carus 8700-H	7.72	20.8	0.19	767	0.42	288	-	-	-	-	-	11	6.20
	7	WSU-178-P	7.88	20.8	0.15	747	0.40	304	-	-	-	-	-	18	4.00
	8	WSU-178-M	7.91	20.9	0.21	757	0.38	300	-	-	-	-	-	10	5.64
	9	WSU-178-H	7.90	21.0	0.27	747	0.44	302	-	-	-	-	-	9	7.12
	11	WSU-110-P	7.78	20.9	0.16	761	0.45	288	-	-	-	-	-	7	3.24
	12	WSU-110-M	7.74	21.1	0.16	771	0.49	290	-	-	-	-	-	6	4.48
	13	WSU-110-H	7.78	21.2	0.13	777	0.36	290	-	-	-	-	-	10	9.40
4	0	Blank			0.07				-	-	-	-	-	4	0.08
	1	Carus 8600-P	8.13	22.1	0.04	888	0.34	280	-	-	-	-	-	8	0.28
	2	Carus 8600-M	7.90	22.1	0.16	893	0.36	280	-	-	-	-	-	12	4.44
	3	Carus 8400-H	8.08	22.0	0.18	889	0.32	278	-	-	-	-	-	16	5.58
	4	Carus 8700-P	7.49	22.0	0.17	891	0.36	284	-	-	-	-	-	16	3.60
	5	Carus 8700-M	8.18	21.9	0.26	887	0.35	286	-	-	-	-	-	8	5.00
	6	Carus 8700-H	8.17	22.0	0.15	891	0.38	284	-	-	-	-	-	8	6.35
	7	WSU-178-P	8.21	22.1	0.13	887	0.36	286	-	-	-	-	-	28	4.15
	8	WSU-178-M	7.90	21.9	0.30	889	0.34	282	-	-	-	-	-	15	6.35
	9	WSU-178-H	8.00	21.7	0.15	886	0.38	282	-	-	-	-	-	10	7.65
	11	WSU-110-P	8.01	21.8	0.13	888	0.36	282	-	-	-	-	-	15	3.20
	12	WSU-110-M	8.15	21.8	0.13	888	0.33	282	-	-	-	-	-	6	4.65
	13	WSU-110-H	8.05	22.0	0.18	893	0.50	286	-	-	-	-	-	5	5.31



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Test	Beaker No.	Product	рН	Temp., °C	Total CI2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
5	0	Blank	8.12	22.4	0.11	903	0.45	286	-	-	-	-	-	13	3.30
	1	Carus 8600-P	8.01	22.0	0.47	909	0.58	284	-	-	-	-	-	14	5.01
	2	Carus 8600-M	7.97	21.6	0.53	908	0.58	282	-	-	-	-	-	23	8.48
	3	Carus 8400-H	8.01	21.7	0.80	910	0.54	278	-	-	-	-	-	25	9.10
	4	Carus 8700-P	7.84	21.7	0.72	910	0.51	284	-	-	-	-	-	34	6.44
	5	Carus 8700-M	7.93	21.6	1.10	907	0.67	278	-	-	-	-	-	38	7.68
	6	Carus 8700-H	7.97	21.7	0.77	910	0.51	282	-	-	-	-	-	26	11.05
	7	WSU-178-P	8.04	21.6	0.37	907	0.56	282	-	-	-	-	-	9	9.55
	8	WSU-178-M	8.02	21.6	0.42	911	0.64	278	-	-	-	-	-	6	10.16
	9	WSU-178-H	8.10	21.8	0.41	903	0.70	280	-	-	-	-	-	7	10.35
	11	WSU-110-P	8.12	21.6	0.44	903	0.51	286	-	-	-	-	-	15	5.85
	12	WSU-110-M	8.10	21.8	0.29	910	0.52	280	-	-	-	-	-	3	7.30
	13	WSU-110-H	8.11	21.8	0.07	911	0.76	286	-	-	-	-	-	35	9.25
6	0	Blank	7.62	22.3	1.33	909	0.68	284	-	-	-	-	-	12	3.04
	1	Carus 8600-P	7.61	22.4	1.44	911	0.84	282	-	-	-	-	-	24	5.60
	2	Carus 8600-M	7.61	22.6	1.56	909	0.72	276	-	-	-	-	-	25	6.80
	3	Carus 8400-H	7.60	22.6	1.53	913	0.65	282	-	-	-	-	-	25	8.36
	4	Carus 8700-P	7.62	22.6	1.59	904	0.63	284	-	-	-	-	-	19	6.04
	5	Carus 8700-M	7.62	22.8	1.52	913	0.64	282	-	-	-	-	-	17	7.64
	6	Carus 8700-H	7.61	22.7	1.47	911	0.64	278	-	-	-	-	-	38	8.96
	7	WSU-178-P	7.62	22.8	1.19	911	0.64	282	-	-	-	-	-	13	6.68
	8	WSU-178-M	7.65	23.1	1.23	915	0.68	278	-	-	-	-	-	24	8.84
	9	WSU-178-H	7.63	22.9	0.87	915	0.74	282	-	-	-	-	-	17	10.10
	11	WSU-110-P	7.67	22.9	1.18	904	0.70	286	-	-	-	-	-	42	5.84
	12	WSU-110-M	7.68	22.6	1.05	916	0.69	276	-	-	-	-	-	30	7.72
	13	WSU-110-H	7.66	22.7	0.85	910	0.64	286	-	-	-	-	-	31	9.08



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Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
7	0	Blank	7.99	21.8	0.54	906	0.64	278	-	-	-	-	-	19	0.18
	1	Carus 8600-P	7.96	21.7	0.55	954	0.53	218	-	-	-	-	-	12	2.98
	2	Carus 8600-M	8.02	21.9	0.51	928	0.52	252	-	-	-	-	-	8	4.20
	3	Carus 8400-H	8.00	21.6	0.86	939	0.57	232	-	-	-	-	-	11	5.58
	4	Carus 8700-P	7.96	21.8	1.06	932	0.55	244	-	-	-	-	-	14	3.30
	5	Carus 8700-M	7.99	21.6	1.09	916	0.53	268	-	-	-	-	-	14	4.70
	6	Carus 8700-H	8.01	21.6	0.92	904	0.63	282	-	-	-	-	-	15	6.34
	7	WSU-178-P	8.00	21.7	0.80	919	0.54	276	-	-	-	-	-	13	4.88
	8	WSU-178-M	7.98	21.6	0.92	913	0.50	278	-	-	-	-	-	15	5.36
	9	WSU-178-H	8.00	21.7	1.00	903	0.64	278	-	-	-	-	-	18	6.60
	11	WSU-110-P	7.99	21.6	0.99	917	0.46	272	-	-	-	-	-	14	4.16
	12	WSU-110-M	8.00	21.7	1.04	907	0.49	294	-	-	-	-	-	12	5.02
	13	WSU-110-H	7.98	21.7	0.55	926	0.46	270	-	-	-	-	-	12	6.20
8	0	Blank	8.07	22.2	1.26	826	0.34	256	-	-	-	-	-	4	1.40
	1	Carus 8600-P	7.79	21.9	1.46	911	0.32	270	-	-	-	-	-	2	4.16
	2	Carus 8600-M	8.01	22.0	1.40	903	0.34	274	-	-	-	-	-	3	8.20
	3	Carus 8400-H	8.01	21.9	1.58	910	0.39	268	-	-	-	-	-	3	9.44
	4	Carus 8700-P	8.01	21.9	1.80	905	0.34	272	-	-	-	-	-	4	3.68
	5	Carus 8700-M	8.03	21.8	1.68	915	0.32	270	-	-	-	-	-	5	4.00
	6	Carus 8700-H	8.05	21.9	1.64	909	0.32	274	-	-	-	-	-	3	5.92
	7	WSU-178-P	8.02	22.1	1.00	910	0.36	274	-	-	-	-	-	4	4.00
	8	WSU-178-M	8.00	22.1	1.72	921	0.32	272	-	-	-	-	-	4	5.16
	9	WSU-178-H	8.00	22.0	2.00	903	0.32	270	-	-	-	-	-	4	6.72
	11	WSU-110-P	7.97	21.9	1.14	907	0.37	274	-	-	-	-	-	5	3.00
	12	WSU-110-M	7.99	21.9	1.30	914	0.30	282	-	-	-	-	-	5	4.12
	13	WSU-110-H	7.96	22.1	0.80	916	0.37	256	-	-	-	-	-	4	5.04



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Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
9	0	Blank	8.16	21.8	0.15	895	0.24	282	-	-	-	-	-	6	0.36
	1	Carus 8600-P	8.22	21.9	0.50	893	0.23	282	-	-	-	-	-	16	3.24
	2	Carus 8600-M	8.20	21.8	0.58	898	0.23	286	-	-	-	-	-	14	4.44
	3	Carus 8400-H	8.19	21.9	0.64	902	0.23	288	-	-	-	-	-	4	5.96
	4	Carus 8700-P	8.19	21.9	0.96	900	0.21	286	-	-	-	-	-	22	3.16
	5	Carus 8700-M	8.15	22.0	0.92	893	0.21	286	-	-	-	-	-	18	4.60
	6	Carus 8700-H	8.16	22.0	0.86	901	0.22	282	-	-	-	-	-	20	6.16
	7	WSU-178-P	8.14	22.1	0.72	895	0.21	288	-	-	-	-	-	2	3.24
	8	WSU-178-M	8.12	22.3	0.66	905	0.22	282	-	-	-	-	-	4	5.02
	9	WSU-178-H	8.12	22.1	0.92	898	0.21	286	-	-	-	-	-	6	6.12
	11	WSU-110-P	8.15	22.1	0.38	892	0.23	284	-	-	-	-	-	12	3.08
	12	WSU-110-M	8.16	22.1	0.66	903	0.23	284	-	-	-	-	-	22	3.76
	13	WSU-110-H	8.17	22.1	0.56	905	0.26	286	-	-	-	-	-	28	6.24
10	0	Blank	8.22	21.9	0.67	871	0.24	262	-	-	-	-	-	10	0.19
	1	Carus 8600-P	8.20	21.8	1.03	869	0.22	268	-	-	-	-	-	7	2.93
	2	Carus 8600-M	8.19	21.9	0.89	871	0.21	264	-	-	-	-	-	4	4.18
	3	Carus 8400-H	8.19	21.7	0.03	867	0.27	270	-	-	-	-	-	3	5.00
	4	Carus 8700-P	8.18	21.8	0.02	875	0.32	266	-	-	-	-	-	9	3.07
	5	Carus 8700-M	8.20	21.6	0.47	872	0.26	270	-	-	-	-	-	6	3.99
	6	Carus 8700-H	8.21	21.6	0.91	876	0.22	270	-	-	-	-	-	4	4.43
	7	WSU-178-P	8.18	21.7	0.36	875	0.21	270	-	-	-	-	-	6	3.13
	8	WSU-178-M	8.18	21.6	0.36	866	0.21	266	-	-	-	-	-	1	3.30
	9	WSU-178-H	8.17	21.7	0.52	870	0.23	266	-	-	-	-	-	2	4.26
	11	WSU-110-P	8.17	21.7	0.51	870	0.24	274	-	-	-	-	-	4	2.51
	12	WSU-110-M	8.13	21.7	0.22	881	0.27	264	-	-	-	-	-	4	3.62
	13	WSU-110-H	8.19	21.8	0.39	874	0.24	264	-	-	-	-	-	4	3.98



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Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
11	0	Blank	8.01	21.8	0.01	911	0.63	284	-	-	-	-	-	0	6.60
	1	Carus 8600-P	8.07	22.0	0.47	910	0.72	286	-	-	-	-	-	7	9.40
	2	Carus 8600-M	8.10	22.1	0.40	921	0.68	280	-	-	-	-	-	1	15.80
	3	Carus 8400-H	8.11	22.0	0.38	917	0.66	280	-	-	-	-	-	5	12.80
	4	Carus 8700-P	8.07	21.9	0.01	924	0.59	274	-	-	-	-	-	6	20.10
	5	Carus 8700-M	8.10	21.6		909	0.55	288	-	-	-	-	-	-	-
	6	Carus 8700-H	8.12	22.0	0.62	925	0.60	276	-	-	-	-	-	4	20.10
	7	WSU-178-P	8.19	22.0	0.00	904	0.57	298	-	-	-	-	-	6	16.00
	8	WSU-178-M	8.16	22.0	0.04	910	0.57	296	-	-	-	-	-	18	11.00
	9	WSU-178-H	8.16	22.1	0.08	914	0.63	294	-	-	-	-	-	2	15.00
	11	WSU-110-P	8.12	22.3	0.16	925	0.57	278	-	-	-	-	-	11	8.70
	12	WSU-110-M	8.12	22.0	0.12	921	0.57	278	-	-	-	-	-	0	9.60
	13	WSU-110-H	8.11	22.2	0.34	923	0.55	290	-	-	-	-	-	0	11.40
12	0	Blank	8.02	22.0	0.02	912	0.39	282	-	-	-	-	-	2	0.12
	1	Carus 8600-P	8.18	22.1	0.19	916	0.25	288	-	-	-	-	-	1	3.56
	2	Carus 8600-M	8.24	21.9	0.12	915	0.25	276	-	-	-	-	-	3	4.68
	3	Carus 8400-H	8.19	21.7	0.08	910	0.29	286	-	-	-	-	-	1	6.04
	4	Carus 8700-P	8.26	21.4	0.27	914	0.24	284	-	-	-	-	-	5	3.28
	5	Carus 8700-M	7.59	21.7	0.08	950	0.31	228	-	-	-	-	-	11	4.80
	6	Carus 8700-H	8.02	21.9	0.29	915	0.26	262	-	-	-	-	-	15	6.00
	7	WSU-178-P	8.14	22.1	0.10	935	0.26	254	-	-	-	-	-	6	3.40
	8	WSU-178-M	8.12	22.1	0.06	922	0.25	272	-	-	-	-	-	6	5.00
	9	WSU-178-H	8.22	21.9	0.21	920	0.24	278	-	-	-	-	-	2	6.64
	11	WSU-110-P	8.01	21.3	0.03	912	0.31	262	-	-	-	-	-	3	2.76
	12	WSU-110-M	8.11	22.0	0.18	917	0.21	282	-	-	-	-	-	4	4.12
	13	WSU-110-H	8.12	22.2	0.08	911	0.23	290	-	-	-	-	-	2	4.92



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Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
13	0	Blank	8.30	22.3		892	0.04	270	-	-	-	-	-		
	1	Carus 8600-P	8.21	22.5		916	0.56	264	-	-	-	-	-		
	2	Carus 8600-M	8.22	22.4		921	0.49	272	-	-	-	-	-		
	3	Carus 8400-H	8.20	22.4		910	0.51	280	-	-	-	-	-		
	4	Carus 8700-P	8.24	22.4		914	0.49	282	-	-	-	-	-		
	5	Carus 8700-M	8.22	22.4		917	0.61	278	-	-	-	-	-		
	6	Carus 8700-H	8.22	22.2		914	0.49	282	-	-	-	-	-		
	7	WSU-178-P	8.23	21.9		914	0.45	282	-	-	-	-	-		
	8	WSU-178-M	8.20	21.9		916	0.35	282	-	-	-	-	-		
	9	WSU-178-H	8.26	21.8		912	0.40	284	-	-	-	-	-		
	11	WSU-110-P	8.20	21.9		905	0.46	280	-	-	-	-	-		
	12	WSU-110-M	8.22	21.9		913	0.52	276	-	-	-	-	-		
	13	WSU-110-H	8.25	22.0		915	0.39	278	-	-	-	-	-		
14	0	Blank	7.83	22.5	0.21	943	0.28	208	-	-	-	-	-	2	0.10
	1	Carus 8600-P	7.91	22.2	0.15	910	0.40	284	-	-	-	-	-	5	3.16
	2	Carus 8600-M	7.87	22.1	0.16	917	0.36	268	-	-	-	-	-	4	4.64
	3	Carus 8400-H	7.88	22.0	0.12	921	0.39	278	-	-	-	-	-	1	5.92
	4	Carus 8700-P	8.12	22.0	0.18	910	0.37	282	-	-	-	-	-	6	3.00
	5	Carus 8700-M	7.50	21.9	0.11	970	0.43	202	-	-	-	-	-	5	4.60
	6	Carus 8700-H	7.95	22.1	0.28	917	0.34	288	-	-	-	-	-	4	5.88
	7	WSU-178-P	8.07	22.0	0.06	915	0.35	282	-	-	-	-	-	4	3.28
	8	WSU-178-M	8.10	22.2	0.13	916	0.39	276	-	-	-	-	-	4	4.72
	9	WSU-178-H	7.85	22.0	0.18	939	0.35	256	-	-	-	-	-	3	6.12
	11	WSU-110-P	7.97	22.2	0.15	920	0.43	272	-	-	-	<u>-</u>	-	5	2.56
	12	WSU-110-M	8.13	22.1	0.12	912	0.43	282	-	-	-	-	-	5	4.48
	13	WSU-110-H	8.15	22.0	0.09	910	0.38	276	-	-	-	-	-	6	5.88



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Test	Beaker No.	Product	рН	Temp., °C	Total CI2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
15	0	Blank	8.01	22.7	0.46	911	0.75	256	-	-	-	-	-	19	0.03
	1	Carus 8600-P	7.94	22.5	0.52	919	0.67	220	-	-	-	-	-	10	3.00
	2	Carus 8600-M	8.00	21.4	0.32	912	0.62	272	-	-	-	-	-	12	4.64
	3	Carus 8400-H	8.02	21.5	0.21	917	0.57	276	-	-	-	-	-	18	6.52
	4	Carus 8700-P	3.22	21.9	0.37	913	0.67	276	-	-	-	-	-	12	3.92
	5	Carus 8700-M	7.98	21.5	0.41	917	0.58	268	-	-	-	-	-	12	5.24
	6	Carus 8700-H	8.20	21.8	0.33	929	0.62	264	-	-	-	-	-	13	6.80
	7	WSU-178-P	7.96	22.3	0.20	917	0.63	272	-	-	-	-	-	9	4.06
	8	WSU-178-M	7.96	22.3	0.18	916	0.67	276	-	-	-	-	-	14	5.56
	9	WSU-178-H	7.93	22.2	0.35	919	0.63	286	-	-	-	-	-	11	6.96
	11	WSU-110-P	7.96	22.3	0.27	923	0.65	282	-	-	-	-	-	11	3.32
	12	WSU-110-M	8.16	22.1	0.37	920	0.69	284	-	-	-	-	-	10	4.52
	13	WSU-110-H	8.01	22.7	0.46	911	0.75	256	-	-	-	-	-	19	0.03
16	0	Blank	7.95	22.3	0.39	919	0.36	272	-	-	-	-	-	7	0.36
	1	Carus 8600-P	7.97	22.1	0.30	911	0.38	280	-	-	-	-	-	7	3.56
	2	Carus 8600-M	7.94	22.0	0.32	910	0.39	280	-	-	-	-	-	6	5.00
	3	Carus 8400-H	7.94	21.9	0.29	915	0.44	290	-	-	-	-	-	1	6.06
	4	Carus 8700-P	7.96	21.9	0.31	905	0.34	284	-	-	-	-	-	3	3.68
	5	Carus 8700-M	8.06	22.1	0.28	915	0.35	282	-	-	-	-	-	7	5.24
	6	Carus 8700-H	7.82	21.7	0.35	914	0.33	288	-	-	-	-	-	16	6.18
	7	WSU-178-P	8.09	21.7	0.15	917	0.41	286	-	-	-	-	-	1	3.84
	8	WSU-178-M	8.06	21.6	0.24	917	0.32	284	-	-	-	-	-	3	5.28
	9	WSU-178-H	8.10	21.4	0.14	918	0.29	276	-	-	-	-	-	1	6.52
	11	WSU-110-P	8.06	21.6	0.31	912	0.30	286	-	-	-	-	-	3	3.12
	12	WSU-110-M	8.03	21.9	0.32	917	0.32	284	-	-	-	-	-	4	4.16
	13	WSU-110-H	8.03	22.0	0.24	912	0.31	292	-	-	-	-	<u>-</u>	1	5.68



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Test	Beaker No.	Product	рН	Temp., °C	Total Cl2, mg/L	Conductivity, μS/ cm	Turbidity, NTU	Alkalinity, mg/L as CaCO3	Free Ammonia, NH3 – N	Calcium, mg/L as CaCO3	Iron, mg/L	Chloride, mg/L	Sulfate, mg/L	Color, Pt-Co	Ortho P, mg/L
17	0	Blank	8.10	22.6	0.63	903	0.33	268	-	-	-	-	-	11	0.22
	1	Carus 8600-P	8.12	22.5	0.72	910	0.31	272	-	-	-	-	-	11	3.32
	2	Carus 8600-M	8.03	22.6	0.23	914	0.39	264	-	-	-	-	-	2	4.80
	3	Carus 8400-H	8.00	22.7	0.58	915	0.32	268	-	-	-	-	-	5	6.12
	4	Carus 8700-P	8.02	22.7	0.76	905	0.30	272	-	-	-	-	-	8	3.40
	5	Carus 8700-M	8.04	22.7	0.54	904	0.32	272	-	-	-	-	-	5	8.12
	6	Carus 8700-H	7.41	22.7	1.07	944	0.39	234	-	-	-	-	-	2	6.32
	7	WSU-178-P	7.74	22.7	0.51	911	0.38	288	-	-	-	-	-	8	4.22
	8	WSU-178-M	8.02	22.4	0.54	918	0.31	278	-	-	-	-	-	1	5.04
	9	WSU-178-H	8.03	22.4	0.62	909	0.41	278	-	-	-	-	-	1	6.12
	11	WSU-110-P	8.04	22.3	0.38	904	0.31	286	-	-	-	-	-	2	3.44
	12	WSU-110-M	8.00	22.4	0.26	912	0.38	290	-	-	-	-	-	5	4.52
	13	WSU-110-H	8.09	22.4	0.27	918	0.33	282	-	-	-	-	-	1	5.64
18	0	Blank	7.88	22.9	0.47	910	0.25	282	-	-	-	-	-	1	0.36
	1	Carus 8600-P	8.04	22.1	0.48	911	0.28	278	-	-	-	-	-	2	3.80
	2	Carus 8600-M	8.03	22.2	0.54	920	0.40	276	-	-	-	-	-	1	5.06
	3	Carus 8400-H	7.97	22.1	0.51	924	0.25	276	-	-	-	-	-	1	6.36
	4	Carus 8700-P	7.97	22.1	0.74	920	0.25	278	-	-	-	-	-	2	3.72
	5	Carus 8700-M	7.90	22.0	0.42	929	0.24	260	-	-	-	-	-	1	5.20
	6	Carus 8700-H	8.29	22.0	0.66	914	0.26	272	-	-	-	-	-	3	6.38
	7	WSU-178-P	8.26	22.0	0.55	922	0.25	276	-	-	-	-	-	2	3.96
	8	WSU-178-M	8.24	22.0	0.31	914	0.25	272	-	-	-	-	-	1	5.16
	9	WSU-178-H	8.19	21.9	0.74	927	0.27	266	-	-	-	-	-	1	6.58
	11	WSU-110-P	8.32	21.9	0.56	915	0.24	276	-	-	-	-	-	2	3.32
	12	WSU-110-M	8.27	21.9	0.68	914	0.35	282	-	-	-	-	-	3	4.44
	13	WSU-110-H	8.14	21.9	0.55	910	0.27	286	-	-	-	-	-	1	6.08



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APPENDIX B – LEAD AND TOTAL PHOSPHORUS RESULTS SUMMARY

Table B- 3. Laboratory Total Phosphorus and Lead Analysis Results

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
1	0	Blank	0	3500
	1	Carus 8600-P	3	2900
	2	Carus 8600-M	5.2	550
	3	Carus 8400-H	7.1	520
	4	Carus 8700-P	3	420
	5	Carus 8700-M	4.9	570
	6	Carus 8700-H	7.1	440
	7	WSU-178-P	4.6	600
	8	WSU-178-M	7.4	440
	9	WSU-178-H	9.8	540
	11	WSU-110-P	3.4	340
	12	WSU-110-M	4.6	380
	13	WSU-110-H	6.8	320
2	0	Blank	0.12	330
	1	Carus 8600-P	3.1	390
	2	Carus 8600-M	5.2	340
	3	Carus 8400-H	7.4	230
	4	Carus 8700-P	3	210
	5	Carus 8700-M	6.1	200
	6	Carus 8700-H	7.1	230
	7	WSU-178-P	4.3	300
	8	WSU-178-M	7.4	240
	9	WSU-178-H	10	210
	11	WSU-110-P	3	280
	12	WSU-110-M	4.9	220
	13	WSU-110-H	10	200

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
3	0	Blank	0	260
	1	Carus 8600-P	4.3	460
	2	Carus 8600-M	6.4	400
	3	Carus 8400-H	8	320
	4	Carus 8700-P	4	220
	5	Carus 8700-M	5.8	270
	6	Carus 8700-H	8.3	300
	7	WSU-178-P	5.8	310
	8	WSU-178-M	7.4	250
	9	WSU-178-H	11	200
	11	WSU-110-P	3.7	330
	12	WSU-110-M	8	300
	13	WSU-110-H	7.4	250
4	0	Blank	0	190
	1	Carus 8600-P	4	300
	2	Carus 8600-M	5.2	320
	3	Carus 8400-H	8	200
	4	Carus 8700-P	3.7	160
	5	Carus 8700-M	6.1	160
	6	Carus 8700-H	7.4	320
	7	WSU-178-P	4.6	290
	8	WSU-178-M	7.4	180
	9	WSU-178-H	10	160
	11	WSU-110-P	3.1	200
	12	WSU-110-M	6.1	160
	13	WSU-110-H	6.1	280

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
5	0	Blank	6.8	200
	1	Carus 8600-P	11	430
	2	Carus 8600-M	12	330
	3	Carus 8400-H	14	320
	4	Carus 8700-P	12	270
	5	Carus 8700-M	14	220
	6	Carus 8700-H	14	300
	7	WSU-178-P	14	450
	8	WSU-178-M	13	400
	9	WSU-178-H	17	400
	11	WSU-110-P	9.8	260
	12	WSU-110-M	12	310
	13	WSU-110-H	14	1700
6	0	Blank	7.7	170
	1	Carus 8600-P	11	220
	2	Carus 8600-M	14	160
	3	Carus 8400-H	12	170
	4	Carus 8700-P	10	120
	5	Carus 8700-M	16	110
	6	Carus 8700-H	15	180
	7	WSU-178-P	14	250
	8	WSU-178-M	12	230
	9	WSU-178-H	18	260
	11	WSU-110-P	12	730
	12	WSU-110-M	14	190
	13	WSU-110-H	15	200

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, μg/L
7	0	Blank	0.31	350
	1	Carus 8600-P	4	300
	2	Carus 8600-M	8	260
	3	Carus 8400-H	7.7	200
	4	Carus 8700-P	3.4	220
	5	Carus 8700-M	5.2	180
	6	Carus 8700-H	6.8	220
	7	WSU-178-P	5.2	360
	8	WSU-178-M	8.3	280
	9	WSU-178-H	9.8	230
	11	WSU-110-P	3.4	240
	12	WSU-110-M	6.1	230
	13	WSU-110-H	7.4	320
8	0	Blank	3.7	660
	1	Carus 8600-P	3.7	210
	2	Carus 8600-M	5.5	140
	3	Carus 8400-H	9.2	120
	4	Carus 8700-P	4	120
	5	Carus 8700-M	5.2	98
	6	Carus 8700-H	7.7	300
	7	WSU-178-P	4.3	1900
	8	WSU-178-M	6.8	280
	9	WSU-178-H	8.9	3000
	11	WSU-110-P	3	800
	12	WSU-110-M	4	200
	13	WSU-110-H	5.5	410

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
9	0	Blank	0	250
	1	Carus 8600-P	4.6	140
	2	Carus 8600-M	6.1	170
	3	Carus 8400-H	8.6	120
	4	Carus 8700-P	3.7	100
	5	Carus 8700-M	5.2	86
	6	Carus 8700-H	7.1	130
	7	WSU-178-P	4.9	330
	8	WSU-178-M	6.8	150
	9	WSU-178-H	8.9	230
	11	WSU-110-P	2.8	240
	12	WSU-110-M	3.7	410
	13	WSU-110-H	5.2	240
10	0	Blank	0	180
	1	Carus 8600-P	4.3	510
	2	Carus 8600-M	5.8	150
	3	Carus 8400-H	8	170
	4	Carus 8700-P	3.7	140
	5	Carus 8700-M	5.5	94
	6	Carus 8700-H	7.7	130
	7	WSU-178-P	4.9	210
	8	WSU-178-M	7.1	700
	9	WSU-178-H	8.9	310
	11	WSU-110-P	3.4	840
	12	WSU-110-M	4.9	520
	13	WSU-110-H	6.1	600

Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
11	0	Blank	16	200
	1	Carus 8600-P	20	280
	2	Carus 8600-M	22	240
	3	Carus 8400-H	25	290
	4	Carus 8700-P	20	240
	5	Carus 8700-M	21	180
	6	Carus 8700-H	22	
	7	WSU-178-P	20	350
	8	WSU-178-M	22	240
	9	WSU-178-H	25	220
	11	WSU-110-P	19	430
	12	WSU-110-M	21	280
	13	WSU-110-H	21	360
12	0	Blank	0.52	430
	1	Carus 8600-P	4.6	270
	2	Carus 8600-M	6.8	250
	3	Carus 8400-H	8.9	290
	4	Carus 8700-P	3.7	240
	5	Carus 8700-M	6.1	220
	6	Carus 8700-H	7.7	390
	7	WSU-178-P	4.3	330
	8	WSU-178-M	6.8	290
	9	WSU-178-H	8.9	360
	11	WSU-110-P	2.9	670
	12	WSU-110-M	4.6	240
	13	WSU-110-H	6.4	290

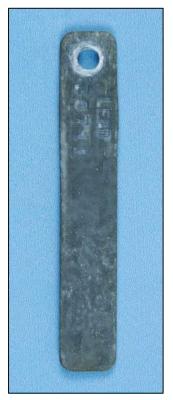
Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
13	0	Blank	0.74	1400
	1	Carus 8600-P	5.2	3300
	2	Carus 8600-M	7.7	1600
	3	Carus 8400-H	9.8	290
	4	Carus 8700-P	4	190
	5	Carus 8700-M	6.1	110
	6	Carus 8700-H	8	360
	7	WSU-178-P	4.9	410
	8	WSU-178-M	7.1	180
	9	WSU-178-H	9.2	170
	11	WSU-110-P	3.4	320
	12	WSU-110-M	4.9	300
	13	WSU-110-H	6.8	860
14	0	Blank	0.12	420
	1	Carus 8600-P	4.6	310
	2	Carus 8600-M	6.8	560
	3	Carus 8400-H	8.9	210
	4	Carus 8700-P	3.7	240
	5	Carus 8700-M	5.5	180
	6	Carus 8700-H	8	480
	7	WSU-178-P	4.6	500
	8	WSU-178-M	6.4	310
	9	WSU-178-H	8.9	180
	11	WSU-110-P	3.1	1500
	12	WSU-110-M	4.6	220
	13	WSU-110-H	6.1	230

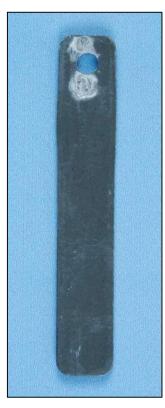
Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, μg/L
15	0	Blank	0.089	350
	1	Carus 8600-P	4.6	200
	2	Carus 8600-M	6.8	240
	3	Carus 8400-H	8.9	120
	4	Carus 8700-P	4	180
	5	Carus 8700-M	5.8	99
	6	Carus 8700-H	8	330
	7	WSU-178-P	4.3	660
	8	WSU-178-M	6.1	140
	9	WSU-178-H	8.6	140
	11	WSU-110-P	3.1	2200
	12	WSU-110-M	4.3	180
	13	WSU-110-H	6.1	410
16	0	Blank	0	200
	1	Carus 8600-P	4.3	270
	2	Carus 8600-M	6.4	190
	3	Carus 8400-H	8.6	180
	4	Carus 8700-P	4	140
	5	Carus 8700-M	5.8	110
	6	Carus 8700-H	7.7	170
	7	WSU-178-P	4.3	480
	8	WSU-178-M	14	300
	9	WSU-178-H	8.6	360
	11	WSU-110-P	3	1000
	12	WSU-110-M	4.6	430
	13	WSU-110-H	6.8	300

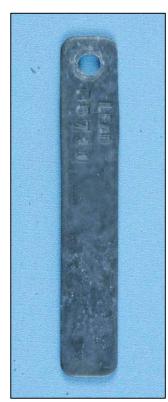
Test	Beaker No.	Product	Initial Total Phosphorus, mg/L as PO4	Lead, µg/L
17	0	Blank	0	200
	1	Carus 8600-P	4.3	130
	2	Carus 8600-M	6.8	170
	3	Carus 8400-H	8.6	110
	4	Carus 8700-P	3.7	300
	5	Carus 8700-M	5.5	180
	6	Carus 8700-H	7.7	170
	7	WSU-178-P	4.3	200
	8	WSU-178-M	6.4	1100
	9	WSU-178-H	8.9	480
	11	WSU-110-P	2.9	1400
	12	WSU-110-M	4.6	380
	13	WSU-110-H	6.1	310
18	0	Blank	0	480
	1	Carus 8600-P	4.3	850
	2	Carus 8600-M	6.8	460
	3	Carus 8400-H	8.9	190
	4	Carus 8700-P	4	390
	5	Carus 8700-M	5.5	400
	6	Carus 8700-H	7.1	1700
	7	WSU-178-P	4.3	970
	8	WSU-178-M	6.1	1500
	9	WSU-178-H	8	3200
	11	WSU-110-P	5.2	500
	12	WSU-110-M	4	300
	13	WSU-110-H	5.5	2300

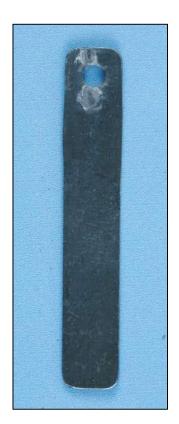
APPENDIX C – COUPON WEIGHT LOSS REPORT

Jar 0

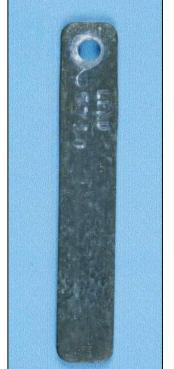






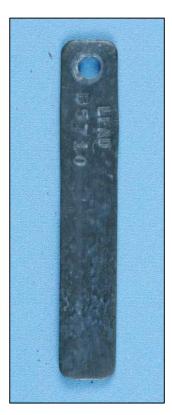


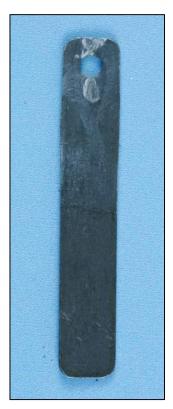
Before Cleaning





After Cleaning





Jar 1

Jar 2









Before Cleaning





After Cleaning





Jar 3

Jar 4



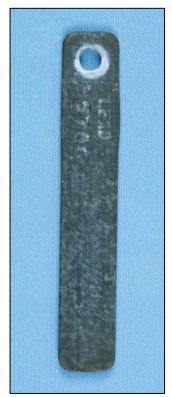






Before Cleaning

After Cleaning





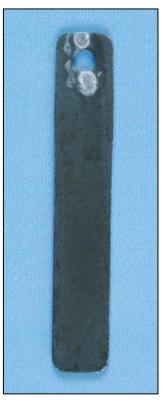


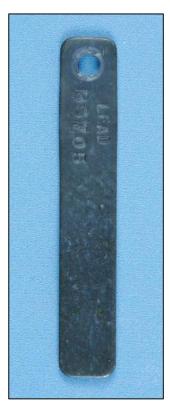


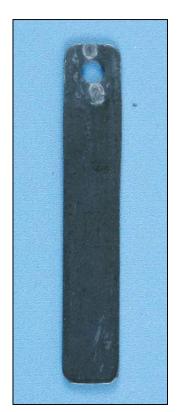
Jar 5

Jar 6







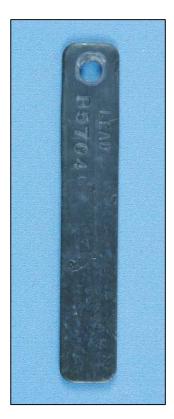


Before Cleaning

After Cleaning



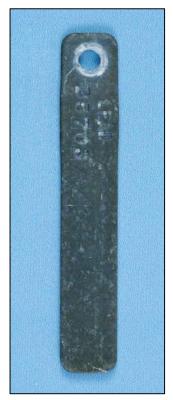




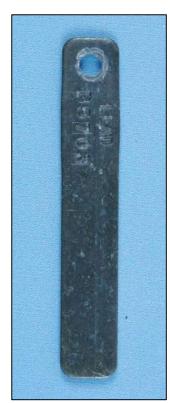


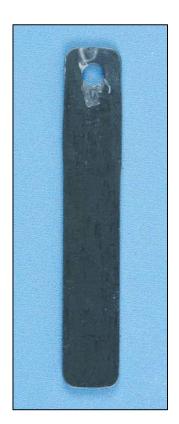
Jar 7

Jar 8

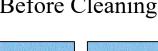


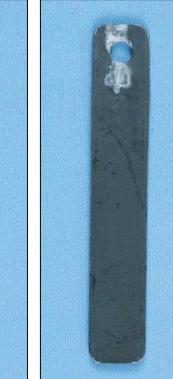




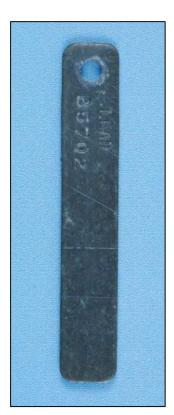


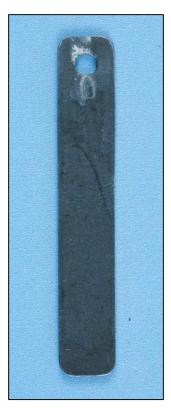
Before Cleaning





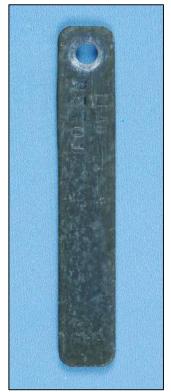
After Cleaning

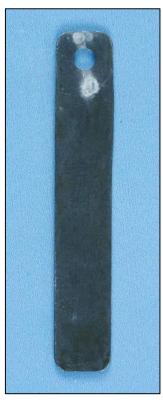


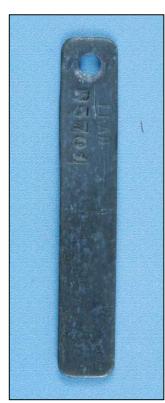


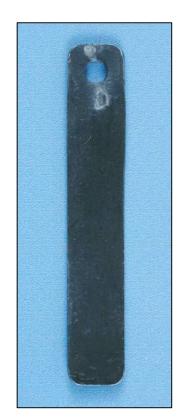
Jar 9

Jar 11





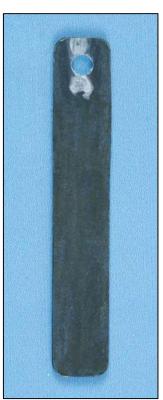




Before Cleaning





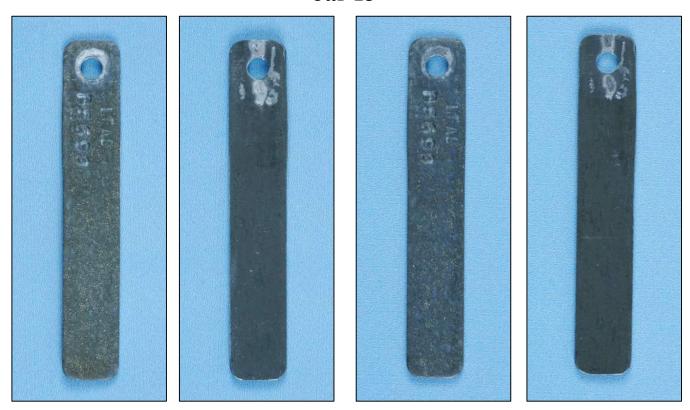






Jar 12

Jar 13



Before Cleaning

After Cleaning

> Metal Samples, Co., Inc. Phone: (256) 358-4202 Corrosion Analysis Data Report

Shop Order : 212838

Customer : TETRA TECH, INC Purchase Order: MAIL/JAMES

Alloy : LEAD ID Number : B5699
Initial Weight : 16.6554 Installed : 5/6/2021
Final Weight : 16.6462 Removed : 7/12/2021
Weight Loss : 0.0092 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0800

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 13/KALAMAZOO

Alloy : LEAD ID Number : B5700
Initial Weight : 17.3124 Installed : 5/6/2021
Final Weight : 17.2947 Removed : 7/12/2021
Weight Loss : 0.0177 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.1539

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 12/KALAMAZOO

Alloy : LEAD ID Number : B5701
Initial Weight : 16.8571 Installed : 5/6/2021
Final Weight : 16.8493 Removed : 7/12/2021
Weight Loss : 0.0078 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0678

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 11/KALAMAZOO

Alloy : LEAD ID Number : B5702
Initial Weight : 16.9627 Installed : 5/6/2021
Final Weight : 16.9523 Removed : 7/12/2021
Weight Loss : 0.0104 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0904

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 9/KALAMAZOO

> Metal Samples, Co., Inc. Phone: (256) 358-4202 Corrosion Analysis Data Report

Shop Order : 212838

Customer : TETRA TECH, INC Purchase Order: MAIL/JAMES

Alloy : LEAD ID Number : B5703
Initial Weight : 17.1173 Installed : 5/6/2021
Final Weight : 17.1073 Removed : 7/12/2021
Weight Loss : 0.0100 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0869

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 8/KALAMAZOO

Alloy : LEAD ID Number : B5704
Initial Weight : 16.5373 Installed : 5/6/2021
Final Weight : 16.5278 Removed : 7/12/2021
Weight Loss : 0.0095 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691 Alloy : LEAD

Mils Per Year : 0.0826

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 7/KALAMAZOO

Alloy : LEAD ID Number : B5705
Initial Weight : 16.5829 Installed : 5/6/2021
Final Weight : 16.5761 Removed : 7/12/2021
Weight Loss : 0.0068 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0591

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 6/KALAMAZOO

Alloy : LEAD ID Number : B5706
Initial Weight : 16.9124 Installed : 5/6/2021
Final Weight : 16.9098 Removed : 7/12/2021
Weight Loss : 0.0026 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0226

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 5/KALAMAZOO

Metal Samples, Co., Inc. Phone: (256) 358-4202

Corrosion Analysis Data Report

Customer : TETRA TECH, INC Shop Order : 212838

Purchase Order: MAIL/JAMES

Alloy : LEAD ID Number : B5707
Initial Weight : 17.2505 Installed : 5/6/2021
Final Weight : 17.2393 Removed : 7/12/2021
Weight Loss : 0.0112 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0974

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 4/KALAMAZOO

Alloy : LEAD ID Number : B5708
Initial Weight : 16.9361 Installed : 5/6/2021
Final Weight : 16.9281 Removed : 7/12/2021
Weight Loss : 0.0080 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0695

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 3/KALAMAZOO

Alloy : LEAD ID Number : B5709
Initial Weight : 17.1558 Installed : 5/6/2021
Final Weight : 17.1491 Removed : 7/12/2021
Weight Loss : 0.0067 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0582

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 2/KALAMAZOO

Alloy : LEAD ID Number : B5710
Initial Weight : 16.7648 Installed : 5/6/2021
Final Weight : 16.7570 Removed : 7/12/2021
Weight Loss : 0.0078 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.0678

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 1/KALAMAZOO

> Metal Samples, Co., Inc. Phone: (256) 358-4202

Corrosion Analysis Data Report

Customer : TETRA TECH, INC Shop Order : 212838

Purchase Order: MAIL/JAMES

Alloy : LEAD ID Number : B5711
Initial Weight : 16.6938 Installed : 5/6/2021
Final Weight : 16.6799 Removed : 7/12/2021
Weight Loss : 0.0139 Hours Exposed : 1608
Density (g/cm3) : 11.3500 Surface Area (in2) : 3.3691

Mils Per Year : 0.1208

Comments : NO VISIBLE ETCHING
Location : ORLANDO LAB-JAR 0/KALAMAZOO

APPENDIX D – LABORATORY WATER QUALITY TEST REPORTS





750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100

Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

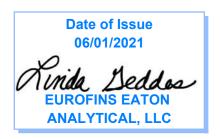


Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801

Attention: James Christopher Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	Water as a
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	х		х
1,4-Dioxane	EPA 522	х		х
2,3,7,8-TCDD	Modified EPA 1613B	x		х
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	х	х
Ammonia	EPA 350.1		Х	Х
Ammonia	SM 4500-NH3 H		Х	х
Anions and DBPs by IC	EPA 300.0	X	Х	x
Anions and DBPs by IC Asbestos	EPA 300.1 EPA 100.2	x	х	Х
BOD / CBOD	SM 5210B		Х	x
Bromate	In House Method (2447)	х	X	X
Carbamates	EPA 531.2	X		×
Carbonate as CO3	SM 2330B	X	х	x
Carbonyls	EPA 556	х		х
COD	EPA 410.4 / SM 5220D		Х	
Chloramines	SM 4500-CL G	х	х	х
Chlorinated Acids	EPA 515.4	х		х
Chlorinated Acids	EPA 555	Х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	х		x
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	х	х	х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	Х	х
Corrosivity (Langelier Index)	SM 2330B	х		x
Cyanide, Amenable	SM 4500-CN G	х	Х	
Cyanide, Free	SM 4500CN F	х	Х	х
Cyanide, Total	EPA 335.4	х	Х	Х
Cyanogen Chloride (screen)	In House Method (2470)	х		х
Diquat and Paraquat	EPA 549.2	х		Х
DBP/HAA	SM 6251B	Х		X
Dissolved Oxygen DOC	SM 4500-O G SM 5310C	х	Х	X X
		•		
E. Coli	(MTF/EC+MUG)	х		х
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli E. Coli (Enumeration)	SM 9223 SM 9221B.1/ SM 9221F	×	х	
E. Coli (Enumeration)	SM 9223B	X		X X
EDB/DCBP	EPA 504.1	X		^
EDB/DBCP and DBP	EPA 551.1	x		х
EDTA I NTA	In Harris Mathad (2454)			
EDTA and NTA Endothall	In House Method (2454) EPA 548.1	X		x
Endoulan		х		Х
Endothall	In-house Method (2445)	Х		X
Enterococci	SM 9230B	Х	Х	
Fecal Coliform	SM 9221 E (MTF/EC)	х		
Fecal Coliform	SM 9221C, E (MTF/EC)		Х	
Fecal Coliform	SM 9221E (MTF/EC)	x		×
(Enumeration)	5111 /221L (WIII/EC)	_ ^		, î
Fecal Coliform with	SM 9221E		x	
Chlorine Present				
Fecal Streptococci	SM 9230B	х	Х	
Fluoride	SM 4500-F C	х	х	х
Glyphosate	EPA 547	х		х
Glyphosate + AMPA	In House Method (3618)	Х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	х	х	x
Hardness	SM 2340B	Х	Х	х
Heterotrophic Bacteria	In House Method (2439)	х		х
Heterotrophic Bacteria	SM 9215 B	Х		х
Hexavalent Chromium	EPA 218.6	Х	Х	х

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		х	
Hormones	EPA 539	х		х
Hydroxide as OH Calc.	SM 2330B	х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella	Legiolert	х		х
Mercury	EPA 200.8	х		х
Metals	EPA 200.7 / 200.8	х	Х	х
Microcystin LR	ELISA (2360)	x		х
Microcystin, Total	EPA 546	x		х
NDMA	EEA/Agilent 521.1	х		x
NU. AU. AU. AU.	In house method (2425)			
Nitrate/Nitrite Nitrogen	EPA 353.2	X X	Х	X
OCL, Pesticides/PCB	EPA 505			X
Ortho Phosphate	EPA 365.1	X X	Х	X X
Ortho Phosphorous Oxyhalides Disinfection	SM 4500P E	X		X
Byproducts	EPA 317.0	x		x
Perchlorate	EPA 331.0	х		х
Perchlorate (low and high)	EPA 314.0	X		x
Perfluorinated Alkyl Acids	EPA 537	X		x
Perfluorinated Polutant	In house Method (2434)	X		x
pH	EPA 150.1	х		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/	In House Method, based on EPA			
Herbicides	532 (2448)	Х		Х
Pseudomonas	IDEXX Pseudalert (2461)	х		х
Radium-226	GA Institute of Tech	х		х
Radium-228	GA Institute of Tech	х		х
Radon-222	SM 7500RN	х		х
Residue, Filterable	SM 2540C	х	Х	х
Residue, Non-filterable	SM 2540D		x	
Residue, Total	SM 2540B		Х	х
Residue, Volatile	EPA 160.4		Х	
Semi-VOC	EPA 525.2	х		x
Silica	SM 4500-Si D	х	Х	
Silica	SM 4500-SiO2 C	x	x	
Sulfide	SM 4500-S ⁼ D		Х	
Sulfite	SM 4500-SO ³ B	х	x	х
Surfactants	SM 5540C	x	×	x
Taste and Odor Analytes	SM 6040E	X	^	×
Total Coliform (P/A)	SM 9221 A, B	X		X
Total Coliform	SM 9221 A, B, C	×		×
(Enumeration)		^		^
Total Coliform / E. coli	Colisure SM 9223	х		X
Total Coliform	SM 9221B		X	
Total Coliform with Chlorine Present	SM 9221B		x	
Total Coliform / E.coli (P/A	SM 9223	x		x
and Enumeration)				,
TOC	SM 5310C	Х	X	х
TOX	SM 5320B		Х	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	х	х
Total Phosphorous	SM 4500 P E		х	
Triazine Pesticides &	In House (3617)	x	^	х
Degradates Turbidity	` ,			
Turbidity Turbidity	EPA 180.1	X	X	Х
Turbidity	SM 2130B	X	Х	,
Uranium by ICP/MS	EPA 200.8	Х		Х
UV 254	SM 5910B	х		
VOC	EPA 524.2	х		х
VOC	In House Method (2411)	Х		x
Yeast and Mold	SM 9610	х		x
Field Sampling	N/A			

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20



Acknowledgement of Samples Received

Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 935513 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **May 17, 2021** at **1156**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202105170198	J-0, Day 1		05/06/2021 1653
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170199	J-1, Day 1		05/06/2021 1212
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170200	J-2, Day 1		05/06/2021 1212
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
<u>202105170201</u>	J-3, Day 1		05/06/2021 1212
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170202	J-4, Day 1		05/06/2021 1410
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
<u>202105170203</u>	J-5, Day 1		05/06/2021 1410
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170204	J-6, Day 1		05/06/2021 1410
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170205	J-7, Day 1		05/06/2021 1510
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202105170206</u>	J-8, Day 1		05/06/2021 1510
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202105170207</u>	J-9, Day 1	rota prioprio de de l'el Calo.	05/06/2021 1510
	Total phosphorus as P	Total pherohorus as PO4. Cale	
<u>202105170208</u>	J-11, Day 1	Total phosphorus as PO4- Calc.	05/06/2021 1600
202100110200		Tatal sheephows as PO4 Cole	00/00/2021 1000
<u>202105170209</u>	Total phosphorus as P J-12, Day 1	Total phosphorus as PO4- Calc.	05/06/2021 1600
202 103 17 0209	,		03/00/2021 1000
202405472242	Total phosphorus as P	Total phosphorus as PO4- Calc.	05/00/2004 4000
202105170210	J-13, Day 1		05/06/2021 1600
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 06/01/2021

Page 1 of 6



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 935513

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **May 17, 2021** at **1156**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202105170211	J-0, Day 1	05/11/2021 0753
	@ICPMS	
202105170212	J-1, Day 1	05/11/2021 0753
	@ICPMS	
202105170213	J-2, Day 1	05/11/2021 0753
	@ICPMS	
<u>202105170214</u>	J-3, Day 1	05/11/2021 0753
	@ICPMS	
<u>202105170215</u>	J-4, Day 1	05/11/2021 0753
	@ICPMS	
<u>202105170216</u>	J-5, Day 1	05/11/2021 0753
	@ICPMS	
202105170217	J-6, Day 1	05/11/2021 0753
	@ICPMS	
202105170218	J-7, Day 1	05/11/2021 0753
	@ICPMS	
202105170219	J-8, Day 1	05/11/2021 0753
	@ICPMS	
202105170220	J-9, Day 1	05/11/2021 0753
	@ICPMS	
202105170221	J-11, Day 1	05/11/2021 0753
	@ICPMS	
202105170222	J-12, Day 1	05/11/2021 0753
	@ICPMS	
202105170223	J-13, Day 1	05/11/2021 0753
	@ICPMS	

Reported: 06/01/2021



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Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 935513 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

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Sample #	Sample ID		Sample Date
202105170224	J-1, Day 2		05/10/2021 1008
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170225	J-2, Day 2		05/10/2021 1008
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170226	J-3, Day 2		05/10/2021 1008
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170227	J-4, Day 2		05/10/2021 1104
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170228	J-5, Day 2		05/10/2021 1104
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170229	J-6, Day 2		05/10/2021 1104
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170230	J-7, Day 2		05/10/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170231	J-8, Day 2		05/10/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170232	: J-9, Day 2		05/10/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202105170233	J-11, Day 2		05/10/2021 1207
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170234	J-12, Day 2		05/10/2021 1207
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170235			05/10/2021 1207
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170236	J-0, Day 2		05/10/2021 1325
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
	- Car phophoras as 1	Total pricopriorate do 1 O4 Colle.	:

Reported: 06/01/2021

Page 3 of 6



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 935513 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID	Sample Date
202105170237	J-0, Day 2	05/14/2021 1014
	@ICPMS	
202105170238	J-1, Day 2	05/14/2021 1014
	@ICPMS	
202105170239	J-2, Day 2	05/14/2021 1014
	@ICPMS	
202105170240	J-3, Day 2	05/14/2021 1014
	@ICPMS	
202105170241	J-4, Day 2	05/14/2021 1014
	@ICPMS	
202105170242	J-5, Day 2	05/14/2021 1014
	@ICPMS	
202105170243	J-6, Day 2	05/14/2021 1014
	@ICPMS	
202105170244	J-7, Day 2	05/14/2021 1014
	@ICPMS	
202105170245	J-8, Day 2	05/14/2021 1014
	@ICPMS	
202105170246	J-9, Day 2	05/14/2021 1014
	@ICPMS	
202105170247	J-11, Day 2	05/14/2021 1014
	@ICPMS	
202105170248	: J-12, Day 2	05/14/2021 1014
	@ICPMS	
202105170249	J-13, Day 2	05/14/2021 1014
	@ICPMS	

Reported: 06/01/2021



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Sample #	Sample ID		Sample Date
202105170250	J-0, Day 3		05/13/2021 1106
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170251	J-1, Day 3		05/13/2021 0922
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170252	J-2, Day 3		05/13/2021 0922
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170253	J-3, Day 3		05/13/2021 0922
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170254	J-4, Day 3		05/13/2021 0952
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170255	J-5, Day 3		05/13/2021 0952
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170256	J-6, Day 3		05/13/2021 0952
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170257	J-7, Day 3		05/13/2021 1017
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170258	J-8, Day 3		05/13/2021 1017
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170259	J-9, Day 3		05/13/2021 1017
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170260	J-11, Day 3		05/13/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170261	J-12, Day 3		05/13/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105170262	J-13, Day 3		05/13/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 06/01/2021



Addr: Tetra Tech

201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 935513 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **May 17, 2021** at **1156**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 06/01/2021 Page 6 of 6

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(check for yes) Z/A 00 Thawed SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: °C) (Corr.Factor -0 , L °C) (Final = 11 °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= 115 (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology; < 10°C) No Ice IR Gun ID = IR Gun ID = Synthetic SAMPLE TEMP RECEIVED AT: TYPE OF ICE: Real (Other) LOGIN COMMENTS: Monrovia Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

TO BE COMPLETED BY SAMPLER:	SAMPLER					(check for yes)		(check	(check for yes)
COMPANY/AGENCY NAME:	VAME:	PROJECT CODE:			COMPLIAN	COMPLIANCE SAMPLES	NON-COMPLIANCE SAMPLES	CE SAMPLES	
+ 1.4					- Requir	Requires state forms	REGULATION INVOLVED:	VOLVED:	
IETHE IECH	۷				Type of samples (circle one):	ROUTINE	SPECIAL CONFIRMATION	(eg. SDW	(eg. SDWA, NPDES, etc.)
EEA CLIENT CODE:	COC ID:	SAMPLE GROUP:			SEE ATTACHED K	SEE ATTACHED KIT ORDER FOR ANALYSES	YSES	(check for yes), OR	OR
tetratech-artan	rlan	lead solubility 1	する	test - Phase 2		List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	er of bottles sent f	or each test for ea	ch sample)
TAT requested: rush by adv notice only	by adv notice only	STD 1 wk 3 day_	2 day	1 day_	-501				
BTAG BTAG BTAG BMRAS BMIT.	SAMPLEID	CLIENT LAB ID	• XIRTAM	ATAG GJBIR	ko latat Lucram			SAMPLER	ENTS
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П	-1. Day 1		-					H2504	
-	-2, Day 1							-and	
7	-3 Day 1								
- F 01: 41	-4. Day 1				-14			3.	
7	2								
-1	J-6, Day 1								
15:10	1-7, Day1								
1 3-	8								
-C + +	6		- >		→			→	
* MATRIX TYPES	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ted Finis Water	shed Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	O = Other - Please Identify	ease Identify
	SIGNATURE			PRINT NAME		COMPANY/TITLE		DATE	TIME
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O = Other - Please Identify (check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc. nithic acid by SAMPLER Preserved ~ 10.4 3 77.01 (check for yes) Preserved w P Z/A (check for yes), OR H-504 PAGE NON-COMPLIANCE SAMPLES Tet. 14/2/ Thawed 12/4/20 SAMPLES CHECKED AGAINST COC BY? SAMPLES REC'D DAY OF COLLECTION? REGULATION INVOLVED: SAMPLES LOGGED IN BY: °C) (Corr. Factor 0 2 °C) (Final = 111 S °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SL = Sludge Partially Frozen FedEx / UPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES BW = Bottled Water SW = Storm Water (check for yes) Tech C) (Corr.Factor Tech COMPANY/TITLE CONDITION OF ICE: Frozen Requires state forms COMPLIANCE SAMPLES Tetra Letra (Observation= 1.3 (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) 54421 METHOD OF SHIPMENT: Pick-Up / Walk-In / 0 149 No Ice lead solubility lest-phase2 Posaba! ATAO OJEI: CFW = Chlor(am)inated Finished Water EUROFINS EATON ANALYTICAL USE ONLY Ang Rosabal IR Gun ID = IR Gun ID = Synthetic ATAG GJEIF SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water XINTAM ARA TYPE OF ICE: Real (Other) STD 1 wk 3 day LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water アキン Website: www.EatonAnalytical.com COC ID: TAT requested: rush by adv notice only SAMPLE ID 750 Royal Oaks Drive, Suite 100 Day -D, Day Day Day - 6. Day! Day 13 Day - C Day 800 566 LABS (800 566 5227) 3-12, Day 1 J-11. Day 1 Monrovia, CA 91016-3629 QA FO 0029.2 (Version 2) (08/28/2014) TO BE COMPLETED BY SAMPLER tetra tech-orlan COMPANY/AGENCY NAME: Phone: 626 386 1100 7-4 3-3 Fax: 626 386 1101 Tetra Tech 7-2 1-1 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 05. 81 00/20 15: t 11/30 TIME RECEIVED BY: RECEIVED BY: SAMPLED BY SAMPLE SAMPLE

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(check for yes) N/A SAMPLES REC'D DAY OF COLLECTION? ပ္ Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: °C) (Corr.Factor -0 \ Z °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= 1 5 (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology < 10°C) No Ice 0 EUROFINS EATON ANALYTICAL USE ONLY. IR Gun ID = (Other) IR Gun ID = TYPE OF ICE: Real X Synthetic SAMPLE TEMP RECEIVED AT: LOGIN COMMENTS: Monrovia Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 Phone: 626 386 1100 Fax: 626 386 1101

TO BE COMPLETED BY SAMPLEN.				1006 101 100			
COMPANY/AGENCY NAME:	PROJECT CODE:		COMPLIAN	COMPLIANCE SAMPLES NO	NON-COMPLIANCE SAMPLES	SAMPLES	
1			- Requir	Requires state forms RI	REGULATION INVOLVED	OLVED:	
letra lech			Type of samples (circle one):	one): ROUTINE SPECIAL CONFIRMATION	CONFIRMATION	(eg. SDWA,	(eg. SDWA, NPDES, etc.)
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:		SEE ATTACHED K	SEE ATTACHED KIT ORDER FOR ANALYSES	\\ ses	(check for yes), OR	SR
tetratech orlan	lead solubility ket	- phase 2	List ALL ANALYSE	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	of bottles sent for	each test for each	sample)
TAT requested: rush by adv notice only	STD 1 wk 3 day	2 day 1 day	_				
SAMPLE SAMPLE SAMPLE ID	CLIENT LAB ID	• TIELD DATA ATAO DAIH	1-149+			SAMPLER	NTS
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1 J-3 Pav1						nithic acid	pr
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1-11 Day						,	
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1 + 7-13 , Day		-	→			Y	
1 7							
1-2							
Osto J J-3 Day 2							
11:14 J-4, Days		→	→				
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	Nater CFW = Chlor(am)inated Finished Water Nater FW = Other Finished Water	Finished Water ater	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	0 = Other - Please Identify	se Identif
SIGNATURE		PRINT NAME		COMPANY/TITLE		DATE	TIME
SAMPLED BY: CLIVIL	₩.	a Rosaba		Tetra For	0	05/14/61 10:	. 44
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O = Other - Please Identify (check for yes) Prepared in nitring List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc. SAMPLER 156 (check for yes) £ J: 0) A/N (check for yes), OR NON-COMPLIANCE SAMPLES Thawed 5.17.2 SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: REGULATION INVOLVED: 12/11/20 °C) (Corr.Factor 012 °C) (Final = 1 °C) (Final = SO = Soil SL = Sludge Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In /(FedEx) / UPS / DHL / Area Fast / Top Line / Other. SEE ATTACHED KIT ORDER FOR ANALYSES BW = Bottled Water SW = Storm Water (check for yes) °C) (Corr.Factor tota tos COMPANY/TITLE CONDITION OF ICE: Frozen COMPLIANCE SAMPLES Requires state forms (Observation= 1.3 (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology; < 10°C) IC PM d 1244 No Ice 9 200 Ans Kosaba Ana Boraba ATAG GJEI CFW = Chlor(am)inated Finished Water lead solubility test - phases EUROFINS EATON ANALYTICAL USE ONLY IR Gun ID = IR Gun ID = TYPE OF ICE: Real > Synthetic ATAG GJEIF my SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water XINTAM STD 1 wk 3 day (Other) LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water 300 Website: www.EatonAnalytical.com COC ID: SAMPLEID TAT requested: rush by adv notice only 750 Royal Oaks Drive, Suite 100 2 had, 0-141-01/H/20 2420 3-13, 0042 J-4, Day 2 Days 3-12, 0442 800 566 LABS (800 566 5227) too 7-8, Day)-0, Day Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER COMPANY/AGENCY NAME: Phone: 626 386 1100 thratech-odan ヒートサン 7-9 11-11 pt: 21 ٦- ا Fax: 626 386 1101 Teha Tech EEA CLIENT CODE: RELINQUISHED BY 17:27 11:0n Pa **JMIT** RECEIVED BY: RECEIVED BY: SAMPLED BY SAMPLE SAMPLE

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QA FO 0029.2 (Version 2) (08/28/2014)

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O = Other - Please Identify (check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc. SAMPLER nithic acid by 00:11 ay Tetra Te la (check for yes) Z/A 5 (check for yes), OR Preved : ပွ NON-COMPLIANCE SAMPLES Thawed SAMPLES CHECKED AGAINST COC BY: (SAMPLES LOGGED IN BY: SAMPLES REC'D DAY OF COLLECTION? REGULATION INVOLVED: 2.11.5 02/14/50 °C) (Final = /// °C) (Final = Partially Frozen Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SL = Sludge METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx/ / UPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr. Factor Or 2 (check for yes) BW = Bottled Water SW = Storm Water °C) (Corr.Factor COMPANY/TITLE CONDITION OF ICE: Frozen 404 Requires state forms COMPLIANCE SAMPLES 5 44 (Observation= 1/3 (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) WUDI No Ice 919 nu Brock Ana Posabal Ana Rosabal ATAG GJ3I: kst- phase? CFW = Chlor(am)inated Finished Water PRINT NAME 1 day EUROFINS EATON ANALYTICAL USE ONLY IR Gun ID = (Other) IR Gun ID = TYPE OF ICE: Real X Synthetic ATAG GJEIF 2 day SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water · XINTAM STD 1 wk 3 day tad solubility LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Website: www.EatonAnalytical.com COC ID: SAMPLE ID TAT requested: rush by adv notice only GONATURE 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER. tetra tech-octon COMPANY/AGENCY NAME: 3-8, Phone: 626 386 1100 7-6 3-6 3-3 4-5 7-6 7-5 total too 11-0 Fax: 626 386 1101 1-1 EEA CLIENT CODE: RELINQUISHED BY: RELINQUISHED BY 10:14 TIME RECEIVED BY: RECEIVED BY: SAMPLED BY SAMPLE 工场 **BTAG** SAMPLE

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QA FO 0029.2 (Version 2) (08/28/2014)

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O = Other - Please Identify List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (check for yes (eg. SDWA, NPDES, etc. Presented in nitric 11:03 (check for yes) COMMENTS TIME Р 1.03 A/N SAMPLER (check for yes), OR id by PAGE SAMPLES REC'D DAY OF COLLECTION? (C) NON-COMPLIANCE SAMPLES Thawed 65 14 21 17/1/40 SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: REGULATION INVOLVED: °C) (Final = °C) (Final = Partially Frozen A Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SL = Sludge SO = Soil METHOD OF SHIPMENT: Pick-Up / Walk-In /(FedEx / UPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr.Factor 012 BW = Bottled Water SW = Storm Water (check for yes) °C) (Corr.Factor 32 COMPANY/TITLE R/R CONDITION OF ICE: Frozen Requires state forms COMPLIANCE SAMPLES 7 Letra (Observation= (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) d 144 MASI No Ice Ama Bosabal Rock And Bosabal 0 TAG GJEI CFW = Chlor(am)inated Finished Water PRINT NAME EUROFINS EATON ANALYTICAL USE ONLY. lack colubility 18st - ohare 2 IR Gun ID = Other) IR Gun ID = ATAO GJEI TYPE OF ICE: Real X Synthetic MVC SAMPLE TEMP RECEIVED AT: FW = Other Finished Water 3 · XIRTAM STD 1 wk 3 day LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia 2002 * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Website: www.EatonAnalytical.com COC ID: Day SAMPLE ID TAT requested: rush by adv notice only SIGNATURE 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 7-12, Duy non 800 566 LABS (800 566 5227) TO BE COMPLETED BY SAMPLER. 3-7 3-13, 1-1 1-1 9 . 7 3-0 7-6 -3 カーフ COMPANY/AGENCY NAME: tetratech-olar Phone: 626 386 1100 Fax: 626 386 1101 tetra Tech EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 11:01 90:11 4:22 4:17 10:19 3JAMA2 3MIT RECEIVED BY: ECEIVED BY SAMPLED BY 13 교병 **BTAQ** SAMPLE

QA FO 0029.2 (Version 2) (08/28/2014)

💸 eurofins

Eaton Analytical

O = Other - Please Identify °C) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc. 90:) 1 (check for yes) COMMENTS SAMPLER N/A P (check for yes), OR NON-COMPLIANCE SAMPLES Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? 12 HI Se SAMPLES LOGGED IN BY: REGULATION INVOLVED: 5.17.2 °C) (Corr.Factor -012 °C) (Final = °C) (Final = Partially Frozen Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SL = Sludge FedEx UPS / DHL / Area Fast / Top Line / Other: SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES BW = Bottled Water (check for yes) SW = Storm Water °C) (Corr.Factor COMPANY/TITLE Tetra Freh CONDITION OF ICE: Frozen Requires state forms COMPLIANCE SAMPLES ELE (Observation= 1.5) (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry, 4±2 °C) (Microbiology < 10 °C METHOD OF SHIPMENT: Pick-Up / Walk-In / 112/4/134 No Ice 0 much Brook leadsolubility tet-phase? TAG GJEI Ana Kosabal CFW = Chlor(am)inated Finished Water Ana Rosaba EUROFINS EATON ANALYTICAL USE ONLY. IR Gun ID = (Other) IR Gun ID = Synthetic ATAG GJEIF SAMPLE TEMP RECEIVED AT: FW = Other Finished Water 3 · XIRTAM TYPE OF ICE: Real LOGIN COMMENTS: CLIENT LAB ID SAMPLE GROUP: PROJECT CODE: 1 wk Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water (Secolar anny Days Website: www.EatonAnalytical.com Mari COC ID: SAMPLE ID IAT requested: rush by adv notice only SIGNATURE 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 QA FO 0029.2 (Version 2) (08/28/2014) TO BE COMPLETED BY SAMPLER: tehas techno lon 7-12, 1-13 7-9, 11 -1 1-0 COMPANY/AGENCY NAME: Phone: 626 386 1100 Fax: 626 386 1101 Tetra Tel EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 10:17 0.42 SAMPLE TIME RECEIVED BY RECEIVED BY SAMPLED BY 20 **BTAO**

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INTERNAL CHAIN OF CUSTODY RECORD	SAMPLE TEMP RECEIVED: Note: If samples are out of temperature range, let the ASMs know, ASMs will determine whether to proceed with analysis or not. SAMPLES REC'D DAY OF COLLECTION? Yes / No	1.6 °C) (Corr.Factor 012 °C) (Final = 1.4 °C)	condition of ICE: Frozen Partially Frozen Thawed N/A	FedEx / UPS / DHL / Area Fast / Top Line / Other.	(if received after 24 hrs of sample collection)	2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)	received after 2 hours of sample collection)	1 = (Observation= 'C) (CorrFactor 'C) (Final = 'C) 2 = (Observation= 'C) (CorrFactor 'C) (Final = '')	3 = (Observation °C) (Corr.Factor °C) (Final °C) (Final °C) (Final °C) (Final °C) (Final °C)	4 Dioxin (1613 or 2,3,7,8 TCDD); must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)	Lot Number: pH strip type: 0 - 14 or Expiration Date Results:	dspace: Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles) Exempt from headspace concerns: Methods 515.4, HAA[6251, 565, 59ME, @CH, 532LCMS, 586, 636, Anatoxin, LCMS methods using 40 m ivisis, International clients: Samp ID Bottle # None/<6 > 6mm Samp ID Bottle # None/<6 > 6mm Samp ID Bottle # None/<6 > 6mm	WIW	(i.e. potential sampling errors):	MUCL Browth Euroffins Eaton Analytical 5.17.21 1156
7	EEA Folder Number () Eaton Analytical		TYPE OF ICE: Real X Synthetic No Ice	Walk-In FedEx	Compliance Acceptance Criteria: 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)	2) Microbiology, Distribution: < 10°C, not frozen (ca	3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)	If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants		4 Dloxin (1613 or 2,3,7,8 TCDD); must be between 0	b) pH Check. Manufacturer: Lo Chlorine check. Manufacturer: Sansafe. Lot No	VOA		Most Commis IDs which have dissimilar headspace (i.e. po)	PRECEIVED W. Brook Chuc

Created Date & Time: 4/23/2021 12:07:04PM

Code

eurofins.

750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 (626) 386-1100 FAX (866) 988-3757

Vanessa Berry is your Eurofins Eaton Analytical, LLC Service Manager

Kit Order for Tetra Tech Inc.

Note: Sampler Please return this paper with your samples

Kit #: 289250

Created By: Vanessa Berry - [ZIA8] Deliver By: 04/29/2021 STG: Bottle Orders

Ice Type: W

Lead Solubility Testing - Phase 2 Project Code: KALAMAZOO Bottle Orders Group Name:

Description: No Schedule

Client ID: TETRATECH-ORLAN

PO#/JOB#:

Attn: James Christopher Phone: 407-480-3907 Fax: 407-839-3790 Ship Sample Kits to 201 East Pine Street Orlando, FL 32801 Suite 1000 Tetra Tech

Attn: James Christopher Phone: 407-480-3907 Fax: 407-839-3790 201 East Pine Street Orlando, FL 32801 Billing Address Suite 1000 Tetra Tech Attr: James Christopher Phone: 407-480-3907 Fax: 407-839-3790

201 East Pine Street Suite 1000 Orlando, FL 32801

Send Report to

Tetra Tech

4	Bottle Qty - Type [preservative information]	Total	UN DOT #
Hereis and the second s	1 - 250ml poly [0.5 ml H2SO4 (50%)]	26	UN1830
10tal prospriorus as r	1 - 250ml noly I no preservative 1	26	
(ØICPMS		Sum Bottles: 52	
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Sum Tests: 52 @ICPMS

Sample Tests

26 56 include return shipping labels COCs

Tracking #

Prepared By

of Coolers

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Laboratory Comments

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

B4 - Target analyte detected in blank at or above method acceptance criteria.

D1 - Sample required dilution due to matrix.





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202105170199	<u>J-1, Day 1</u>				
05/26/2021 12:59	Total phosphorus as P		0.98		mg/L	0.10
05/26/2021 15:26	Total phosphorus as PO	4- Calc.	3.0		mg/L	0.030
	202105170200	<u>J-2, Day 1</u>				
05/26/2021 13:00	Total phosphorus as P		1.7		mg/L	0.10
05/26/2021 15:26	Total phosphorus as PO	4- Calc.	5.2		mg/L	0.030
	202105170201	<u>J-3, Day 1</u>				
05/26/2021 13:00	Total phosphorus as P		2.3		mg/L	0.10
05/26/2021 15:26	Total phosphorus as PO	4- Calc.	7.1		mg/L	0.030
	202105170202	<u>J-4, Day 1</u>				
05/25/2021 15:04	Total phosphorus as P		0.98		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	3.0		mg/L	0.030
	202105170203	<u>J-5, Day 1</u>				
05/25/2021 15:05	Total phosphorus as P		1.6		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	4.9		mg/L	0.030
	202105170204	<u>J-6, Day 1</u>				
05/25/2021 15:06	Total phosphorus as P		2.3		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	7.1		mg/L	0.030
	202105170205	<u>J-7, Day 1</u>				
05/25/2021 15:07	Total phosphorus as P		1.5		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030
	202105170206	<u>J-8, Day 1</u>				
05/25/2021 15:08	Total phosphorus as P		2.4		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	7.4		mg/L	0.030
	202105170207	<u>J-9, Day 1</u>				
05/25/2021 15:09	Total phosphorus as P		3.2		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	9.8		mg/L	0.030
	202105170208	<u>J-11, Day 1</u>				
05/25/2021 15:10	Total phosphorus as P		1.1		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	3.4		mg/L	0.030
	202105170209	<u>J-12, Day 1</u>				
05/25/2021 15:10	Total phosphorus as P		1.5		mg/L	0.10
05/26/2021 15:56	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
05/25/2021 15:11	202105170210 Total phosphorus as P	<u>J-13, Day 1</u>	2.2		mg/L	0.10
05/26/2021 15:57 05/20/2021 13:22	Total phosphorus as PC 202105170211 Lead Total ICAP/MS	J-0, Day 1	6.8 3500	15	mg/L ug/L	0.030
05/25/2021 18:09	202105170212 Lead Total ICAP/MS	<u>J-1, Day 1</u>	2900	15	ug/L	10
05/20/2021 12:32	202105170213 Lead Total ICAP/MS	<u>J-2, Day 1</u>	550	15	ug/L	0.50
05/20/2021 12:33	202105170214 Lead Total ICAP/MS	<u>J-3, Day 1</u>	520	15	ug/L	0.50
05/20/2021 12:33	202105170215 Lead Total ICAP/MS	<u>J-4, Day 1</u>	420	15	ug/L	0.50
05/25/2021 17:47	202105170216 Lead Total ICAP/MS	<u>J-5, Day 1</u>	570	15	ug/L	0.50
05/20/2021 12:34	202105170217 Lead Total ICAP/MS	<u>J-6, Day 1</u>	440	15	ug/L	0.50
05/20/2021 12:35	202105170218 Lead Total ICAP/MS	<u>J-7, Day 1</u>	600	15	ug/L	0.50
05/20/2021 12:40	202105170219 Lead Total ICAP/MS	<u>J-8, Day 1</u>	440	15	ug/L	0.50
05/25/2021 17:49	202105170220 Lead Total ICAP/MS	<u>J-9, Day 1</u>	540	15	ug/L	0.50
05/20/2021 12:41	202105170221 Lead Total ICAP/MS	<u>J-11, Day 1</u>	340	15	ug/L	0.50
05/25/2021 17:51	202105170222 Lead Total ICAP/MS	<u>J-12, Day 1</u>	380	15	ug/L	0.50
05/20/2021 12:42	202105170223 Lead Total ICAP/MS	<u>J-13, Day 1</u>	320	15	ug/L	0.50
05/25/2021 15:12	202105170224 Total phosphorus as P	<u>J-1, Day 2</u>	1.0		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
05/26/2021 15:57	Total phosphorus as PC	04- Calc.	3.1		mg/L	0.030
	202105170225	J-2, Day 2				
05/25/2021 15:15	Total phosphorus as P		1.7		mg/L	0.10
05/26/2021 15:57	Total phosphorus as PC	04- Calc.	5.2		mg/L	0.030
	202105170226	J-3, Day 2				
05/25/2021 15:16	Total phosphorus as P		2.4		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	7.4		mg/L	0.030
	202105170227	<u>J-4, Day 2</u>				
05/25/2021 15:17	Total phosphorus as P		0.98		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	3.0		mg/L	0.030
	202105170228	<u>J-5, Day 2</u>				
05/25/2021 15:18	Total phosphorus as P		2.0		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	6.1		mg/L	0.030
	202105170229	<u>J-6, Day 2</u>				
05/25/2021 15:19	Total phosphorus as P		2.3		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	7.1		mg/L	0.030
	202105170230	<u>J-7, Day 2</u>				
05/25/2021 15:19	Total phosphorus as P		1.4		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	4.3		mg/L	0.030
	202105170231	<u>J-8, Day 2</u>				
05/25/2021 15:20	Total phosphorus as P		2.4		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	7.4		mg/L	0.030
	202105170232	<u>J-9, Day 2</u>				
05/25/2021 15:21	Total phosphorus as P		3.4		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	10		mg/L	0.030
	202105170233	<u>J-11, Day 2</u>				
05/25/2021 15:22	Total phosphorus as P		0.97		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	3.0		mg/L	0.030
	202105170234	<u>J-12, Day 2</u>				
05/25/2021 15:23	Total phosphorus as P		1.6		mg/L	0.10
05/26/2021 15:58	Total phosphorus as PC	04- Calc.	4.9		mg/L	0.030
	202105170235	<u>J-13, Day 2</u>				
05/28/2021 13:57	Total phosphorus as P		3.3		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
05/28/2021 16:51	Total phosphorus as	PO4- Calc.	10		mg/L	0.030
05/28/2021 14:00 05/28/2021 16:51			0.041 0.12		mg/L mg/L	0.10 0.030
05/20/2021 12:42	202105170237	J-0, Day 2	330	15	ug/L	0.50
05/20/2021 12:43	202105170238 Lead Total ICAP/MS	<u>J-1, Day 2</u>	390	15	ug/L	0.50
05/20/2021 12:44	202105170239 Lead Total ICAP/MS	<u>J-2, Day 2</u>	340	15	ug/L	0.50
05/20/2021 12:45	202105170240 Lead Total ICAP/MS	<u>J-3, Day 2</u>	230	15	ug/L	0.50
05/20/2021 12:46	202105170241 Lead Total ICAP/MS	<u>J-4, Day 2</u>	210	15	ug/L	0.50
05/20/2021 12:46	202105170242 Lead Total ICAP/MS	<u>J-5, Day 2</u>	200	15	ug/L	0.50
05/20/2021 12:53	202105170243 Lead Total ICAP/MS	<u>J-6, Day 2</u>	230	15	ug/L	0.50
05/20/2021 12:55	202105170244 Lead Total ICAP/MS	<u>J-7, Day 2</u>	300	15	ug/L	0.50
05/20/2021 12:56	202105170245 Lead Total ICAP/MS	<u>J-8, Day 2</u>	240	15	ug/L	0.50
05/20/2021 12:57	202105170246 Lead Total ICAP/MS	<u>J-9, Day 2</u>	210	15	ug/L	0.50
05/20/2021 12:59	202105170247 Lead Total ICAP/MS	<u>J-11, Day 2</u>	280	15	ug/L	0.50
05/20/2021 13:00	202105170248 Lead Total ICAP/MS	<u>J-12, Day 2</u>	220	15	ug/L	0.50
05/20/2021 13:01	202105170249 Lead Total ICAP/MS	<u>J-13, Day 2</u>	200	15	ug/L	0.50
	202105170251	<u>J-1, Day 3</u>				





1 800 566 LABS (1 800 566 5227)

Report: 935513

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
05/28/2021 14:02	Total phosphorus as P		1.4		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
	202105170252	J-2, Day <u>3</u>				
05/28/2021 14:05	Total phosphorus as P		2.1		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO	4- Calc.	6.4		mg/L	0.030
	202105170253	J-3, Day 3				
05/28/2021 14:06	Total phosphorus as P		2.6		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO-	4- Calc.	8.0		mg/L	0.030
	202105170254	J-4, Day 3				
05/28/2021 14:07	Total phosphorus as P		1.3		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO	4- Calc.	4.0		mg/L	0.030
	202105170255	J-5, Day 3				
05/28/2021 14:08	Total phosphorus as P		1.9		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO-	4- Calc.	5.8		mg/L	0.030
	202105170256	J-6, Day 3				
05/28/2021 14:09	Total phosphorus as P		2.7		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO	4- Calc.	8.3		mg/L	0.030
	202105170257	J-7, Day 3				
05/28/2021 14:10	Total phosphorus as P		1.9		mg/L	0.10
05/28/2021 16:51	Total phosphorus as PO-	4- Calc.	5.8		mg/L	0.030
	202105170258	J-8, Day 3				
05/28/2021 14:11	Total phosphorus as P		2.4		mg/L	0.10
05/28/2021 16:52	Total phosphorus as PO-	4- Calc.	7.4		mg/L	0.030
	202105170259	J-9, Day 3				
05/28/2021 14:14	Total phosphorus as P		3.5		mg/L	0.10
05/28/2021 16:52	Total phosphorus as PO	4- Calc.	11		mg/L	0.030
	202105170260	J-11, Day 3				
05/28/2021 14:17	Total phosphorus as P		1.2		mg/L	0.10
05/28/2021 16:52	Total phosphorus as PO	4- Calc.	3.7		mg/L	0.030
	202105170261	J-12, Day 3				
05/28/2021 14:18	Total phosphorus as P		2.6		mg/L	0.10
05/28/2021 16:52	Total phosphorus as PO	4- Calc.	8.0		mg/L	0.030
	202105170262	<u>J-13, Day 3</u>				



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 935513

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 05/17/2021 1156

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
05/28/2021 14:19	Total phosphorus as P		2.4		mg/L	0.10
05/28/2021 16:52	Total phosphorus as PO	4- Calc.	7.4		mg/L	0.030



Laboratory Data

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/17/2021 1156

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-0, Da	y 1 (20210517	70198 <u>)</u>				Sam	pled on 05/06	/2021 165	3
		SM4500-PE	E/EPA 365.1 - '	Total phosphoru	is as PO4- Calc.				
	05/26/21 15:26			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	05/26/21 12:22		1330441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.020	1
<u>J-1, Da</u>	y 1 (20210517	<u>70199)</u>				Sam	pled on 05/06	/2021 121:	2
		SM4500-PF	=/FPA 365.1 - 1	Total phosphoru	is as PO4- Calc.				
	05/26/21 15:26			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	05/26/21 12:59		1330441		Total phosphorus as P	0.98	mg/L	0.10	5
<u>J-2, Da</u>	y 1 (20210517	<u>70200)</u>			Sam	pled on 05/06	/2021 121:	2	
		SM4500_DE	E/EDA 365.1 _ 1	Total phosphoru	us as PO4. Calo				
	05/26/21 15:26	OM-4000-1 E		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	05/26/21 13:00		1330441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
<u>J-3, Da</u>	y 1 (20210517	<u>70201)</u>		,		Sam	pled on 05/06	/2021 121	2
		SM4500-PF	=/FPΔ 365 1 - 1	Total phosphoru	is as PO4- Calc				
	05/26/21 15:26	0111-1000 1 2	-/E! A 000!!	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	05/26/21 13:00		1330441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
<u>J-4, Da</u>	y 1 (20210517	70202)				Sam	pled on 05/06	/2021 141	0
		SM4500-PE	E/EPA 365.1 - '	Total phosphoru	ıs as PO4- Calc.				
	05/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	05/25/21 15:04		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.98	mg/L	0.10	5
				,		_			_

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

J-5, Day 1 (202105170203)

Sampled on 05/06/2021 1410





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	s as P (T-P)				
0	5/25/21 15:05		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
J-6, Day 1	1 (20210517	<u> (0204)</u>				Samı	pled on 05/06	/2021 141	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	s as P (T-P)				
0	5/25/21 15:06		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
J-7, Day 1	1 (20210517	<u> (0205)</u>				Samı	pled on 05/06	/2021 151	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	s as P (T-P)				
0	5/25/21 15:07		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
J-8, Day 1	1 (20210517	<u> (0206)</u>				Samı	pled on 05/06	/2021 151	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	s as P (T-P)				
0	5/25/21 15:08		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
<u>J-9, Day 1</u>	1 (20210517	<u> (0207)</u>				Samı	pled on 05/06	/2021 151	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	9.8 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	s as P (T-P)				
0	5/25/21 15:09		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.2	mg/L	0.10	5
<u>J-11, Day</u>	1 (2021051	70208)				Samı	pled on 05/06	/2021 160	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
0	5/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				



Tel: (626) 386-1100

Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 935513

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 05/17/2021 1156

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
0	05/25/21 15:10		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.1	mg/L	0.10	5
<u>J-12, Day</u>	1 (20210517	70209)				Samı	oled on 05/06	/2021 160	0
	5	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
0	05/26/21 15:56			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
	5	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
0	05/25/21 15:10		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-13, Day</u>	1 (20210517	<u>70210)</u>				Samı	oled on 05/06	/2021 160	0
	5	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
0	05/26/21 15:57			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
	\$	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
0	05/25/21 15:11		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-0, Day '	<u>1 (202105170</u>	<u>)211)</u>				Samı	oled on 05/11	/2021 075	3
	E	EPA 200.8	- ICPMS Metal	s					
)5/17/21 0	05/20/21 13:22	1328298	1329267	(EPA 200.8)	Lead Total ICAP/MS	3500	ug/L	10	20
J-1, Day '	1 (202105170	<u>)212)</u>				Samı	oled on 05/11	/2021 075	3
	E	EPA 200.8	- ICPMS Metal	S					
05/17/21 0	05/25/21 18:09	1328298	1329307	(EPA 200.8)	Lead Total ICAP/MS	2900	ug/L	10	20
J-2, Day '	1 (202105170	<u>)213)</u>				Samı	oled on 05/11	/2021 075	3
	E	EPA 200.8	- ICPMS Metal	S					
05/17/21 0	05/20/21 12:32	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	550 (B4)	ug/L	0.50	1
J-3, Day '	1 (202105170	<u>)214)</u>				Samı	oled on 05/11	/2021 075	3
	E	EPA 200.8	- ICPMS Metal	s					
05/17/21 0	05/20/21 12:33	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	520 (B4)	ug/L	0.50	1
J-4, Day '	1 (202105170	<u>)215)</u>				Samı	oled on 05/11	/2021 075	3
	ı	EPA 200.8	- ICPMS Metal	s					
05/17/21 0	05/20/21 12:33	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	420 (B4)	ug/L	0.50	1
<u>J-5, Day</u>	1 (202105170)216 <u>)</u>				Samı	oled on 05/11	/2021 075	3

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 05/17/2021 1156

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution	
05/17/21	05/25/21 17:47	1328298	1329307	(EPA 200.8)	Lead Total ICAP/MS	570	ug/L	0.50	1	
<u>J-6, Day</u>	1 (20210517	<u>0217)</u>				Samp	oled on 05/11	/2021 075	3	
			- ICPMS Metals				_			
	05/20/21 12:34	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	440 (B4)	ug/L	0.50	1	
<u>J-7, Day</u>	1 (20210517	<u>0218)</u>				Samp	oled on 05/11	/2021 075	3	
			- ICPMS Metal				_			
	05/20/21 12:35	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	600 (B4)	ug/L	0.50	1	
<u>J-8, Day</u>	1 (20210517	<u>0219)</u>				Samp	oled on 05/11	/2021 075	3	
			- ICPMS Metals	s						
	05/20/21 12:40	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	440 (B4)	ug/L	0.50	1	
<u>J-9, Day</u>	1 (20210517	<u>0220)</u>				Samp	oled on 05/11	/2021 075	3	
		EPA 200.8	- ICPMS Metals	s						
05/17/21	05/25/21 17:49	1328298	1329307	(EPA 200.8)	Lead Total ICAP/MS	540	ug/L	0.50	1	
<u>J-11, Da</u>	y 1 (2021051	<u>70221)</u>				Samp	oled on 05/11	/2021 075	3	
		EPA 200.8	- ICPMS Metals	s						
05/17/21	05/20/21 12:41	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	340 (B4)	ug/L	0.50	1	
<u>J-12, Da</u>	y 1 (2021051	70222)				Samp	oled on 05/11	/2021 075	3	
		EPA 200.8	- ICPMS Metals	s						
05/17/21	05/25/21 17:51	1328298	1329307	(EPA 200.8)	Lead Total ICAP/MS	380	ug/L	0.50	1	
<u>J-13, Da</u>	y 1 (2021051	<u>70223)</u>				Samp	oled on 05/11	/2021 075	3	
		EPA 200.8	- ICPMS Metals	s						
05/17/21	05/20/21 12:42	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	320 (B4)	ug/L	0.50	1	
<u>J-1, Day</u>	2 (20210517	<u>0224)</u>				Samp	oled on 05/10	/2021 100	8	
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	is as PO4- Calc.					
	05/26/21 15:57			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.1 (c)	mg/L	0.030	1	
		SM4500-PE		otal phosphoru						
	05/25/21 15:12		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.0	mg/L	0.10	5	
J-2, Day	2 (20210517	<u>0225)</u>		,		Sampled on 05/10/2021 1008				

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
C	05/26/21 15:57			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				
C	05/25/21 15:15		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
J-3, Day	2 (20210517	<u>70226)</u>				Samı	pled on 05/10	/2021 100	В
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
C	05/26/21 15:58			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				
C	05/25/21 15:16		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
J-4, Day	2 (20210517	<u>70227)</u>				Samı	pled on 05/10	/2021 110	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
C	05/26/21 15:58			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				
C	05/25/21 15:17		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.98	mg/L	0.10	5
J-5, Day	2 (20210517	<u>70228)</u>				Samı	pled on 05/10	/2021 110	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
C	05/26/21 15:58			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				
C	05/25/21 15:18		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-6, Day :</u>	2 (20210517	70229)				Samı	pled on 05/10	/2021 110	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
C	05/26/21 15:58			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				
C	05/25/21 15:19		1330617	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
<u>J-7, Day</u> :	2 (20210517	<u>70230)</u>				Samı	pled on 05/10	/2021 114	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
C	05/26/21 15:58			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as P (T-P)				



Laboratory Data

Report: 935513 Project: KALAMAZOO

3.3

mg/L

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/17/2021 1156

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped MRL Analyzed Prep Batch Analytical Batch Method Analyte Result Units Dilution 05/25/21 15:19 1330617 (SM4500-PE/EPA Total phosphorus as P 1.4 0.10 ma/L 365.1) J-8, Day 2 (202105170231) Sampled on 05/10/2021 1140 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 05/26/21 15:58 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 7.4 (c) 0.030 mg/L 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 05/25/21 15:20 (SM4500-PE/EPA Total phosphorus as P 1330617 24 mg/L 0.10 5 365.1) J-9, Day 2 (202105170232) Sampled on 05/10/2021 1140 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA Total phosphorus as PO4- Calc. 05/26/21 15:58 10 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 05/25/21 15:21 1330617 (SM4500-PE/EPA Total phosphorus as P 3.4 mg/L 0.10 5 365.1) J-11, Day 2 (202105170233) Sampled on 05/10/2021 1207 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 05/26/21 15:58 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.0 (c) 0.030 mg/L 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) (SM4500-PE/EPA Total phosphorus as P 05/25/21 15:22 1330617 0.97 mg/L 0.10 365.1) J-12, Day 2 (202105170234) Sampled on 05/10/2021 1207 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 05/26/21 15:58 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 4.9 (c) 0.030 ma/L 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) (SM4500-PE/EPA Total phosphorus as P 1.6 05/25/21 15:23 1330617 mg/L 0.10 5 365.1) J-13, Day 2 (202105170235) Sampled on 05/10/2021 1207 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA Total phosphorus as PO4- Calc. 05/28/21 16:51 0.030 10 (c) mg/L 1 365.1)

05/28/21 13:57

<u>J-0, Day 2 (202105170236)</u> Sampled on 05/10/2021 1325

(SM4500-PE/EPA Total phosphorus as P

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.

SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P)

365.1)

1331205

0.10

5



Laboratory Data

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	0.12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
	05/28/21 14:00		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.041	mg/L	0.10	5
<u>J-0, Day</u>	y 2 (20210517)	<u>0237)</u>				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:42	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	330 (B4)	ug/L	0.50	1
<u>J-1, Day</u>	y 2 (20210517)	0238)				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:43	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	390 (B4)	ug/L	0.50	1
J-2, Day	y 2 (20210517)	<u>0239)</u>				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:44	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	340 (B4)	ug/L	0.50	1
J-3, Day	<u>/ 2 (20210517</u>	0240)				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:45	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	230 (B4)	ug/L	0.50	1
<u>J-4, Day</u>	y 2 (20210517)	<u>0241)</u>				Samp	led on 05/14	/2021 1014	4
			- ICPMS Metal	_					
05/17/21	05/20/21 12:46	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	210 (B4)	ug/L	0.50	1
J-5, Day	y 2 (20210517)	0242)				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:46	1328298	1329121	(EPA 200.8)	Lead Total ICAP/MS	200 (B4)	ug/L	0.50	1
<u>J-6, Day</u>	y 2 (20210517)	<u>0243)</u>				Samp	led on 05/14	/2021 1014	4
		EPA 200.8	- ICPMS Metal	ls					
05/17/21	05/20/21 12:53	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	230 (B4)	ug/L	0.50	1
<u>J-7, Day</u>	y 2 (20210517)	<u>0244)</u>				Samp	led on 05/14	/2021 1014	4
			- ICPMS Metal	ls					
05/17/21	05/20/21 12:55	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	300 (B4)	ug/L	0.50	1
J-8, Day	2 (20210517	<u>0245)</u>				Samp	led on 05/14	/2021 1014	4





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metal	s					
05/17/21	05/20/21 12:56	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	240 (B4)	ug/L	0.50	1
<u>J-9, Day</u>	<u>/ 2 (20210517</u>	<u>0246)</u>				Samp	oled on 05/14	I/2021 101	4
		EPA 200.8	- ICPMS Metal	s					
05/17/21	05/20/21 12:57	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	210 (B4)	ug/L	0.50	1
<u>J-11, Da</u>	ny 2 (2021051	<u>70247)</u>				Samp	oled on 05/14	I/2021 101	4
		EPA 200.8	- ICPMS Metal	S					
05/17/21	05/20/21 12:59	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	280	ug/L	0.50	1
<u>J-12, Da</u>	ny 2 (2021051	<u>70248)</u>				Samp	oled on 05/14	1/2021 101	4
		EPA 200.8	- ICPMS Metal	S					
05/17/21	05/20/21 13:00	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	220	ug/L	0.50	1
<u>J-13, Da</u>	ny 2 (2021051	<u>70249)</u>				Samp	oled on 05/14	I/2021 101	4
		EPA 200.8	- ICPMS Metal	s					
05/17/21	05/20/21 13:01	1328298	1329122	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-0, Day</u>	3 (20210517	<u>0250)</u>				Samp	oled on 05/13	3/2021 110	6
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:01		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND (D1)	mg/L	0.10	5
<u>J-1, Day</u>	<i>i</i> 3 (20210517	<u>0251)</u>				Samp	oled on 05/13	3/2021 092	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	• •				
	05/28/21 14:02		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
J-2, Day	3 (20210517	<u>0252)</u>				Samp	oled on 05/13	3/2021 092	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51		2 - 2 - 3	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				



Laboratory Data

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/17/2021 1156

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	05/28/21 14:05		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.1	mg/L	0.10	5
-3, Day	3 (20210517	0253)				Sam	pled on 05/13	3/2021 092	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:06		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
-4, Day	3 (20210517	<u>0254)</u>				Sam	pled on 05/13	3/2021 095	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	` '				
	05/28/21 14:07		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
-5, Day	3 (20210517	<u>0255)</u>				Sam	pled on 05/13	3/2021 095	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:08		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.9	mg/L	0.10	5
-6, Day	3 (20210517	<u>0256)</u>				Sam	pled on 05/13	3/2021 095	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:09		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.7	mg/L	0.10	5
-7, Day	3 (20210517	<u>0257)</u>				Sam	pled on 05/13	3/2021 101	7
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:51			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:10		1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.9	mg/L	0.10	5
-8, Day	3 (20210517	<u>0258)</u>				Sam	pled on 05/13	3/2021 101	7

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





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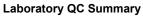
Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	l Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	/EPA 365.1 - '	Total phosphoru	ıs as PO4- Calc.				
	05/28/21 16:52	2		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	05/28/21 14:11	1	1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
<u>J-9, Da</u>	y 3 (2021051	<u>70259)</u>				Sam	pled on 05/13	/2021 101	7
		SM4500-PE	/EPA 365.1 -	Total phosphoru	is as PO4- Calc.				
	05/28/21 16:52	2		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	11 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	05/28/21 14:14	4	1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.5	mg/L	0.10	5
<u>J-11, D</u>	ay 3 (202105	<u> 170260)</u>				Sampled on 05/13/2021 1042			
		SM4500-PE	/EPA 365.1 - '	Total phosphoru	is as PO4- Calc.				
	05/28/21 16:52			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	05/28/21 14:17	7	1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
<u>J-12, D</u>	ay 3 (202105	<u> 170261)</u>				Sam	pled on 05/13	/2021 104	2
		SM4500-PE	/EPA 365.1 - '	Total phosphoru	is as PO4- Calc.				
	05/28/21 16:52	2		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	05/28/21 14:18	8	1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
<u>J-13, D</u>	ay 3 (202105	170262)				Sam	pled on 05/13	/2021 104	2
		SM4500-PE	/EPA 365.1 - '	Total phosphoru	is as PO4- Calc.				
	05/28/21 16:52	2		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	05/28/21 14:19	9	1331205	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5





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Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

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Analytical Batch: 1330617

J-4, Day 1

202105170202

ICPMS Metals					
Prep Batch: 1328298	Analytical Batch: 1329121	Analysis Date: 05/20/2021			
202105170213	J-2, Day 1	Analyzed by: URDE			
202105170214	J-3, Day 1	Analyzed by: URDE			
202105170215	J-4, Day 1	Analyzed by: URDE			
202105170217	J-6, Day 1	Analyzed by: URDE			
202105170218	J-7, Day 1	Analyzed by: URDE			
202105170219	J-8, Day 1	Analyzed by: URDE			
202105170221	J-11, Day 1	Analyzed by: URDE			
202105170223	J-13, Day 1	Analyzed by: URDE			
202105170237	J-0, Day 2	Analyzed by: URDE			
202105170238	J-1, Day 2	Analyzed by: URDE			
202105170239	J-2, Day 2	Analyzed by: URDE			
202105170240	J-3, Day 2	Analyzed by: URDE			
202105170241	J-4, Day 2	Analyzed by: URDE			
202105170242	J-5, Day 2	Analyzed by: URDE			
ICPMS Metals					
Prep Batch: 1328298	Analytical Batch: 1329122	Analysis Date: 05/20/2021			
202105170243	J-6, Day 2	Analyzed by: URDE			
202105170244	J-7, Day 2	Analyzed by: URDE			
202105170245	J-8, Day 2	Analyzed by: URDE			
202105170246	J-9, Day 2	Analyzed by: URDE			
202105170247	J-11, Day 2	Analyzed by: URDE			
202105170248	J-12, Day 2	Analyzed by: URDE			
202105170249	J-13, Day 2	Analyzed by: URDE			
ICPMS Metals					
Prep Batch: 1328298	Analytical Batch: 1329267	Analysis Date: 05/20/2021			
202105170211	J-0, Day 1	Analyzed by: URDE			
ICPMS Metals					
Prep Batch: 1328298	Analytical Batch: 1329307	Analysis Date: 05/25/2021			
202105170212	J-1, Day 1	Analyzed by: DHX7			
202105170216	J-5, Day 1	Analyzed by: DHX7			
202105170220	J-9, Day 1	Analyzed by: DHX7			
202105170222	J-12, Day 1	Analyzed by: DHX7			
Total phosphorus as P (T	-P)				
Analytical Batch: 133	0441	Analysis Date: 05/26/2021			
202105170198	J-0, Day 1	Analyzed by: LQ3M			
202105170199	J-1, Day 1	Analyzed by: LQ3M			
202105170200	J-2, Day 1	Analyzed by: LQ3M			
202105170201	J-3, Day 1	Analyzed by: LQ3M			
Total phosphorus as P (T	-P)				

Analysis Date: 05/25/2021 Analyzed by: LQ3M



Laboratory QC Summary

Report: 935513

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

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202105170203	J-5, Day 1	Analyzed by: LQ3M
202105170204	J-6, Day 1	Analyzed by: LQ3M
202105170205	J-7, Day 1	Analyzed by: LQ3M
202105170206	J-8, Day 1	Analyzed by: LQ3M
202105170207	J-9, Day 1	Analyzed by: LQ3M
202105170208	J-11, Day 1	Analyzed by: LQ3M
202105170209	J-12, Day 1	Analyzed by: LQ3M
202105170210	J-13, Day 1	Analyzed by: LQ3M
202105170224	J-1, Day 2	Analyzed by: LQ3M
202105170225	J-2, Day 2	Analyzed by: LQ3M
202105170226	J-3, Day 2	Analyzed by: LQ3M
202105170227	J-4, Day 2	Analyzed by: LQ3M
202105170228	J-5, Day 2	Analyzed by: LQ3M
202105170229	J-6, Day 2	Analyzed by: LQ3M
202105170230	J-7, Day 2	Analyzed by: LQ3M
202105170231	J-8, Day 2	Analyzed by: LQ3M
202105170232	J-9, Day 2	Analyzed by: LQ3M
202105170233	J-11, Day 2	Analyzed by: LQ3M
202105170234	J-12, Day 2	Analyzed by: LQ3M

Total phosphorus as P (T-P)

Analytical Batch: 1331205

202105170235	J-13, Day 2
202105170236	J-0, Day 2
202105170250	J-0, Day 3
202105170251	J-1, Day 3
202105170252	J-2, Day 3
202105170253	J-3, Day 3
202105170254	J-4, Day 3
202105170255	J-5, Day 3
202105170256	J-6, Day 3
202105170257	J-7, Day 3
202105170258	J-8, Day 3
202105170259	J-9, Day 3
202105170260	J-11, Day 3
202105170261	J-12, Day 3
202105170262	J-13, Day 3

Analysis Date: 05/28/2021

•
Analyzed by: LQ3M





1 800 566 LABS (1 800 566 5227)

Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1329121				1	Analysis D	ate: 05/20/	2021	
LCS1	Lead Total ICAP/MS		50	49.6	ug/L	99	(85-115)		
LCS2	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)	20	3.6
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.501	ug/L	100	(50-150)		
MS_202105130577	Lead Total ICAP/MS	ND	50	47.2	ug/L	94	(70-130)		
MS2_202105170218	Lead Total ICAP/MS	600	50	659	ug/L	109	(70-130)		
MSD_202105130577	Lead Total ICAP/MS	ND	50	48.1	ug/L	96	(70-130)	20	1.9
MSD2_202105170218	Lead Total ICAP/MS	600	50	657	ug/L	104	(70-130)	20	0.38
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1329122					Analysis D	ate: 05/20/	2021	
LCS1	Lead Total ICAP/MS		50	51.1	ug/L	102	(85-115)		
LCS2	Lead Total ICAP/MS		50	50.8	ug/L	102	(85-115)	20	0.39
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.488	ug/L	98	(50-150)		
MS_202105170243	Lead Total ICAP/MS	230	50	277	ug/L	99	(70-130)		
MS2_202105180855	Lead Total ICAP/MS	ND	50	49.0	ug/L	98	(70-130)		
MSD_202105170243	Lead Total ICAP/MS	230	50	275	ug/L	97	(70-130)	20	0.61
MSD2_202105180855	Lead Total ICAP/MS	ND	50	46.3	ug/L	93	(70-130)	20	5.8
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1329267				4	Analysis Date: 05/20/2021			
LCS1	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)	20	0.0
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.493	ug/L	99	(50-150)		
MS_202105170211	Lead Total ICAP/MS	3500	50	4390	ug/L	92	(70-130)		
MSD_202105170211	Lead Total ICAP/MS	3500	50	4490	ug/L	102	(70-130)	20	2.1
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1329307				1	Analysis D	ate: 05/25/	2021	
LCS1	Lead Total ICAP/MS		50	53.7	ug/L	107	(85-115)		
LCS2	Lead Total ICAP/MS		50	49.9	ug/L	100	(85-115)	20	7.3
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.551	ug/L	110	(50-150)		
MS_202105130879	Lead Total ICAP/MS	ND	50	56.8	ug/L	113	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.





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Report: 935513 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS2_202105180751	Lead Total ICAP/MS	ND	50	56.7	ug/L	113	(70-130)		
MSD_202105130879	Lead Total ICAP/MS	ND	50	50.5	ug/L	101	(70-130)	20	12
MSD2_202105180751	Lead Total ICAP/MS	ND	50	50.8	ug/L	102	(70-130)	20	11
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1330441				,	Analysis D	ate: 05/26/	2021	
LCS1	Total phosphorus as P		0.4	0.416	mg/L	104	(90-110)		
LCS2	Total phosphorus as P		0.4	0.415	mg/L	104	(90-110)	20	0.24
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0223	mg/L	112	(50-150)		
MS_202105190195	Total phosphorus as P	ND	0.4	0.411	mg/L	103	(90-110)		
MS2_202105200189	Total phosphorus as P	ND	0.4	0.418	mg/L	103	(90-110)		
MSD_202105190195	Total phosphorus as P	ND	0.4	0.400	mg/L	100	(90-110)	20	2.8
MSD2_202105200189	Total phosphorus as P	ND	0.4	0.407	mg/L	100	(90-110)	20	2.6
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1330617				Analysis Date: 05/25/2021				
LCS1	Total phosphorus as P		0.4	0.415	mg/L	104	(90-110)		
LCS2	Total phosphorus as P		0.4	0.424	mg/L	106	(90-110)	20	2.1
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0200	mg/L	100	(50-150)		
MS_202105170202	Total phosphorus as P	0.98	0.4	NR	mg/L				
MS2_202105170225	Total phosphorus as P	1.7	0.4	NR	mg/L				
MSD_202105170202	Total phosphorus as P	0.98	0.4	NR	mg/L				
MSD2_202105170225	Total phosphorus as P	1.7	0.4	NR	mg/L				
	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1331205				Analysis Date: 05/28/2021				
LCS1	Total phosphorus as P		0.4	0.433	mg/L	108	(90-110)		
LCS2	Total phosphorus as P		0.4	0.426	mg/L	106	(90-110)	20	1.6
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0287	mg/L	144	(50-150)		
MS_202105170235	Total phosphorus as P	3.3	0.4	NR	mg/L		(90-110)		
MS2_202105170258	Total phosphorus as P	2.4	0.4	NR	mg/L		(90-110)		
MSD_202105170235	Total phosphorus as P	3.3	0.4	NR	mg/L		(90-110)		
MSD2_202105170258	Total phosphorus as P	2.4	0.4	NR	mg/L		(90-110)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

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 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



ACCREDITED

CERTIFICATE #'s 5890.01 & 5890.02

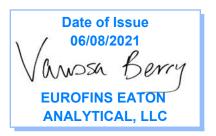
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Laboratory Report

for

Tetra Tech 201 East Pine Street Suite 1000 Orlando, FL 32801

Attention: James Christopher Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
ldaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	1
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	x		х
1,4-Dioxane	EPA 522	х		x
2,3,7,8-TCDD	Modified EPA 1613B	x		x
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	Х	х
Ammonia	EPA 350.1		Х	х
Ammonia	SM 4500-NH3 H		Х	х
Anions and DBPs by IC	EPA 300.0	х	Х	Х
Anions and DBPs by IC	EPA 300.1	Х		х
Asbestos	EPA 100.2	х	х	
BOD / CBOD	SM 5210B		Х	X
Bromate	In House Method (2447)	X		x
Carbamates Carbonate as CO3	EPA 531.2	X X	х	x x
Carbonyls	SM 2330B EPA 556	x	^	X
		^		^
COD	EPA 410.4 / SM 5220D		Х	
Chloramines	SM 4500-CL G	X	Х	X
Chlorinated Acids Chlorinated Acids	EPA 515.4 EPA 555	X X		X X
Chlorine Dioxide	SM 4500-CLO2 D	x		x
Chlorine -Total/Free/	Palin Test			
Combined Residual	SM 4500-Cl G	х	х	Х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	х	X
Cyanide, Amenable	SM 2330B SM 4500-CN G	x x	x	х
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method (2470)	х		x
Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	х		х
Dissolved Oxygen	SM 4500-O G		Х	х
DOC	SM 5310C	х		x
E. Coli	(MTF/EC+MUG)	x		x
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	х		х
E. Coli (Enumeration)	SM 9223B	х		х
EDB/DCBP	EPA 504.1	х		
EDB/DBCP and DBP	EPA 551.1	х		х
EDTA and NTA	In House Method (2454)	х		х
Endothall	EPA 548.1	х		х
Endothall	In-house Method (2445)	x		x
Enterococci	SM 9230B	x	x	
Fecal Coliform	SM 9221 E (MTF/EC)	Х		
Fecal Coliform	SM 9221C, E (MTF/EC)		Х	
Fecal Coliform	SM 9221E (MTF/EC)	х		х
(Enumeration)	(· · ·
Fecal Coliform with	SM 9221E		х	
Chlorine Present		V		
Fecal Streptococci Fluoride	SM 9230B SM 4500-F C	x x	x x	x
			^	
Glyphosate	EPA 547	х		х
Glyphosate + AMPA	In House Method (3618)	Х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	х	х	х
Hardness	SM 2340B	х	х	x
Heterotrophic Bacteria	In House Method (2439)	х		x
Heterotrophic Bacteria	SM 9215 B	х		x
Hexavalent Chromium	EPA 218.6	х	х	x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		х	
Hormones	EPA 539	х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella	Legiolert	Х		х
Mercury	EPA 200.8	X		X
Metals Microcystin LR	EPA 200.7 / 200.8 ELISA (2360)	X X	Х	X X
Microcystin, Total	EPA 546	X		×
NDMA	EEA/Agilent 521.1	x		x
	In house method (2425)			
Nitrate/Nitrite Nitrogen	EPA 353.2	X	Х	X
OCL, Pesticides/PCB Ortho Phosphate	EPA 505 EPA 365.1	x x	x	x x
Ortho Phosphorous	SM 4500P E	X	X	X
Oxyhalides Disinfection				
Byproducts	EPA 317.0	Х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	X		X
Perfluorinated Alkyl Acids Perfluorinated Polutant	EPA 537 In house Method (2434)	X X		x x
				^
pH	EPA 150.1	х		
pH	SM 4500-H+B	х	х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	х		х
Pseudomonas	IDEXX Pseudalert (2461)	х		x
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	х		x
Radon-222	SM 7500RN	X		x
Residue, Filterable	SM 2540C	х	х	х
Residue, Non-filterable	SM 2540D		x	
Residue, Total	SM 2540B		Х	х
Residue, Volatile	EPA 160.4		Х	
Semi-VOC	EPA 525.2	Х		х
Silica	SM 4500-Si D	Х	Х	
Silica	SM 4500-SiO2 C	Х	Х	
Sulfide	SM 4500-S ⁼ D		Х	
Sulfite	SM 4500-SO ³ B	Х	х	х
Surfactants	SM 5540C	х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		Х
Total Coliform (Enumeration)	SM 9221 A, B, C	х		x
Total Coliform / E. coli	Colisure SM 9223	х		х
Total Coliform	SM 9221B	^	х	^
Total Coliform with Chlorine	SM 9221B		x	
Present Total Coliform / E.coli (P/A	SM 9223	х		x
and Enumeration)		^		^
TOC TOX	SM 5310C SM 5320B	Х	x x	Х
Total Phenols	EPA 420.1		x	
Total Phenols	EPA 420.4	х	х	х
Total Phosphorous	SM 4500 P E		х	
Triazine Pesticides &	In House (3617)	x		х
Degradates Turbidity	EDA 190 1	V	v	v
Turbidity Turbidity	EPA 180.1 SM 2130B	X X	X X	Х
Uranium by ICP/MS	EPA 200.8	X	Х	×
UV 254	SM 5910B	x		
				v
VOC	EPA 524.2	X		X
VOC Veest and Mold	In House Method (2411)	X		X
Yeast and Mold	SM 9610	Х		Х

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 936880

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **May 24, 2021** at **1306**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202105240353	J-0, DAY 3	05/18/2021 1015
	@ICPMS	
202105240354	J-1, DAY 3	05/18/2021 1015
	@ICPMS	
202105240355	J-2, DAY 3	05/18/2021 1015
	@ICPMS	
202105240356	J-3, DAY 3	05/18/2021 1015
	@ICPMS	
202105240357	J-4, DAY 3	05/18/2021 1015
	@ICPMS	
202105240358	J-5, DAY 3	05/18/2021 1015
	@ICPMS	
202105240359	J-6, DAY 3	05/18/2021 1015
	@ICPMS	
202105240360	J-7, DAY 3	05/18/2021 1015
	,	
202105240361	@ICPMS J-8, DAY 3	05/18/2021 1015
202100240001		33,10,2021,1010
202105240362	@ICPMS J-9, DAY 3	05/18/2021 1015
202103240302		03/16/2021 1013
000405040000	@ICPMS	054090044045
202105240363	J-11, DAY 3	05/18/2021 1015
	@ICPMS	
202105240364	J-12, DAY 3	05/18/2021 1015
	@ICPMS	
202105240365	J-13, DAY 3	05/18/2021 1015
	@ICPMS	



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Sample #	Sample ID	Sample Date
202105240366	J-0. DAY 4	05/21/2021 1326
	@ICPMS	
202105240367	J-1. DAY 4	05/21/2021 1326
	@ICPMS	
202105240368	J-2. DAY 4	05/21/2021 1326
	@ICPMS	
202105240369	J-3. DAY 4	05/21/2021 1326
	@ICPMS	
202105240370	J-4. DAY 4	05/21/2021 1326
	@ICPMS	
202105240371	J-5. DAY 4	05/21/2021 1326
	@ICPMS	
202105240372	J-6. DAY 4	05/21/2021 1326
	@ICPMS	
202105240373	J-7. DAY 4	05/21/2021 1326
	@ICPMS	
202105240374	J-8. DAY 4	05/21/2021 1326
	@ICPMS	
202105240375	J-9. DAY 4	05/21/2021 1326
	@ICPMS	
202105240376	J-11. DAY 4	05/21/2021 1326
	@ICPMS	
202105240377	J-12. DAY 4	05/21/2021 1326
	@ICPMS	- 12 13 13 13 13 13 13 13 13 13 13 13 13 13
202105240378	J-13. DAY 4	05/21/2021 1326
<u> </u>		55.2 112.02 1 102.0
	@ICPMS	

Reported: 06/08/2021



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Sample #	Sample ID		Sample Date
202105240379	J-0, DAY 4		05/21/2021 1034
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240380	J-1, DAY 4		05/21/2021 0849
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240381	J-2. DAY 4		05/21/2021 0849
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240382	J-3. DAY 4		05/21/2021 0849
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240383	J-4. DAY 4		05/17/2021 0911
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240384	J-5. DAY 4		05/17/2021 0911
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240385	J-6. DAY 4		05/17/2021 0911
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240386	J-7, DAY 4		05/17/2021 1000
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240387	J-8. DAY 4		05/17/2021 1000
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240388	J-9. DAY 4	, can prosper	05/17/2021 1000
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202105240389	J-11. DAY 4	Total phosphorus as 1 O4- Calc.	05/17/2021 1015
<u> </u>	<u>,</u>	Total absorbance on PO4. Cala	
202105240390	Total phosphorus as P J-12. DAY 4	Total phosphorus as PO4- Calc.	05/17/2021 1015
202100240000	,	Tablebankara 201 Od	33,17,2321 1010
202105240204	Total phosphorus as P	Total phosphorus as PO4- Calc.	05/17/2021 1015
202105240391	J-13. DAY 4		05/17/2021 1015
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 06/08/2021

Page 3 of 5



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Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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J-0. DAY 5 Total phosphorus as P J-1. DAY 5 Total phosphorus as P J-2. DAY 5	Total phosphorus as PO4- Calc. Total phosphorus as PO4- Calc.	05/20/2021 1549 05/20/2021 1250
J-1. DAY 5 Total phosphorus as P J-2. DAY 5		05/20/2021 1250
Total phosphorus as P J-2. DAY 5	Total phosphorus as PO4- Calc.	05/20/2021 1250
J-2. DAY 5	Total phosphorus as PO4- Calc.	
		· · · · · · · · · · · · · · · · · · ·
Total above beauty		05/20/2021 1250
i otal phosphorus as P	Total phosphorus as PO4- Calc.	
J-3. DAY 5		05/20/2021 1250
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-4. DAY 5		05/20/2021 1324
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-5. DAY 5		05/20/2021 1324
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-6. DAY 5		05/20/2021 1324
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-7. DAY 5		05/20/2021 1351
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-8. DAY 5		05/20/2021 1351
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-9. DAY 5		05/20/2021 1351
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-11. DAY 5		05/20/2021 1419
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-12. DAY 5		05/20/2021 1419
Total phosphorus as P	Total phosphorus as PO4- Calc.	
J-13. DAY 5		05/20/2021 1419
Total phosphorus as P	Total phosphorus as PO4- Calc.	
	Total phosphorus as P J-4. DAY 5 Total phosphorus as P J-5. DAY 5 Total phosphorus as P J-6. DAY 5 Total phosphorus as P J-7. DAY 5 Total phosphorus as P J-8. DAY 5 Total phosphorus as P J-9. DAY 5 Total phosphorus as P J-11. DAY 5 Total phosphorus as P J-12. DAY 5	J-3. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-4. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-5. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-6. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-7. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-8. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-9. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-11. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-12. DAY 5 Total phosphorus as P Total phosphorus as PO4- Calc. J-13. DAY 5 Total phosphorus as PO4- Calc.



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Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on May 24, 2021 at 1306. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 06/08/2021

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CHAIN OF CIISTONY RECORD

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SILIOINS S		5	CHOCK TO COOL OF THE COOL	L COND	92
Eaton Analytical	EUROFINS EATON ANALYTICAL USE ONLY:	TICAL USE ONLY:			0
	I OGIN COMMENTS.			SAMPLES CHECKED AGAINST COC BV. (14)	. (15
750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629				SAMPLES LOGGED IN BY:	3
Dhone: 626 386 1100	SAMPLE TEMP RECEIVED AT:	ED AT:		SAMPLES REC'D DAY OF COLLECTION? (ch.	(ch
Fac. 626 386 1100	(Other)	(Other) IR Gun ID =	(Observation=	°C) (Corr.Factor °C) (Final =	ြွ
1 400 TOOL OOD TOOL TOOL TOOL TOOL TOOL TOOL	Monrovia	IR Gun ID = (016	(Observation= ()	(Observation= 11.5 °C) (Corr.Factor 012 °C) (Final = 11.5 °C)	(C)
800 366 LABS (800 366 3227)	Compliance Acceptance C	Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C	robiology; < 10°C)		
Website: www.EatonAnalytical.com	TYPE OF ICE: Real X Synthetic_	Synthetic No Ice	CONDITION OF ICE: Frozen	Partially Frozen	X Thawed
	METHOD OF SHIP	MENT: Pick-Up / Walk-Ir	/ FedEx / UPS / DHL	METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other:	

(check for yes)

N/A

TO BE COMPLETED BY SAMPLER:				(check for yes)	(check for yes)	yes)
COMPANY/AGENCY NAME:	PROJECT CODE:		COMPLIAN	COMPLIANCE SAMPLES NO	NON-COMPLIANCE SAMPLES	
Tetra Tech			- Requires star Type of samples (circle one):	te forms ROUTINE SPECIAL	SPECIAL CONFIRMATION (eg. SDWA, NPDES, etc.)	JPDES, etc.)
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:	1 1 1 1	SEE ATTACHED	SEE ATTACHED KIT ORDER FOR ANALYSES	SES (check for yes), OR	NR NR
letra Tech-orlan	Rad solubility	Kit - buase 8	List ALL ANALYSE	S REQUIRED (enter number of	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	sample)
TAT requested: rush by adv notice only	STD 1 wk 3 day	_ 2 day 1 day	5			
SAMPLE ID	CLIENT LAB ID	* XIRITAM ATAG GJEIF	SW471		SAMPLER COMMENTS	ER
05/18 10:15 J-D, Day 3		N#	_			
1 1 3-1, 1			-			
1-2'						
3-3,						
7-4,						
3-5,					2	
7-6,						
J- 9,						
7-8,						
了 1-4, 5		->	7			
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	er CFW = Chlor(am)inated Finished Water er FW = Other Finished Water	ed Finished Water Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil O = Other - Please Identify SL = Sludge	se Identify
SIGNATURE		PRINT NAME	- W 5 12	COMPANY/TITLE	DATE	TIME
SAMPLED BY: And Rosabal Col	ME	Any Rosuba	ibal	Tetra Tech	81 02/12/50	13:30
DBY:	7	Ang Rosabu	1 pg 1	Tetha Tech	13:	13:30
RECEIVED BY: () WW/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Ch	W Brack	The Name of the Party of the Pa	trus	5,24,21 13	306
RELINQUISHED BY:			A STATE OF THE STA			
RECEIVED BY:						
QA FO 0029.2 (Version 2) (08/28/2014)					PAGE	OF

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Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

750 Box Oniv Origina 400	LOGIN COMMENTS:		SAMPLES CHECKED AGAINST COC BY:	GAINST COC BY: ('~	
Monrovia, CA 91016-3629			SAMPLE	SAMPLES LOGGED IN BY:)
Phone: 626.386.1100	SAMPLE TEMP RECEIVED AT:		SAMPLES REC'D DAY OF COLLECTION?		(check for yes)
Fax: 626 386 1101	(Other) IR Gun ID =	(Observation=	°C) (Corr.Factor	2:1	
800 566 LABS (800 566 5227)	0	C) (Migraphiology < 10°C)		C) (Final = (117 C)	
Website: www.EatonAnalytical.com	TYPE OF ICE: Real X Synthetic 1	No Ice CONDITION OF ICE:	OFICE: Frozen Partially Frozen	rozen Thawed X	N/A
TO BE COMPLETED BY SAMPLER:	METHOD OF SHIPMENT: Pick-Up / Walk-In /		FedEx/ UPS / DHL / Area Fast / Top Line / Other: (check for ves)		(check for ves)
COMPANY/AGENCY NAME:	PROJECT CODE:	COMPLIAN		NON-COMPLIANCE SAMPLES	
Tetra Tech		- Requires stat Type of samples (circle one):	e forms SPECIAL	NOLVED:	(ea. SDWA, NPDES, etc.)
	1		DER FOR	(chec	is), <u>OR</u>
Tehra Tec M-orlan	lead solubility test-phase 2		List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	tles sent for each test for	each sample)
TAT requested: rush by adv notice only	STD 1 wk 3 day 2 day 1 day				
SAMPLE ID	CLIENT LAB ID MATRIX - ATAO DATA	5 hyd 21		SAN	SAMPLER
05/18 10:15 J-11, Day3	M#	-			
1 1 3-12, 1	-				
4 1-13 A					
15/21 13:24 J-O, Day4					
1 1 2-1					
1-2,					
1-3					
3-4					
J-F,					
4 4 7-6, 4	7	A			
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = SW = Storm Water SL =	SO = Soil O = Other - F SL = Sludge	O = Other - Please Identify
SIGNATURE	PRINT NAME		COMPANY/TITLE	DATE	TIME
SAMPLED BY:	Ana Rosabal		Tetra Tecn	02/12/50	13:30
RELINQUISHED BY: // CLUBS	Ana bosaba		Teta Tech	02/21/20	13:30
RECEINGUISHED BY:	Unw Back	N.	FLIG	12:42.5	1306
RECEIVED BY:					
QA FO 0029.2 (Version 2) (08/28/2014)				PAGE	OF.

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Eaton Analytical

EUROFINS EATON ANALYTICAL USE ONLY.

(check for yes) O = Other - Please Identify List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc.) 13:30 SAMPLER 13.30 (check for yes) 306 N/A OF (check for yes), OR 00 PAGE NON-COMPLIANCE SAMPLES Thawed 02/12/10 02/21/20 SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY: 5.24.2 REGULATION INVOLVED: °C) (Corr.Factor -012 °C) (Final = °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx// UPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES BW = Bottled Water (check for yes) °C) (Corr.Factor SW = Storm Water COMPANY/TITLE 30 Tech CONDITION OF ICE: Frozen - Requires state forms COMPLIANCE SAMPLES 5 Tetra 16/2 (Observation= (Observation= WW = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) 0144 SMAZI No Ice Posuba Raabal Brook ATAG GJEIF lead solubility test-phase 2 CFW = Chlor(am)inated Finished Water PRINT NAME 1 day IR Gun ID = IR Gun ID = TYPE OF ICE: Real X Synthetic ATAO 0J314 hoen SAMPLE TEMP RECEIVED AT: 2 day 3 FW = Other Finished Water Ana · XIRTAM Ana (Other) STD___ 1 wk ___ 3 day LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water Website: www.EatonAnalytical.com Dayy Day COC ID: SAMPLE ID TAT requested: rush by adv notice only 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 SIGNATURE 800 566 LABS (800 566 5227) TO BE COMPLETED BY SAMPLER QA FO 0029.2 (Version 2) (08/28/2014) tetra tech - orlan 3-11 7-9 3-13 0-1-1-1-2 3-12 COMPANY/AGENCY NAME: Phone: 626 386 1100 t' 3-0 Fax: 626 386 1101 Tehra Tech EEA CLIENT CODE: RELINQUISHED BY: RELINQUISHED BY 05/17/10.34 8:49 05/21 13:20 **JMIT** RECEIVED BY: RECEIVED BY SAMPLE SAMPLED BY **BTA**0

SAMPLE

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EUROFINS EATON ANALYTICAL USE ONLY:

(check for yes) Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: SAMPLES REC'D DAY OF COLLECTION? °C) (Final = °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx/ UPS / DHL / Area Fast / Top Line / Other. °C) (Corr.Factor 012 °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= (1) (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) No Ice IR Gun ID = IR Gun ID = TYPE OF ICE: Real A Synthetic SAMPLE TEMP RECEIVED AT: (Other) LOGIN COMMENTS: Monrovia Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 Phone: 626 386 1100 Fax: 626 386 1101

N/A

COORDINATE SAMPLE GROUP: SAMPLE GRO	(check for yes)	SE SAMPLES	OLVED:	(eg. SDWA, NPDES, etc.)	(check for yes), OR	or each test for each sample)		SAMPLER									O = Other - Please Identify	DATE TIME	6-/21/20 13:30	12:30	5.24.21 1306	
TOCO ID: SAMPLE GROUP: Rad Solubility Lett place 2 Itee only STD1wk3day2day1day RPLE ID CLIENT LAB ID READ CLIENT LAB ID READ READ STD1wk3day2day1day READ	or yes)	NON-COMPLIANCE SAMPLES	REGULATION INVOLVED	SPECIAL CONFIRMATION	ANALYSES	r number of bottles sent for											_	LE			S	
TOCO ID: SAMPLE GROUP: Rad Solubility Lest plase 2 Ities only STD1wk3day2day1day STD1wk3day2day1day AND	(check fo	LIANCE SAMPLES	Requires state forms	ROUTINE	ED KIT ORDER FOR	LYSES REQUIRED (enter												COMPANY/TIT			CCA	
The control of the co		COMP	-	Type of samples	SEE ATTACH	- 70	1		1	-						-7		AE .	lpal	pal	rh	
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MPLE ID MPLE ID AND HE SANTURE COC ID: A COC ID: A COC ID		PROJECT CODE:			SAMPLE GROUP:	lead solubilit	1 wk	CLIENT LAB ID									CFW = Chlor(am)i FW = Other Finish	The second secon				
					COC ID:		stice only	SAMPLE ID	Day 4	_					->	致	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	SIGNATURE	"ull	all	Broch	
	TO BE COMPLETED BY SAMPLER	COMPANY/AGENCY NAME	1.1	1600 Lecc	EEA CLIENT CODE:	terra tech-orlan	TAT requested: rush by adv notice only	3TAQ 3TAQ 3JQMAS 3MIT	11: 4 4:11		<i>→</i>	(o) (D)	->	21:01	一 个	05/20 15:49	* MATRIX		SAMPLED BY:	RELINQUISHED BY	RECEIVED BY:	RECEIVED BY:

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Eaton Analytical

EUROFINS EATON ANALYTICAL USE ONLY.

(check for yes) O = Other - Please Identify (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) SAMPLER (check for yes) 13:30 Z/A (check for yes), OR Thawed / NON-COMPLIANCE SAMPLES SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: REGULATION INVOLVED: 02/21/20 °C) (Corr.Factor -012 °C) (Final = °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) BW = Bottled Water SW = Storm Water °C) (Corr.Factor Te Ch CONDITION OF ICE: Frozen COMPLIANCE SAMPLES - Requires state forms Tetra Tetra (Observation= (1) (Observation= SEAW = Sea Water ww = Waste Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology; < 10°C) No Ice 144 9 ead solubility lest-o hase ? ATAG GJEIR CFW = Chlor(am)inated Finished Water FW = Other Finished Water PRINT NAME And Rosabal 1 day IR Gun ID = IR Gun ID = TYPE OF ICE: Real X Synthetic_ ATAG GJEIR 2 day SAMPLE TEMP RECEIVED AT: 3 · XIRTAM STD_1 wk 3 day Other) LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Website: www.EatonAnalytical.com COC ID: TAT requested: rush by adv notice only SAMPLE ID 750 Royal Oaks Drive, Suite 100 SIGNATURE Days 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER: 6 COMPANY/AGENCY NAME: tetra technolar 7-7 ó 1 Phone: 626 386 1100 7-6 Tetra to Sa 7-4 7-5 7-5 7-3 1-1 Fax: 626 386 1101 1 EEA CLIENT CODE:

TIME

SAMPLE

BTAG SAMPLE 02 50

13:29

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RELINQUISHED BY

RECEIVED BY:

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QA FO 0029.2 (Version 2) (08/28/2014)

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750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS:				SAMPLES CHEC	SAMPLES CHECKED AGAINST COC BY: (1)	: BY: (/	5
				SA	SAMPLES LOGGED IN BY:	NBY:	2
SAMPLE TEMP RECEIVED AT:	ED AT:			SAMPLES REC	SAMPLES REC'D DAY OF COLLECTION? (check for yes)	10N?	(check for yes)
(Other)	IR Gun ID =		(Observation=	C) (Corr.Factor	°C) (Final =	0	10
Monrovia	1R Gun ID = (01/6		(Observation= 115 °C) (Corr.Factor °C) (Final = 115 °C)	C) (Corr.Factor (C)	2 °C) (Final = 1	1.50	•
Compliance Acceptance Cri	riteria: (Chemistry: $4\pm2^{\circ}\text{C}$) (Microbiology: < 10°C)	2°C) (Microbi	ology: < 10°C)				7
TYPE OF ICE: Real	Synthetic	No Ice	CONDITION OF ICE: Frozen		Partially Frozen	Thawed	NA
METHOD OF SHIPI	MENT: Pick-Up /	Walk-In /	METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx/ I UPS / DHL / Area Fast / Top Line / Other.	Area Fast / Top Li	ne / Other:		

Website: www.EatonAnalytical.com

TO BE COMPLETED BY SAMPLER:

800 566 LABS (800 566 5227)

(check for yes)

(check for yes)

MPANY/AGENCY NAME:		PROJECT CODE:				COMPLIAN	COMPLIANCE SAMPLES	NON-COMPLIANCE SAMPLES	ICE SAMPLES	
7 - 17						- Redu	Requires state forms	REGULATION INVOLVED	(VOLVED:	
etra le un						Type of samples (circle one):	ROUTINE	SPECIAL CONFIRMATION	(eg. S	(eg. SDWA, NPDES, etc.)
A CLIENT CODE:	COC ID:	SAMPLE GROUP:	40	-		SEE ATTACHED P	SEE ATTACHED KIT ORDER FOR ANALYSES	LYSES	(check for yes), OR	/es), <u>OR</u>
the tech-orlan		Rad Solubility	test, phase 2	phase	2	List ALL ANALYSE	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	ber of bottles sent	for each test for	r each sample)
T requested: rush by adv notice only	otice only	STD 1 wk 3 day_	y 2 day	1 day	ay —					
atad alamas amit	SAMPLE ID	CLIENT LAB ID	* XIRTAM	ATAO OJEIF	ATAO GJEIF	direct			S S S	SAMPLER
120 14:19 3-12	Days		48			1				
1 7-13,	*		→			~7				
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MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	nated Finised Water	shed Wa	ater	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	0 = Other -	O = Other - Please Identify
	SIGNATURE			PRINT NAME	AME		COMPANY/TITLE		DATE	TIME
MPLED BY:	MINI	1	Ana pour ba	Don	1 ba	/	7eta Tech	9	02/12/50	(3:30
LINQUISHED BY:	unn	1	Ana Rosaba	Rosa	bal		Teta Tech	0	ostripo	13:30
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INTERNAL CHAIN OF CUSTODY RECORD

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mperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not. SAMPLE TEMP RECEIVED:

TION? Yes / No
SAMPLES REC'D DAY OF COLLECTION?

(O. (Observation= 110 °C) (Corr.Factor 0'2 °C) (Final = 11.5 IR Gun ID = (0) (6)

Partially Frozen CONDITION OF ICE: Frozen No Ice TYPE OF ICE: Real X Synthetic

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx/ UPS / DHL / Area Fast / Top Line / Other:

Compliance Acceptance Criteria:

- Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection) 506209012752
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of eac

= (Observation= 11	C) (Corr.Factor	-C) (Final =	(0.	Z = (Observation* 1 C) (Corr.Factor	·C) (Final =	0
- (Observation-	*C) (Corr.Factor	*C) (Final *	Ο.	4 = (Observation= 119 °C) (Corr.Factor	*C) (Final **	5

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

Expiration Date or pH strip type: 0 - 14 Lot Number: 5) pH Check. Manufacturer:

Results

Results:

Expiration Date: 6) Chlorine check. Manufacturer: Sansafe. Lot No.:

Samples with Headspace (see below): No Samples with Headspace: VOA and Radon 7) Veadspace:

None/<6 Exempt from headspace concerns: Methods 515.4, HAA(6251, 562), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients: Samp ID Bottle # Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles) Samp ID Bottle # None/<6 Samp ID Bottle # None/<6 >6mm Samp ID Bottle # None/<6

>6mm

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Note Sample

		errors):
		potential sampling
		e. pot

oace (i.e. potential sampling PRINT NAME	Chya Ruch
IDs which have dissimilar headspace (i.e. potential sampling signature	MAN Ray On

1306 5.77.5 Eurofins Eaton Analytical

TIME

Created Date & Time: 4/23/2021 1:42:32PM

unofins		Kit Order 1	Kit Order for Tetra Tech Inc.	
Eaton Analytical		/anessa Berry is your Eurofins	Vanessa Berry is your Eurofins Eaton Analytical, LLC Service Manager	<u>_</u>
750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 (626) 386-1100 FAX (866) 988-3757	0 9 3757	Note: Sampler Please reti	Note: Sampler Please return this paper with your samples	
Kit #: 289256	Kit #: 289256	Client ID:	Client ID: TETRATECH-ORLAN Project Code: KALAMAZOO Bottle Orders Group Name: Lead Solubility Testing - Phase 2 PO#/JOB#: Description: Every 1 week on Mon	
W P (400) 4 2 2 2	Ship Sample Kits to Tetra Tech 201 East Pine Street Suite 1000 Orlando, FL 32801 Attr. James Christopher Phone: 407-480-3907 Fax: 407-839-3790	Send Report to Tetra Tech 201 East Pine Si Suite 1000 Orlando, FL 328 Attr. James Chri Phone: 407-480-	rreet 01 stopher 3907 90	Billing Tetra : 201 E Suite : Orland Attn: J Phone Fax: 4
Tests		Bottle Qty - Type [preservative information]	servative information]	
otal phosphorus as P		1 - 250ml poly [0.5 ml H2SO4 (50%)	2SO4 (50%)]	
DICPMS		1 - 250ml poly [no preservative]	ervative]	
ests: 52			Sum Bottles:	es:
return shipping labels				

Prepared By

of Coolers

Tracking #

Κia

Date Shipped

Status

Code



Laboratory Comments

Report: 936880 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

M1 - Matrix spike recovery was high; the associated blank spike recovery was acceptable.

M2 - Matrix spike recovery was low; the associated blank spike recovery was acceptable.





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 05/24/2021 1306

Tetra TechJames Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/02/2021 17:10	202105240353 Lead Total ICAP/MS	<u>J-0, DAY 3</u>	260	15	ug/L	0.50
06/02/2021 17:13	202105240354 Lead Total ICAP/MS	<u>J-1, DAY 3</u>	460	15	ug/L	0.50
06/02/2021 17:16	202105240355 Lead Total ICAP/MS	<u>J-2, DAY 3</u>	400	15	ug/L	0.50
06/02/2021 17:19	202105240356 Lead Total ICAP/MS	<u>J-3, DAY 3</u>	320	15	ug/L	0.50
06/02/2021 17:22	202105240357 Lead Total ICAP/MS	<u>J-4, DAY 3</u>	220	15	ug/L	0.50
06/02/2021 17:31	202105240358 Lead Total ICAP/MS	<u>J-5, DAY 3</u>	270	15	ug/L	0.50
06/02/2021 17:42	202105240359 Lead Total ICAP/MS	<u>J-6, DAY 3</u>	300	15	ug/L	0.50
06/02/2021 17:45	202105240360 Lead Total ICAP/MS	<u>J-7, DAY 3</u>	310	15	ug/L	0.50
06/02/2021 17:48	202105240361 Lead Total ICAP/MS	<u>J-8, DAY 3</u>	250	15	ug/L	0.50
06/02/2021 17:51	202105240362 Lead Total ICAP/MS	<u>J-9, DAY 3</u>	200	15	ug/L	0.50
06/02/2021 17:54	202105240363 Lead Total ICAP/MS	<u>J-11, DAY 3</u>	330	15	ug/L	0.50
06/02/2021 17:57	202105240364 Lead Total ICAP/MS	<u>J-12, DAY 3</u>	300	15	ug/L	0.50
06/02/2021 18:00	202105240365 Lead Total ICAP/MS	<u>J-13, DAY 3</u>	250	15	ug/L	0.50
06/02/2021 18:03	202105240366 Lead Total ICAP/MS	<u>J-0. DAY 4</u>	190	15	ug/L	0.50
06/02/2021 18:27	202105240367 Lead Total ICAP/MS	<u>J-1. DAY 4</u>	300	15	ug/L	0.50
	202105240368	<u>J-2. DAY 4</u>				





1 800 566 LABS (1 800 566 5227)

Report: 936880 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/02/2021 18:36	Lead Total ICAP/MS		320	15	ug/L	0.50
06/02/2021 18:38	202105240369 Lead Total ICAP/MS	J-3. DAY 4	200	15	ug/L	0.50
06/02/2021 18:41	202105240370 Lead Total ICAP/MS	<u>J-4. DAY 4</u>	160	15	ug/L	0.50
06/02/2021 18:44	202105240371 Lead Total ICAP/MS	J-5. DAY 4	160	15	ug/L	0.50
06/02/2021 18:47	202105240372 Lead Total ICAP/MS	J-6. DAY 4	320	15	ug/L	0.50
06/02/2021 18:56	202105240373 Lead Total ICAP/MS	J-7. DAY 4	290	15	ug/L	0.50
06/02/2021 18:59	202105240374 Lead Total ICAP/MS	J-8. DAY 4	180	15	ug/L	0.50
6/02/2021 19:02	202105240375 Lead Total ICAP/MS	J-9. DAY 4	160	15	ug/L	0.50
06/02/2021 19:05	202105240376 Lead Total ICAP/MS	<u>J-11. DAY 4</u>	200	15	ug/L	0.50
6/02/2021 19:08	202105240377 Lead Total ICAP/MS	<u>J-12. DAY 4</u>	160	15	ug/L	0.50
6/02/2021 19:17	202105240378 Lead Total ICAP/MS	<u>J-13. DAY 4</u>	280	15	ug/L	0.50
6/04/2021 12:56	202105240380 Total phosphorus as F	<u>J-1, DAY 4</u>	1.3		mg/L	0.10
6/04/2021 15:23	Total phosphorus as F	PO4- Calc.	4.0		mg/L	0.030
	202105240381	J-2. DAY 4				
06/04/2021 12:57	Total phosphorus as F		1.7		mg/L	0.10
6/04/2021 15:23	Total phosphorus as F	PO4- Calc.	5.2		mg/L	0.030
	202105240382	<u>J-3. DAY 4</u>				
06/04/2021 12:58			2.6		mg/L	0.10
06/04/2021 15:23	Total phosphorus as F	PO4- Calc.	8.0		mg/L	0.030
	202105240383	J-4. DAY 4				





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/02/2021 13:55	Total phosphorus as P		1.2		mg/L	0.10
06/02/2021 16:45	Total phosphorus as PO	4- Calc.	3.7		mg/L	0.030
	202105240384	J-5. DAY 4				
06/02/2021 13:56	Total phosphorus as P		2.0		mg/L	0.10
06/02/2021 16:45	Total phosphorus as PO	4- Calc.	6.1		mg/L	0.030
	202105240385	J-6. DAY 4				
06/02/2021 13:56	Total phosphorus as P		2.4		mg/L	0.10
06/02/2021 16:45	Total phosphorus as PO	4- Calc.	7.4		mg/L	0.030
	202105240386	J-7, DAY 4				
06/02/2021 13:57	Total phosphorus as P		1.5		mg/L	0.10
06/02/2021 16:45	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030
	202105240387	J-8. DAY 4				
06/02/2021 13:58	Total phosphorus as P		2.4		mg/L	0.10
06/02/2021 16:45	Total phosphorus as PO	4- Calc.	7.4		mg/L	0.030
	202105240388	J-9. DAY 4				
06/02/2021 13:59	Total phosphorus as P		3.4		mg/L	0.10
06/02/2021 16:46	Total phosphorus as PO	4- Calc.	10		mg/L	0.030
	202105240389	J-11. DAY 4				
06/04/2021 12:33	Total phosphorus as P		1.0		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PO	4- Calc.	3.1		mg/L	0.030
	202105240390	J-12. DAY 4				
06/04/2021 12:36	Total phosphorus as P		2.0		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PO	4- Calc.	6.1		mg/L	0.030
	202105240391	<u>J-13. DAY 4</u>				
06/04/2021 12:37	Total phosphorus as P		2.0		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PO	4- Calc.	6.1		mg/L	0.030
	202105240392	J-0. DAY 5				
06/04/2021 12:55	Total phosphorus as P		2.2		mg/L	0.10
06/04/2021 15:23	Total phosphorus as PO	4- Calc.	6.8		mg/L	0.030
	202105240393	<u>J-1. DAY 5</u>				
06/04/2021 12:38	Total phosphorus as P		3.5		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PO	4- Calc.	11		mg/L	0.030
	202105240394	J-2. DAY 5				





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/04/2021 12:41	Total phosphorus as P		4.0		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	12		mg/L	0.030
	202105240395	J-3. DAY 5				
06/04/2021 12:42	Total phosphorus as P		4.5		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	14		mg/L	0.030
	202105240396	J-4. DAY 5				
06/04/2021 12:43	Total phosphorus as P		3.8		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	12		mg/L	0.030
	202105240397	<u>J-5. DAY 5</u>				
06/04/2021 12:44	Total phosphorus as P		4.5		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	14		mg/L	0.030
	202105240398	<u>J-6. DAY 5</u>				
06/04/2021 12:44	Total phosphorus as P		4.6		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	14		mg/L	0.030
	202105240399	J-7. DAY 5				
06/04/2021 12:45	Total phosphorus as P		4.6		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	14		mg/L	0.030
	202105240400	<u>J-8. DAY 5</u>				
06/04/2021 12:46	Total phosphorus as P		4.2		mg/L	0.10
06/04/2021 15:21	Total phosphorus as PC	04- Calc.	13		mg/L	0.030
	202105240401	J-9. DAY 5				
06/04/2021 12:49	Total phosphorus as P		5.5		mg/L	0.20
06/04/2021 15:22	Total phosphorus as PC	04- Calc.	17		mg/L	0.030
	202105240402	<u>J-11. DAY 5</u>				
06/04/2021 12:52	Total phosphorus as P		3.2		mg/L	0.10
06/04/2021 15:23	Total phosphorus as PC	04- Calc.	9.8		mg/L	0.030
	202105240403	<u>J-12. DAY 5</u>				
06/04/2021 12:53	Total phosphorus as P		3.9		mg/L	0.10
06/04/2021 15:23	Total phosphorus as PC	04- Calc.	12		mg/L	0.030
	202105240404	<u>J-13. DAY 5</u>				
06/04/2021 12:54	Total phosphorus as P		4.5		mg/L	0.10
06/04/2021 15:23	Total phosphorus as PC	04- Calc.	14		mg/L	0.030



Laboratory Data

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/24/2021 1306

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-0, DA	Y 3 (2021052	<u>40353)</u>				Samp	oled on 05/18	3/2021 101	5
		EPA 200.8	- ICPMS Metals						
05/24/21	06/02/21 17:10	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	260	ug/L	0.50	1
<u>J-1, DA</u>	Y 3 (2021052	<u>40354)</u>				Samp	oled on 05/18	3/2021 101	5
		EPA 200.8	- ICPMS Metals						
05/24/21	06/02/21 17:13	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	460	ug/L	0.50	1
J-2, DA	Y 3 (2021052	<u>40355)</u>				Samp	oled on 05/18	3/2021 101	5
			- ICPMS Metals						
	06/02/21 17:16	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	400	ug/L	0.50	1
<u>J-3, DA</u>	Y 3 (2021052	<u>40356)</u>				Samp	oled on 05/18	3/2021 101	5
			- ICPMS Metals				_		
	06/02/21 17:19	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	0.50	1
<u>J-4, DA</u>	Y 3 (2021052	<u>40357)</u>				Samp	oled on 05/18	3/2021 101	5
			1331258	(EPA 200.8)	Lead Total ICAP/MS	220 (M1)	ug/L	0.50	1
<u>J-5, DA</u>	DAY 3 (202105240357) EPA 200.8 - ICPMS Me 4/21 06/02/21 17:22 1329969 1331258 DAY 3 (202105240358) EPA 200.8 - ICPMS Me					Samp	oled on 05/18	3/2021 101	5
	06/02/21 17:31	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	270	ug/L	0.50	1
<u>J-6, DA</u>	Y 3 (2021052	<u>40359)</u>				Samp	oled on 05/18	3/2021 101	5
			- ICPMS Metals				_		
	06/02/21 17:42	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
<u>J-7, DA</u>	Y 3 (2021052	<u>40360)</u>				Samp	oled on 05/18	3/2021 101	5
			- ICPMS Metals						
	06/02/21 17:45	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	310	ug/L	0.50	1
<u>J-8, DA</u>	Y 3 (2021052	<u>40361)</u>				Samp	oled on 05/18	3/2021 101	5
05/04/07	00/00/01 17 17		- ICPMS Metals	(EDA 655 5)	Land Talal IOAD #40	050		0.50	
	06/02/21 17:48	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	250	ug/L	0.50	1
<u>J-9, DA</u>	Y 3 (2021052	40362 <u>)</u>				Samp	led on 05/18	72021 101	5

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
05/24/21	06/02/21 17:51	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-11, DA</u>	Y 3 (2021052	<u>240363)</u>				Samp	led on 05/18	/2021 101	5
			- ICPMS Metals						
	06/02/21 17:54	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	330	ug/L	0.50	1
<u>J-12, DA</u>	Y 3 (2021052	<u>240364)</u>				Samp	led on 05/18	/2021 101	5
05/04/04			- ICPMS Metals	(===	I I I I I I I I I I I I I I I I I I I	200		0.50	
	06/02/21 17:57	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
<u>J-13, DA</u>	Y 3 (2021052	<u>240365)</u>				Samp	led on 05/18	/2021 101	5
05/04/04	00/00/04 40 00		- ICPMS Metals	(===	I I I I I I I I I I I I I I I I I I I	050		0.50	
	06/02/21 18:00	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	250	ug/L	0.50	1
J-0. DA1	<u>/ 4 (2021052</u> 4	<u>10366)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals						
05/24/21	06/02/21 18:03	1329969	1331258	(EPA 200.8)	Lead Total ICAP/MS	190	ug/L	0.50	1
<u>J-1. DAY</u>	<u>/ 4 (2021052</u> 4	<u>10367)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals						
	06/02/21 18:27	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	300 (M2)	ug/L	0.50	1
<u>J-2. DAY</u>	<u>/ 4 (2021052</u> 4	<u>10368)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals				_		
	06/02/21 18:36	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	0.50	1
J-3. DA1	/ 4 (2021052 ⁴	<u>10369)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals						
	06/02/21 18:38	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-4. DA\</u>	<u>/ 4 (2021052</u>	<u>10370)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals						
	06/02/21 18:41	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	160	ug/L	0.50	1
J-5. DA\	/ 4 (2021052 ⁴	<u>10371)</u>				Samp	led on 05/21	/2021 132	6
			- ICPMS Metals						
	06/02/21 18:44	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	160	ug/L	0.50	1
<u>J-6. DAY</u>	<mark>/ 4 (2021052</mark> 4	10372 <u>)</u>				Samp	led on 05/21	/2021 132	6





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metals						
05/24/21	06/02/21 18:47	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	0.50	1
<u>J-7. DAY</u>	<mark>/ 4 (2021052</mark>	<u>240373)</u>				Samı	oled on 05/21	/2021 132	6
		EPA 200 8	- ICPMS Metals						
05/24/21	06/02/21 18:56		1331259	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	0.50	1
<u>J-8. DAY</u>	/ 4 (2021052	<u>240374)</u>				Samı	oled on 05/21	/2021 132	6
		ED4 000 0	100110 14 4 1						
05/24/21	06/02/21 18:59		- ICPMS Metals 1331259	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
	/ 4 (2021052		.00.200	(2171200.0)			oled on 05/21		•
<u> </u>	1 (2021002	<u> </u>				Julia	510G 511 55 /21	72021 102	•
			- ICPMS Metals				_		
	06/02/21 19:02		1331259	(EPA 200.8)	Lead Total ICAP/MS	160	ug/L	0.50	1
<u>J-11. DA</u>	Y 4 (202105	<u>5240376)</u>				Samı	oled on 05/21	/2021 132	6
		EPA 200.8	- ICPMS Metals						
05/24/21	06/02/21 19:05	1329969	1331259	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-12. DA</u>	Y 4 (202105	<u> 240377)</u>				Samı	oled on 05/21	/2021 132	6
		EPA 200.8	- ICPMS Metals						
05/24/21	06/02/21 19:08		1331259	(EPA 200.8)	Lead Total ICAP/MS	160	ug/L	0.50	1
<u>J-13. DA</u>	Y 4 (202105	<u>5240378)</u>				Samı	oled on 05/21	/2021 132	6
		FPA 200 8	- ICPMS Metals						
05/24/21	06/02/21 19:17		1331259	(EPA 200.8)	Lead Total ICAP/MS	280	ug/L	0.50	1
<u>J-0, DAY</u>	/ 4 (2021052	<u> 240379)</u>				Samı	oled on 05/21	/2021 103	4
		CM4500 DI	E/EDA 265 4 Ta	atal mbaambaw	ıs as PO4- Calc.				
	06/04/21 15:23			SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - To	,	ıs as P (T-P)				
	06/04/21 12:56	3	1332571 (SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.10	5
<u>J-1, DAY</u>	<mark>/ 4 (2021052</mark>	<u>240380)</u>				Samı	oled on 05/21	/2021 084	9
		SM4500-PI	F/FPA 365 1 - T/	otal phosphori	ıs as PO4- Calc.				
	06/04/21 15:23			SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - To	•	ıs as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 936880 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 05/24/2021 1306

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/04/21 12:56		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
<u>J-2. DAY</u>	/ 4 (20210524	<u>10381)</u>		,		Sam	pled on 05/21	/2021 084	9
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/04/21 15:23				Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	06/04/21 12:57		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
<u>J-3. DAY</u>	/ 4 (20210524	<u>10382)</u>				Sam	pled on 05/21	/2021 084	9
		SM4500-PI	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/04/21 15:23			(SM4500-PE/EPA 365.1)		8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:58		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
<u>J-4. DA`</u>	/ 4 (20210524	<u>10383)</u>				Sam	pled on 05/17	/2021 091	1
		SM4500-PI	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:45			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/02/21 13:55		1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
<u>J-5. DA\</u>	/ 4 (20210524	<u>10384)</u>				Sam	pled on 05/17	/2021 091	1
		SM4500-PI	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:45			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	06/02/21 13:56		1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-6. DAY</u>	/ 4 (20210524	<u>10385)</u>				Sam	pled on 05/17	/2021 091	1
		SM4500-PI	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:45			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	06/02/21 13:56		1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
J-7, DA	/ 4 (20210524	<u>10386)</u>		,		Sam	pled on 05/17	/2021 100	0

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Samples Received on: 05/24/2021 1306

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:45	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/02/21 13:57	7	1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-8. DA`</u>	Y 4 (2021052	<u>240387)</u>				Samp	oled on 05/17	/2021 100	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:45	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/02/21 13:58	3	1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
<u>J-9. DA`</u>	Y 4 (2021052	<u>240388)</u>				Samp	oled on 05/17	/2021 100	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/02/21 16:46	3		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	10 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/02/21 13:59	9	1331971	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.4	mg/L	0.10	5
<u>J-11. D</u>	AY 4 (20210	<u>5240389)</u>				Samp	oled on 05/17	/2021 101	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21				Total phosphorus as PO4- Calc.	3.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:33	3	1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.0 (M1)	mg/L	0.10	5
<u>J-12. D</u>	AY 4 (20210	<u>5240390)</u>				Samp	oled on 05/17	/2021 101	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21				Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:36		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-13. D</u> A	AY 4 (20210	<u>5240391)</u>				Samp	oled on 05/17	/2021 101	5

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/04/21 15:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:37		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-0. DA</u>	Y 5 (2021052	<u>40392)</u>				Sam	pled on 05/20	/2021 1549)
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:23			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:55		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
<u>J-1. DA`</u>	Y 5 (2021052	<u>40393)</u>				Sam	pled on 05/20	/2021 1250)
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	11 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:38		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.5	mg/L	0.10	5
J-2. DA`	Y 5 (2021052	<u>40394)</u>				Sam	pled on 05/20	/2021 1250)
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:41		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.0	mg/L	0.10	5
<u>J-3. DA`</u>	Y 5 (2021052	<u>40395)</u>				Sam	pled on 05/20	/2021 1250)
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:42		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.5	mg/L	0.10	5
<u>J-4. DA`</u>	Y 5 (2021052	<u>40396)</u>				Sam	pled on 05/20	/2021 1324	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:21		2000	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				



Laboratory Data

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/24/2021 1306

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped Prep Batch Analytical Batch MRL Analyzed Method Analyte Result Units Dilution 06/04/21 12:43 1332571 (SM4500-PE/EPA Total phosphorus as P 3.8 0.10 ma/L 365.1) J-5. DAY 5 (202105240397) Sampled on 05/20/2021 1324 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA Total phosphorus as PO4- Calc. 06/04/21 15:21 14 (c) 0.030 mg/L 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 06/04/21 12:44 (SM4500-PE/EPA Total phosphorus as P 1332571 4.5 mg/L 0.10 5 365.1) J-6. DAY 5 (202105240398) Sampled on 05/20/2021 1324 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA Total phosphorus as PO4- Calc. 06/04/21 15:21 14 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 06/04/21 12:44 1332571 (SM4500-PE/EPA Total phosphorus as P 4.6 mg/L 0.10 5 365.1) J-7. DAY 5 (202105240399) Sampled on 05/20/2021 1351 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/04/21 15:21 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 0.030 14 (c) mg/L 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) (SM4500-PE/EPA Total phosphorus as P 06/04/21 12:45 1332571 4.6 mg/L 0.10 365.1) J-8. DAY 5 (202105240400) Sampled on 05/20/2021 1351 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/04/21 15:21 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 13 (c) 0.030 ma/L 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) (SM4500-PE/EPA Total phosphorus as P 06/04/21 12:46 1332571 4.2 (M1) 0.10 5 ma/L

<u>J-9. DAY 5 (202105240401)</u>
Sampled on 05/20/2021 1351

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

06/04/21 15:22 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 365.1)

SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P)

06/04/21 12:49 1332571 (SM4500-PE/EPA Total phosphorus as P

000.1)

365.1)

365.1)

<u>J-11. DAY 5 (202105240402)</u> Sampled on 05/20/2021 1419

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.

0.030

0.20

1

10

mg/L

mg/L

17 (c)

5.5



Laboratory Data

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

05/24/2021 1306

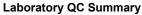
Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/04/21 15:23			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	9.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:52		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.2	mg/L	0.10	5
<u>J-12. D</u>	AY 5 (202105	240403)				Samı	oled on 05/20	/2021 1419	•
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
	06/04/21 15:23			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as P (T-P)				
	06/04/21 12:53		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.9	mg/L	0.10	5
<u>J-13. D</u>	AY 5 (202105	<u>240404)</u>				Samı	oled on 05/20	/2021 1419	•
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
	06/04/21 15:23			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	06/04/21 12:54		1332571	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.5	mg/L	0.10	5





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Report: 936880 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

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202105240381

202105240382

J-2. DAY 4

J-3. DAY 4

ICPMS Metals		
Prep Batch: 1329969	Analytical Batch: 1331258	Analysis Date: 06/02/2021
202105240353	J-0, DAY 3	Analyzed by: AZS
202105240354	J-1, DAY 3	Analyzed by: AZS
202105240355	J-2, DAY 3	Analyzed by: AZS
202105240356	J-3, DAY 3	Analyzed by: AZS
202105240357	J-4, DAY 3	Analyzed by: AZS
202105240358	J-5, DAY 3	Analyzed by: AZS
202105240359	J-6, DAY 3	Analyzed by: AZS
202105240360	J-7, DAY 3	Analyzed by: AZS
202105240361	J-8, DAY 3	Analyzed by: AZS
202105240362	J-9, DAY 3	Analyzed by: AZS
202105240363	J-11, DAY 3	Analyzed by: AZS
202105240364	J-12, DAY 3	Analyzed by: AZS
202105240365	J-13, DAY 3	Analyzed by: AZS
202105240366	J-0. DAY 4	Analyzed by: AZS
ICPMS Metals		
Prep Batch: 1329969	Analytical Batch: 1331259	Analysis Date: 06/02/2021
202105240367	J-1. DAY 4	Analyzed by: AZS
202105240368	J-2. DAY 4	Analyzed by: AZS
202105240369	J-3. DAY 4	Analyzed by: AZS
202105240370	J-4. DAY 4	Analyzed by: AZS
202105240371	J-5. DAY 4	Analyzed by: AZS
202105240372	J-6. DAY 4	Analyzed by: AZS
202105240373	J-7. DAY 4	Analyzed by: AZS
202105240374	J-8. DAY 4	Analyzed by: AZS
202105240375	J-9. DAY 4	Analyzed by: AZS
202105240376	J-11. DAY 4	Analyzed by: AZS
202105240377	J-12. DAY 4	Analyzed by: AZS
202105240378	J-13. DAY 4	Analyzed by: AZS
Total phosphorus as P (T-		
Analytical Batch: 133	1971	Analysis Date: 06/02/2021
202105240383	J-4. DAY 4	Analyzed by: LQ3M
202105240384	J-5. DAY 4	Analyzed by: LQ3M
202105240385	J-6. DAY 4	Analyzed by: LQ3M
202105240386	J-7, DAY 4	Analyzed by: LQ3M
202105240387	J-8. DAY 4	Analyzed by: LQ3M
202105240388	J-9. DAY 4	Analyzed by: LQ3M
Total phosphorus as P (T-	P)	
Analytical Batch: 1332	2571	Analysis Date: 06/04/2021
202105240379	J-0, DAY 4	Analyzed by: LQ3M
202105240380	J-1, DAY 4	Analyzed by: LQ3M
000405040004	10 00/4	A I I I O O A 4

Analyzed by: LQ3M

Analyzed by: LQ3M



Laboratory QC Summary

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

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202105240389	J-11. DAY 4	Analyzed by: LQ3M
202105240390	J-12. DAY 4	Analyzed by: LQ3M
202105240391	J-13. DAY 4	Analyzed by: LQ3M
202105240392	J-0. DAY 5	Analyzed by: LQ3M
202105240393	J-1. DAY 5	Analyzed by: LQ3M
202105240394	J-2. DAY 5	Analyzed by: LQ3M
202105240395	J-3. DAY 5	Analyzed by: LQ3M
202105240396	J-4. DAY 5	Analyzed by: LQ3M
202105240397	J-5. DAY 5	Analyzed by: LQ3M
202105240398	J-6. DAY 5	Analyzed by: LQ3M
202105240399	J-7. DAY 5	Analyzed by: LQ3M
202105240400	J-8. DAY 5	Analyzed by: LQ3M
202105240401	J-9. DAY 5	Analyzed by: LQ3M
202105240402	J-11. DAY 5	Analyzed by: LQ3M
202105240403	J-12. DAY 5	Analyzed by: LQ3M
202105240404	J-13. DAY 5	Analyzed by: LQ3M





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Report: 936880 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

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ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK MRL_CHK MS_202105270361 MS2_202105270361 MSD_202105270361 MSD2_202105240357 ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK MRL_CHK	atch: 1331258 Lead Total ICAP/MS								
LCS1 LCS2 MBLK MRL_CHK MS_202105270361 MS2_202105240357 MSD_202105240357 ICPMS Metals by E Analytical Ba	Lead Total ICAP/MS								
LCS2 MBLK MRL_CHK MS_202105270361 MS2_202105240357 MSD_202105240357 ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK						Analysis Da	ate: 06/02/	2021	
MBLK MRL_CHK MS_202105270361 MS2_202105240357 MSD_202105240357 ICPMS Metals by E	I I T I I I CAD #40		50	47.7	ug/L	95	(85-115)		
MRL_CHK MS_202105270361 MS2_202105240357 MSD_202105240357 ICPMS Metals by E	Lead Total ICAP/MS		50	48.7	ug/L	97	(85-115)	20	2.1
MS_202105270361 MS2_202105240357 MSD_202105270361 MSD2_202105240357 ICPMS Metals by E	Lead Total ICAP/MS			<0.0608	ug/L				
MS2_202105240357 MSD_202105270361 MSD2_202105240357 ICPMS Metals by E	Lead Total ICAP/MS		0.5	0.483	ug/L	97	(50-150)		
MSD_202105270361 MSD2_202105240357 ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK	Lead Total ICAP/MS	ND	50	49.3	ug/L	99	(70-130)		
MSD2_202105240357 ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK	Lead Total ICAP/MS	220	50	283	ug/L	<u>134</u>	(70-130)		
ICPMS Metals by E Analytical Ba LCS1 LCS2 MBLK	Lead Total ICAP/MS	ND	50	47.5	ug/L	95	(70-130)	20	3.7
Analytical Ba	Lead Total ICAP/MS	220	50	291	ug/L	<u>150</u>	(70-130)	20	2.7
LCS1 LCS2 MBLK	PA 200.8								
LCS2 MBLK	atch: 1331259					Analysis Da	ate: 06/02/	2021	
MBLK	Lead Total ICAP/MS		50	47.3	ug/L	95	(85-115)		
	Lead Total ICAP/MS		50	48.1	ug/L	96	(85-115)	20	1.7
MRL_CHK	Lead Total ICAP/MS			<0.0608	ug/L				
	Lead Total ICAP/MS		0.5	0.477	ug/L	95	(50-150)		
MS_202105240367	Lead Total ICAP/MS	300	50	334	ug/L	<u>57</u>	(70-130)		
MS2_202105240377	Lead Total ICAP/MS	160	50	206	ug/L	86	(70-130)		
MSD_202105240367	Lead Total ICAP/MS	300	50	353	ug/L	94	(70-130)	20	5.4
MSD2_202105240377	Lead Total ICAP/MS	160	50	202	ug/L	78	(70-130)	20	1.9
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical Ba	atch: 1331971				,	Analysis Da	ate: 06/02/	2021	
LCS1	Total phosphorus as P		0.4	0.414	mg/L	103	(90-110)		
LCS2	Total phosphorus as P		0.4	0.400	mg/L	100	(90-110)	20	3.4
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0132	mg/L	66	(50-150)		
MS_202105170174	Total phosphorus as P	ND	0.4	0.391	mg/L	98	(90-110)		
MSD_202105170174	Total phosphorus as P	ND	0.4	0.409	mg/L	102	(90-110)	20	4.4
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical Ba	atch: 1332571				,	Analysis Da	ate: 06/04/	2021	
LCS1	Total phosphorus as P		0.4	0.424	mg/L	106	(90-110)		
LCS2	Total phosphorus as P		0.4	0.428	mg/L	107	(90-110)	20	0.94
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0404	me/l	0.1	(50.450)		
MS_202105240389	. O.a. p. oopriordo do i		0.02	0.0161	mg/L	81	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



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Laboratory QC

Report: 936880

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS2_202105240400	Total phosphorus as P	4.2	0.4	7.05	mg/L	<u>140</u>	(90-110)		
MSD_202105240389	Total phosphorus as P	1.0	0.4	3.10	mg/L	103	(90-110)	20	<u>36</u>
MSD2_202105240400	Total phosphorus as P	4.2	0.4	6.51	mg/L	<u>113</u>	(90-110)	20	8.0



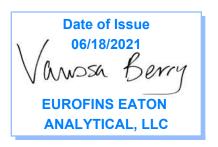
ACCREDITED
CERTIFICATE #'s 5890.01 & 5890.02

750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801
Attention: James Christopher



ZIA8: Vanessa Berry Project Manager



Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

^{*} Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.

^{*} Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.

^{*} Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,

^{*} Test results relate only to the sample(s) tested.

^{*} Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

^{*} This report shall not be reproduced except in full, without the written approval of the laboratory.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	1 1
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	x		х
1,4-Dioxane	EPA 522	х		х
2,3,7,8-TCDD	Modified EPA 1613B	x		X
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	х	х
Ammonia	EPA 350.1		х	х
Ammonia	SM 4500-NH3 H		х	х
Anions and DBPs by IC	EPA 300.0	х	x	х
Anions and DBPs by IC	EPA 300.1	х		х
Asbestos	EPA 100.2	х	х	
BOD / CBOD	SM 5210B		x	х
Bromate	In House Method (2447)	х		х
Carbamates	EPA 531.2	х		х
Carbonate as CO3	SM 2330B	х	Х	х
Carbonyls	EPA 556	х		х
COD	EPA 410.4 / SM 5220D		х	
Chloramines	SM 4500-CL G	х	х	х
Chlorinated Acids	EPA 515.4	х		х
Chlorinated Acids	EPA 555	х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	x		x
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	х	х	x
Conductivity	EPA 120.1		x	
Conductivity	SM 2510B	х	х	x
Corrosivity (Langelier Index)	SM 2330B	x		x
Cyanide, Amenable	SM 4500-CN G	х	х	
Cyanide, Free	SM 4500CN F	X	x	x
Cyanide, Total	EPA 335.4	X	X	x
Cyanogen Chloride (screen)	In House Method (2470)	x	X	x
Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	X		x
Dissolved Oxygen	SM 4500-O G		х	x
DOC	SM 5310C	х		x
E. Coli	(MTF/EC+MUG)	x		×
E. Coli	CFR 141.21(f)(6)(i)	Х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	х		Х
E. Coli (Enumeration)	SM 9223B	х		Х
EDB/DCBP	EPA 504.1	X		
EDB/DBCP and DBP EDTA and NTA	EPA 551.1 In House Method (2454)	x x		x x
Endothall	EPA 548.1	X		×
Endothall	In-house Method (2445)	X		X
Enterococci Fecal Coliform	SM 9230B SM 9221 E (MTF/EC)	x x	Х	
Fecal Coliform	SM 9221 E (MTF/EC)	_ ^	х	
Fecal Coliform	SIVI 7221C, E (WIIF/EC)	 	^	
(Enumeration)	SM 9221E (MTF/EC)	х		x
Fecal Coliform with		-		
Chlorine Present	SM 9221E		х	j l
Fecal Streptococci	SM 9230B	х	х	
Fluoride	SM 4500-F C	x	x	х
				
Glyphosate	EPA 547	Х		Х
Glyphosate + AMPA	In House Method (3618)	Х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	х	х	х
Hardness	SM 2340B	Х	х	х
Heterotrophic Bacteria	In House Method (2439)	Х		x
Heterotrophic Bacteria	SM 9215 B	х		х
Hexavalent Chromium	EPA 218.6	х	х	х
			_	

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		Х	
Hormones	EPA 539	Х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella Mercury	Legiolert EPA 200.8	X X		X X
Metals	EPA 200.8	X	х	X
Microcystin LR	ELISA (2360)	X		x
Microcystin, Total	EPA 546	Х		х
NDMA	EEA/Agilent 521.1 In house method (2425)	x		х
Nitrate/Nitrite Nitrogen	EPA 353.2	Х	Х	х
OCL, Pesticides/PCB	EPA 505	Х		х
Ortho Phosphate	EPA 365.1	X	Х	X
Ortho Phosphorous Oxyhalides Disinfection	SM 4500P E	Х		Х
Byproducts	EPA 317.0	х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	Х		х
Perfluorinated Alkyl Acids	EPA 537	Х		х
Perfluorinated Polutant	In house Method (2434)	Х		х
pH	EPA 150.1	x		
рН	SM 4500-H+B	x	Х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		х
Pseudomonas	IDEXX Pseudalert (2461)	Х		х
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	Х		х
Radon-222	SM 7500RN	Х		х
Residue, Filterable	SM 2540C	Х	Х	х
Residue, Non-filterable	SM 2540D		Х	
Residue, Total Residue, Volatile	SM 2540B EPA 160.4		X X	х
Semi-VOC	EPA 525.2	х	^	х
Silica	SM 4500-Si D	X	Х	
Silica	SM 4500-SiO2 C	х	х	
Sulfide	SM 4500-S ⁻ D		х	
Sulfite	SM 4500-SO ³ B	х	х	х
Surfactants	SM 5540C	х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		х
Total Coliform	SM 9221 A, B, C	x		x
(Enumeration)				
Total Coliform / E. coli	Colisure SM 9223	Х		Х
Total Coliform Total Coliform with Chlorine	SM 9221B SM 9221B		X X	
Present Total Coliform / E.coli (P/A				
and Enumeration)	SM 9223	Х		х
TOC	SM 5310C	Х	Х	х
TOX	SM 5320B		X	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	X	Х
Total Phosphorous Triazine Pesticides &	SM 4500 P E		Х	
Degradates	In House (3617)	х		х
Turbidity	EPA 180.1	х	х	x
Turbidity	SM 2130B	x	x	
Uranium by ICP/MS	EPA 200.8	х		х
UV 254	SM 5910B	x		
VOC	EPA 524.2	х		х
VOC	In House Method (2411)	х		х
Yeast and Mold	SM 9610	х		х
Field Compling	N/A			

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 938680 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 02, 2021** at **1147**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202106020799	J-1, Day5		05/26/2021 1241
	@ICPMS		
202106020800	J-2, Day5		05/26/2021 1241
	@ICPMS		
202106020801	J-3, Day5		05/26/2021 1241
	@ICPMS		
202106020802	J-4, Day5		05/26/2021 1241
	@ICPMS		
202106020803	J-5, Day5		05/26/2021 1241
	@ICPMS		
202106020804	J-6, Day5		05/26/2021 1241
	@ICPMS		
202106020805	J-7, Day5		05/26/2021 1241
	@ICPMS		
202106020806	J-8, Day5		05/26/2021 1241
	@ICPMS		
202106020807	J-9, Day5		05/26/2021 1241
	@ICPMS		
202106020808	J-11, Day5		05/26/2021 1241
	@ICPMS		
202106020809	J-0, Day6		05/25/2021 1234
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020810	J-1, Day6		05/25/2021 0948
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020811	J-2, Day6		05/25/2021 0948
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
	:		



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201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 938680 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID		Sample Date
202106020812	J-3, Day6		05/25/2021 0948
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020813	J-4, Day6		05/25/2021 0950
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020814	J-5, Day6		05/25/2021 0950
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020815	J-6, Day6		05/25/2021 0950
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020816	J-7, Day6		05/25/2021 1018
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020817	J-8, Day6		05/25/2021 1018
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020818	J-9, Day6		05/25/2021 1018
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020819	J-11, Day6		05/25/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020820	J-12, Day6		05/25/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020821	J-13, Day6		05/25/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202106020822	J-0, Day7		05/28/2021 1120
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020823	J-1, Day7		05/28/2021 1120
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020824	J-2, Day7		05/28/2021 1120
	Total phosphorus as P	Total phoephorus as POA Colo	
	Total phospholus as F	Total phosphorus as PO4- Calc.	



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201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 938680 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 02, 2021** at **1147**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202106020825	J-3, Day7		05/28/2021 1120
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020826	J-4, Day7		05/28/2021 1135
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020827	J-5, Day7		05/28/2021 1135
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020828	J-6, Day7		05/28/2021 1135
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020829	: J-7, Day7		05/28/2021 1206
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020830	J-8, Day7		05/28/2021 1206
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020831	J-9, Day7		05/28/2021 1206
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020832	J-11, Day7		05/28/2021 1230
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020833	J-12, Day7		05/28/2021 1230
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020834	J-13, Day7		05/28/2021 1230
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106020835	J-0, Day6		05/29/2021 1730
	@ICPMS		
202106020836	J-1, Day6		05/29/2021 1730
	@ICPMS		
202106020837	J-2, Day6		05/29/2021 1730
	@ICPMS		



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201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 938680 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 02**, **2021** at **1147**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106020838	J-3, Day6	05/29/2021 1730
	@ICPMS	
202106020839	J-4, Day6	05/29/2021 1730
	@ICPMS	
202106020840	J-5, Day6	05/29/2021 1730
	@ICPMS	
202106020841	J-6, Day6	05/29/2021 1730
	@ICPMS	
202106020842	J-7, Day6	05/29/2021 1730
	@ICPMS	
202106020843	J-8, Day6	05/29/2021 1730
	@ICPMS	
202106020844	J-9, Day6	05/29/2021 1730
	@ICPMS	
202106020845	J-11, Day6	05/29/2021 1730
	@ICPMS	
202106020846	J-12, Day6	05/29/2021 1730
	@ICPMS	
202106020847	J-13, Day6	05/29/2021 1730
	@ICPMS	
202106020848	J-0, Day5	05/26/2021 1241
	@ICPMS	
202106020849	J-12, Day5	05/26/2021 1241
	@ICPMS	
202106020850	: J-13, Day5	05/26/2021 1241
	@ICPMS	



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907 Client ID: TETRATECH-ORLAN

Folder #: 938680

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 02, 2021** at **1147**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 06/18/2021 Page 5 of 5

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	on A
	Eat
JS	
ofii	
eur	
000	

750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

(1D = $\frac{(Observation = C)}{(Observation = C)}$ (C)	SAMPLES LOGGED IN BY
IP RECEIVED AT: (Other) IR Gun ID = $\frac{(Observation = C)}{(Observation = C)}$ (Observation = $\frac{(C)}{(C)}$ (C) (C)	
1D = (031A	SAMPLES REC'D DAY OF COLLECTION? (check for yes)
IR Gun ID = (03/4	°C) (Final = ,C)
	C (Final = 5 % C)
Compliance Acceptance Criteria: (Chemistry: 4±2 °C) (Microbiology: < 10°C)	
TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Par	Partially Frozen Thawed N/A

Website: www.EatonAnalytical.com

800 566 LABS (800 566 5227)

TO BE COMPLETED BY SAMPLER:	ER:	206	562500002305	.750	35	2 09005235 (check for yes)	yes)		(check for yes)
COMPANY/AGENCY NAME:		PROJECT CODE:			COMPLI	COMPLIANCE SAMPLES	NON-COM	ıΥ	ES
Leta Tech				·	 Requires stat Type of samples (circle one): 	e forms ROUTINE	REGULATION IN SPECIAL CONFIRMATION	WOLVED:	(eg. SDWA, NPDES, etc.)
10	COC ID:	SAMPLE GROUP:		İ	SEE ATTACHE	SEE ATTACHED KIT ORDER FOR ANALYSES	ANALYSES	(check	(check for yes), OR
tetratech-orl		lead solubility test - phase 2	144-pl	rost 2	List ALL ANALY	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	number of bottles	s sent for each test	t for each sample)
TAT requested: rush by adv notice only	notice only	STD1 wk3 day	_ 2 day 1	1 day					
BTAG BTAG BTAG BTAG BTAG BTAG BTAG BTAG	SAMPLEID	CLIENT LAB ID	• XINTAM ATAG GJEIF	ATAG GJEIF	rwdol			0	SAMPLER
11-[11:21 dr]-1,	Days		M		+				
1-2,									
1-3,									
7-4,							7.7		
J-F.			_						
ンーク					7				
J-7,									100
7-8			ź.,			X-			
7-9									
1 1 3-11	4 4		→		→			1	
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ed Finished V Water		SEAW = Sea Water WW = Waste Water	BW = Bottled Water	Vater SO = Soil ater SL = Sludge		0 = Other - Please Identify
	SIGNATURE		PRINT	PRINT NAME		COMPANY/TITLE	Ë	DATE	TIME
SAMPLED BY:	um	7	Ana Ros	Posa bal		Total Toch	h	12/10/00	15:54
RELINQUISHED BY:	wall		F 1	Rospha 1		Tetra Tren	Y	06/01/21	15:54
RECEIVED BY:	11/1	\	300	Sanc	hez	BBB		bhr	145
RELINQUISHED BY:	1.			N. N.				, ,	7
RECEIVED BY:									
OA FO 0029.2 (Version 2) (08/28/2014)	14)							ď	PAGE OF



CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

	LOGIN COMMENTS:			SAMPLES CHECKED AGAINST COC BY:	KED AGAINS	COC BY!	
750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629				SA	SAMPLES LOGGED IN BY:	ED IN BY:	
	3	DAT:	Ç	SAMPLES REC'D DAY OF COLLECTION?	DAY OF CO		(check for yes)
Fax: 626 386 1101	(Other)	IR Gun ID = 631	(Observation=	C) (Corr.Factor	C) (Final 2	3	
	ice Cu	teria: (Chemistry: 4±2°C) (Microbiology: < 10°C)) (Microbiology: < 10°C)	<			
Website: www.Eatoliniajitca.com	TYPE OF ICE: Real <	OF ICE: Real ✓ Synthetic No Ice METHOD OF SHIPMENT: Pick-Up / Walk-In /		CONDITION OF ICE: Frozen Partially Frozen FedEx / UPS / DHL / Area Fast / Top Line / Other:	Partially Frozen p Line / Other:	Thawed	N/A
TO BE COMPLETED BY SAMPLER:		ı		(check for yes)		(chec	(check for yes)
COMPANY/AGENCY NAME:	PROJECT CODE:		COMPLIAN		ON-COMPLIA	NON-COMPLIANCE SAMPLES	
Tetra TECH			- Requires stat Type of samples (circle one):	e forms ROUTINE SPECIA	SPECIAL CONFIRMATION	IVOLVED:	(eg. SDWA, NPDES, etc.)
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:	Coludo-tid.	٠,	SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes), <u>OR</u>	YSES	(check for yes), OR	s), <u>OR</u>
TAT requested: rush by adv notice only	1 wk 3 day	2 day 1 day					dadi sample)
SAMPLE ID	CLIENT LAB ID	TIELD DATE: ATAG G1317	d 1 'પલ			SAN	SAMPLER
Oc/25/23/ Jape D Day 6	is .	74					
1 7		-					
3-2, Day							
1-3, Day			1	8.			
19:50 J-4, Days							
11 7-5. Days				37			
+ J-10, Dayle				-3		45	3
16:18 J-J, Day 6			y.				
1 3-B, Days			-				
* V) - 9, Day 6		→	→				2
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ed Finished Water Nater	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge		O = Other - Please Identify
SIGNATURE		PRINT NAME		COMPANY/TITLE		DATE	TIME
SAMPLED BY: CRUM	A	a Resaba	1 1	the tech		00 01 21	17:73
RELINQUISHED BY:	A. A.	Ana Royaba	9/	tetra tech	28	12/10/00	17:71
RECEIVED BY:		The Sin	anchez	FDY		6/2/21	1149
RELINQUISHED BY:						, , , ,	
RECEIVED BY:				A 43			
QA FO 0029.2 (Version 2) (08/28/2014)						PAGE	OF



CHAIN OF CUSTODY RECORD

Eaton Analytical

EUROFINS EATON ANALYTICAL USE ONLY:

-	EUROFINS EATON ANALYTICAL USE ONLY:			(8)	
	LOGIN COMMENTS:		SAMPLES CHECKED AGAINST COC BY:		
750 Royal Oaks Drive, Suite 100 Monrovia CA 91016-3629			SAMPLES	SAMPLES LOGGED IN BY:	
Phone: 626 386 1100 Fax: 626 386 1101	AP RECEIVED AT:(Other) IR Gun ID =	(Observation=	AD O'		(check for yes)
800 566 LABS (800 566 5227)	Monrovia R Gun ID = Marchiology; of Observat Chemistry: (A ± 2 °C) Microbiology; of 10°C	(Observation=<() (Microbiology; < 10°C)	°C) (Corr.Factor °C) °C)	°C) (Final = °C)	
Website: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No Ice	No Ice CONDITION OF ICE:	MITION OF ICE: Frozen Partially Frozen	en Thawed	N/A
O BE COMPLETED BY SAMPLER:			(check for yes)		(check for yes)
COMPANY/AGENCY NAME:	PROJECT CODE:	COMPLIAN		١٣	
Toka Troh		- Requires stat Type of samples (circle one):	e forms	NOLVED:	(eg. SDWA, NPDES, etc.)
		SEE ATTACHED K	10	(chec	S OR
tetratech - 0.1	Solveilly test -phase 2	List ALL ANALYSE	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	s sent for each test for ea	ach sample)
AT requested: rush by adv notice only	STD 1 wk 3 day 2 day 1 day				
SAMPLE ID	CLIENT LAB ID MATRIX *	d 144		SAMI	SAMPLER
Hr 1042 J-11, Day 6	74	_			
1 3-12,	_				
5 7-13, 4					
Frad O - [05:11 81/2					
1-1					
7-2,					
7-3					
) (- N. A.)					
7-6,	->	->			
MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	er CFW = Chlor(am)inated Finished Water er FW = Other Finished Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sludge	oil O = Other - Please Identify	ease Identify
SIGNATURE	PRINT NAME		COMPANY/TITLE	DATE	TIME
SAMPLED BY:	Ana Rosaba	a/	tehr tech	12/10/00	15:54
RELINQUISHED BY:	Ĭ	a)	febra tech	10000	5:54
RECEIVED BY:	100 Jane	hez	アセト	6/2/2	120
RELINQUISHED BY:)			-	
RECEIVED BY:					
ALEGORIOUS SE CONTRACTOR OF A SECOND SELECTION OF A SECOND SECOND SELECTION OF A SECOND SECOND SELECTION OF A SECOND SECO				9049	100

💸 eurofins

Eaton Analytical

CHAIN OF CUSTODY RECORD

(check for yes) Z/A Thawed SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: (°C) (Final 3. °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. °C) (Corr.Factor -- U °C) (Corr.Factor_ GONDITION OF ICE: Frozen (Observation= (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) No Ice IR Gun ID = (03 1A EUROFINS EATON ANALYTICAL USE ONLY: (Other) IR Gun ID = TYPE OF ICE: Real / Synthetic 下 SAMPLE TEMP RECEIVED AT: LOGIN COMMENTS: Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

nished Water SEAV	AGENCY NAME: Tech IT code: Acthoror Sted: rush by adv notice only signal in the code	NPLE GROUP: 4 d Iolubi III + fett -phore2 1 wk 3 day 2 day 1 day	F 100	PLES forms South Reservation ROUTINE SPECIAL DER FOR ANAI IIRED (enter numb	NON-COMPLIANCE SAMPLES REGULATION INVOLVED: L CONFIRMATION LYSES CHeck for yes), OR Recof bottles sent for each test for each services and the services of services and services of services and services of services and services of services	LES (eg. SDWA, NPDES, etc.) k for yes), OR st for each sample) SAMPLER
13.4 Day 1 3-8 3-9 1-13,	SAMPLEID	TIRTAM TAN	18404 MAS 1		COM	MENTS
7-11 1-13, 4 1-0, Day b 1-13, 4 1-13, 4 1-14, 4 1-15, 4 1-16, Day b 1-17, 4 1-18, 4	7-8	¥ —				
1-0, Day b 1-1, 1-1, 1-1, 1-1, 1-1, 1-1, 1-1, 1-1	40		×			
PES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil RGW = Raw Ground Water FW = Other Finished Water Water SEAW = Sea Water SO = Soil RGW = Raw Surface Water FW = Other Finished Water SEAW = Sea Water SO = Soil WWW = Waste Water SEAW = Bottled Water SO = Soil WWW = Waste Water SO = Soil ON = Soil AND POJUGE OF THE PROPERTY OF THE PARTY OF TH	1-0,		-			
PES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water SW = Bottled Water SO = Soil RGW = Raw Ground Water FW = Other Finished Water Ww = Waste Water SW = Storm Water SL = Sludge COMPANYTITLE COMPAN	7-1,	>	>			
Moderated the tent tent of order		FW = Chlor(am)inated Finished Water W = Other Finished Water		885		Please Identify
Musika Karakai tetra tecn Objetii	2	Ana Rosa	09	Leta 4.5		17:54
TOP SUNCTURE EER 6/2	ED BY: MUNCH		1	tetra tech	0	15:54
	Y: ED BY:	7		EEA	6/44	1148
	7%:					

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CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY.

(check for yes) O = Other - Please Identify (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) SAMPLER (check for yes) 3:5 5.1 N/A (check for yes), OR NON-COMPLIANCE SAMPLES Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: SAMPLES REC'D DAY OF COLLECTION? 06/01/21 REGULATION INVOLVED: 2 10 90 °C) (Final 3 °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEX / UPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr.Factor O / BW = Bottled Water SW = Storm Water °C) (Corr.Factor COMPANY/TITLE tota total SX pys CONDITION OF ICE: Frozen J.GB COMPLIANCE SAMPLES - Requires state forms (Observation= (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) Lanchez 54471 No Ice Ana Rosabol Ang Rosaba ATAG GJEI CFW = Chlor(am)inated Finished Water PRINT NAME tet-phases 1 day IR Gun ID = IR Gun ID = Synthetic ATAO OJEN 2 day 186 SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water · XINTAM STD_1 wk_3 day Other) Rad solubility LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: ✓ Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water Days dypa, P-Website: www.EatonAnalytical.com COC ID: SAMPLE ID TAT requested: rush by adv notice only 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) (1) 7-9, 7-1 7-16, Monrovia, CA 91016-3629 7-6 7-6 3-7. 0, TO BE COMPLETED BY SAMPLER 7-1 Tetra Tech COMPANY/AGENCY NAME: Phone: 626 386 1100 tenter of Fax: 626 386 1101 EEA CLIENT CODE: RELINQUISHED BY DS 24 12:41 or: (1) po 3JAMA2 3MIT RECEIVED BY SAMPLED BY 3J9MA2 3TAQ

RELINQUISHED BY

RECEIVED BY:

QA FO 0029.2 (Version 2) (08/28/2014)

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eurofins | Faton Analytical

CHAIN OF CUSTODY RECORD

750 Ro	750 Royal Oaks Drive, Suite 100	LOGIN COMMENTS:					SAMPLES CH	SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY:	GED IN BY:	
Phone: Fax: 62		SAMPLE TEMP RECEIVED AT: (Other) IR Gur	VED AT: IR Gun ID =		4180	(Observation=	SAMPLES R °C) (Corr.Factor	SAMPLES REC'D DAY OF COLLECTION? Corr. Factor C C (Final =	ا ا	(check for yes)
800 56 Websit	800 566 LABS (800 566 5227) Website: www.EatonAnalytical.com	Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C.) (Microbiology: < 10°C TYPE OF ICE: Real Synthetic No Ice CONDI	Criteria: (Chemis	hemistry: 4	±2°C) (Micr No Ice	(Microbiology: < 10°C)	V OF ICE: Frozen	tially	Wee	N/A
			PMENT:	Pick-Up	/ Wall	FedEx /	Area Fast / To	Line / Other:		
O BE COM	O BE COMPLETED BY SAMPLER:						(check for yes)	(et)	(check for yes)
OMPANY	OMPANY/AGENCY NAME:	PROJECT CODE:			F	COMPLI	COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES	
Tetra	3	, ,				- Requires star Type of samples (circle one):	te forms	SPECIAL CONFIRMATION	NOLVED:	ed SDWA NPDES etc.)
EA CLIEN	EACLIENT CODE: COCID:	SAMPLE GROUP: Kadsolubility LH - whate	トロイ	whate	7	SEE ATTACHEL	NDER FOR	ILYSES ber of bottles se	(check for yes),	res), <u>OR</u>
AT reque	AT requested: rush by adv notice only	STD 1 wk 3 day.	/ 2 day	1 day	ly					
SAMPLE DATE BJ9MAS	SAMPLE ID	CLIENT LAB ID	* XIRTAM	ATAO OJEIT	ATAO OJEIT	rw)			SA	SAMPLER
5/20 12	17:41 7-12, Day 5		\$			_				
マ	7		رب			->				
+					T					
					48					
+					0.3					
MATRI	MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ated Finis d Water	shed Wa		SEAW = Sea Water WW = Waste Water	BW = Bottled Water	r SO = Soil SL = Sludge		O = Other - Please Identify
	SIGNATURE			PRINT NAME	ME		COMPANY/TITLE		DATE	TIME
AMPLED BY	MM		Ana	200	Rosabal	N.	Tetra Tech		12/10/40	الد: بدط
ELINQUISHED BY:	HED BY: Company	.(Ana	Pos	Rosabal	_	Tetra Tech		17/10/90	15:54
ECEIVED BY:	1Y:		Tax	8	yocho	10.2	EER		0/2/21	1147
ELINGUISHEL	TED BY:									
ECEIVED										
A FO 0029.	A FO 0029.2 (Version 2) (08/28/2014)								PAGE	OF



Laboratory Comments

Report: 938680 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

M3 - The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.





Orlando, FL 32801

1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

06/02/2021 1147

Tetra Tech
James Christopher
201 East Pine Street
Suite 1000

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/08/2021 12:47	202106020799 Lead Total ICAP/MS	<u>J-1, Day5</u>	430	15	ug/L	0.50
06/08/2021 12:49	202106020800 Lead Total ICAP/MS	<u>J-2, Day5</u>	330	15	ug/L	0.50
06/08/2021 12:50	202106020801 Lead Total ICAP/MS	<u>J-3, Day5</u>	320	15	ug/L	0.50
06/08/2021 12:50	202106020802 Lead Total ICAP/MS	<u>J-4, Day5</u>	270	15	ug/L	0.50
06/08/2021 12:53	202106020803 Lead Total ICAP/MS	<u>J-5, Day5</u>	220	15	ug/L	0.50
06/08/2021 12:54	202106020804 Lead Total ICAP/MS	<u>J-6, Day5</u>	300	15	ug/L	0.50
06/08/2021 12:55	202106020805 Lead Total ICAP/MS	<u>J-7, Day5</u>	450	15	ug/L	0.50
06/08/2021 12:56	202106020806 Lead Total ICAP/MS	<u>J-8, Day5</u>	400	15	ug/L	0.50
06/08/2021 12:56	202106020807 Lead Total ICAP/MS	<u>J-9, Day5</u>	400	15	ug/L	0.50
06/08/2021 12:57	202106020808 Lead Total ICAP/MS	<u>J-11, Day5</u>	260	15	ug/L	0.50
06/10/2021 15:38 06/10/2021 16:35	202106020809 Total phosphorus as P Total phosphorus as PO	J-0, Day6 4- Calc.	2.5 7.7		mg/L mg/L	0.10 0.030
06/10/2021 15:38 06/10/2021 16:35	202106020810 Total phosphorus as P Total phosphorus as PO	<u>J-1, Day6</u> 4- Calc.	3.6 11		mg/L mg/L	0.10 0.030
06/10/2021 15:39 06/10/2021 16:35	202106020811 Total phosphorus as P Total phosphorus as PO	J-2, Day6 4- Calc.	4.4 14		mg/L mg/L	0.10 0.030
06/10/2021 15:40	202106020812 Total phosphorus as P	J-3, Day6	4.0		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/10/2021 16:35	Total phosphorus as PC	4- Calc.	12		mg/L	0.030
	202106020813	J-4, Day6				
06/10/2021 15:41	Total phosphorus as P		3.4		mg/L	0.10
06/10/2021 16:35	Total phosphorus as PC	4- Calc.	10		mg/L	0.030
	202106020814	J-5, Day6				
06/10/2021 15:42	Total phosphorus as P		5.2		mg/L	0.20
06/10/2021 16:35	Total phosphorus as PC	4- Calc.	16		mg/L	0.030
	202106020815	<u>J-6, Day6</u>				
06/10/2021 15:45	Total phosphorus as P		4.9		mg/L	0.10
06/10/2021 16:36	Total phosphorus as PC	4- Calc.	15		mg/L	0.030
	202106020816	<u>J-7, Day6</u>				
06/10/2021 15:48	Total phosphorus as P		4.5		mg/L	0.10
06/10/2021 16:36	Total phosphorus as PC	4- Calc.	14		mg/L	0.030
	202106020817	<u>J-8, Day6</u>				
06/10/2021 15:49	Total phosphorus as P		4.1		mg/L	0.10
06/10/2021 16:36	Total phosphorus as PC	4- Calc.	12		mg/L	0.030
	202106020818	<u>J-9, Day6</u>				
06/10/2021 15:50	Total phosphorus as P		5.8		mg/L	0.20
06/10/2021 16:37	Total phosphorus as PC	4- Calc.	18		mg/L	0.030
	202106020819	<u>J-11, Day6</u>				
06/10/2021 15:51	Total phosphorus as P		3.8		mg/L	0.10
06/10/2021 16:37	Total phosphorus as PC	4- Calc.	12		mg/L	0.030
	202106020820	<u>J-12, Day6</u>				
06/10/2021 15:52	Total phosphorus as P		4.6		mg/L	0.10
06/10/2021 16:37	Total phosphorus as PC	4- Calc.	14		mg/L	0.030
	202106020821	<u>J-13, Day6</u>				
06/10/2021 15:52	Total phosphorus as P		5.0		mg/L	0.20
06/10/2021 16:37	Total phosphorus as PC	4- Calc.	15		mg/L	0.030
	202106020822	<u>J-0, Day7</u>				
06/10/2021 15:53	Total phosphorus as P		0.10		mg/L	0.10
06/10/2021 16:37	Total phosphorus as PC	4- Calc.	0.31		mg/L	0.030
	202106020823	<u>J-1, Day7</u>				
06/10/2021 15:54	Total phosphorus as P		1.3		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech James Christopher

201 East Pine Street

Suite 1000

Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/10/2021 16:37	Total phosphorus as PO4	1- Calc.	4.0		mg/L	0.030
	202106020824	J-2, Day7				
06/16/2021 16:22	Total phosphorus as P		2.6		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	8.0		mg/L	0.030
	202106020825	<u>J-3, Day7</u>				
06/16/2021 16:23	Total phosphorus as P		2.5		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	7.7		mg/L	0.030
	202106020826	<u>J-4, Day7</u>				
06/16/2021 16:24	Total phosphorus as P		1.1		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	3.4		mg/L	0.030
	202106020827	<u>J-5, Day7</u>				
06/16/2021 16:27	Total phosphorus as P		1.7		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	5.2		mg/L	0.030
	202106020828	<u>J-6, Day7</u>				
06/16/2021 16:28	Total phosphorus as P		2.2		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	6.8		mg/L	0.030
	202106020829	<u>J-7, Day7</u>				
06/16/2021 16:29	Total phosphorus as P		1.7		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	5.2		mg/L	0.030
	202106020830	<u>J-8, Day7</u>				
06/16/2021 16:30	Total phosphorus as P		2.7		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	8.3		mg/L	0.030
	202106020831	<u>J-9, Day7</u>				
06/16/2021 16:31	Total phosphorus as P		3.2		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	9.8		mg/L	0.030
	202106020832	<u>J-11, Day7</u>				
06/16/2021 16:32	Total phosphorus as P		1.1		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	3.4		mg/L	0.030
	202106020833	<u>J-12, Day7</u>				
06/16/2021 16:36	Total phosphorus as P		2.0		mg/L	0.10
06/17/2021 11:50	Total phosphorus as PO4	1- Calc.	6.1		mg/L	0.030
	202106020834	<u>J-13, Day7</u>				





Suite 1000 Orlando, FL 32801

1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech
James Christopher
201 East Pine Street

Samples Received on: 06/02/2021 1147

Analyzed		Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/16/2021		Total phosphorus as P		2.4		mg/L	0.10
06/17/2021	11:50	Total phosphorus as Po	04- Calc.	7.4		mg/L	0.030
06/08/2021	12:58	202106020835 Lead Total ICAP/MS	J-0, Day6	170	15	ug/L	0.50
06/08/2021	13:00	202106020836 Lead Total ICAP/MS	<u>J-1, Day6</u>	220	15	ug/L	0.50
06/08/2021	13:02	202106020837 Lead Total ICAP/MS	<u>J-2, Day6</u>	160	15	ug/L	0.50
06/08/2021	13:03	202106020838 Lead Total ICAP/MS	<u>J-3, Day6</u>	170	15	ug/L	0.50
06/08/2021	13:03	202106020839 Lead Total ICAP/MS	<u>J-4, Day6</u>	120	15	ug/L	0.50
06/08/2021	13:04	202106020840 Lead Total ICAP/MS	<u>J-5, Day6</u>	110	15	ug/L	0.50
06/08/2021	13:05	202106020841 Lead Total ICAP/MS	<u>J-6, Day6</u>	180	15	ug/L	0.50
06/08/2021	13:06	202106020842 Lead Total ICAP/MS	<u>J-7, Day6</u>	250	15	ug/L	0.50
06/08/2021	13:06	202106020843 Lead Total ICAP/MS	<u>J-8, Day6</u>	230	15	ug/L	0.50
06/08/2021	13:07	202106020844 Lead Total ICAP/MS	<u>J-9, Day6</u>	260	15	ug/L	0.50
06/08/2021	13:13	202106020845 Lead Total ICAP/MS	<u>J-11, Day6</u>	730	15	ug/L	0.50
06/08/2021	13:15	202106020846 Lead Total ICAP/MS	<u>J-12, Day6</u>	190	15	ug/L	0.50
06/08/2021	13:16	202106020847 Lead Total ICAP/MS	<u>J-13, Day6</u>	200	15	ug/L	0.50
06/08/2021	13:16	202106020848 Lead Total ICAP/MS	<u>J-0, Day5</u>	200	15	ug/L	0.50
		202106020849	<u>J-12, Day5</u>				



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 06/02/2021 1147

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/08/2021 13:17	Lead Total ICAP/MS		310	15	ug/L	0.50
	202106020850	<u>J-13, Day5</u>				
06/08/2021 13:20	Lead Total ICAP/MS		1700	15	ug/L	0.50



1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/02/2021 1147

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-1, Day	5 (202106020	799)				Samp	led on 05/26	3/2021 124	1
06/03/21 (06/08/21 12:47	EPA 200.8 1332169	- ICPMS Metals 1333135	(EPA 200.8)	Lead Total ICAP/MS	430 (M3)	ug/L	0.50	1
	5 (202106020		1000100	(EPA 200.8)	Lead Total IOAI /WO	` '	led on 05/26		-
		EDA 200 8	- ICPMS Metals						
06/03/21 (06/08/21 12:49	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	330	ug/L	0.50	1
<u>J-3, Days</u>	5 (202106020	<u>801)</u>				Samp	led on 05/26	/2021 124	1
		EPA 200.8	- ICPMS Metals						
	06/08/21 12:50	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	0.50	1
J-4, Day	<u>5 (202106020</u>	<u> 1802)</u>				Samp	led on 05/26	6/2021 124	1
			- ICPMS Metals				_		
	06/08/21 12:50 F (202406020	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	270	ug/L	0.50	1
<u>J-5, Day</u> ;	5 (202106020	1003)				Samp	led on 05/26	0/2U21 124	•
06/02/24 (06/08/21 12:53	EPA 200.8 1332169	- ICPMS Metals 1333135	(EPA 200.8)	Lead Total ICAP/MS	220	ug/L	0.50	1
	5 (202106020		1000100	(LFA 200.0)	Lead Total TOAL TWO		led on 05/26		
									-
06/03/21 (06/08/21 12:54	1332169	- ICPMS Metals 1333135	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
J-7, Day	5 (202106020	<u>805)</u>		(Samp	led on 05/26	6/2021 124	1
		EDA 200 8	- ICPMS Metals						
06/03/21 (06/08/21 12:55	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	450	ug/L	0.50	1
<u>J-8, Day</u>	5 (202106020	806)				Samp	led on 05/26	6/2021 124	1
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 12:56	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	400	ug/L	0.50	1
J-9, Day	5 (202106020	<u> 1807)</u>				Samp	led on 05/26	5/2021 124	1
		EPA 200.8	- ICPMS Metals						
	06/08/21 12:56	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	400	ug/L	0.50	1
<u>J-11, Day</u>	<u>y5 (20210602</u>	<u>(8080</u>				Samp	led on 05/26	6/2021 124	1

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 938680

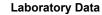
Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/03/21	06/08/21 12:57	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	260	ug/L	0.50	1
J-0, Day	<u>6 (20210602</u>	<u>0809)</u>				Sam	pled on 05/25	/2021 123	4
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:38		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
I-1, Day	<u>6 (20210602</u>	<u>0810)</u>				Sam	pled on 05/25	/2021 094	8
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	11 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:38		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.6	mg/L	0.10	5
<u>l-2, Day</u>	<u>6 (20210602</u>	<u>0811)</u>				Sam	pled on 05/25	/2021 094	8
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:39		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.4	mg/L	0.10	5
-3, Day	6 (20210602	<u>0812)</u>				Sam	pled on 05/25	/2021 094	8
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:40		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.0	mg/L	0.10	5
<u>J-4, Day</u>	6 (20210602	<u>0813)</u>				Sam	pled on 05/25	/2021 095	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	10 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:41		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.4	mg/L	0.10	5
<u>J-5, Day</u>	6 (20210602	<u>0814)</u>				Sam	pled on 05/25	/2021 095	0





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batc	h Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:35			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	16 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:42		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	5.2	mg/L	0.20	10
<u>J-6, Dav</u>	y6 (20210602	<u>0815)</u>				Sam	pled on 05/25	/2021 0950	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:36			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	15 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:45		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.9	mg/L	0.10	5
<u>J-7, Dav</u>	y6 (20210602	<u>0816)</u>				Sam	pled on 05/25	/2021 1018	8
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:36				Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:48		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.5	mg/L	0.10	5
<u>J-8, Dav</u>	y6 (20210602	<u>0817)</u>				Sam	pled on 05/25	/2021 1018	8
		SM4500-PE	E/EPA 365.1 -	· Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:36			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:49		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.1	mg/L	0.10	5
<u>J-9, Day</u>	y6 (20210602	<u>0818)</u>				Sam	pled on 05/25	/2021 1018	8
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:37				Total phosphorus as PO4- Calc.	18 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:50		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	5.8	mg/L	0.20	10
<u>J-11, Da</u>	ay6 (2021060	<u> 20819)</u>				Sam	pled on 05/25	/2021 1042	2
		SM4500-PF	F/FPA 365 1 -	· Total phosphoru	is as PO4- Calc.				
	06/10/21 16:37		_, _, A 000.1 ·	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	12 (c)	mg/L	0.030	1





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:51		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.8	mg/L	0.10	5
<u>J-12, Da</u>	ay6 (2021060)	<u> 20820)</u>				Sam	pled on 05/25	/2021 104	2
		SM4500-PF	F/FPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:37	J 1000 1 2			Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:52		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.6	mg/L	0.10	5
<u>J-13, Da</u>	ay6 (2021060)	<u> 20821)</u>				Sam	pled on 05/25	/2021 104	2
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:37			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	15 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:52		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	5.0	mg/L	0.20	10
<u>J-0, Day</u>	7 (20210602)	<u>0822)</u>				Sam	pled on 05/28	3/2021 112	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:37			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	0.31 (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	ıs as P (T-P)				
	06/10/21 15:53		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.10	mg/L	0.10	5
<u>J-1, Day</u>	7 (20210602)	<u>0823)</u>				Sam	pled on 05/28	3/2021 112	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	06/10/21 16:37			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/10/21 15:54		1333988	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
J-2, Day	7 (20210602	<u>0824)</u>				Sam	pled on 05/28	3/2021 112	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/16/21 16:22		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

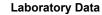
Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/02/2021 1147

Prepped Analyzed	Prep Batch A	nalytical Batch	Method	Analyte	Result	Units	MRL	Dilution	
J-3, Day7 (202106	020825)				Sam	pled on 05/28	/2021 1120)	
	SM4500-PF/F	PA 365.1 -	Total phosphoru	is as PO4- Calc.					
06/17/21 11				Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	ıs as P (T-P)					
06/16/21 16	23	1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5	
J-4, Day7 (202106	020826)				Sampled on 05/28/2021 1135				
	SM4500-PE/E	EPA 365.1 -	Total phosphoru	is as PO4- Calc.					
06/17/21 11			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.4 (c)	mg/L	0.030	1	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	ıs as P (T-P)					
06/16/21 16	24	1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.1	mg/L	0.10	5	
J-5, Day7 (202106	020827)				Sam	pled on 05/28	/2021 113	5	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	ıs as PO4- Calc.					
06/17/21 11				Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	is as P (T-P)					
06/16/21 16	27	1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5	
J-6, Day7 (202106	020828)				Sampled on 05/28/2021 1135				
	SM4500-PE/E	PA 365.1 -	Total phosphoru	ıs as PO4- Calc.					
06/17/21 11			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	is as P (T-P)					
06/16/21 16	28	1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5	
J-7, Day7 (202106	<u>020829)</u>				Sam	pled on 05/28	/2021 1206	6	
	SM4500-PE/E	EPA 365.1 -	Total phosphoru	is as PO4- Calc.					
06/17/21 11	:50		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1	
	SM4500-PE/E	PA 365.1 -	Total phosphoru	ıs as P (T-P)					
06/16/21 16	29	1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5	
J-8, Day7 (202106	<u>020830)</u>				Sampled on 05/28/2021 1206				

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
(06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
(06/16/21 16:30		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.7	mg/L	0.10	5
<u>J-9, Day</u>	7 (20210602	<u>0831)</u>				Sam	pled on 05/28	/2021 1206	6
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
(06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	9.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
(06/16/21 16:31		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.2	mg/L	0.10	5
J-11, Day	y7 (2021060)	20832)				Sam	pled on 05/28	/2021 1230)
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
(06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
(06/16/21 16:32		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.1	mg/L	0.10	5
J-12, Day	y7 (2021060)	20833)				Sam	pled on 05/28	/2021 1230)
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
(06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
(06/16/21 16:36		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
J-13, Dav	y7 (2021060)	<u> 20834)</u>				Sam	pled on 05/28	/2021 1230)
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
(06/17/21 11:50			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(06/16/21 16:39		1335492	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.4	mg/L	0.10	5
<u>J-0, Day</u>	<u>6 (20210602</u>	<u>0835)</u>				Sam	pled on 05/29	/2021 1730)
		EPA 200.8	- ICPMS Meta	ls					
06/03/21	06/08/21 12:58	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
<u>J-1, Day</u> (<u>6 (20210602</u>	<u>0836)</u>				Sam	pled on 05/29	/2021 1730)





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/02/2021 1147

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:00	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	220	ug/L	0.50	1
J-2, Day6	(20210602	<u>0837)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:02	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	160	ug/L	0.50	1
J-3, Day6	(20210602	<u>0838)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:03	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
J-4, Day6	(20210602	<u>0839)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:03	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	120	ug/L	0.50	1
<u>J-5, Day6</u>	(20210602	<u>0840)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:04	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	110	ug/L	0.50	1
J-6, Day6	(20210602	<u>0841)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:05	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
<u>J-7, Day6</u>	(20210602	<u>0842)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:06	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	250	ug/L	0.50	1
<u>J-8, Day6</u>	(20210602	<u>0843)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:06	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	230	ug/L	0.50	1
J-9, Day6	(20210602	<u>0844)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:07	1332169	1333135	(EPA 200.8)	Lead Total ICAP/MS	260	ug/L	0.50	1
<u>J-11, Day</u>	<u>6 (2021060)</u>	<u>20845)</u>				Samp	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21 0	06/08/21 13:13	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	730 (M3)	ug/L	0.50	1
J-12, Day	6 (2021060	<u> 20846)</u>				Samp	led on 05/29	/2021 173	0

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



Laboratory Data

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

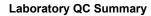
Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 13:15	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	190	ug/L	0.50	1
<u>J-13, Da</u>	ay6 (2021060)	<u> 20847)</u>				Samı	oled on 05/29	/2021 173	0
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 13:16	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-0, Day</u>	<u>/5 (20210602</u>	<u>0848)</u>				Samı	oled on 05/26	/2021 124	1
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 13:16	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-12, Da</u>	ay5 (2021060)	<u> 20849)</u>				Samı	oled on 05/26	/2021 124	1
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 13:17	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	310	ug/L	0.50	1
<u>J-13, Da</u>	ay5 (2021060)	<u>20850)</u>				Samı	oled on 05/26	/2021 124	1
		EPA 200.8	- ICPMS Metals						
06/03/21	06/08/21 13:20	1332169	1333136	(EPA 200.8)	Lead Total ICAP/MS	1700	ug/L	0.50	1





1 800 566 LABS (1 800 566 5227)

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

ICE	2MC	Meta	ale

Prep Batch: 1332169	Analytical Batch: 1333135
202106020799	J-1, Day5
202106020800	J-2, Day5
202106020801	J-3, Day5
202106020802	J-4, Day5
202106020803	J-5, Day5
202106020804	J-6, Day5
202106020805	J-7, Day5
202106020806	J-8, Day5
202106020807	J-9, Day5
202106020808	J-11, Day5
202106020835	J-0, Day6
202106020836	J-1, Day6
202106020837	J-2, Day6
202106020838	J-3, Day6
202106020839	J-4, Day6
202106020840	J-5, Day6
202106020841	J-6, Day6
202106020842	J-7, Day6
202106020843	J-8, Day6
202106020844	J-9, Day6

Prep Batch: 1332169 Analytical Batch: 1333136

202106020845	J-11, Day6
202106020846	J-12, Day6
202106020847	J-13, Day6
202106020848	J-0, Day5
202106020849	J-12, Day5
202106020850	J-13, Day5

Total phosphorus as P (T-P)

ICPMS Metals

Analytical Batch: 1333988	
202106020809	J-0, Day6
202106020810	J-1, Day6
202106020811	J-2, Day6
202106020812	J-3, Day6
202106020813	J-4, Day6
202106020814	J-5, Day6
202106020815	J-6, Day6
202106020816	J-7, Day6
202106020817	J-8, Day6
202106020818	J-9, Day6
202106020819	J-11, Day6
202106020820	J-12, Day6
202106020821	J-13, Day6

Analysis Date: 06/08/2021

Analyzed by: URDE
Analyzed by: URDE

Analysis Date: 06/08/2021

Analyzed by: URDE
Analyzed by: URDE

Analysis Date: 06/10/2021

_
Analyzed by: LQ3M



Laboratory QC Summary

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

202106020822	J-0, Day7	Analyzed by: LQ3M
202106020823	J-1, Day7	Analyzed by: LQ3M
Total phosphorus as P (T-P)		
Analytical Batch: 1335492		Analysis Date: 06/16/2021
202106020824	J-2, Day7	Analyzed by: LQ3M
202106020825	J-3, Day7	Analyzed by: LQ3M
202106020826	J-4, Day7	Analyzed by: LQ3M
202106020827	J-5, Day7	Analyzed by: LQ3M
202106020828	J-6, Day7	Analyzed by: LQ3M
202106020829	J-7, Day7	Analyzed by: LQ3M
202106020830	J-8, Day7	Analyzed by: LQ3M
202106020831	J-9, Day7	Analyzed by: LQ3M
202106020832	J-11, Day7	Analyzed by: LQ3M
202106020833	J-12, Day7	Analyzed by: LQ3M
202106020834	J-13, Day7	Analyzed by: LQ3M





1 800 566 LABS (1 800 566 5227)

Report: 938680 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1333135				4	Analysis D	ate: 06/08/	2021	
LCS1	Lead Total ICAP/MS		50	51.0	ug/L	102	(85-115)		
LCS2	Lead Total ICAP/MS		50	53.3	ug/L	107	(85-115)	20	4.4
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.517	ug/L	103	(50-150)		
MS_202106020799	Lead Total ICAP/MS	430	50	471	ug/L	74	(70-130)		
MS2_202106020835	Lead Total ICAP/MS	170	50	215	ug/L	96	(70-130)		
MSD_202106020799	Lead Total ICAP/MS	430	50	468	ug/L	<u>67</u>	(70-130)	20	0.74
MSD2_202106020835	Lead Total ICAP/MS	170	50	219	ug/L	104	(70-130)	20	1.9
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1333136				4	Analysis D	ate: 06/08/	2021	
LCS1	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	51.0	ug/L	102	(85-115)	20	0.98
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.527	ug/L	105	(50-150)		
MS_202106020845	Lead Total ICAP/MS	730	50	784	ug/L	98	(70-130)		
MS2_202106030469	Lead Total ICAP/MS	230	50	277	ug/L	96	(70-130)		
MSD_202106020845	Lead Total ICAP/MS	730	50	766	ug/L	<u>63</u>	(70-130)	20	2.3
MSD2_202106030469	Lead Total ICAP/MS	230	50	280	ug/L	103	(70-130)	20	1.5
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1333988				4	Analysis D	ate: 06/10/	2021	
LCS1	Total phosphorus as P		0.4	0.423	mg/L	106	(90-110)		
LCS2	Total phosphorus as P		0.4	0.432	mg/L	108	(90-110)	20	2.1
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0135	mg/L	68	(50-150)		
MS_202106080153	Total phosphorus as P	ND	0.4	0.422	mg/L	103	(90-110)		
MS2_202106020814	Total phosphorus as P	5.2	0.4	NR	mg/L		(90-110)		
MSD_202106080153	Total phosphorus as P	ND	0.4	0.422	mg/L	102	(90-110)	20	0.12
MSD2_202106020814	Total phosphorus as P	5.2	0.4	NR	mg/L		(90-110)		
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1335492				1	Analysis D	ate: 06/16/	2021	
LCS1	Total phosphorus as P		0.4	0.408	mg/L	102	(90-110)		
LCS2	Total phosphorus as P		0.4	0.416	mg/L	104	(90-110)	20	1.9
MBLK	Total phosphorus as P			<0.0108	mg/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used. RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



Laboratory QC

Report: 938680

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Total phosphorus as P		0.02	0.0205	mg/L	102	(50-150)		
MS_202106020328	Total phosphorus as P	ND	0.4	0.418	mg/L	105	(90-110)		
MS2_202106020329	Total phosphorus as P	ND	0.4	0.436	mg/L	109	(90-110)		
MSD_202106020328	Total phosphorus as P	ND	0.4	0.419	mg/L	105	(90-110)	20	0.22
MSD2 202106020329	Total phosphorus as P	ND	0.4	0.424	mg/L	106	(90-110)	20	2.9



ACCREDITED

CERTIFICATE #'s \$890.01 & \$890.02

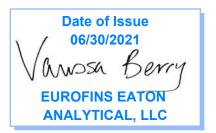
750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801
Attention: James Christopher

Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	·
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	x	.,	x
1,4-Dioxane	EPA 522	х		x
2,3,7,8-TCDD	Modified EPA 1613B	X		x
Acrylamide	In House Method (2440)	X		x
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	х	х
Ammonia	EPA 350.1		x	X
Ammonia	SM 4500-NH3 H		x	x
Anions and DBPs by IC	EPA 300.0	х	X	x
Anions and DBPs by IC	EPA 300.1	X		x
Asbestos	EPA 100.2	x	х	~
BOD / CBOD	SM 5210B		Х	x
Bromate	In House Method (2447)	х	^	×
Carbamates	EPA 531.2	X		×
Carbonate as CO3	SM 2330B	X	х	×
Carbonyls	EPA 556	x	^	x
				,
COD	EPA 410.4 / SM 5220D	<u> </u>	Х	
Chloramines	SM 4500-CL G	Х	Х	х
Chlorinated Acids	EPA 515.4	X		X
Chlorinated Acids	EPA 555	Х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	х		х
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	х	х	х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	х	х
Corrosivity (Langelier Index)	SM 2330B	x		х
Cyanide, Amenable	SM 4500-CN G	х	х	
Cyanide, Free	SM 4500CN F	х	х	х
Cyanide, Total Cyanogen Chloride	EPA 335.4	х	х	Х
(screen)	In House Method (2470)	х		х
Diquat and Paraquat	EPA 549.2	х		Х
DBP/HAA	SM 6251B	Х		Х
Dissolved Oxygen	SM 4500-O G		Х	Х
DOC	SM 5310C	Х		х
E. Coli	(MTF/EC+MUG)	х		х
E. Coli	CFR 141.21(f)(6)(i)	х		x
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	х		х
E. Coli (Enumeration)	SM 9223B	х		х
EDB/DCBP	EPA 504.1	х		
EDB/DBCP and DBP	EPA 551.1	x		x
EDTA and NTA	In House Method (2454)	х		x
Endothall	EPA 548.1	х		х
Endothall	In-house Method (2445)	x		X
Enterococci	SM 9230B	x	x	
Fecal Coliform	SM 9221 E (MTF/EC)	х		
Fecal Coliform	SM 9221C, E (MTF/EC)	, ,	х	
Fecal Coliform		†		
(Enumeration)	SM 9221E (MTF/EC)	х		x
Fecal Coliform with	g			
Chlorine Present	SM 9221E		х	
Fecal Streptococci	SM 9230B	х	х	
Fluoride	SM 4500-F C	х	х	x
Glyphosate	EPA 547	х		x
Glyphosate + AMPA	In House Method (3618)	x		x
Gross Alpha/Beta	EPA 900.0	X	х	X
Gross Alpha Coprecipitation	SM 7110 C	X	x	X
Hardness	SM 2340B	Х	Х	х
Heterotrophic Bacteria	In House Method (2439)	Х		х
Heterotrophic Bacteria	SM 9215 B	Х		х
Hexavalent Chromium	EPA 218.6	х	х	X

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		Х	
Hormones	EPA 539	Х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella Mercury	Legiolert EPA 200.8	X X		X X
Metals	EPA 200.8	X	х	X
Microcystin LR	ELISA (2360)	X		x
Microcystin, Total	EPA 546	Х		х
NDMA	EEA/Agilent 521.1 In house method (2425)	x		х
Nitrate/Nitrite Nitrogen	EPA 353.2	Х	Х	х
OCL, Pesticides/PCB	EPA 505	Х		х
Ortho Phosphate	EPA 365.1	X	Х	X
Ortho Phosphorous Oxyhalides Disinfection	SM 4500P E	Х		Х
Byproducts	EPA 317.0	х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	Х		х
Perfluorinated Alkyl Acids	EPA 537	Х		х
Perfluorinated Polutant	In house Method (2434)	Х		х
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	Х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		х
Pseudomonas	IDEXX Pseudalert (2461)	Х		х
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	Х		х
Radon-222	SM 7500RN	Х		х
Residue, Filterable	SM 2540C	Х	Х	х
Residue, Non-filterable	SM 2540D		Х	
Residue, Total Residue, Volatile	SM 2540B EPA 160.4		X X	х
Semi-VOC	EPA 525.2	х	^	х
Silica	SM 4500-Si D	X	Х	
Silica	SM 4500-SiO2 C	х	х	
Sulfide	SM 4500-S ⁻ D		х	
Sulfite	SM 4500-SO ³ B	х	х	х
Surfactants	SM 5540C	х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		х
Total Coliform	SM 9221 A, B, C	x		x
(Enumeration)				
Total Coliform / E. coli	Colisure SM 9223	Х		Х
Total Coliform Total Coliform with Chlorine	SM 9221B SM 9221B		X X	
Present Total Coliform / E.coli (P/A				
and Enumeration)	SM 9223	Х		х
TOC	SM 5310C	Х	Х	х
TOX	SM 5320B		X	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	X	Х
Total Phosphorous Triazine Pesticides &	SM 4500 P E		Х	
Degradates	In House (3617)	х		х
Turbidity	EPA 180.1	х	х	x
Turbidity	SM 2130B	x	x	
Uranium by ICP/MS	EPA 200.8	х		х
UV 254	SM 5910B	x		
VOC	EPA 524.2	х		х
VOC	In House Method (2411)	х		х
Yeast and Mold	SM 9610	х		х
Field Compling	N/A			

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106140204	J-1 Day 7	06/02/2021 1310
	@ICPMS	
202106140205	J-2 Day 7	06/02/2021 1310
	@ICPMS	
202106140206	J-3 Day 7	06/02/2021 1310
	@ICPMS	
202106140207	J-4 Day 7	06/02/2021 1310
	@ICPMS	
202106140208	J-5 Day 7	06/02/2021 1310
	@ICPMS	
202106140209	J-6 Day 7	06/02/2021 1310
	@ICPMS	
202106140210	J-7 Day 7	06/02/2021 1310
	@ICPMS	
202106140211	J-8 Day 7	06/02/2021 1310
	@ICPMS	
202106140212	J-9 Day 7	06/02/2021 1310
	@ICPMS	
202106140213	J-11 Day 7	06/02/2021 1310
	@ICPMS	
202106140214	J-12 Day 7	06/02/2021 1310
	@ICPMS	
202106140215	J-13 Day 7	06/02/2021 1310
	@ICPMS	
202106140216	J0 Day 9	06/04/2021 1055
	Total phosphorus as P Total	phosphorus as PO4- Calc.
	·····	

Reported: 06/30/2021



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

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Project: KALAMAZOO

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Sample #	Sample ID		Sample Date
202106140217	J1 Day 9		06/04/2021 0857
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140218	J2 Day 9		06/04/2021 0901
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140219	J3 Day 9		06/04/2021 0909
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140220	J4 Day 9		06/04/2021 0929
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140221	J5 Day 9		06/04/2021 0931
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140222	J6 Day 9		06/04/2021 0935
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140223	J7 Day 9		06/04/2021 1007
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140224	J8 Day 9		06/04/2021 1010
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140225	J9 Day 9		06/04/2021 1014
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140226	J11 Day 9		06/04/2021 1027
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140227	J12 Day 9		06/04/2021 1130
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140228	J13 Day 9		06/04/2021 1133
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140229	J-0 Day 8		06/01/2021 1349
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
			:

Reported: 06/30/2021

Page 2 of 7



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202106140230	J-1 Day 8		06/01/2021 1349
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140231	J-2 Day 8		06/01/2021 1349
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140232	J-3 Day 8		06/01/2021 1349
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140233	J-4 Day 8		06/01/2021 1433
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140234	J-5 Day 8		06/01/2021 1433
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140235	J-6 Day 8		06/01/2021 1422
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140236	J-7 Day 8		06/01/2021 1505
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140237	J-8 Day 8		06/01/2021 1505
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140238	J-9 Day 8		06/01/2021 1505
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140239	J-11 Day 8		06/01/2021 1512
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140240	J-12 Day 8		06/01/2021 1512
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140241	J-13 Day 8		06/01/2021 1512
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140242	J-0 Day 9		06/08/2021 1310
	@ICPMS		

Reported: 06/30/2021



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Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684

Project: KALAMAZOO Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106140243	J-1 Day 9	06/08/2021 1310
	@ICPMS	
202106140244	J-2 Day 9	06/08/2021 1310
	@ICPMS	
202106140245	J-3 Day 9	06/08/2021 1310
	@ICPMS	
202106140246	J-4 Day 9	06/08/2021 1310
	@ICPMS	
202106140247	J-5 Day 9	06/08/2021 1310
	@ICPMS	
202106140248	J-6 Day 9	06/08/2021 1310
	@ICPMS	
202106140249	J-7 Day 9	06/08/2021 1310
	@ICPMS	
202106140250	J-8 Day 9	06/08/2021 1310
	@ICPMS	
202106140251	J-9 Day 9	06/08/2021 1310
	@ICPMS	
202106140252	J-11 Day 9	06/08/2021 1310
	@ICPMS	
202106140253	J-12 Day 9	06/08/2021 1310
	@ICPMS	
202106140254	J-13 Day 9	06/08/2021 1310
	@ICPMS	
202106140255	J-0 Day 10	06/07/2021 1124
	Total phosphorus as P	Total phosphorus as PO4- Calc.

Reported: 06/30/2021



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201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202106140256	J-1 Day 10		06/07/2021 0946
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140257	J-2 Day 10		06/07/2021 0946
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140258	J-3 Day 10		06/07/2021 0946
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140259	J-4 Day 10		06/07/2021 1004
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140260	J-5 Day 10		06/07/2021 1004
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140261	J-6 Day 10		06/07/2021 1004
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140262	Jar 7 Day 10		06/07/2021 1031
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140263	Jar 8 Day 10		06/07/2021 1031
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140264	Jar 9 Day 10		06/07/2021 1031
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140265	Jar 11 Day 10		06/07/2021 1052
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140266	Jar 12 Day 10		06/07/2021 1052
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140267	J-13 Day 10		06/07/2021 1052
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106140268	Jar 0 Day 8		06/05/2021 1321
	@ICPMS		

Reported: 06/30/2021

Page 5 of 7



Acknowledgement of Samples Received

Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106140269	Jar 1 Day 8	06/05/2021 1323
	@ICPMS	
202106140270	Jar 2 Day 8	06/05/2021 1324
	@ICPMS	
202106140271	Jar 3 Day 8	06/05/2021 1325
	@ICPMS	
202106140272	Jar 4 Day 8	06/05/2021 1326
	@ICPMS	
202106140273	Jar 5 Day 8	06/05/2021 1327
	@ICPMS	
202106140274	Jar 6 Day 8	06/05/2021 1328
	@ICPMS	
202106140275	Jar 7 Day 8	06/05/2021 1331
	@ICPMS	
202106140276	Jar 8 Day 8	06/05/2021 1333
	@ICPMS	
202106140277	Jar 9 Day 8	06/05/2021 1334
	@ICPMS	
202106140278	Jar 11 Day 8	06/05/2021 1336
	@ICPMS	
202106140279	Jar 12 Day 8	06/05/2021 1337
	@ICPMS	
202106140280	Jar 13 Day 8	06/05/2021 1341
	@ICPMS	
202106140281	J-0, Day 7	06/02/2021 1310
	@ICPMS	
	<u> </u>	



Acknowledgement of Samples Received

Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 940684

Project: KALAMAZOO Sample Group: Lead Solubility Testing - Phase 1

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 14, 2021** at **1313**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 06/30/2021

	Analytica
	Eaton
urofins	
0	

EUROFINS EATON ANALYTICAL USE ONLY:

7

750) Roya	750 Royal Oaks Drive, Suite 100	LOGIN COMMENTS:					SAMPLES	SAMPLES CHECKED AGAINST COC BY:	GAINST CO	C BY:	0	
Mo	nrovia								SAMPLES	SAMPLES LOGGED IN BY:	IN BY: (C		
Phc	one: 62 c: 626 ;	Phone: 626 386 1100 Fax: 626 386 1101	SAMPLE TEMP RECEIV (Other)	/ED AT: IR Gun ID =	= 01 0		(Observation=		SAMPLES REC'D DAY OF COLLECTION?	Y OF COLLEC °C) (Final =) SNOIL:	(check for yes)	_
800) 566 L	800 566 LABS (800 566 5227)	Monrovia	IR Gun ID =	= 0	9/0	(Observat	on= 10,1	2005	(Final =	19,90		
We	bsite:	Website: www.EatonAnalytical.com	TYPE OF ICE: Real X Synthetic No Ice CONDIT	Criteria: (Chemis Synthetic	hemistry: letic	4±2°C) (Micr No Ice	crobiology: < 10°C	CONDITION OF ICF: Frozen	Dartially Frozen	200	F Control L	X	
			METHOD OF SHI	PMENT:	Pick-U	p / Walk-I	n / FedEx / I	METHOD OF SHIPMENT: Pick-Up / Walk-In / (FedEx) / UPS / DHL / Area Fast / Top Line / Other:	Top Line / O	ther:		NA	7
TO BE	COMPLI	TO BE COMPLETED BY SAMPLER:						(check for ves)	ves)		(cha	(check for yee)	
COMP	ANYIAC	COMPANY/AGENCY NAME:	PROJECT CODE:			_	COMF	COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES	SAMPLES	(See 10) No.	
1 D	70	Tetra Tech					- Requires stat Type of samples (circle one):	e forms	REGULATION IN	REGULATION INVOLVED:	10000	1	
EEA C	EEA CLIENT CODE:	CODE: COC ID:	SAMPLE GROUP:			SE	E ATTACH	DER FOR	NAI YSES	-	(eg. spwA, NPD	(eg. suvva, NPDES, etc.)	
た元	atec	ferratecn-cv1	lead Solubility	HEST TOMOSO +	ong	_	ist ALL ANA!	List ALL ANALYSES REQUIRED (enter number of hottles sent for each for each	umber of bott] Joseph for o	Coneck for y	es), OA	_
TAT re	queste	TAT requested: rush by adv notice only	STD 1 wk 3 day	2 day	1 day						gacii test ioi	each sample)	-
3J4MA2 3TAQ	3J9MA2 3MIT	SAMPLEID	CLIENT LAB ID	• XIRTAM	ATAO OJE	CPM S	2 44 10				SA	SAMPLER	
20/9	13:16	J-1 day 7		34	d	+				+			7
-	-	2-1		-									_
		7-3											
		3-41		30110									_
		7-5											-
		3-6											_
	_	t-1											-
	-	2-1											_
_		7-7											_
7	>	2-11 /		>		→							
* MA	L XIX	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ed Finisl Water	ned Wa		SEAW = Sea Water WW = Waste Water	er BW = Bottled Water er SW = Storm Water		de	0 = Other - I	0 = Other - Please Identify	-
		SIGNATURE			PRINT NAME	ME		COMPANY/TITLE			DATE	L	
SAMPLED BY	D BY:	Mans	ſ	A	6	Raiabal	100	Tetra tech		11,00	1121	0/:0/	_
KELING	KELINGUISHED BY	thison hound	n Abia	ווא	Hey	rich	T	TEHOTECH		_	1	01:71	
RELINQUISHE	RELINQUISHED BY	Charl Green	Chi	3	Broc	Broom		CCB		119	21	1313	
RECEIVED BY	D BY:									+			
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											TAGE	40	



Eaton Analytical

	EUROFINS EATON ANALYTICAL USE ONLY.	ONLY:		61
750 Royal Oaks Drive, Suite 100	COMMENTS:		SAMPLES CHECKED AGAINST COC BY:	AGAINST COC BY: U
Mornovia, CA 91010-5029 Phone: 626 386 1100	SAMPLE TEMP RECEIVED AT:		SAMPL SAMPLES RECTOR	SAMPLES LOGGED IN BY:
Fax: 626 386 1101	(Other) IR Gun ID =	1.1	0) (0,	°C) (Final = °C)
800 566 LABS (800 566 5227)	Monrovia IR Gun ID =	= 010 (Observ	(Observation= 2011 °C) (Corr.Factor~012	°C) (Final = 19.51 °C)
Website: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No Ice CONDIT	try: 4 ± 2 °C) (Microbiolog	GONDITION OF ICE: Frozen Partially Frozen	Frozen Thawed X N/A
	METHOD OF SHIPMENT: Pick-Up / Walk-In	=	FedEy / UPS / DHL / Area Fast / Top Line / Other:	
TO BE COMPLETED BY SAMPLER:			(check for ves)	(chack for vac)
COMPANY/AGENCY NAME:	PROJECT CODE:	00		NON-COMPLIANCE SAMPLES
Tetra Tech		Type of sample	- Requires state forms REGULATION IN Type of samples (circle one). POLITINE SPECIAL CONFIDENTION	IVOLVED:
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:	SEE ATTAC	DER FOR	NOTATION
Ktrodech-ovi	lead solubility test - onase 1	_	ALYSES REQUIRED (enter number of by	Hos soot for each test for each
TAT requested: rush by adv notice only	STD 1 wk 3 day 2 day	-		orices sent tot each test for each sample)
SAMPLE ID	CLIENT LAB ID	FIELD DATA 1-1046T		SAMPLER COMMENTS
6/02 13:16 J-12 day 7	AB			
0/02 18:10 5-13 day 7	-	-1		
20		-		
(8:57 71				
4:61 22				
9,09 33				
9:29 34				
9:31 55				
4:35 36				
V 0:09 37	7	>		
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	Water SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil 0 = Other - Please Identify SL = Sludge
SIGNATURE	PRIN	PRINT NAME	COMPANY/TITLE	TANT
SAMPLED BY: CLUMC	Ma	Posa bul	Tetra Tech	01/11
RELINDUISHED BY HANGING	Abigail He	1 1	Tetra Tech	11/21
RELINQUISHED BY:	Chur K	100 (2	422	12.41
RECEIVED BY:				
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				Age OF



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(check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify 4:10 (check for yes) COMMENTS 03:23 N/A SAMPLER (check for yes), OR Thawed °C) (Corr.Factor -0.2 °C) (Final = 19.9 °C) NON-COMPLIANCE SAMPLES SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY REGULATION INVOLVED: 12/11/20 1/1/90 °C) (Final = ROUTINE SPECIAL CONFIRMATION SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES C) (Corr.Factor BW = Bottled Water SW = Storm Water COMPANY/TITLE Tetra tech CONDITION OF ICE: Frozen Requires state forms COMPLIANCE SAMPLES Tetra tech Type of samples (circle one): 1.07 (Observation= (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) And Rosha No Ice J0401-P Koigail Herrich Chur Brue br lead solubility to t-prase t ATAO 0J313 EUROFINS EATON ANALYTICAL USE ONLY: CFW = Chlor(am)inated Finished Water PRINT NAME 1 day IR Gun ID = IR Gun ID = Synthetic TAO OJE 2 day SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water - XIRTAM TYPE OF ICE: Real 1 (Other) 3 day LOGIN COMMENTS: SAMPLE GROUP: PROJECT CODE: CLIENT LAB ID 1 wk Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Website: www.EatonAnalytical.com TAT requested: rush by adv notice only SAMPLE ID 5 d 750 Royal Oaks Drive, Suite 100 COC ID: SIGNATURE 800 566 LABS (800 566 5227) Day Monrovia, CA 91016-3629 day TO BE COMPLETED BY SAMPLER COMPANY/AGENCY NAME: Lech Phone: 626 386 1100 Fax: 626 386 1101 tratch-or1 7-3 3-0 2-5 7-6 1-4 713 11:30 512 EEA CLIENT CODE: 11 5 42:01 65:h1 ELINQUISHED BY 10/04 10-10 1.33 (0 of 13:44 RELINQUISHED BY M:01 FAMA TIME SAMPLE RECEIVED BY RECEIVED BY AMPLED BY **BTAG** SAMPLE

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OF

PAGE



(check for yes) A/A Thawed °C) (Corr.Factor -012 °C) (Final = 19.9 SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx// UPS / DHL / Area Fast / Top Line / Other. °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= 20 , 1 (Observation= Compliance Acceptance Criteria: (Chemistry, 4 ± 2 °C) (Microbiology; < 10°C) No Ice 00 EUROFINS EATON ANALYTICAL USE ONLY: IR Gun ID = (Other) IR Gun ID = Synthetic SAMPLE TEMP RECEIVED AT: TYPE OF ICE: Real X LOGIN COMMENTS: Monrovia Eaton Analytical Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

TO BE	COMPL	TO BE COMPLETED BY SAMPLER:			(check for yes)		(check for ves)	(Sev)
COMP	ANYIA	COMPANY/AGENCY NAME:	PROJECT CODE:	COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES	E SAMPLES	lool
10	40	Tetra Fech		- Requires state	forms Special	REGULATION INVOLVED:	OLVED:	
FFA	FEA CLIENT CODE.	CODE: COCID:	SAMPLE COOLID.	Donald Coldinate of Coldinate o		CONFIRMATION	(eg. SDWA, NPDES, etc.)	PDES, etc.)
			SAMPLE GROOF.	SEE ALLACHED KI	SEE ALLACHED KIL ORDER FOR ANALYSES	YSES	(check for yes), OR	R
を	att	terratech-or I tead sate	lead solubility test phase 1		List ALL ANALYSES REQUIRED (enter number of bottles sent for each fest for each sample)	r of bottles sent fo	r each test for each	- cample)
TAT re	queste	TAT requested: rush by adv notice only	STD 1 wk 3 day 2 day 1 day	d				callibra)
SAMPLE STAG	SAMPLE	SAMPLEID	CLIENT LAB ID MATRIX	-12 1 인			SAMPLER	ER
10/9	01 14:33	3 map / S-I		71				
_	21:4]	3-6	_					
	90:51	15:05						
	_	3-8						
	7	1-9						
	15:12	15:12 7 - 11						
	=	3-12						
7	7	J-13 4	>	->				
* MA	TRIX	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	0 = Other - Please Identify	e Identify
		SIGNATURE	PRINT NAME		COMPANY/TITLE		DATE	TIME
SAMPLED BY	DBY	will	Ana Ros	Rosabal Te	Tetra Tech	2	01:41 1211 00	01:
KELING	KELINGUISHED BY	well fresh	My Abigail	Henrich Tren	TEHRA TECH	n Jos	121	0
RECEIVED BY	ED BY:	- · · · · · · · · · · · · · · · · · · ·	() () ()		-			

ELINQUISHED BY:

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Eaton Analytical EUROFIN

(check for yes) N/A Thawed °C) (Corr.Factor °C) (Final = $\frac{\circ}{14.4}$ °C) (Corr.Factor °C) °C) (Final = $\frac{\circ}{14.4}$ °C) SAMPLES CHECKED AGAINST COC BY: () SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY: Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In //FedEx / UPS / DHL / Area Fast / Top Line / Other. CONDITION OF ICE: Frozen (Observation= 20.1 (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) No Ice EUROFINS EATON ANALYTICAL USE ONLY: IR Gun ID = (Other) IR Gun ID = TYPE OF ICE: Real X Synthetic SAMPLE TEMP RECEIVED AT: LOGIN COMMENTS: Monrovia Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

TO BE COMPLETED BY SAMPLER:			(check for yes)	(check for yes)
COMPANY/AGENCY NAME:	PROJECT CODE:	COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES
Tetra Trch		- Requires state Type of samples (circle one):	e forms SPECIAL	REGULATION INVOLVED: CONFIRMATION (eg. SDWA, NPDES, etc.)
EEA CLIENT CODE: , COC ID:	SAMPLE GROUP:	SEE ATTACHED KIT	SEE ATTACHED KIT ORDER FOR ANALYSES	(check for yes), OR
tetra tech-or!	Read solubility test - phase List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	LIST ALL ANALYSES F	REQUIRED (enter number of bott	es sent for each test for each sample)
TAT requested: rush by adv notice only	STD 1 wk 3 day 2 day 1 day	5		
SAMPLE ID	CLIENT LAB ID MATRIX *	FIELD DATA		SAMPLER
Dolog 12:10 1-0, Day 9	¥	1		
1 1-1 1-1	_			
7-2'				
7-3,				
3-4,				
1-2'				
J- L.				
'E-[
7-8				
7 2-9 4	→	Ŷ		
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sluc	SO = Soil O = Other - Please Identify SL = Sludge
SIGNATURE	PRINT NAME		COMPANY/TITLE	DATE TIME
SAMPLED BY: *	C Ana Ra	Rasaba/	Tetra Tech	J1: 21 12/11/00
RELINQUISHED BY: + ARMY CHE	1 Abigail Ho	Herrich	Tetra Fech	01:41 12/11/20
RECEIVED BY: (AAA) SOCULA RELINQUISHED BY:	9	راب راب	ctp	6-14-21 1313
RECEIVED BY:				
ALEGEORIAL C.				1000

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O = Other - Please Identify (check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc.) SAMPLER (check for yes) 2171 Ν (check for yes), OR NON-COMPLIANCE SAMPLES Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? REGULATION INVOLVED: SAMPLES LOGGED IN BY °C) (Final = °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In //FedEx/ / UPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr.Factor -012 757 BW = Bottled Water SW = Storm Water C) (Corr.Factor COMPANY/TITLE CONDITION OF ICE: Frozen COMPLIANCE SAMPLES Requires state forms 10/20 20.1 (Observation= (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) 0-144 No Ice Rosa Dal 160d Sawility rest-prose 1 ATAG GJEIF CFW = Chlor(am)inated Finished Water PRINT NAME 1 day IR Gun ID = IR Gun ID = Synthetic ATAG GJEIF Mna 2 day SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water · XIRTAM STD 1 wk 3 day TYPE OF ICE: Real / (Other) LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water 5 9 Website: www.EatonAnalytical.com COC ID: SAMPLE ID TAT requested: rush by adv notice only 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 SIGNATURE 800 566 LABS (800 566 5227) 7-C. doy TO BE COMPLETED BY SAMPLER 1-1 -717 3-5, COMPANY/AGENCY NAME: リトーり 1-10. 5-3 ノート 7-5 Phone: 626 386 1100 tetrateon-ov Tetra Tech Fax: 626 386 1101 EEA CLIENT CODE: 10 OF 11:24 97:46 16:04 13.75 TIME SAMPLE 8

SAMPLE

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			EUROFINS EATON ANALYTICAL USE ONLY:	ALYTICAL	USE ONLY.						7
750 RG	750 Royal Oaks Drive, Suite 100	Suite 100	LOGIN COMMENTS:					SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY:	ECKED AGAINST COC BY SAMPLES LOGGED IN BY	UST COC BY:	20
Phone	626 386 1100		SAMPLE TEMP RECEIVED AT:	EIVED AT:				SAMPLES RE	C'D DAY OF	پار	(check for yes)
Fax: 6	Fax: 626 386 1101		(Other)			11	(Observation=	1	1	1.7	(၁့
800 56	800 566 LABS (800 566 5227)	6 5227)	Monrovia IR Gun ID = (6) (9 (Observation Chamistry 4+2*C (Miscobiology 4 10*C)	IR Gu	IR Gun ID = 6	(O) (Microbiology	= L	20 1 °C) (Corr.Factor -016	. 1	°C) (Final = 17:7 °C)	(C)
Websi	Website: www.EatonAnalytical.com	nalytical.com	TYPE OF ICE: Real_ METHOD OF SH	Synthetic	hetic Pick-Up	No Ice	CONDITION OF ICE:	FrozenArea Fast / To	Partially Frozen	Thawed	NIA
TO BE COA	TO BE COMPLETED BY SAMPLER:	ER:						(check for ves)			(check for ves)
COMPAN	COMPANY/AGENCY NAME:		PROJECT CODE:			Type of s	COMPLIANCE SAMPLES - Requires state forms Type of samples (circle one): ROUTH	MPLES E forms SPECIAL	NON-COMPLIAN REGULATION IN	ICE SAMPI	LES DAMA NDDES atc.)
EEA CLIENT CODE:	NT CODE:	COC ID:	SAMPLE GROUP:			SEE AT	TACHED KI	DER FOR	YSES	(check for	(check for yes), OR
TAT reque	I TAT requested: rush by adv notice only	notice only	STD 1 wk 3 day.	ay 2 day	y 1 day	1	L ANALI SES			ם פכון ופאר	ממכון אמווויים)
SAMPLE STAG SAMPLE	эміт	SAMPLEID	CLIENT LAB ID	* XIRTAM	ATAO OJEIS	totor-I				w 8	SAMPLER
01 20/9	10:31 Jay 7	day 10		W +		~					
	Jav 8	-				_					
_	Jac 9										
5	10:51 Jar 11		2								
-	Jar 12	7									
4.	1	7				>			-		
1 500		g good,	XII			-					
-	1:24 705 7										
7	1:15 Jar 3	7		>		7					
* MATR	X TYPES: RSW RGW	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	r CFW = Chlor(am)inated Finished Water FW = Other Finished Water	nated Fini ed Water	shed Wate		SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	350	O = Other - Please Identify
		BIONATURE			PRINT NAME	Е		COMPANY/TITLE		DATE	TIME
SAMPLED BY:)	MA		Ara	21	o aba!		Breta Telu		00/11/21	01:41
RELINQUISHED BY		magazaro	the Men	bigan		errice	Tetra	Tech		06/11/21	01:10
RECEIVED BY		MAN SACO	4	5	X X	Browle		tra		14	1313
RELINQUISHED BY	IED BY:) H. H. H. H.			S						
RECEIVED BY:	lY:						-				
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Thawed (၃ °C) (Corr.Factor-012 °C) (Final = 19.9 °C) SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY: °C) (Final = Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx) / UPS / DHL / Area Fast / Top Line / Other. °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= 20. ((Observation= Compliance Acceptance Criteria: (Chemistry: $4\pm2\,^{\circ}\text{C}$) (Microbiology: < 10°C) No Ice 000 EUROFINS EATON ANALYTICAL USE ONLY: IR Gun ID = IR Gun ID = TYPE OF ICE: Real X Synthetic_ SAMPLE TEMP RECEIVED AT: (Other) LOGIN COMMENTS: Monrovia Eaton Analytical Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

(check for yes)

N/A

TO BE COMPLETED BY SAMPLER:						(check for ves)	(See		(chack for year)
COMPANY/AGENCY NAME:	PRC	PROJECT CODE:		F	COMPLIAN	COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES	S S
Tetra Tech				TVD	- Requires stat Type of samples (circle one):	D	forms REGULATION INVOLVED:	WOLVED:	
EEA CLIENT CODE: CC	COC ID: SAN	SAMPLE GROUP:		SE	E ATTACHED K	15	IAI YSES	Cohoo	(eg. sowa, NPDES, etc.)
tetratech-orl	150	lead solubility+	test-phasel		st ALL ANALYSES	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test f	mber of bottles se	ent for each test f	or each sample)
TAT requested: rush by adv notice only	e only STD	1 wk 3 day	2 day 1 c	1 day					Cardinas in an in
SAMPLE ID		CLIENT LAB ID	• XIRTAM ATAQ QJBIR	FIELD DATA				w 0	SAMPLER
16/05 1:26 Jax 4, 0	day 8	4	my	7					
1:27 Jar S,	0_			_					
1:28 Jach									
1:31 Jay 7									
1:33 Jar 8									
1:34 Jar 9									
1:36 JOV 11									
1:37 Jay 12									
4 1:41 Sov 13	>								
1962 13:10 J-C, day 7	7		7	7					
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water		CFW = Chlor(am)inated Finished Water FW = Other Finished Water	l Finished Wa ater		SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	er SO = Soil r SL = Sludae		0 = Other - Please Identify
SIGNATURE	TURE		PRINT NAME	AME		COMPANY/TITLE		DATE	TIME
SAMPLED BY:	76,7	Ana	tha 1201abal	2al	184	Tetra Tech		12/11/90	01:41
RELINGUISHED BY:	Com to	Apion	gail Herrick	LIVICK		Tetra Tech	0	111	01.10
RELINQUISHED BY:	Datour	3	I Y	3700 /		とこみ		6.14.21	1313
RECEIVED BY:									

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EEA Folder Number:

INTERNAL CHAIN OF CUSTODY RECORD

| Eaton Analytical

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not, SAMPLE TEMP RECEIVED:

SAMPLES REC'D DAY OF COLLECTION? Yes / No

(C).
19.9
(Final =
(၁
(Corr.Factor -0.2
(C)
(Observation= 20 , 1
919
IR Gun ID = _

Partially Frozen CONDITION OF ICE: Frozen_ No Ice TYPE OF ICE: Real X Synthetic_

Thawed

METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx / UPS / DHL / Area Fast / Top Line / Other.

506209033235 Chemistry: >0, ≤ 6°C, not frozen (NELAP) (if received after 24 hrs of sample collection) Compilance Acceptance Criteria: 506209033246

- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

and temperature does not confirm, then measure the temperature of each If out of temperature range for both Chemistry and Microbiology samples quadrant and record each temperature of the quadrants

bservation C) (Corr.Factor C) (Final C)	Z = (Observation= C) (Corr.Factor C) (Final = C)
20.1	1,01

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

Expiration Date Results ō pH strip type: 0 - 14 Lot Number: 5) pH Check. Manufacturer:

Results:

- Expiration Date: 6) Chlorine check. Manufacturer: Sansafe. Lot No.:
- Samples with Headspace (see below): No Samples with Headspace: VOA and Radon 7) Headspace:

Exempt from headspace concerns: Methods 515.4, HAA(6251, 565, 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients: Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

None/<6 >6mm

Samp ID Bottle #

>6mm

Samp ID Bottle # None/<6 >6mm Samp ID Bottle # None/<6 Samp ID Bottle # None/<6

errors):
sampling
potential
a;
headspace (
dissimilar
have
which
IDs
Sample
Note

TIME	1313
DATE	12.41.9
COMPANYTITLE	Eurofins Eaton Analylical
PRINT NAME	Chan Brook
SIGNATURE	RECEIVED MILLY STOOK



1 800 566 LABS (1 800 566 5227)

Laboratory Comments

Group: Lead Solubility Testing - Phase 1

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

B4 - Target analyte detected in blank at or above method acceptance criteria.

M1 - Matrix spike recovery was high; the associated blank spike recovery was acceptable.





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/16/2021 00:14	202106140204 Lead Total ICAP/MS	<u>J-1 Day 7</u>	300	15	ug/L	0.50
06/16/2021 00:17	202106140205 Lead Total ICAP/MS	<u>J-2 Day 7</u>	260	15	ug/L	0.50
06/16/2021 00:20	202106140206 Lead Total ICAP/MS	<u>J-3 Day 7</u>	200	15	ug/L	0.50
06/16/2021 00:23	202106140207 Lead Total ICAP/MS	<u>J-4 Day 7</u>	220	15	ug/L	0.50
06/16/2021 00:26	202106140208 Lead Total ICAP/MS	<u>J-5 Day 7</u>	180	15	ug/L	0.50
06/16/2021 00:34	202106140209 Lead Total ICAP/MS	<u>J-6 Day 7</u>	220	15	ug/L	0.50
06/16/2021 00:37	202106140210 Lead Total ICAP/MS	<u>J-7 Day 7</u>	360	15	ug/L	0.50
06/16/2021 00:40	202106140211 Lead Total ICAP/MS	<u>J-8 Day 7</u>	280	15	ug/L	0.50
06/16/2021 00:43	202106140212 Lead Total ICAP/MS	<u>J-9 Day 7</u>	230	15	ug/L	0.50
06/16/2021 00:52	202106140213 Lead Total ICAP/MS	<u>J-11 Day 7</u>	240	15	ug/L	0.50
06/16/2021 00:55	202106140214 Lead Total ICAP/MS	<u>J-12 Day 7</u>	230	15	ug/L	0.50
06/16/2021 00:58	202106140215 Lead Total ICAP/MS	<u>J-13 Day 7</u>	320	15	ug/L	0.50
06/22/2021 15:40	202106140217 Total phosphorus as P	<u>J1 Day 9</u>	1.5		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	4.6		mg/L	0.030
06/22/2021 15:44	202106140218 Total phosphorus as P	<u>J2 Day 9</u>	2.0		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO		6.1		mg/L	0.030
	202106140219	<u>J3 Day 9</u>				





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra TechJames Christopher
201 East Pine Street
Suite 1000

Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/22/2021 15:47	Total phosphorus as P		2.8		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	8.6		mg/L	0.030
	202106140220	J4 Day 9				
06/22/2021 15:47	Total phosphorus as P		1.2		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030
	202106140221	J5 Day 9				
06/22/2021 15:48	Total phosphorus as P		1.7		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	5.2		mg/L	0.030
	202106140222	J6 Day 9				
06/22/2021 15:49	Total phosphorus as P		2.3		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	7.1		mg/L	0.030
	202106140223	J7 Day 9				
06/22/2021 15:50	Total phosphorus as P		1.6		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	4.9		mg/L	0.030
	202106140224	J8 Day 9				
06/22/2021 15:51	Total phosphorus as P		2.2		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	6.8		mg/L	0.030
	202106140225	J9 Day 9				
06/22/2021 15:52	Total phosphorus as P		2.9		mg/L	0.10
06/23/2021 12:06	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202106140226	J11 Day 9				
06/22/2021 15:53	Total phosphorus as P		0.91		mg/L	0.10
06/23/2021 12:06	Total phosphorus as PC	04- Calc.	2.8		mg/L	0.030
	202106140227	J12 Day 9				
06/22/2021 17:04	Total phosphorus as P		1.2		mg/L	0.10
06/23/2021 12:11	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030
	202106140228	J13 Day 9				
06/22/2021 17:05	Total phosphorus as P		1.7		mg/L	0.10
06/23/2021 12:11	Total phosphorus as PC	04- Calc.	5.2		mg/L	0.030
	202106140229	<u>J-0 Day 8</u>				
06/16/2021 18:25	Total phosphorus as P	-	1.2		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030
	202106140230	<u>J-1 Day 8</u>				





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra TechJames Christopher
201 East Pine Street

Suite 1000 Orlando, FL 32801

Samples	Received on:
06/14/20	21 1313

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/16/2021 18:26	Total phosphorus as P		1.2		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PO	94- Calc.	3.7		mg/L	0.030
	202106140231	J-2 Day 8				
06/16/2021 18:27	Total phosphorus as P		1.8		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PO	94- Calc.	5.5		mg/L	0.030
	202106140232	J-3 Day 8				
06/16/2021 18:28	Total phosphorus as P		3.0		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PO	94- Calc.	9.2		mg/L	0.030
	202106140233	J-4 Day 8				
06/16/2021 18:28	Total phosphorus as P		1.3		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PO	94- Calc.	4.0		mg/L	0.030
	202106140234	J-5 Day 8				
06/16/2021 18:29	Total phosphorus as P		1.7		mg/L	0.10
06/17/2021 11:53	Total phosphorus as PO	04- Calc.	5.2		mg/L	0.030
	202106140235	J-6 Day 8				
06/22/2021 15:30	Total phosphorus as P		2.5		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	7.7		mg/L	0.030
	202106140236	<u>J-7 Day 8</u>				
06/22/2021 15:31	Total phosphorus as P		1.4		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	4.3		mg/L	0.030
	202106140237	<u>J-8 Day 8</u>				
06/22/2021 15:32	Total phosphorus as P		2.2		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	6.8		mg/L	0.030
	202106140238	J-9 Day 8				
06/22/2021 15:35	Total phosphorus as P		2.9		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	8.9		mg/L	0.030
	202106140239	<u>J-11 Day 8</u>				
06/22/2021 15:36	Total phosphorus as P		0.98		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	3.0		mg/L	0.030
	202106140240	<u>J-12 Day 8</u>				
06/22/2021 15:37	Total phosphorus as P		1.3		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PO	94- Calc.	4.0		mg/L	0.030





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Samples Received on: 06/14/2021 1313

Tetra TechJames Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/22/2021 15:38	202106140241 Total phosphorus as P	<u>J-13 Day 8</u>	1.8		mg/L	0.10
06/23/2021 12:05	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030
06/16/2021 01:01	202106140242 Lead Total ICAP/MS	J-0 Day 9	250	15	ug/L	0.50
06/16/2021 01:10	202106140243 Lead Total ICAP/MS	<u>J-1 Day 9</u>	140	15	ug/L	0.50
06/16/2021 01:13	202106140244 Lead Total ICAP/MS	<u>J-2 Day 9</u>	170	15	ug/L	0.50
06/16/2021 01:16	202106140245 Lead Total ICAP/MS	<u>J-3 Day 9</u>	120	15	ug/L	0.50
06/16/2021 01:19	202106140246 Lead Total ICAP/MS	<u>J-4 Day 9</u>	100	15	ug/L	0.50
06/16/2021 01:22	202106140247 Lead Total ICAP/MS	<u>J-5 Day 9</u>	86	15	ug/L	0.50
06/16/2021 01:40	202106140248 Lead Total ICAP/MS	<u>J-6 Day 9</u>	130	15	ug/L	0.50
06/16/2021 01:54	202106140249 Lead Total ICAP/MS	<u>J-7 Day 9</u>	330	15	ug/L	0.50
06/16/2021 01:57	202106140250 Lead Total ICAP/MS	<u>J-8 Day 9</u>	150	15	ug/L	0.50
06/16/2021 02:00	202106140251 Lead Total ICAP/MS	<u>J-9 Day 9</u>	230	15	ug/L	0.50
06/16/2021 02:03	202106140252 Lead Total ICAP/MS	<u>J-11 Day 9</u>	240	15	ug/L	0.50
06/16/2021 02:06	202106140253 Lead Total ICAP/MS	<u>J-12 Day 9</u>	410	15	ug/L	0.50
06/16/2021 02:09	202106140254 Lead Total ICAP/MS	<u>J-13 Day 9</u>	240	15	ug/L	0.50
06/22/2021 17:25	202106140256 Total phosphorus as P	<u>J-1 Day 10</u>	1.4		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	4.3		mg/L	0.030	
	202106140257	J-2 Day 10					
06/22/2021 17:25	Total phosphorus as P		1.9		mg/L	0.10	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	5.8		mg/L	0.030	
	202106140258	<u>J-3 Day 10</u>					
06/22/2021 17:26	Total phosphorus as P		2.6		mg/L	0.10	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	8.0		mg/L	0.030	
	202106140259	<u>J-4 Day 10</u>					
06/22/2021 17:27	Total phosphorus as P		1.2		mg/L	0.10	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030	
	202106140260	J-5 Day 10					
06/22/2021 17:28	Total phosphorus as P		1.8		mg/L	0.10	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030	
	202106140261	J-6 Day 10					
06/22/2021 17:29	Total phosphorus as P		2.5		mg/L	0.10	
06/23/2021 12:12	Total phosphorus as PC	04- Calc.	7.7		mg/L	0.030	
	202106140262	Jar 7 Day 10					
06/25/2021 16:28	Total phosphorus as P		1.6		mg/L	0.10	
06/28/2021 10:44	Total phosphorus as PC	04- Calc.	4.9		mg/L	0.030	
	202106140263	<u>Jar 8 Day 10</u>					
06/25/2021 16:29	Total phosphorus as P		2.3		mg/L	0.10	
06/28/2021 10:44	Total phosphorus as PC	04- Calc.	7.1		mg/L	0.030	
	202106140264	Jar 9 Day 10					
06/25/2021 16:30	Total phosphorus as P		2.9		mg/L	0.10	
06/28/2021 10:44	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030	
	202106140265	Jar 11 Day 10					
06/25/2021 16:33	Total phosphorus as P		1.1		mg/L	0.10	
06/28/2021 10:44	Total phosphorus as PC	04- Calc.	3.4		mg/L	0.030	
	202106140266	Jar 12 Day 10					
06/25/2021 16:34	Total phosphorus as P		1.6		mg/L	0.10	
06/28/2021 10:44	Total phosphorus as PC	04- Calc.	4.9		mg/L	0.030	
	202106140267	<u>J-13 Day 10</u>					
06/25/2021 16:35	Total phosphorus as P		2.0		mg/L	0.10	





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra TechJames Christopher
201 East Pine Street
Suite 1000

Orlando, FL 32801

Samples Received on: 06/14/2021 1313	

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
06/28/2021 10:44	Total phosphorus as Po	D4- Calc.	6.1		mg/L	0.030
06/16/2021 02:12	202106140268 Lead Total ICAP/MS	<u>Jar 0 Day 8</u>	660	15	ug/L	0.50
06/16/2021 02:15	202106140269 Lead Total ICAP/MS	<u>Jar 1 Day 8</u>	210	15	ug/L	0.50
06/16/2021 02:18	202106140270 Lead Total ICAP/MS	Jar 2 Day 8	140	15	ug/L	0.50
06/16/2021 02:30	202106140271 Lead Total ICAP/MS	Jar 3 Day 8	120	15	ug/L	0.50
06/16/2021 02:39	202106140272 Lead Total ICAP/MS	Jar 4 Day 8	120	15	ug/L	0.50
06/16/2021 02:42	202106140273 Lead Total ICAP/MS	<u>Jar 5 Day 8</u>	98	15	ug/L	0.50
06/16/2021 02:45	202106140274 Lead Total ICAP/MS	Jar 6 Day 8	300	15	ug/L	0.50
06/18/2021 19:10	202106140275 Lead Total ICAP/MS	Jar 7 Day 8	1900	15	ug/L	5.0
06/16/2021 02:51	202106140276 Lead Total ICAP/MS	Jar 8 Day 8	280	15	ug/L	0.50
06/18/2021 19:13	202106140277 Lead Total ICAP/MS	Jar 9 Day 8	3000	15	ug/L	5.0
06/16/2021 02:57	202106140278 Lead Total ICAP/MS	<u>Jar 11 Day 8</u>	800	15	ug/L	0.50
06/16/2021 03:08	202106140279 Lead Total ICAP/MS	<u>Jar 12 Day 8</u>	200	15	ug/L	0.50
06/16/2021 03:11	202106140280 Lead Total ICAP/MS	<u>Jar 13 Day 8</u>	410	15	ug/L	0.50
06/18/2021 19:16	202106140281 Lead Total ICAP/MS	<u>J-0, Day 7</u>	350	15	ug/L	0.50





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/14/2021 1313

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-1 Day 7	7 (202106140	<u>)204)</u>				Samı	oled on 06/02	2/2021 131	0
	06/16/21 00:14 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	300 Տ amլ	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:17 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	260 Sam į	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:20 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	200 Sam j	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:23 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	220 Sam j	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:26 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	180 Տат լ	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:34 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	220 Sam į	ug/L oled on 06/02	0.50 2 /2021 131	1 0
	06/16/21 00:37 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	360 Sam į	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:40 7 (20210614 0	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	280 Sam į	ug/L oled on 06/02	0.50 2/ 2021 131	1 0
	06/16/21 00:43 7 (2021061 4	1334804	- ICPMS Metals 1335072	(EPA 200.8)	Lead Total ICAP/MS	230 (M1) Sam į	ug/L oled on 06/02	0.50 2/ 2021 131	1 0

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/14/2021 1313

Prepped Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/15/21 06/16/21 00:5	2 1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	0.50	1
J-12 Day 7 (202106	<u>140214)</u>				Sam	pled on 06/02	/2021 131	0
20/45/04 20/40/04 20 5		- ICPMS Metal	_	I I I I I I I I I I I I I I I I I I I	000		0.50	
06/15/21 06/16/21 00:5		1335072	(EPA 200.8)	Lead Total ICAP/MS	230	ug/L	0.50	1
J-13 Day 7 (202106	<u>140215)</u>				Sam	pled on 06/02	/2021 131	U
00/45/04 00/40/04 00 5		- ICPMS Metal		Local Total IOAD/MO	000		0.50	4
06/15/21 06/16/21 00:5		1335072	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	0.50	1
J0 Day 9 (20210614	<u> 10216)</u>				Sam	pled on 06/04	/2021 105	5
		E/EPA 365.1 - 1		ıs as PO4- Calc.				
06/23/21 12:0	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
06/22/21 15:3	9	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.10	5
J1 Day 9 (20210614	<u> 10217)</u>				Sam	pled on 06/04	/2021 085	7
	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
06/23/21 12:0	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
			Total phosphoru	• •				
06/22/21 15:4	0	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
J2 Day 9 (20210614	<u> 10218)</u>				Sam	pled on 06/04	/2021 090	1
	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
06/23/21 12:0	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
06/22/21 15:4	4	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
J3 Day 9 (20210614	<u> 10219)</u>				Sam	pled on 06/04	/2021 090	9
	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
06/23/21 12:0	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.6 (c)	mg/L	0.030	1
	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
06/22/21 15:4	7	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.8	mg/L	0.10	5
J4 Day 9 (20210614	0220)		,		Sam	pled on 06/04	/2021 092	9

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Samples Received on: 06/14/2021 1313

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:0	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:47	7	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
J5 Day	9 (20210614	<u>0221)</u>				Sam	pled on 06/04	/2021 093	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:48	3	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
J6 Day	9 (20210614	0222)				Sam	pled on 06/04	/2021 093	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:0				Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:49	9	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
J7 Day	9 (20210614	0223)				Sam	pled on 06/04	/2021 100	7
		SM4500-PE	E/EPA 365.1 - '	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05				Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:50)	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
J8 Day	9 (20210614	0224)				Sam	pled on 06/04	/2021 101	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05				Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:51	1	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J9 Day	9 (20210614	0225)				Sam	pled on 06/04	/2021 101	4

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

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SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. SM4500-PE/EPA 365.1 -	Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
March Mar	(06/23/21 12:06			,	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
Sampled on 06/04/2021 1027 Sampled on 06/04/2021 1130 Sampled on 06/			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
SM4500-PE/FPA 365.1 - Total phosphorus as PO4- Calc. 2.8 (e) mg/L 0.030 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 1 366.1) 366.1) 1 366.1) 36	(06/22/21 15:52		1336671	`	Total phosphorus as P	2.9	mg/L	0.10	5
SM4500-PE/PA 365.1 - Total phosphorus as PO4- Calc. 2.8 (c) mg/L 0.030 1 385.1 385.1	J11 Day	9 (20210614	<u>10226)</u>				Sam	pled on 06/04	/2021 102	7
SM4500-PE/PA 365.1 - Total phosphorus as PO4- Calc. 2.8 (c) mg/L 0.030 1 385.1 385.1			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
1336671 (SM4500-PE/EPA 365.1 - Total phosphorus as P O4- Calc. SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 385.1) 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 38650-PE/EPA 365.1 - Total phosphorus as PO4- Calc.	(06/23/21 12:06			(SM4500-PE/EPA		2.8 (c)	mg/L	0.030	1
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Caic. SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Caic. 3.7 (c) mg/L 0.030 1 and 1			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Total phosphorus as PO4- Calc. (3.7 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Sampled on 06/04/2021 1133	(06/22/21 15:53		1336671	•	Total phosphorus as P	0.91	mg/L	0.10	5
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1	J12 Day	9 (20210614	<u>10227)</u>				Sam	pled on 06/04	/2021 1130)
SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 1.2 mg/L 0.10 5 365.1			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
138672 1	(06/23/21 12:11			(SM4500-PE/EPA		3.7 (c)	mg/L	0.030	1
13 Day 9 (202106140228) Sampled on 06/04/2021 1133 Sampled on 06/04/2021 1134 Sampled on 06/04/2021 Samp			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Total phosphorus as PO4- Calc. (SM4500-PE/EPA 365.1) Total phosphorus as PO4- Calc. S.2 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P)	(06/22/21 17:04		1336672		Total phosphorus as P	1.2	mg/L	0.10	5
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 5.2 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 06/22/21 17:05 1336672 (SM4500-PE/EPA 365.1) Total phosphorus as P (T-P) 1.7 mg/L 0.10 5 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. Sampled on 06/01/2021 1349 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) Total phosphorus as P (T-P) 1.2 mg/L 0.10 5 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) T	J13 Day	9 (20210614	<u>10228)</u>				Sam	pled on 06/04	/2021 113	3
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 5.2 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 06/22/21 17:05 1336672 (SM4500-PE/EPA 365.1) Total phosphorus as P (T-P) 1.7 mg/L 0.10 5 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. Sampled on 06/01/2021 1349 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) Total phosphorus as P (T-P) 1.2 mg/L 0.10 5 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) T			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
1.7 mg/L 0.10 5 5 5 5 5 5 5 5 5	(06/23/21 12:11			(Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.10 5 365.1) Sampled on 06/01/2021 1349 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1) 365.1) Sampled on 06/01/2021 1349 Sampled on 06/01/2021 Sampled on			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/17/21 11:53	(06/22/21 17:05		1336672	•	Total phosphorus as P	1.7	mg/L	0.10	5
06/17/21 11:53	J-0 Day 8	8 (20210614	<u>0229)</u>				Sam	pled on 06/01	/2021 1349	•
365.1) SM4500-PE/EPA 365.1 - Total phosphorus as P (T-P) 06/16/21 18:25			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
06/16/21 18:25 1335493 (SM4500-PE/EPA Total phosphorus as P 1.2 mg/L 0.10 5 365.1) SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/17/21 11:53 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1)	(06/17/21 11:53			(SM4500-PE/EPA		3.7 (c)	mg/L	0.030	1
365.1) Sampled on 06/01/2021 1349 SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/17/21 11:53 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1)			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as P (T-P)				
SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc. 06/17/21 11:53 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1)	(06/16/21 18:25		1335493	•	Total phosphorus as P	1.2	mg/L	0.10	5
06/17/21 11:53 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1)	J-1 Day 8	8 (20210614	0230)				Sam	pled on 06/01	/2021 1349	•
06/17/21 11:53 (SM4500-PE/EPA Total phosphorus as PO4- Calc. 3.7 (c) mg/L 0.030 1 365.1)			SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	s as PO4- Calc.				
,	(06/17/21 11:53			(SM4500-PE/EPA		3.7 (c)	mg/L	0.030	1
			SM4500-PE	E/EPA 365.1 - 1	,	s as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/16/21 18:26		1335493	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
<u>J-2 Day</u>	8 (202106140	<u>)231)</u>		•		Sam	pled on 06/01	/2021 134	9
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/17/21 11:53				Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	06/16/21 18:27		1335493	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
J-3 Day	8 (202106140	<u>)232)</u>				Sam	pled on 06/01	/2021 134	9
		SM4500-PI	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/17/21 11:53			(SM4500-PE/EPA 365.1)		9.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/16/21 18:28		1335493	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.0	mg/L	0.10	5
J-4 Day	<u>8 (202106140</u>	<u>)233)</u>				Sam	pled on 06/01	/2021 143	3
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/17/21 11:53			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/16/21 18:28		1335493	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
J-5 Day	<u>8 (202106140</u>	<u>)234)</u>				Sam	pled on 06/01	/2021 143	3
		SM4500-PI	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	06/17/21 11:53			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	. ,				
	06/16/21 18:29		1335493	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
J-6 Day	<u>8 (202106140</u>	<u>)235)</u>				Sam	pled on 06/01	/2021 142	2
		SM4500-PI	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	us as P (T-P)				
	06/22/21 15:30		1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
<u>J-7 Day</u>	8 (202106140	<u>)236)</u>		,		Sam	pled on 06/01	/2021 150	5





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Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

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Samples Received on: 06/14/2021 1313

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:31	I	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
J-8 Day	8 (20210614	<u> 10237)</u>				Sam	pled on 06/01	/2021 150	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05	5		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:32	2	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-9 Day	8 (20210614	<u>40238)</u>				Sam	pled on 06/01	/2021 150	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05				Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:35	5	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>J-11 Da</u>	y 8 (202106 ²	140239)				Sam	pled on 06/01	/2021 151:	2
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05				Total phosphorus as PO4- Calc.	3.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:36	3	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.98	mg/L	0.10	5
<u>J-12 Da</u>	y 8 (202106 ²	<u>140240)</u>				Sam	pled on 06/01	/2021 151	2
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:05				Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 15:37	7	1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
<u>J-13 Da</u>	y 8 (202106 ²	<u>140241)</u>				Sam	pled on 06/01	/2021 151:	2

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

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James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/14/2021 1313

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/23/21 12:05			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as P (T-P)				
	06/22/21 15:38		1336671	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
J-0 Day	9 (20210614	<u>0242)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	6					
06/15/21	06/16/21 01:01	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	250	ug/L	0.50	1
J-1 Day	9 (20210614	<u>0243)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	5					
	06/16/21 01:10	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	140	ug/L	0.50	1
J-2 Day	9 (20210614	<u>0244)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	5					
06/15/21	06/16/21 01:13	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
J-3 Day	9 (20210614	<u>0245)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	S					
06/15/21	06/16/21 01:16	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	120	ug/L	0.50	1
J-4 Day	9 (20210614	<u>0246)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	5					
06/15/21	06/16/21 01:19	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	100	ug/L	0.50	1
J-5 Day	9 (20210614	<u>0247)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	5					
06/15/21	06/16/21 01:22	1334804	1335072	(EPA 200.8)	Lead Total ICAP/MS	86	ug/L	0.50	1
J-6 Day	9 (20210614	<u>0248)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metals	5					
06/15/21	06/16/21 01:40	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	130	ug/L	0.50	1
J-7 Day	9 (20210614	<u>0249)</u>				Sam	pled on 06/08	/2021 131	0
			- ICPMS Metals						
	06/16/21 01:54	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	330	ug/L	0.50	1
J-8 Day	9 (20210614	<u>0250)</u>				Sam	pled on 06/08	/2021 131	0

EPA 200.8 - ICPMS Metals





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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/15/21	06/16/21 01:57	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	150	ug/L	0.50	1
<u>J-9 Day 9</u>	9 (202106140	<u> 251)</u>				Sam	pled on 06/08	/2021 131	0
06/15/01	06/16/21 02:00	EPA 200.8 1334804	- ICPMS Metal		Lead Total ICAP/MS	230	ug/L	0.50	1
			1333073	(EPA 200.8)	Lead Total ICAP/IVIS		· ·		•
J-11 Day	<u>9 (20210614</u>	<u>10252)</u>				Sam	pled on 06/08	12021 131	U
			- ICPMS Metal	_					
	06/16/21 02:03	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	0.50	1
<u>J-12 Day</u>	<u>9 (20210614</u>	<u> (0253)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metal	ls					
06/15/21	06/16/21 02:06	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	410	ug/L	0.50	1
<u>J-13 Day</u>	9 (20210614	<u>0254)</u>				Sam	pled on 06/08	/2021 131	0
		EPA 200.8	- ICPMS Metal	ls					
06/15/21	06/16/21 02:09	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	0.50	1
<u>J-0 Day </u>	<u>10 (20210614</u>	0255)				Sam	pled on 06/07	/2021 112	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(06/23/21 12:11			(SM4500-PE/EPA 365.1)		ND (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	` '				
(06/22/21 17:06		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.10	5
<u>J-1 Day 1</u>	<u>10 (20210614</u>	<u> (0256)</u>		,		Sam	pled on 06/07	/2021 094	6
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(06/23/21 12:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
(06/22/21 17:25		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-2 Day '</u>	<u>10 (20210614</u>	<u>0257)</u>				Sam	pled on 06/07	/2021 094	6
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(06/23/21 12:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
(06/22/21 17:25		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.9	mg/L	0.10	5





1 800 566 LABS (1 800 566 5227)

Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

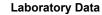
Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Samples Received on: 06/14/2021 1313

Prepped	Analyzed	Prep Batch	Analytical Batch	n Method	Analyte	Result	Units	MRL	Dilution
J-3 Day	10 (2021061	40258)				Samp	oled on 06/07	//2021 094	6
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:12				Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as P (T-P)				
	06/22/21 17:26		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
J-4 Day	10 (2021061	<u>40259)</u>				Samp	oled on 06/07	7/2021 100 ₀	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as PO4- Calc.				
	06/23/21 12:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 17:27		1336672		Total phosphorus as P	1.2	mg/L	0.10	5
J-5 Day	10 (2021061	<u>40260)</u>				Samp	oled on 06/07	7/2021 100 ₄	4
		CM4E00 DE	=/EDA 265 4	Total phosphoru	o a BO4 Cala				
	06/23/21 12:12		E/EPA 365.1 -	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 17:28		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
J-6 Day	10 (2021061	<u>40261)</u>				Samp	oled on 06/07	7/2021 100	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/23/21 12:12			(SM4500-PE/EPA 365.1)		7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/22/21 17:29		1336672	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
Jar 7 Da	ay 10 (20210	<u>6140262)</u>				Samp	oled on 06/07	//2021 103	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:44				Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	06/25/21 16:28		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
Jar 8 Da	ay 10 (20210	<u>6140263)</u>				Samp	oled on 06/07	//2021 103	1

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





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Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
-	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as P (T-P)				
	06/25/21 16:29		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
Jar 9 Da	y 10 (202106	<u> </u>				Sam	pled on 06/07	7/2021 103 ⁻	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as PO4- Calc.				
(06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as P (T-P)				
(06/25/21 16:30		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>Jar 11 D</u>	ay 10 (20210	<u>)6140265)</u>		,		Sam	pled on 06/07	/2021 105	2
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as P (T-P)				
1	06/25/21 16:33		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.1	mg/L	0.10	5
<u>Jar 12 D</u>	ay 10 (20210	<u>(6140266)</u>		,		Sam	pled on 06/07	//2021 105	2
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as P (T-P)				
1	06/25/21 16:34		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
<u>J-13 Day</u>	10 (202106	<u>140267)</u>				Sam	pled on 06/07	/2021 105	2
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	s as P (T-P)				
1	06/25/21 16:35		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
Jar 0 Da	y 8 (2021061	40268)				Sam	pled on 06/05	3/2021 132 ⁻	1
		EPA 200.8	- ICPMS Metal	ls					
06/15/21	06/16/21 02:12	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	660	ug/L	0.50	1
Jar 1 Da	y 8 (2021061	40269)				Sam	pled on 06/05	/2021 132	3





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Report: 940684

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
			- ICPMS Metals						
	06/16/21 02:15	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	210	ug/L	0.50	1
Jar 2 Day	<u>/ 8 (2021061</u>	<u>40270)</u>				Samp	oled on 06/05	/2021 132	4
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/16/21 02:18	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	140	ug/L	0.50	1
Jar 3 Day	8 (2021061	<u>40271)</u>				Samp	oled on 06/05	/2021 132	5
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/16/21 02:30	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	120 (B4)	ug/L	0.50	1
Jar 4 Day	/ 8 (2021061	<u>40272)</u>				Samp	led on 06/05	/2021 132	6
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/16/21 02:39	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	120 (B4)	ug/L	0.50	1
Jar 5 Day	/ 8 (2021061	<u>40273)</u>				Samp	oled on 06/05	/2021 132	7
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/16/21 02:42	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	98 (B4)	ug/L	0.50	1
Jar 6 Day	/ 8 (2021061	<u>40274)</u>				Samp	oled on 06/05	/2021 132	8
		EPA 200.8	- ICPMS Metals						
06/15/21	06/16/21 02:45	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	300 (B4)	ug/L	0.50	1
Jar 7 Day	/ 8 (2021061	<u>40275)</u>				Samp	led on 06/05	/2021 133	1
		EPA 200.8	- ICPMS Metals						
06/15/21	06/18/21 19:10	1334804	1335693	(EPA 200.8)	Lead Total ICAP/MS	1900	ug/L	5.0	10
Jar 8 Day	/ 8 (2021061	<u>40276)</u>				Samp	led on 06/05	/2021 133	3
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/16/21 02:51	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	280 (B4)	ug/L	0.50	1
<u>Jar 9 Day</u>	/ 8 (2021061	<u>40277)</u>				Samp	oled on 06/05	/2021 133	4
		EPA 200.8	- ICPMS Metals						
06/15/21 0	06/18/21 19:13	1334804	1335693	(EPA 200.8)	Lead Total ICAP/MS	3000	ug/L	5.0	10
<u>Jar 11 Da</u>	ny 8 (202106	<u>140278)</u>				Samp	oled on 06/05	/2021 133	6
		EPA 200.8	- ICPMS Metals						
06/15/21	06/16/21 02:57	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	800 (B4)	ug/L	0.50	1
<u>Jar 12 Da</u>	y 8 (202106	<u>140279)</u>				Samp	led on 06/05	/2021 133	7



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Laboratory Data

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metals						
06/15/21	06/16/21 03:08	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	200 (B4)	ug/L	0.50	1
<u>Jar 13 E</u>	0ay 8 (202106	140280)				Samp	led on 06/05	5/2021 134 ⁻	1
		EPA 200.8	- ICPMS Metals						
06/15/21	06/16/21 03:11	1334804	1335073	(EPA 200.8)	Lead Total ICAP/MS	410 (B4)	ug/L	0.50	1
<u>J-0, Day</u>	7 (20210614	<u>0281)</u>				Samp	led on 06/02	2/2021 131	0
		EPA 200.8	- ICPMS Metals						
06/15/21	06/18/21 19:16	1334804	1335693	(EPA 200.8)	Lead Total ICAP/MS	350	ug/L	0.50	1



Laboratory QC Summary

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

ICPMS Metals		
Prep Batch: 1334804	Analytical Batch: 1335072	Analysis Date: 06/16/2021
202106140204	J-1 Day 7	Analyzed by: AZS
202106140205	J-2 Day 7	Analyzed by: AZS
202106140206	J-3 Day 7	Analyzed by: AZS
202106140207	J-4 Day 7	Analyzed by: AZS
202106140208	J-5 Day 7	Analyzed by: AZS
202106140209	J-6 Day 7	Analyzed by: AZS
202106140210	J-7 Day 7	Analyzed by: AZS
202106140211	J-8 Day 7	Analyzed by: AZS
202106140212	J-9 Day 7	Analyzed by: AZS
202106140213	J-11 Day 7	Analyzed by: AZS
202106140214	J-12 Day 7	Analyzed by: AZS
202106140215	J-13 Day 7	Analyzed by: AZS
202106140242	J-0 Day 9	Analyzed by: AZS
202106140243	J-1 Day 9	Analyzed by: AZS
202106140244	J-2 Day 9	Analyzed by: AZS
202106140245	J-3 Day 9	Analyzed by: AZS
202106140246	J-4 Day 9	Analyzed by: AZS
202106140247	J-5 Day 9	Analyzed by: AZS
ICPMS Metals		
Prep Batch: 1334804	Analytical Batch: 1335073	Analysis Date: 06/16/2021
202106140248	J-6 Day 9	Analyzed by: AZS
202106140249	J-7 Day 9	Analyzed by: AZS
202106140250	J-8 Day 9	Analyzed by: AZS
202106140251	J-9 Day 9	Analyzed by: AZS
202106140252	J-11 Day 9	Analyzed by: AZS
202106140253	J-12 Day 9	Analyzed by: AZS
202106140254	J-13 Day 9	Analyzed by: AZS
202106140268	Jar 0 Day 8	Analyzed by: AZS
202106140269	Jar 1 Day 8	Analyzed by: AZS
202106140270	Jar 2 Day 8	Analyzed by: AZS
202106140271	Jar 3 Day 8	Analyzed by: AZS

ICPMS Metals

202106140272

202106140273

202106140274

202106140276

202106140278

202106140279

202106140280

Prep Batch: 1334804 Analytical Batch: 1335075

Jar 4 Day 8

Jar 5 Day 8

Jar 6 Day 8

Jar 8 Day 8

Jar 11 Day 8

Jar 12 Day 8

Jar 13 Day 8

202106140281 J-0, Day 7

Analysis Date: 06/16/2021

Analyzed by: AZS

Analyzed by: AZS

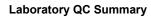
Analyzed by: AZS

Analyzed by: AZS

Analyzed by: AZS Analyzed by: AZS

Analyzed by: AZS

Analyzed by: AZS





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Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

Total phosphorus as P (T-	P)	
Analytical Batch: 1335	5493	Analysis Date: 06/16/2021
202106140229	J-0 Day 8	Analyzed by: LQ3M
202106140230	J-1 Day 8	Analyzed by: LQ3M
202106140231	J-2 Day 8	Analyzed by: LQ3M
202106140232	J-3 Day 8	Analyzed by: LQ3M
202106140233	J-4 Day 8	Analyzed by: LQ3M
202106140234	J-5 Day 8	Analyzed by: LQ3M
ICPMS Metals		
Prep Batch: 1334804	Analytical Batch: 1335693	Analysis Date: 06/18/2021
202106140275	Jar 7 Day 8	Analyzed by: AZS
202106140277	Jar 9 Day 8	Analyzed by: AZS
202106140281	J-0, Day 7	Analyzed by: AZS
Total phosphorus as P (T-	P)	
Analytical Batch: 1336	6671	Analysis Date: 06/22/2021
202106140216	J0 Day 9	Analyzed by: LQ3M
202106140217	J1 Day 9	Analyzed by: LQ3M
202106140218	J2 Day 9	Analyzed by: LQ3M
202106140219	J3 Day 9	Analyzed by: LQ3M
202106140220	J4 Day 9	Analyzed by: LQ3M
202106140221	J5 Day 9	Analyzed by: LQ3M
202106140222	J6 Day 9	Analyzed by: LQ3M
202106140223	J7 Day 9	Analyzed by: LQ3M
202106140224	J8 Day 9	Analyzed by: LQ3M
202106140225	J9 Day 9	Analyzed by: LQ3M
202106140226	J11 Day 9	Analyzed by: LQ3M
202106140235	J-6 Day 8	Analyzed by: LQ3M
202106140236	J-7 Day 8	Analyzed by: LQ3M
202106140237	J-8 Day 8	Analyzed by: LQ3M
202106140238	J-9 Day 8	Analyzed by: LQ3M
202106140239	J-11 Day 8	Analyzed by: LQ3M
202106140240	J-12 Day 8	Analyzed by: LQ3M
202106140241	J-13 Day 8	Analyzed by: LQ3M
Total phosphorus as P (T-	P)	
Analytical Batch: 1336	6672	Analysis Date: 06/22/2021
202106140227	J12 Day 9	Analyzed by: LQ3M
202106140228	J13 Day 9	Analyzed by: LQ3M
202106140255	J-0 Day 10	Analyzed by: LQ3M
202106140256	J-1 Day 10	Analyzed by: LQ3M
202106140257	J-2 Day 10	Analyzed by: LQ3M
202106140258	J-3 Day 10	Analyzed by: LQ3M
202106140259	J-4 Day 10	Analyzed by: LQ3M
202106140260	J-5 Day 10	Analyzed by: LQ3M
	J-6 Day 10	Analyzed by: LQ3M



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Laboratory QC Summary

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

Total phosphorus as P (T-P)

Analytical Batch: 1337543 Analysis Date: 06/25/2021

Analyzed by: LQ3M 202106140262 Jar 7 Day 10 202106140263 Jar 8 Day 10 Analyzed by: LQ3M 202106140264 Jar 9 Day 10 Analyzed by: LQ3M 202106140265 Jar 11 Day 10 Analyzed by: LQ3M Analyzed by: LQ3M Jar 12 Day 10 202106140266 Analyzed by: LQ3M 202106140267 J-13 Day 10





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Report: 940684 Project: KALAMAZOO

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Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1335072					Analysis D	ate: 06/15/	2021	
LCS1	Lead Total ICAP/MS		50	49.1	ug/L	98	(85-115)		
LCS2	Lead Total ICAP/MS		50	48.5	ug/L	97	(85-115)	20	1.2
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.500	ug/L	100	(50-150)		
MS_202106110408	Lead Total ICAP/MS	ND	50	45.8	ug/L	91	(70-130)		
MS2_202106140212	Lead Total ICAP/MS	230	50	288	ug/L	112	(70-130)		
MSD_202106110408	Lead Total ICAP/MS	ND	50	50.4	ug/L	100	(70-130)	20	9.6
MSD2_202106140212	Lead Total ICAP/MS	230	50	310	ug/L	<u>156</u>	(70-130)	20	7.2
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1335073					Analysis D	ate: 06/16/	2021	
LCS1	Lead Total ICAP/MS		50	50.4	ug/L	101	(85-115)		
LCS2	Lead Total ICAP/MS		50	48.6	ug/L	97	(85-115)	20	3.6
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.492	ug/L	98	(50-150)		
MS_202106140248	Lead Total ICAP/MS	130	50	168	ug/L	82	(70-130)		
MS2_202106140271	Lead Total ICAP/MS	120	50	187	ug/L	126	(70-130)		
MSD_202106140248	Lead Total ICAP/MS	130	50	181	ug/L	109	(70-130)	20	7.7
MSD2_202106140271	Lead Total ICAP/MS	120	50	178	ug/L	108	(70-130)	20	4.9
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1335075					Analysis D	ate: 06/16/	2021	
LCS1	Lead Total ICAP/MS		50	48.9	ug/L	98	(85-115)		
LCS2	Lead Total ICAP/MS		50	46.6	ug/L	93	(85-115)	20	4.8
MRL_CHK	Lead Total ICAP/MS		0.5	0.548	ug/L	110	(50-150)		
MS_202106140281	Lead Total ICAP/MS	350	50	396	ug/L	103	(70-130)		
MS2_202106110448	Lead Total ICAP/MS	ND	50	51.3	ug/L	102	(70-130)		
MSD_202106140281	Lead Total ICAP/MS	350	50	391	ug/L	93	(70-130)	20	1.1
MSD2_202106110448	Lead Total ICAP/MS	ND	50	47.6	ug/L	95	(70-130)	20	7.5
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1335493					Analysis D	ate: 06/16/	2021	
LCS1	Total phosphorus as P		0.4	0.416	mg/L	104	(90-110)		
LCS2	Total phosphorus as P		0.4	0.420	mg/L	105	(90-110)	20	0.96
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0150	mg/L	75	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.





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Report: 940684 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

Tetra rec	II								
QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202106030303	Total phosphorus as P	0.22	0.4	0.736	mg/L	<u>128</u>	(90-110)		
MS2_202106100436	Total phosphorus as P	0.066	0.4	0.497	mg/L	108	(90-110)		
MSD_202106030303	Total phosphorus as P	0.22	0.4	0.659	mg/L	108	(90-110)	20	11
MSD2_202106100436	Total phosphorus as P	0.066	0.4	0.503	mg/L	109	(90-110)	20	1.2
ICPMS Metals by I	EPA 200.8								
Analytical Batch: 1335693					Analysis Date: 06/18/2021				
LCS1	Lead Total ICAP/MS		50	49.5	ug/L	99	(85-115)		
LCS2	Lead Total ICAP/MS		50	49.1	ug/L	98	(85-115)	20	0.81
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.514	ug/L	103	(50-150)		
MS_202106160308	Lead Total ICAP/MS	ND	50	54.8	ug/L	109	(70-130)		
MS2_202106140352	Lead Total ICAP/MS	ND	50	57.4	ug/L	115	(70-130)		
MSD_202106160308	Lead Total ICAP/MS	ND	50	54.2	ug/L	108	(70-130)	20	1.1
MSD2_202106140352	Lead Total ICAP/MS	ND	50	54.6	ug/L	109	(70-130)	20	4.8
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1336671				Analysis Date: 06/22/2021			2021	
LCS1	Total phosphorus as P		0.4	0.417	mg/L	104	(90-110)		
LCS2	Total phosphorus as P		0.4	0.413	mg/L	103	(90-110)	20	0.96
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0188	mg/L	94	(50-150)		
MS_202106170543	Total phosphorus as P	ND	0.4	0.412	mg/L	100	(90-110)		
MS2_202106170544	Total phosphorus as P	ND	0.4	0.418	mg/L	100	(90-110)		
MSD_202106170543	Total phosphorus as P	ND	0.4	0.409	mg/L	99	(90-110)	20	0.63
MSD2_202106170544	Total phosphorus as P	ND	0.4	0.426	mg/L	102	(90-110)	20	1.9
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical Batch: 1336672					Analysis Date: 06/22/2021				
LCS1	Total phosphorus as P		0.4	0.416	mg/L	104	(90-110)		
LCS2	Total phosphorus as P		0.4	0.420	mg/L	105	(90-110)	20	0.96
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0216	mg/L	108	(50-150)		
MS_202106170545	Total phosphorus as P	ND	0.4	0.443	mg/L	110	(90-110)		
MS2_202106170546	Total phosphorus as P	ND	0.4	0.437	mg/L	109	(90-110)		
MSD_202106170545	Total phosphorus as P	ND	0.4	0.436	mg/L	109	(90-110)	20	1.6
MSD2_202106170546	Total phosphorus as P	ND	0.4	0.440	mg/L	110	(90-110)	20	0.66

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.





1 800 566 LABS (1 800 566 5227)

Report: 940684

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 1

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
	as P (T-P) by SM4500-PE/EPA 365.1 atch: 1337543				,	Analysis Da	ate: 06/25/	2021	
LCS1	Total phosphorus as P		0.4	0.433	mg/L	108	(90-110)		
LCS2	Total phosphorus as P		0.4	0.431	mg/L	108	(90-110)	20	0.46
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0255	mg/L	127	(50-150)		
MS_202106220278	Total phosphorus as P	ND	0.4	0.454	mg/L	109	(90-110)		
MS2_202106220281	Total phosphorus as P	ND	0.4	0.448	mg/L	108	(90-110)		
MSD_202106220278	Total phosphorus as P	ND	0.4	0.456	mg/L	110	(90-110)	20	0.53
MSD2_202106220281	Total phosphorus as P	ND	0.4	0.457	mg/L	110	(90-110)	20	2.0



ACCREDITED

CERTIFICATE #'s 5890.01 & 5890.02

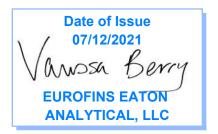
750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801
Attention: James Christopher

Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
ldaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	1
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	x		х
1,4-Dioxane	EPA 522	х		x
2,3,7,8-TCDD	Modified EPA 1613B	x		x
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	Х	х
Ammonia	EPA 350.1		Х	х
Ammonia	SM 4500-NH3 H		Х	x
Anions and DBPs by IC	EPA 300.0	х	Х	Х
Anions and DBPs by IC	EPA 300.1	Х		х
Asbestos	EPA 100.2	х	х	
BOD / CBOD	SM 5210B		Х	X
Bromate	In House Method (2447)	X		x
Carbamates Carbonate as CO3	EPA 531.2	X X	х	x x
Carbonyls	SM 2330B EPA 556	x	^	X
		^		^
COD	EPA 410.4 / SM 5220D		Х	
Chloramines	SM 4500-CL G	X	Х	X
Chlorinated Acids Chlorinated Acids	EPA 515.4 EPA 555	X X		X X
Chlorine Dioxide	SM 4500-CLO2 D	x		x
Chlorine -Total/Free/	Palin Test			
Combined Residual	SM 4500-Cl G	х	х	Х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	х	X
Cyanide, Amenable	SM 2330B SM 4500-CN G	x x	x	х
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method (2470)	х		x
Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	х		х
Dissolved Oxygen	SM 4500-O G		Х	х
DOC	SM 5310C	х		x
E. Coli	(MTF/EC+MUG)	x		x
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	х		х
E. Coli (Enumeration)	SM 9223B	х		х
EDB/DCBP	EPA 504.1	х		
EDB/DBCP and DBP	EPA 551.1	х		х
EDTA and NTA	In House Method (2454)	х		х
Endothall	EPA 548.1	х		х
Endothall	In-house Method (2445)	x		x
Enterococci	SM 9230B	x	x	
Fecal Coliform	SM 9221 E (MTF/EC)	Х		
Fecal Coliform	SM 9221C, E (MTF/EC)		Х	
Fecal Coliform	SM 9221E (MTF/EC)	х		х
(Enumeration)	(· · ·
Fecal Coliform with	SM 9221E		х	
Chlorine Present				
Fecal Streptococci Fluoride	SM 9230B SM 4500-F C	x x	x x	x
			^	
Glyphosate	EPA 547	х		х
Glyphosate + AMPA	In House Method (3618)	Х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	х	х	х
Hardness	SM 2340B	х	х	x
Heterotrophic Bacteria	In House Method (2439)	х		x
Heterotrophic Bacteria	SM 9215 B	х		x
Hexavalent Chromium	EPA 218.6	х	х	x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		х	
Hormones	EPA 539	х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella	Legiolert	Х		х
Mercury	EPA 200.8	X		X
Metals Microcystin LR	EPA 200.7 / 200.8 ELISA (2360)	X X	Х	X X
Microcystin, Total	EPA 546	X		×
NDMA	EEA/Agilent 521.1	x		x
	In house method (2425)			
Nitrate/Nitrite Nitrogen	EPA 353.2	X	Х	X
OCL, Pesticides/PCB Ortho Phosphate	EPA 505 EPA 365.1	x x	x	x x
Ortho Phosphorous	SM 4500P E	X	X	X
Oxyhalides Disinfection				
Byproducts	EPA 317.0	Х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	X		X
Perfluorinated Alkyl Acids Perfluorinated Polutant	EPA 537 In house Method (2434)	X X		X X
				^
pH	EPA 150.1	х		
pH	SM 4500-H+B	х	х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	х		х
Pseudomonas	IDEXX Pseudalert (2461)	х		x
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	х		x
Radon-222	SM 7500RN	x		x
Residue, Filterable	SM 2540C	х	х	х
Residue, Non-filterable	SM 2540D		x	
Residue, Total	SM 2540B		Х	х
Residue, Volatile	EPA 160.4		Х	
Semi-VOC	EPA 525.2	Х		х
Silica	SM 4500-Si D	Х	Х	
Silica	SM 4500-SiO2 C	Х	Х	
Sulfide	SM 4500-S ⁼ D		Х	
Sulfite	SM 4500-SO ³ B	Х	х	х
Surfactants	SM 5540C	х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		Х
Total Coliform (Enumeration)	SM 9221 A, B, C	х		x
Total Coliform / E. coli	Colisure SM 9223	х		х
Total Coliform	SM 9221B	^	х	^
Total Coliform with Chlorine	SM 9221B		x	
Present Total Coliform / E.coli (P/A	SM 9223	х		x
and Enumeration)		^		^
TOC TOX	SM 5310C SM 5320B	Х	x x	Х
Total Phenols	EPA 420.1		x	
Total Phenols	EPA 420.4	х	х	х
Total Phosphorous	SM 4500 P E		х	
Triazine Pesticides &	In House (3617)	x		х
Degradates Turbidity	EDA 190 1	V	v	v
Turbidity Turbidity	EPA 180.1 SM 2130B	X X	X X	Х
Uranium by ICP/MS	EPA 200.8	X	Х	×
UV 254	SM 5910B	x		
				v
VOC	EPA 524.2	X		X
VOC Veest and Mold	In House Method (2411)	X		X
Yeast and Mold	SM 9610	Х		Х

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 942014 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 21, 2021** at **1806**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202106210701	J-0, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210703	J-1, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	:
202106210704	J-2, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202106210705</u>	J-3, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210706	J-4, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202106210707</u>	J-5, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210708	J-6, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210709	J-7, day 11	Total phosphorus as 1 C4* Calc.	06/11/2021 1645
	,	Table pharehouse as DOA Cole	
<u>202106210710</u>	Total phosphorus as P J-8, day 11	Total phosphorus as PO4- Calc.	06/11/2021 1645
202100210710	,	······································	00/11/2021 1040
222422242744	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202106210711</u>	J-9, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202106210712</u>	J-11, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210713	J-12, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210714	J-13, day 11		06/11/2021 1645
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 07/12/2021



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Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID		Sample Date
202106210715	J-0, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210716	J-1, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210717	J-2, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210718	J-3, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210719	J-4, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210720	J-5, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210721	J-6, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210722	J-7, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210723	J-8, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210724	J-9, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210725	J-11, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210726	J-12, day 12		06/16/2021 1151
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202106210727	J-13, day 12		06/16/2021 1151
	,	Total phoephorus as PO/L Calc	
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 07/12/2021

Page 2 of 5



Addr: Tetra Tech

201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 942014

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 21, 2021** at **1806**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106210728	J-0, day 10	06/11/2021 1658
	@ICPMS	
202106210729	J-1, day 10	06/11/2021 1658
	@ICPMS	
202106210730	J-2, day 10	06/11/2021 1658
	@ICPMS	
202106210731	J-3, day 10	06/11/2021 1658
	@ICPMS	
202106210732	J-4, day 10	06/11/2021 1658
	@ICPMS	
202106210733	J-5, day 10	06/11/2021 1658
	@ICPMS	
202106210734	J-6, day 10	06/11/2021 1658
	@ICPMS	
202106210735	J-7, day 10	06/11/2021 1658
	@ICPMS	
202106210736	J-8, day 10	06/11/2021 1658
	@ICPMS	
202106210737	J-9, day 10	06/11/2021 1658
	@ICPMS	
202106210738	J-11, day 10	06/11/2021 1658
	@ICPMS	
202106210739	J-12, day 10	06/11/2021 1658
	@ICPMS	
202106210740	J-13, day 10	06/11/2021 1658
	@ICPMS	

Reported: 07/12/2021



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 942014 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 21, 2021** at **1806**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202106210741	J-0, day 11	06/18/2021 1110
	@ICPMS	
202106210742	J-1, day 11	06/18/2021 1110
	@ICPMS	
202106210743	J-2, day 11	06/18/2021 1110
	@ICPMS	
202106210744	J-3, day 11	06/18/2021 1110
	@ICPMS	
202106210745	J-4, day 11	06/18/2021 1110
	@ICPMS	
202106210746	J-5, day 11	06/18/2021 1110
	@ICPMS	
202106210747	J-6, day 11	06/18/2021 1110
	Total phosphorus as P Total phosphorus as PO4- Calc.	
202106210748	J-7, day 11	06/18/2021 1110
202 1002 10740	5-7, day 11	
202 1002 107 40	@ICPMS	
202106210749	· · · · · · · · · · · · · · · · · · ·	06/18/2021 1110
	@ICPMS	06/18/2021 1110
	@ісрмs J-8, day 11	06/18/2021 1110 06/18/2021 1110
202106210749	@ICPMS J-8, day 11 @ICPMS	
202106210749	@ICPMS J-8, day 11 @ICPMS J-9, day 11	
<u>202106210749</u> <u>202106210750</u>	@ICPMS J-8, day 11 @ICPMS J-9, day 11 @ICPMS	06/18/2021 1110
<u>202106210749</u> <u>202106210750</u>	@ICPMS J-8, day 11 @ICPMS J-9, day 11 @ICPMS J-11, day 11	06/18/2021 1110
202106210749 202106210750 202106210751	@ICPMS J-8, day 11 @ICPMS J-9, day 11 @ICPMS J-11, day 11 @ICPMS	06/18/2021 1110 06/18/2021 1110
202106210749 202106210750 202106210751	@ICPMS J-8, day 11 @ICPMS J-9, day 11 @ICPMS J-11, day 11 @ICPMS J-12, day 11	06/18/2021 1110 06/18/2021 1110
202106210749 202106210750 202106210751 202106210752	@ICPMS J-8, day 11 @ICPMS J-9, day 11 @ICPMS J-11, day 11 @ICPMS J-12, day 11 @ICPMS	06/18/2021 1110 06/18/2021 1110 06/18/2021 1110



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 942014

Project: KALAMAZOO Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **June 21, 2021** at **1806**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 07/12/2021 Page 5 of 5



CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

	LOGIN COMMENIS:				SAMPLES CHECKED AGAINST COC BY:	ECKED AGAI	NSI COC BY:	
750 Royal Oaks Drive, Suite 100 Jonrovia CA 91016-3629						SAMPLES LOGGED IN BY	GGED IN BY	
	SAMPLE TEMP RECEIVED AT:	EIVED AT:			SAMPLES R	EC'D DAY OF	SAMPLES REC'D DAY OF COLLECTION?	(check for ves)
Phone: 626 386 1100 ax: 626 386 1101	(Other)) IR Gun ID =		C3 (A Cobse	(Observation= (Corr. Factor)	C) (Final =	_	(c) (c) (c)
300 566 LABS (800 566 5227)	Compliance Acceptance Criteria: (Chemistry: 4£2°C) (Microbiology: < 10°C)	ce Criteria: (Che	mistry: 4£2°	C) (Microbiology: <				
Nebsite: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No loe	Synthetic	lic lick I lo	I I	DITION OF ICE: Frozen	Partially Frozen	Thawed.	N/A
BE COMPLETED BY SAMPLER.		T. L.	rea-op-	U	-1	Culier Culier		Check for ves)
MPANY/AGENCY NAME:	PROJECT CODE:		13	0	COMPLIANCE SAMPLES - Requires state forms		NON-COMPLIANCE SAMPLES REGULATION INVOLVED:	
etra Tech				Type of sam	Type of samples (circle one): ROUTINE SPECIAL	AL CONFIRMATION		(eg. SDWA, NPDES, etc.)
A CLIENT CODE: COC ID:	SAMPLE GROUP:		100 to 100 0 50	-	SEE ATTACHED KIT ORDER FOR ANALYSES	TASES	(check for yes),	yes), OR
requested: rush by adv notice only	STD 1 wk 3d		1 day	+	LIST ALL ANALTSES REGOINED (enter number of bottles sent for each test for each sample)	per or porties s	sent for each test to	r each sample)
SAMPLE ID	18		ATAG GJ3	0-100+0		. 18.08	7S 00	SAMPLER
			+	7				
11 low 1-0, day 11		3 -	16	-1 -				
2-1								
7-3		-						
11								
7-5								
3-6								
7-7								
7-8								1
7 6-4 7		ラ	10	ラ				
MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	ter CFW = Chlor(am)inated Finished Water FW = Other Finished Water	inated Finish ned Water	ed Water	SEAW = Sea Water WW = Waste Water	a Water BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge		0 = Other - Please Identify
SIGNATURE	2		PRINT NAME		COMPANY/TITLE		DATE	TIME
APLED BY:	7	Ba	posabal	ba!	Tetra Tech		12/8/19	12:45
INQUISHED BY. Albergard Meri	un A	40,00.	(Herry	wick	Tetra Tech		12/8/101	34:11
)	3	75	5113	EFF.		4-21-21	1806
LINQUISHED BY:	A							
CEIVED BY:								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EO 0029 2 (Version 2) (08/28/2014)							PAGE	30

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CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

(check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify (eg. SDWA, NPDES, etc. (check for yes) COMMENTS 717:2 いてい N/A SAMPLER (check for yes), OR OF NON-COMPLIANCE SAMPLES PAGE Thawed SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: REGULATION INVOLVED: 2/81/9 DATE 100 CC) (Final = °C) (Final = 9 Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) C) (Corr. Factor BW = Bottled Water C) (Corr.Factor SW = Storm Water COMPANY/TITLE CONDITION OF ICE: Frozen Tetra Tech Tech Requires state forms COMPLIANCE SAMPLES PC+14 (Observation= (Observation= SEAW = Sea Water WW = Waste Water Compliance Acceptance Criteria: (Chemistry: 4±2/C) (Microbiology: < 10°C) 1errick Rasabal 9-12707 No Ice lead solubility test-vonasel ATAG GJEIT PRINT NAME CFW = Chlor(am)inated Finished Water 1 day IR Gun ID = (Other) IR Gun ID = Synthetic TELD DATA 2 day Bra SAMPLE TEMP RECEIVED AT: FW = Other Finished Water · XINTAM 3 day LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: 1 wk Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water Jan 12 Website: www.EatonAnalytical.com COC ID: TAT requested: rush by adv notice only SAMPLE ID day 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER: QA FO 0029.2 (Version 2) (08/28/2014) Tera Les COMPANY/AGENCY NAME: totatech-ovi Phone: 626 386 1100 5-13 7-6 1-1 7.4 21-5 0-1 7.5 Fax: 626 386 1101 5.3 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY Sh.01 11/0 15:11 01/0 TIME RECEIVED BY: SAMPLED BY BAMPLE



CHAIN OF CUSTODY RECORD

Eaton Analytical

te 100	LOGIN COMMENTS:	2020		SAMPLES CH	SAMPLES CHECKED AGAINST COC BY:	COC BY:	
					SAMPLES LOGGED IN BY:	D IN BY:7	
	AP RECEIVE (Other)	ED AT: IR Gun ID =	esqo)	0) (0,	C.D D/		(check for yes)
800 566 LABS (800 566 5227) Website: www.EatonAnalytical.com	Monrovia IR Gun ID = (Observation of Compliance Acceptance Criteria: (Chemistry: 4 ± 2°C) (Microbiology: < 10°C) TYPE OF ICE: Real Synthetic No Ice (CONDIT	IR Gun ID = (teria: (Chemistry: 4±2)	V°C) (Microbiology: < 1	(Observation= C) (Corr.Factor ology: < 10°C) CONDITION OF ICE: Frozen Pa	C) (Final = C)	Thawed N/A	4
	METHOD OF SHIPMENT: Pick-Up / Walk-In	MENT: Pick-Up / \	1 - / 1		p Line / Other:		
TO BE COMPLETED BY SAMPLER:				(check for yes)	s)	(check for yes)	es)
COMPANY/AGENCY NAME:	PROJECT CODE:		ŏ	COMPLIANCE SAMPLES - Requires state forms	NON-COMPLIANCE SAMPLES REGULATION INVOLVED	CE SAMPLES	
Tetra Tech		100	Type of samp	Type of samples (circle one): ROUTINE SPEC	SPECIAL CONFIRMATION	(eg. SDWA, NPDES, etc.)	DES, etc.)
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:	test-phasel	S	SEE ATTACHED KIT ORDER FOR ANALYSES [check for yes), <u>OR</u> List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	ALYSES The pottles sent for the control of the con	(check for yes), OR	ample)
TAT requested: rush by adv notice only	STD_1 wk_3 day_	2 day 1 day	S		7-		
SAMPLE DATE SAMPLE ID	CLIENT LAB ID	* XIRTAM ATAG GJEIF	16pw. facal-l			SAMPLER	~ S
W1011:51 7-7 day 12		FW	1				
J. 9							
11-12							
7-17							
J J-13 J			7				
10/11/6:56 J-6 day 10			7				
3-1							
1-2				-			
U + J.3 V		7	7				
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ed Finished Water Water	SEAW = Sea Water WW = Waste Water	Water BW = Bottled Water SW = Storm Water	er SO = Soil	O = Other - Please Identify	Identify
SIGNATURE		PRINT NAME		COMPANY/TITLE		DATE TIME	IE
1		Ara 120	1 pdt to	Tetra Fech	101	18/21 12/81/	5
RECEIVED BY: A CONTROL RECEIVED BY:	id Abi	Sail He	Misch	Tetra Te an	Ee!	2/2/ 11:4	200
RELINQUISHED BY:							
RECEIVED BY:							
QA FO 0029.2 (Version 2) (08/28/2014)						PAGE OF	



CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

	LOGIN COMMENTS:			SAMPLES CHEC	SAMPLES CHECKED AGAINST COC BY:	C BY:
750 Royal Oaks Drive, Suite 100 Monrovia CA 91016-3629				SAS	SAMPLES LOGGED IN BY:	IN BY:
Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227)	SAMPLE TEMP RECEIVED AT: (Other) IR Gun ID =		(Observation=	°C) (Corr.Factor	SAMPLES REC'D DAY OF COLLECTION? Corr.Factor C C (Final = C C)	TION? (check for yes)
Website: www.EatonAnalytical.com	Compliance Acceptance Criteria: (Chemistry: 4±2°C) (Mic TYPE OF ICE: Real Synthetic No Ice METHOD OF SHIPMENT: Pick-Up / Walk-In	d O	COND COND	1 / To	Partially Frozen p Line / Other:	Thawed N/A
O BE COMPLETED BY SAMPLER:				(check for yes)		(check for yes)
:OMPANY/AGENCY NAME:	PROJECT CODE:		COMPLIANCE SAMPLES	T	NON-COMPLIANCE SAMPLES	SAMPLES
Tetra Tech			 Requires sta Type of samples (circle one): 	te forms ROUTINE SPECIAL	SPECIAL CONFIRMATION	LVED: (eg. SDWA, NPDES, etc.)
EA CLIENT CODE: COC ID:	SAMPLE GROUP:		SEE ATTACHED KIT ORDER FOR ANALYSES	ORDER FOR ANAL	YSES	(check for yes), OR
tchaten-ovi	Had Soluboility HEST	-prasel	List ALL ANALYSES RI	EQUIRED (enter number	r of bottles sent for	List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)
AT requested: rush by adv notice only	STD 1 wk 3 day 2 day	1 day	S		*	
SAMPLE ID	CLIENT LAB ID	ATAO DATA ATAO DATA	nda			SAMPLER
11 16:587-4 day 10	FW					
1 7-5						
J-6						
7-4						
1-6						
1 3-9						
J-11						
7-12						
4 4 3-13 4			Ą			
of 11:10 J-C day 11	→		7			
MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	hed Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	0 = Other - Please Identify
SIGNATURE		PRINT NAME		COMPANY/TITLE		DATE TIME
AMPLED BY: CHUM.	Ma Pa	Posubal	Tetra	r Tech	81/0)	Sn: 21 12)
ELINQUISHED BY: Aran Manufa	Moigail	Herrio	4 Tetra	Fech	cell	5/21 11:45
ECEIVED BY:	3	うて	200	EER	4-2	1-21 180G
ELINQUISHED BY:						
ECEIVED BY:	The second secon				4	
A FO 0029.2 (Version 2) (08/28/2014)	9" 15.					PAGE OF

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CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

O = Other - Please Identify 70 (check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc.) Jh: 21 SAMPLER (check for yes) N/A 9 (check for yes), OR Thawed NON-COMPLIANCE SAMPLES SAMPLES REC'D DAY OF COLLECTION? 12/21/2 SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: REGULATION INVOLVED: 2/81/21 (Observation= (S-G)°C) (Corr.Factor O.C.°C) (Final = (°C) (Final = SO = Soil SL = Sludge ROUTINE SPECIAL CONFIRMATION Partially Frozen FedEx LUPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES BW = Bottled Water SW = Storm Water (check for yes) °C) (Corr.Factor COMPANY/TITLE Teth CONDITION OF ICE: Frozen COMPLIANCE SAMPLES - Requires state forms Tetra Tech Type of samples (circle one): Letra (Observation= SEAW = Sea Water WW = Waste Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C 5 2 2 BC METHOD OF SHIPMENT: Pick-Up / Walk-In No Ice SWOO IR Gun ID = CL30 A 40igail Herrica Ma Wasabul lead solubility test -prose 1 ATAG GJEI PRINT NAME CFW = Chlor(am)inated Finished Water 1 day Synthetic V IR Gun ID = 3 2 day SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water - XINTAM STD 1 wk 3 day (Other) LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia の当ちにた RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water Website: www.EatonAnalytical.com COC ID: SAMPLE ID TAT requested: rush by adv notice only 750 Royal Oaks Drive, Suite 100 SIGNATURE day 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 QA FO 0029.2 (Version 2) (08/28/2014) TO BE COMPLETED BY SAMPLER: COMPANY/AGENCY NAME: Phone: 626 386 1100 REFOR TRES Etatech-orl Fax: 626 386 1101 519 1-1 9-0 5-5 3-2 4-1 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 01:11 81 9 TIME RECEIVED BY: RECEIVED BY: BJAMAS SAMPLED BY SAMPLE



CHAIN OF CUSTODY RECORD

Eaton Analytical

(check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify (check for yes) COMMENTS 545.21 SAMPLER (check for yes), OR NON-COMPLIANCE SAMPLES Thawed SAMPLES REC'D DAY OF COLLECTION'S 2/21/21 SAMPLES CHECKED AGAINST COC BY: REGULATION INVOLVED: SAMPLES LOGGED IN BY 12/8/19 C) (Corr.Factor 12°C) (Final= C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SL = Sludge Partially Frozen FedEx /) UPS / DHL / Area Fast / Top Line / Other: SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr.Factor BW = Bottled Water SW = Storm Water CONDITION OF ICE: Frozen TOOL TETRA FECH COMPLIANCE SAMPLES Requires state forms (Observation= (Observation= SEAW = Sea Water WW = Waste Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2, C) (Microbiology: < 10°C) Radaba METHOD OF SHIPMENT: Pick-Up / Walk-In Herri St SWOOL No Ice 7 4 lead solubility test-phase ATAO OJEIT EUROFINS EATON ANALYTICAL USE ONLY: CFW = Chlor(am)inated Finished Water PRINT NAME 1 day IR Gun ID = (Other) IR Gun ID = Synthetic ATAO OJEI 2 day SAMPLE TEMP RECEIVED AT: 3 FW = Other Finished Water 7 · XISTAM 1 wk 3 day LOGIN COMMENTS: TYPE OF ICE: Real PROJECT CODE: SAMPLE GROUP: CLIENT LAB ID Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water day 11 Website: www.EatonAnalytical.com COC ID: SAMPLE ID 750 Royal Oaks Drive, Suite 100 fAT requested: rush by adv notice only 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER COMPANY/AGENCY NAME: Phone: 626 386 1100 etratech-orl 7-12 Fax: 626 386 1101 212 EEA CLIENT CODE: PACO PACO ELINQUISHED BY ELINQUISHED BY 0:: TIME ECEIVED BY SAMPLE ECEIVED BY 6/15 **BTAG** SAMPLE

QA FO 0029.2 (Version 2) (08/28/2014)

OF

													>6mm		١,			
100	lysis or not.		N/A					1000		Results:		onal clients:	10/<6			ТМЕ	1806	
RECORD	r will determins whether to proceed with ansi $orall F_{f BS} I$ NO		zen Thawed		8	ection, within 8 hours)		2 - (Observation (S .c) (CorrFedor 25) (Final 5 . 9) 4 - (Observation 6 . 5) (CorrFedor 2 . 5) (Final 6 . 25)	(uo	Expiration Date		see below): Itional bottles) is using 40 ml vlals, internati	Samp ID			DATE	6-21-21	
INTERNAL CHAIN OF CUSTODY RECORD	-	$(Final = (5 \cdot 7 \cdot C)$	Frozen Partially Frozen	op Line / Other:	action)	2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on Ice the same day as sample collection, within 8 hours)	ou)	5	4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)	pH strip type: 0 - 14 or	Results	dspace: Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles) Exempt from headspace concerns: Methods 615.4, HAA[6251, 565, 5PME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International cilients:	Samp ID Bottle # None/<6 >6mm			COMPANY/TITLE	Eurofins Eaton Analytical	
JAL CHAIN	SAMPLE TEMP RECEIVED: Note: If samples are out of temperature range, I SAMPLES REC'D DAY OF G	(230 1 (Observation= 15.9°C) (Corr.Factor 3.2°C) (Final = (5.7°C)	CONDITION OF ICE: Frozen	UPS / DHL / Area Fast / Top Line / Other.	ipliance Acceptance Criteria: 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)	0°C if received on Ice t	 Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection) 	1. (Observations 40) (Oon/Factor 2.2) (Final (S-70) 3. (Observations 2.0) (Oon/Factor 2.2) (Final (S-30)	ot frozen (if received a		Expiration Date:	ditional VOC and Ra	у-биш		mpling errors):	NAME	Fine 13	
		o) (0. (2. 6) (0)	No Ice	/FedEx	ELAP) (If received afte	, not frozen (can be ≥1	°C (If received after 2 h		it be between 0-4 °C, n	Lot Number:	ansafe. Lot No.:	No Samples with Headspace: pace Documentation (use add ms: Methods 515.4, HAA(6251,552), 50	Samp ID Bottle # None/<6 mm		Ispace (i.e. potential sa	PRINT NAME	1387	
	GILLY CANALYTICAL	30 K (Observ	Synthetic	T: Pick-Up / Walk	e Criteria: s 6°C, not frozen (N	istribution: < 10°C	urface Water: < 10	chamistry and Microbiology some measure in the lamperalure is of the quadrants	; 2,3,7,8 †CDD): mue	ufacturer:	k. Manufacturer: S	No Sar Headspace D	>6mm	 - 	nave dişsimilar head)	
🧽 eurofins	EEA Folder Number:	IR Gun ID =	TYPE OF ICE: Real	METHOD OF SHIPMENT: Pick-Up / Walk-In	Compliance Acceptance Criteria: 1) Chemistry: >0, ≤ 6°C, not fi	2) Microbiology, D	3) Microbiology, S	If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants	4 Dioxin (1613 or	5) pH Check. Manufacturer:	6) Chlorine check. Manufacturer: Sansafe. Lot No.:	7) VOA and Radon Headspace: Exempt from he	Samp ID Bottle # None/<6 >		Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors);	BIGNATURE	RECEIVED BY:	7

QA FO 0083.8 [QA FO-FRM5504] [8/25/20] Ver 8



1 800 566 LABS (1 800 566 5227)

Group: Lead Solubility Testing - Phase 2

Laboratory Comments

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

B4 - Target analyte detected in blank at or above method acceptance criteria.





1 800 566 LABS (1 800 566 5227)

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202106210701	J-0, day 11				
06/25/2021 17:44	Total phosphorus as P		5.2		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	16		mg/L	0.030
	202106210703	<u>J-1, day 11</u>				
06/25/2021 17:45	Total phosphorus as P		6.5		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	20		mg/L	0.030
	202106210704	J-2, day 11				
06/25/2021 17:46	Total phosphorus as P		7.1		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	22		mg/L	0.030
	202106210705	J-3, day 11				
06/25/2021 17:47	Total phosphorus as P		8.1		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	25		mg/L	0.030
	202106210706	<u>J-4, day 11</u>				
06/25/2021 17:48	Total phosphorus as P		6.7		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	20		mg/L	0.030
	202106210707	<u>J-5, day 11</u>				
06/25/2021 17:49	Total phosphorus as P		7.0		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	21		mg/L	0.030
	202106210708	<u>J-6, day 11</u>				
06/25/2021 17:50	Total phosphorus as P		7.3		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	22		mg/L	0.030
	202106210709	<u>J-7, day 11</u>				
06/25/2021 17:51	Total phosphorus as P		6.6		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	20		mg/L	0.030
	202106210710	<u>J-8, day 11</u>				
06/25/2021 17:51	Total phosphorus as P		7.2		mg/L	0.20
06/28/2021 10:44	Total phosphorus as PO	4- Calc.	22		mg/L	0.030
	202106210711	<u>J-9, day 11</u>				
06/25/2021 17:52	Total phosphorus as P		8.2		mg/L	0.20
06/28/2021 10:45	Total phosphorus as PO	4- Calc.	25		mg/L	0.030
	202106210712	<u>J-11, day 11</u>				
06/25/2021 17:55	Total phosphorus as P		6.3		mg/L	0.20
06/28/2021 10:45	Total phosphorus as PO	4- Calc.	19		mg/L	0.030





1 800 566 LABS (1 800 566 5227)

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202106210713	<u>J-12, day 11</u>				
06/25/2021 17:56	Total phosphorus as P		6.9		mg/L	0.20
06/28/2021 10:45	Total phosphorus as PO	4- Calc.	21		mg/L	0.030
	202106210714	<u>J-13, day 11</u>				
06/25/2021 18:50	Total phosphorus as P		7.0		mg/L	0.20
06/28/2021 10:54	Total phosphorus as PO	4- Calc.	21		mg/L	0.030
	202106210715	J-0, day 12				
06/25/2021 18:52	Total phosphorus as P		0.17		mg/L	0.10
06/28/2021 10:54	Total phosphorus as PO	4- Calc.	0.52		mg/L	0.030
	202106210716	J-1, day 12				
06/25/2021 18:53	Total phosphorus as P		1.5		mg/L	0.10
06/28/2021 10:55	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030
	202106210717	J-2, day 12				
06/25/2021 18:54	Total phosphorus as P		2.2		mg/L	0.10
06/28/2021 10:55	Total phosphorus as PO	4- Calc.	6.8		mg/L	0.030
	202106210718	J-3, day 12				
06/25/2021 18:55	Total phosphorus as P		2.9		mg/L	0.10
06/28/2021 10:55	Total phosphorus as PO	4- Calc.	8.9		mg/L	0.030
	202106210719	J-4, day 12				
07/02/2021 14:26	Total phosphorus as P		1.2		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PO	4- Calc.	3.7		mg/L	0.030
	202106210720	J-5, day 12				
07/02/2021 14:27	Total phosphorus as P		2.0		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PO	4- Calc.	6.1		mg/L	0.030
	202106210721	J-6, day 12				
07/02/2021 14:28	Total phosphorus as P		2.5		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PO	4- Calc.	7.7		mg/L	0.030
	202106210722	J-7, day 12				
07/02/2021 14:32	Total phosphorus as P		1.4		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
	202106210723	J-8, day 12				
07/02/2021 14:32	Total phosphorus as P		2.2		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202106210724	<u>J-9, day 12</u>				
07/02/2021 14:33	Total phosphorus as P		2.9		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202106210725	<u>J-11, day 12</u>				
07/02/2021 14:34	Total phosphorus as P		0.94		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PC	04- Calc.	2.9		mg/L	0.030
	202106210726	<u>J-12, day 12</u>				
07/02/2021 14:35	Total phosphorus as P		1.5		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PC	04- Calc.	4.6		mg/L	0.030
	202106210727	<u>J-13, day 12</u>				
07/02/2021 14:36	Total phosphorus as P		2.1		mg/L	0.10
07/06/2021 12:09	Total phosphorus as PC	04- Calc.	6.4		mg/L	0.030
	202106210728	<u>J-0, day 10</u>				
07/01/2021 18:02	Lead Total ICAP/MS		180	15	ug/L	0.50
	202106210729	<u>J-1, day 10</u>				
07/02/2021 18:32	Lead Total ICAP/MS		510	15	ug/L	5.0
	202106210730	<u>J-2, day 10</u>				
07/01/2021 18:07	Lead Total ICAP/MS		150	15	ug/L	0.50
	202106210731	<u>J-3, day 10</u>				
07/01/2021 18:08	Lead Total ICAP/MS		170	15	ug/L	0.50
	202106210732	<u>J-4, day 10</u>				
07/01/2021 18:08	Lead Total ICAP/MS		140	15	ug/L	0.50
	202106210733	<u>J-5, day 10</u>				
07/01/2021 18:09	Lead Total ICAP/MS		94	15	ug/L	0.50
	202106210734	<u>J-6, day 10</u>				
07/01/2021 18:10	Lead Total ICAP/MS		130	15	ug/L	0.50
	202106210735	<u>J-7, day 10</u>				
07/01/2021 18:11	Lead Total ICAP/MS		210	15	ug/L	0.50
	202106210736	<u>J-8, day 10</u>				
07/02/2021 18:33	Lead Total ICAP/MS	•	700	15	ug/L	5.0
	202106210737	<u>J-9, day 10</u>				





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/02/2021 18:33	Lead Total ICAP/MS		310	15	ug/L	5.0
07/02/2021 18:36	202106210738 Lead Total ICAP/MS	<u>J-11, day 10</u>	840	15	ug/L	5.0
07/02/2021 18:37	202106210739 Lead Total ICAP/MS	<u>J-12, day 10</u>	520	15	ug/L	5.0
07/02/2021 18:38	202106210740 Lead Total ICAP/MS	<u>J-13, day 10</u>	600	15	ug/L	5.0
07/02/2021 18:38	202106210741 Lead Total ICAP/MS	<u>J-0, day 11</u>	200	15	ug/L	5.0
07/02/2021 18:39	202106210742 Lead Total ICAP/MS	<u>J-1, day 11</u>	280	15	ug/L	5.0
07/02/2021 18:40	202106210743 Lead Total ICAP/MS	<u>J-2, day 11</u>	240	15	ug/L	5.0
07/02/2021 18:43	202106210744 Lead Total ICAP/MS	<u>J-3, day 11</u>	290	15	ug/L	5.0
07/02/2021 18:43	202106210745 Lead Total ICAP/MS	<u>J-4, day 11</u>	240	15	ug/L	5.0
07/02/2021 18:46	202106210746 Lead Total ICAP/MS	<u>J-5, day 11</u>	180	15	ug/L	5.0
07/02/2021 14:40 07/06/2021 12:10	202106210747 Total phosphorus as P Total phosphorus as PO4	<u>J-6, day 11</u> 4- Calc.	7.5 23		mg/L mg/L	0.20 0.030
07/02/2021 18:47	202106210748 Lead Total ICAP/MS	<u>J-7, day 11</u>	350	15	ug/L	5.0
07/02/2021 18:47	202106210749 Lead Total ICAP/MS	<u>J-8, day 11</u>	240	15	ug/L	5.0
07/02/2021 18:48	202106210750 Lead Total ICAP/MS	<u>J-9, day 11</u>	220	15	ug/L	5.0
07/02/2021 18:49	202106210751 Lead Total ICAP/MS	<u>J-11, day 11</u>	430	15	ug/L	5.0
	202106210752	<u>J-12, day 11</u>				



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 06/21/2021 1806

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/02/2021 18:50	Lead Total ICAP/MS		280	15	ug/L	5.0
	202106210753	<u>J-13, day 11</u>				
07/02/2021 18:51	Lead Total ICAP/MS		360	15	ug/L	5.0



1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Samples Received on: 06/21/2021 1806

Prepped Analyzed	Prep Batch	Analytical Batch	n Method	Analyte	Result	Units	MRL	Dilution
J-0, day 11 (20210	<u>6210701)</u>				Sam	pled on 06/11	/2021 164	5
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as PO4- Calc.				
06/28/21 10:	44		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	16 (c)	mg/L	0.030	1
	SM4500-PE	/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
06/25/21 17:	44	1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	5.2	mg/L	0.20	10
J-1, day 11 (20210	<u>6210703)</u>				Sam	pled on 06/11	/2021 164	5
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as PO4- Calc.				
06/28/21 10:	44		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	20 (c)	mg/L	0.030	1
	SM4500-PE	/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
06/25/21 17:	45	1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	6.5	mg/L	0.20	10
J-2, day 11 (20210	<u>6210704)</u>				Sam	pled on 06/11	/2021 164	5
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
06/28/21 10:	44		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	22 (c)	mg/L	0.030	1
	SM4500-PE	/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
06/25/21 17:	46	1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.1	mg/L	0.20	10
J-3, day 11 (20210	<u>6210705)</u>				Sam	pled on 06/11	/2021 164	5
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
06/28/21 10:	44		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	25 (c)	mg/L	0.030	1
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
06/25/21 17:	47	1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	8.1	mg/L	0.20	10
J-4, day 11 (20210	<u>6210706)</u>				Sam	pled on 06/11	/2021 164	5
	SM4500-PE	E/EPA 365.1 -	Total phosphoru	s as PO4- Calc.				
06/28/21 10:			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	20 (c)	mg/L	0.030	1
	SM4500-PE	/EPA 365.1 -	Total phosphoru	is as P (T-P)				
06/25/21 17:	48	1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	6.7	mg/L	0.20	10
					_			_

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

J-5, day 11 (202106210707)

Sampled on 06/11/2021 1645





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	21 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:49		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.0	mg/L	0.20	10
J-6, day	11 (2021062	<u>10708)</u>				Sam	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	22 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:50		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.3	mg/L	0.20	10
J-7, day	11 (2021062	<u>10709)</u>				Sam	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	20 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:51		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	6.6	mg/L	0.20	10
J-8, day	11 (2021062	<u>10710)</u>				Sam	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:44			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	22 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:51		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.2	mg/L	0.20	10
J-9, day	11 (2021062	<u>10711)</u>				Sam	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:45			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	25 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:52		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	8.2	mg/L	0.20	10
J-11, day	y 11 (20210 <u>6</u>	<u>210712)</u>				Sam	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:45			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	19 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	is as P (T-P)				



Laboratory Data

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/21/2021 1806

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	06/25/21 17:55		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	6.3	mg/L	0.20	10
<u>J-12, da</u>	y 11 (202106	<u>210713)</u>				Samı	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:45				Total phosphorus as PO4- Calc.	21 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 17:56		1337543	(SM4500-PE/EPA 365.1)	Total phosphorus as P	6.9	mg/L	0.20	10
<u>J-13, da</u>	y 11 (202106	<u>210714)</u>				Samı	pled on 06/11	/2021 164	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:54			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	21 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 18:50		1337544	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.0	mg/L	0.20	10
<u>J-0, day</u>	12 (2021062	<u>10715)</u>				Samı	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:54			(SM4500-PE/EPA 365.1)		0.52 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 18:52		1337544	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.17	mg/L	0.10	5
<u>J-1, day</u>	12 (2021062	<u>10716)</u>				Samı	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:55			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 18:53		1337544	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-2, day</u>	12 (2021062	<u>10717)</u>				Samı	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:55			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	06/25/21 18:54		1337544	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
<u>J-3, day</u>	12 (2021062	<u>10718)</u>				Samı	pled on 06/16	/2021 115	1

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

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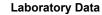
James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/21/2021 1806

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PI	E/EPA 365.1 - T	Total phosphoru	ıs as PO4- Calc.				
	06/28/21 10:55	i		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	ıs as P (T-P)				
	06/25/21 18:55	i	1337544	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>J-4, day</u>	12 (2021062	<u>210719)</u>				Sam	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	is as PO4- Calc.				
	07/06/21 12:09)		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - T	Total phosphoru	is as P (T-P)				
	07/02/21 14:26	i	1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
<u>J-5, day</u>	12 (2021062	<u>210720)</u>				Sam	pled on 06/16	/2021 115	1
		SM4500-PF	=/FPΔ 365 1 - T	Total phosphoru	is as PO4- Calc.				
	07/06/21 12:09		-/LI /4 000.1	(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	ıs as P (T-P)				
	07/02/21 14:27	•	1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-6, day</u>	12 (2021062	<u>210721)</u>				Sam	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	is as PO4- Calc.				
	07/06/21 12:09	1		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	ıs as P (T-P)				
	07/02/21 14:28	1	1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
<u>J-7, day</u>	12 (2021062	<u>210722)</u>				Sam	pled on 06/16	/2021 115	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	is as PO4- Calc.				
	07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	Total phosphoru	is as P (T-P)				
	07/02/21 14:32		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
	40 (000400)								

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

J-8, day 12 (202106210723)

Sampled on 06/16/2021 1151





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
(07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/02/21 14:32		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-9, day	12 (2021062	<u>10724)</u>				Sam	pled on 06/16	5/2021 115 ⁻	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/02/21 14:33		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>J-11, day</u>	y 12 (202106	<u>210725)</u>				Sam	pled on 06/16	3/2021 115°	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	2.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/02/21 14:34		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.94	mg/L	0.10	5
<u>J-12, day</u>	y 12 (202106	<u>210726)</u>				Sam	pled on 06/16	3/2021 115 ⁻	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/02/21 14:35		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
J-13, day	y 12 (20210 <u>6</u>	<u>210727)</u>				Sam	pled on 06/16	5/2021 115 ⁻	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/06/21 12:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/02/21 14:36		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.1	mg/L	0.10	5
J-0, day	10 (2021062	<u>10728)</u>				Sam	pled on 06/11	/2021 165	В
		EPA 200.8	- ICPMS Meta	ls					
06/22/21	07/01/21 18:02	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
<u>J-1, day</u>	10 (2021062	<u>10729)</u>				Sam	pled on 06/11	/2021 165	В





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/21/2021 1806

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
			- ICPMS Metals						
	7/02/21 18:32	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	510	ug/L	5.0	10
J-2, day 1	10 (2021062	<u>10730)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
)6/22/21 0	7/01/21 18:07	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	150 (B4)	ug/L	0.50	1
J-3, day 1	10 (2021062	<u>10731)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
)6/22/21 0	7/01/21 18:08	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	170 (B4)	ug/L	0.50	1
J-4, day 1	10 (2021062	<u>10732)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
)6/22/21 0	7/01/21 18:08	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	140 (B4)	ug/L	0.50	1
<u>J-5, day 1</u>	10 (2021062	<u>10733)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/01/21 18:09	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	94 (B4)	ug/L	0.50	1
<u>J-6, day 1</u>	10 (2021062	<u>10734)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/01/21 18:10	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	130 (B4)	ug/L	0.50	1
J-7, day 1	10 (2021062	<u>10735)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/01/21 18:11	1336248	1338529	(EPA 200.8)	Lead Total ICAP/MS	210 (B4)	ug/L	0.50	1
J-8, day 1	10 (2021062	<u>10736)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/02/21 18:33	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	700	ug/L	5.0	10
J-9, day 1	10 (2021062	<u>10737)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/02/21 18:33	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	310	ug/L	5.0	10
<u>J-11, day</u>	10 (202106	<u>210738)</u>				Samp	oled on 06/11	/2021 165	8
		EPA 200.8	- ICPMS Metals						
06/22/21 0	7/02/21 18:36	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	840	ug/L	5.0	10
J-12, day	10 (202106	<u>210739)</u>				Samp	led on 06/11	/2021 165	8

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



Laboratory Data

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 06/21/2021 1806

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EDA 200 8	- ICPMS Metals	•					
06/22/21	07/02/21 18:37	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	520	ug/L	5.0	10
<u>J-13, day</u>	10 (202106	<u>210740)</u>				Samı	oled on 06/11	/2021 165	8
		EDA 200 9	- ICPMS Metals						
06/22/21	07/02/21 18:38	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	600	ug/L	5.0	10
<u>J-0, day</u> ′	11 (2021062	<u>10741)</u>				Samı	oled on 06/18	/2021 111	0
		EDA 200 0	ICDMC Metale						
06/22/21	07/02/21 18:38	1336248	- ICPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	5.0	10
J-1, day '	11 (2021062	10742)		,		Samı	oled on 06/18	/2021 111	0
		ED 4 000 0	10011011			·			
06/22/21 0	07/02/21 18:39	1336248	 ICPMS Metals 1338759 	(EPA 200.8)	Lead Total ICAP/MS	280	ug/L	5.0	10
	11 (2021062			(=: : : = = : :)		Samı	oled on 06/18		0
						·			
06/22/21	07/02/21 18:40	1336248	- ICPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	5.0	10
	11 (2021062			(2.7.200.0)		Samı	oled on 06/18		0
						•			
06/22/21 (07/02/21 18:43	1336248	- ICPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	5.0	10
	11 (2021062		1000700	(L17/200.0)	Load Total Total Title		oled on 06/18		
06/22/21 0	07/02/21 18:43	EPA 200.8 1336248	- ICPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	5.0	10
	11 (2021062		1000700	(LI A 200.0)	Lead Total Total Two		oled on 06/18		
<u> </u>		<u></u>				-	310 a 311 a 37 1 a	,	
06/22/21 (07/02/21 18:46	EPA 200.8 1336248	- ICPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	5.0	10
	11 (2021062		1330739	(EFA 200.6)	Lead Total IOAF/IIIS		ug/∟ oled on 06/18		
<u>o o, aay</u>	11 (2021002					Camp	31C4 011 00/10	72021 111	
C	07/06/21 12:10	SM4500-PE		otal phosphoru (SM4500-PE/EPA 365.1)	s as PO4- Calc. Total phosphorus as PO4- Calc.	23 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - To	otal phosphoru	• •				
C	07/02/21 14:40		1338441	(SM4500-PE/EPA 365.1)	Total phosphorus as P	7.5	mg/L	0.20	10
<u>J-7, day</u> ′	11 (2021062	<u>10748)</u>		,		Samı	oled on 06/18	/2021 111	0

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



Laboratory Data

Dilution

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher

06/21/2021 1806 201 East Pine Street Suite 1000 Orlando, FL 32801 Prepped Analyzed Prep Batch Analytical Batch Method Analyte Result Units MRL

		,						
E 06/22/21 07/02/21 18:47	E PA 200.8 - I 1336248	CPMS Metals 1338759	(EPA 200.8)	Lead Total ICAP/MS	350	ug/L	5.0	10
J-8, day 11 (20210621)	<u>0749)</u>				Samp	led on 06/18	/2021 1110	
E	PA 200.8 - I	CPMS Metals						
06/22/21 07/02/21 18:47	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	5.0	10
<u>J-9, day 11 (20210621</u>	<u>0750)</u>				Samp	led on 06/18	/2021 1110	
E	PA 200.8 - I	CPMS Metals						
06/22/21 07/02/21 18:48	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	220	ug/L	5.0	10
J-11, day 11 (2021062	<u>10751)</u>				Samp	led on 06/18	/2021 1110	
E	PA 200.8 - I	CPMS Metals						
06/22/21 07/02/21 18:49	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	430	ug/L	5.0	10
J-12, day 11 (2021062	<u>10752)</u>				Samp	led on 06/18	/2021 1110	
E	PA 200.8 - I	CPMS Metals						
06/22/21 07/02/21 18:50	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	280	ug/L	5.0	10
J-13, day 11 (2021062	<u>10753)</u>				Samp	led on 06/18	/2021 1110	
E	PA 200.8 - I	CPMS Metals						
06/22/21 07/02/21 18:51	1336248	1338759	(EPA 200.8)	Lead Total ICAP/MS	360	ug/L	5.0	10



Laboratory QC Summary

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

ICPMS Metals

Prep Batch: 1336248 Analytical Batch: 1338530

Total phosphorus as P (T-P)		
Analytical Batch: 133754	3	Analysis Date: 06/25/2021
202106210701	J-0, day 11	Analyzed by: LQ3M
202106210703	J-1, day 11	Analyzed by: LQ3M
202106210704	J-2, day 11	Analyzed by: LQ3M
202106210705	J-3, day 11	Analyzed by: LQ3M
202106210706	J-4, day 11	Analyzed by: LQ3M
202106210707	J-5, day 11	Analyzed by: LQ3M
202106210708	J-6, day 11	Analyzed by: LQ3M
202106210709	J-7, day 11	Analyzed by: LQ3M
202106210710	J-8, day 11	Analyzed by: LQ3M
202106210711	J-9, day 11	Analyzed by: LQ3M
202106210712	J-11, day 11	Analyzed by: LQ3M
202106210713	J-12, day 11	Analyzed by: LQ3M
Total phosphorus as P (T-P)		
Analytical Batch: 133754	4	Analysis Date: 06/25/2021
202106210714	J-13, day 11	Analyzed by: LQ3M
202106210715	J-0, day 12	Analyzed by: LQ3M
202106210716	J-1, day 12	Analyzed by: LQ3M
202106210717	J-2, day 12	Analyzed by: LQ3M
202106210718	J-3, day 12	Analyzed by: LQ3M
Total phosphorus as P (T-P)		
Analytical Batch: 133844	1	Analysis Date: 07/02/2021
202106210719	J-4, day 12	Analyzed by: LQ3M
202106210720	J-5, day 12	Analyzed by: LQ3M
202106210721	J-6, day 12	Analyzed by: LQ3M
202106210722	J-7, day 12	Analyzed by: LQ3M
202106210723	J-8, day 12	Analyzed by: LQ3M
202106210724	J-9, day 12	Analyzed by: LQ3M
202106210725	J-11, day 12	Analyzed by: LQ3M
202106210726	J-12, day 12	Analyzed by: LQ3M
202106210727	J-13, day 12	Analyzed by: LQ3M
202106210747	J-6, day 11	Analyzed by: LQ3M
ICPMS Metals		
Prep Batch: 1336248 An	ıalytical Batch: 1338529	Analysis Date: 07/01/2021
202106210728	J-0, day 10	Analyzed by: AZS
202106210730	J-2, day 10	Analyzed by: AZS
202106210731	J-3, day 10	Analyzed by: AZS
202106210732	J-4, day 10	Analyzed by: AZS
202106210733	J-5, day 10	Analyzed by: AZS
202106210734	J-6, day 10	Analyzed by: AZS
202106210735	J-7, day 10	Analyzed by: AZS
ICDMC Metale		

Analysis Date: 07/01/2021



Laboratory QC Summary

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

202106210749	J-8, day 11	Analyzed by: AZS
ICPMS Metals		
Prep Batch: 1336248	Analytical Batch: 1338759	Analysis Date: 07/02/2021
202106210729	J-1, day 10	Analyzed by: AZS
202106210736	J-8, day 10	Analyzed by: AZS
202106210737	J-9, day 10	Analyzed by: AZS
202106210738	J-11, day 10	Analyzed by: AZS
202106210739	J-12, day 10	Analyzed by: AZS
202106210740	J-13, day 10	Analyzed by: AZS
202106210741	J-0, day 11	Analyzed by: AZS
202106210742	J-1, day 11	Analyzed by: AZS
202106210743	J-2, day 11	Analyzed by: AZS
202106210744	J-3, day 11	Analyzed by: AZS
202106210745	J-4, day 11	Analyzed by: AZS
202106210746	J-5, day 11	Analyzed by: AZS
202106210748	J-7, day 11	Analyzed by: AZS
202106210749	J-8, day 11	Analyzed by: AZS
202106210750	J-9, day 11	Analyzed by: AZS
202106210751	J-11, day 11	Analyzed by: AZS
202106210752	J-12, day 11	Analyzed by: AZS
202106210753	J-13, day 11	Analyzed by: AZS





1 800 566 LABS (1 800 566 5227)

Report: 942014 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1337543				,	Analysis D	ate: 06/25/	2021	
LCS1	Total phosphorus as P		0.4	0.433	mg/L	108	(90-110)		
LCS2	Total phosphorus as P		0.4	0.431	mg/L	108	(90-110)	20	0.46
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0255	mg/L	127	(50-150)		
MS_202106220278	Total phosphorus as P	ND	0.4	0.454	mg/L	109	(90-110)		
MS2_202106220281	Total phosphorus as P	ND	0.4	0.448	mg/L	108	(90-110)		
MSD_202106220278	Total phosphorus as P	ND	0.4	0.456	mg/L	110	(90-110)	20	0.53
MSD2_202106220281	Total phosphorus as P	ND	0.4	0.457	mg/L	110	(90-110)	20	2.0
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1337544				,	Analysis D	ate: 06/25/	2021	
LCS1	Total phosphorus as P		0.4	0.428	mg/L	107	(90-110)		
LCS2	Total phosphorus as P		0.4	0.427	mg/L	107	(90-110)	20	0.23
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0170	mg/L	85	(50-150)		
MS_202106220282	Total phosphorus as P	ND	0.4	0.459	mg/L	<u>114</u>	(90-110)		
MS2_202106100191	Total phosphorus as P	ND	0.4	0.449	mg/L	<u>112</u>	(90-110)		
MSD_202106220282	Total phosphorus as P	ND	0.4	0.463	mg/L	<u>115</u>	(90-110)	20	0.85
MSD2_202106100191	Total phosphorus as P	ND	0.4	0.448	mg/L	<u>112</u>	(90-110)	20	0.18
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1338441				,	Analysis D	ate: 07/02/	2021	
LCS1	Total phosphorus as P		0.4	0.436	mg/L	109	(90-110)		
LCS2	Total phosphorus as P		0.4	0.424	mg/L	106	(90-110)	20	2.8
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0130	mg/L	65	(50-150)		
MS_202106150689	Total phosphorus as P	ND	0.4	0.407	mg/L	102	(90-110)		
MS2_202106240771	Total phosphorus as P	ND	0.4	0.412	mg/L	103	(90-110)		
MSD_202106150689	Total phosphorus as P	ND	0.4	0.405	mg/L	101	(90-110)	20	0.52
MSD2_202106240771	Total phosphorus as P	ND	0.4	0.420	mg/L	105	(90-110)	20	2.1
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1338529				,	Analysis D	ate: 07/01/	2021	
LCS1	Lead Total ICAP/MS		50	50.1	ug/L	100	(85-115)		
LCS2	Lead Total ICAP/MS		50	50.6	ug/L	101	(85-115)	20	0.99
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.





1 800 566 LABS (1 800 566 5227)

Report: 942014

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Lead Total ICAP/MS		0.5	0.506	ug/L	101	(50-150)		
MS_202106210728	Lead Total ICAP/MS	180	50	227	ug/L	95	(70-130)		
MS2_202106210738	Lead Total ICAP/MS	840	50	826	ug/L	73	(70-130)		
MSD_202106210728	Lead Total ICAP/MS	180	50	234	ug/L	108	(70-130)	20	2.9
MSD2_202106210738	Lead Total ICAP/MS	840	50	831	ug/L	84	(70-130)	20	0.59
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1338530					Analysis D	ate: 07/01/	2021	
LCS1	Lead Total ICAP/MS		50	49.7	ug/L	99	(85-115)		
LCS2	Lead Total ICAP/MS		50	50.7	ug/L	101	(85-115)	20	2.0
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.591	ug/L	118	(50-150)		
MS_202106210749	Lead Total ICAP/MS	240	50	281	ug/L	103	(70-130)		
MS2_202106230577	Lead Total ICAP/MS	ND	50	46.8	ug/L	94	(70-130)		
MSD_202106210749	Lead Total ICAP/MS	240	50	282	ug/L	106	(70-130)	20	0.34
MSD2_202106230577	Lead Total ICAP/MS	ND	50	49.4	ug/L	99	(70-130)	20	5.4
ICPMS Metals by I	EPA 200.8								
Analytical B	atch: 1338759				,	Analysis D	ate: 07/02/	2021	
LCS1	Lead Total ICAP/MS		50	54.2	ug/L	108	(85-115)		
LCS2	Lead Total ICAP/MS		50	52.5	ug/L	105	(85-115)	20	3.2
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.533	ug/L	107	(50-150)		
MS_202107020152	Lead Total ICAP/MS	ND	50	50.0	ug/L	100	(70-130)		
MS2_202106210743	Lead Total ICAP/MS	240	50	737	ug/L	100	(70-130)		
MSD_202107020152	Lead Total ICAP/MS	ND	50	50.8	ug/L	102	(70-130)	20	1.8
MSD2_202106210743	Lead Total ICAP/MS	240	50	773	ug/L	107	(70-130)	20	4.8

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



ACCREDITED

CERTIFICATE #'s 5890.01 & 5890.02

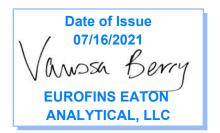
750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801
Attention: James Christopher

Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 943899 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

	nc.	Environ-	Environ-	ре от асстепта
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	х		х
1,4-Dioxane	EPA 522	х		х
2,3,7,8-TCDD	Modified EPA 1613B	х		х
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	Х	х
Ammonia	EPA 350.1		Х	х
Ammonia	SM 4500-NH3 H		Х	х
Anions and DBPs by IC	EPA 300.0	х	Х	Х
Anions and DBPs by IC	EPA 300.1	х		Х
Asbestos	EPA 100.2	x	x	
BOD / CBOD	SM 5210B		х	х
Bromate	In House Method (2447)	х		х
Carbamates	EPA 531.2	х		х
Carbonate as CO3	SM 2330B	х	Х	х
Carbonyls	EPA 556	х		х
COD	EPA 410.4 / SM 5220D		Х	
Chloramines	SM 4500-CL G	х	х	х
Chlorinated Acids	EPA 515.4	х		х
Chlorinated Acids	EPA 555	Х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	х		х
Chlorine -Total/Free/	SM 4500-Cl G	х	x	х
Combined Residual Conductivity	EPA 120.1		×	
Conductivity	SM 2510B	x	×	x
Corrosivity (Langelier Index)	SM 2330B	x	^	x
Cyanide, Amenable	SM 4500-CN G	x	х	^
Cyanide, Free	SM 4500CN F	х	х	х
Cyanide, Total	EPA 335.4	х	х	х
Cyanogen Chloride (screen)	In House Method (2470)	х		х
Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	X		x
Dissolved Oxygen	SM 4500-O G		х	×
DOC	SM 5310C	х		x
E. Coli	(MTF/EC+MUG)	х		х
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	х		x
E. Coli (Enumeration)	SM 9223B	X		×
EDB/DCBP	EPA 504.1	X		^
EDB/DBCP and DBP	EPA 551.1	x		x
EDTA and NTA	In House Method (2454)	x		x
Endothall	EPA 548.1	x		x
2. Augustus 1				
Endothall	In-house Method (2445)	X		X
Enterococci	SM 9230B	х	Х	
Fecal Coliform Fecal Coliform	SM 9221 E (MTF/EC) SM 9221C, E (MTF/EC)	х	х	
Fecal Coliform				
(Enumeration)	SM 9221E (MTF/EC)	Х		Х
Fecal Coliform with	SM 9221E		х	
Chlorine Present				
Fecal Streptococci	SM 9230B	Х	х	
Fluoride	SM 4500-F C	x	x	х
Glyphosate	EPA 547	х		х
Glyphosate + AMPA	In House Method (3618)	Х		х
Gross Alpha/Beta	EPA 900.0	Х	х	х
Gross Alpha Coprecipitation	SM 7110 C	х	x	х
Hardness	SM 2340B	х	х	х
Heterotrophic Bacteria	In House Method (2439)	х		x
Heterotrophic Bacteria	SM 9215 B	X		x
Hexavalent Chromium	EPA 218.6	х	Х	х

Hexavalent Chromium Hexavalent Chromium Hormones Hydroxide as OH Calc. Kjeldahl Nitrogen Legionella Metals Microcystin LR Microcystin LR Microcystin LR Microcystin LR OCL, Pesticides/PCB Ortho Phosphorous Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Total Residue, Total Residue, Total Residue, Volatile	EPA 218.7 SM 3500-Cr B EPA 539 SM 2330B EPA 351.2 Legiolert EPA 200.8 EPA 200.7 / 200.8 EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 311.0 EPA 314.0 EPA 331.0 EPA 337 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448) IDEXX Pseudalert (2461)	x x x x x x x x x x x x x x x x x x x	x	x x x x x x x x x x x x x x x x x x x
Hormones Hydroxide as OH Calc. Kjeldahl Nitrogen Legionella Mercury Metals Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 539 SM 2330B EPA 351.2 Legiolert EPA 200.8 EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	x	x x x x x x x x x x x x x x x x x x
Hydroxide as OH Calc. Kjeldahl Nitrogen Legionella Mercury Metals Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	SM 2330B EPA 351.2 Legiolert EPA 200.8 EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	x	x x x x x x x x x x x x x x x x x x
Kjeldahl Nitrogen Legionella Mercury Metals Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 351.2 Legiolert EPA 200.8 EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 353.2 EPA 365.1 SM 4500P E EPA 317.0 EPA 311.0 EPA 314.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	x	x x x x x x x x x x x x x x x x x x x
Legionella Mercury Metals Microcystin LR Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Residue, Filterable Residue, Non-filterable Residue, Total	Legiolert EPA 200.8 EPA 200.7 / 200.8 EENA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 353.2 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	x	x x x x x x x x x x x x x x x x x x x
Mercury Metals Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 200.8 EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	х	x x x x x x x x x x x x x x x x x x x
Metals Microcystin LR Microcystin, Total Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 200.7 / 200.8 ELISA (2360) EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	х	x x x x x x x x x x x x x x x x x x x
Microcystin LR Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphate Ortho Phosphorous Oxypalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	ELISA (2360)	x x x x x x x x x x x x x x x x	х	x x x x x x x x x x x x x x x x x x x
Microcystin, Total NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 546 EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 337 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x		x x x x x x x x x x x x
NDMA Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EEA/Agilent 521.1 In house method (2425) EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x		x x x x x x x x x x
Nitrate/Nitrite Nitrogen OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byrorducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	In house method (2425)	x x x x x x x x		x x x x x
OCL, Pesticides/PCB Ortho Phosphate Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radion-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 353.2 EPA 505 EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 331.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x		x x x x x x x x x
Ortho Phosphate Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 365.1 SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x x x x x x x x x x x x x x x	x	x x x x
Ortho Phosphorous Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH	SM 4500P E EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x	X	x x x x
Oxyhalides Disinfection Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radium-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 317.0 EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x x		x x x
Byproducts Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x		x x
Perchlorate Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 331.0 EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x x		x x
Perchlorate (low and high) Perfluorinated Alkyl Acids Perfluorinated Polutant pH pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 314.0 EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x		х
Perfluorinated Alkyl Acids Perfluorinated Polutant pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 537 In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x x		
Perfluorinated Polutant pH pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	In house Method (2434) EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	x x		
pH Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	EPA 150.1 SM 4500-H+B In House Method, based on EPA 532 (2448)	х		
Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	SM 4500-H+B In House Method, based on EPA 532 (2448)			х
Phenylurea Pesticides/ Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	In House Method, based on EPA 532 (2448)			
Herbicides Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	532 (2448)	Х	x	х
Pseudomonas Radium-226 Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total		х		x
Radium-228 Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total		х		х
Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	GA Institute of Tech	х		х
Radon-222 Residue, Filterable Residue, Non-filterable Residue, Total	GA Institute of Tech	х		x
Residue, Filterable Residue, Non-filterable Residue, Total	SM 7500RN	X		x
Residue, Non-filterable Residue, Total	SM 2540C	X	Х	x
	SM 2540D		x	
	SM 2540B		х	х
	EPA 160.4		X	^
Semi-VOC	EPA 525.2	х		х
Silica	SM 4500-Si D	х	Х	
Silica	SM 4500-SiO2 C	х	х	
Sulfide			x	
	SM 4500-S ⁼ D		Х	
Sulfite	SM 4500-SO ³ B	x	Х	х
Surfactants	SM 5540C	х	Х	х
Taste and Odor Analytes	SM 6040E	х		х
Total Coliform (P/A)	SM 9221 A, B	х		х
Total Coliform (Enumeration)	SM 9221 A, B, C	x		х
Total Coliform / E. coli	Colisure SM 9223	х		x
Total Coliform	SM 9221B	^	х	
Total Coliform with Chlorine			^	
Present	SM 9221B		Х	
Total Coliform / E.coli (P/A	SM 9223	x		х
and Enumeration)	3101 7223	^		^
TOC	SM 5310C	Х	X	х
TOX	SM 5320B		Х	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	x	х
Total Phosphorous	SM 4500 P E		Х	
Triazine Pesticides & Degradates	In House (3617)	x		х
Turbidity	EPA 180.1	х	х	х
Turbidity	SM 2130B	Х	Х	
Uranium by ICP/MS	EPA 200.8	Х		х
UV 254	SM 5910B	х		
VOC	EPA 524.2	х		x
VOC	In House Method (2411)	X		×
Yeast and Mold	110450 111000 (2711)	x		x
Field Sampling	SM 9610	^		^

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton Version 006 issued: 05/04/20



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 943899

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 01, 2021** at **1448**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202107010566	J-0, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010567	J-1, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010568	J-2, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010569	J-3, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202107010570</u>	J-4, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202107010571</u>	J-5, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010572	J-6, Day 13	Total phosphorus as 1 C4- Calc.	06/21/2021 1345
202101010012	,	Tablebash and POA Oak	
202107010573	Total phosphorus as P J-7, Day 13	Total phosphorus as PO4- Calc.	06/21/2021 1345
202107010373	,		00/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010574	J-8, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202107010575</u>	J-9, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202107010576</u>	J-11, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010577	J-12, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010578	J-13, Day 13		06/21/2021 1345
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 07/16/2021



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Sample #	Sample ID	Sample Date
202107010579	J-0, Day 12	06/22/2021 1230
	@ICPMS	
202107010580	J-1, Day 12	06/22/2021 1230
	@ICPMS	
202107010581	J-2, Day 12	06/22/2021 1230
	@ICPMS	
202107010582	J-3, Day 12	06/22/2021 1230
	@ICPMS	
202107010583	J-4, Day 12	06/22/2021 1230
	@ICPMS	
202107010584	J-5, Day 12	06/22/2021 1235
	@ICPMS	
202107010585	J-6, Day 12	06/22/2021 1235
	@ICPMS	
202107010586	J-7, Day 12	06/22/2021 1235
	@ICPMS	
202107010587	J-8, Day 12	06/22/2021 1235
	@ICPMS	
202107010588	J-9, Day 12	06/22/2021 1235
	@ICPMS	
202107010589	J-11, Day 12	06/22/2021 1240
	@ICPMS	
202107010590	J-12, Day 13	06/22/2021 1240
	@ICPMS	
202107010591	J-13, Day 13	06/22/2021 1240
	@ICPMS	
	· · · · · · · · · · · · · · · · · · ·	

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Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID		Sample Date
202107010592	J-0, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010593	J-1, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010594	J-2, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010595	J-3, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010596	J-4, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010597	J-5, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010598	J-6, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010599	J-7, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010600	J-8, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
<u>202107010601</u>	J-9, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010602	J-11, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010603	J-12, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010604	J-13, Day 14		06/24/2021 1355
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

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Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 943899

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 01, 2021** at **1448**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202107010605	J-0, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010606	J-1, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010607	J-2, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010608	J-3, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010609	J-4, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010610	J-5, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010611	J-6, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010612	J-7, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010613	J-8, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010614	J-9, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010615	J-11, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010616	J-12, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107010617	J-13, Day 15		06/29/2021 1224
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 07/16/2021

Page 4 of 6



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 943899

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

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Sample #	Sample ID	Sample Date
202107010618	J-0, Day 13	06/25/2021 1230
	@ICPMS	
202107010619	J-1, Day 13	06/25/2021 1230
	@ICPMS	
202107010620	J-2, Day 13	06/25/2021 1230
	@ICPMS	
<u>202107010621</u>	J-3, Day 13	06/25/2021 1230
	@ICPMS	
202107010622	J-4, Day 13	06/25/2021 1230
	@ICPMS	
202107010623	J-5, Day 13	06/25/2021 1230
	@ICPMS	
202107010624	J-6, Day 13	06/25/2021 1230
	@ICPMS	
202107010625	J-7, Day 13	06/25/2021 1230
	@ICPMS	
202107010626	J-8, Day 13	06/25/2021 1230
	@ICPMS	
202107010627	J-9, Day 13	06/25/2021 1230
	@ICPMS	
202107010628	J-11, Day 13	06/25/2021 1230
	@ICPMS	
202107010629	J-12, Day 13	06/25/2021 1230
	@ICPMS	
202107010630	J-13, Day 13	06/25/2021 1230
	@ICPMS	
	· · · · · · · · · · · · · · · · · · ·	



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

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Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 01, 2021** at **1448**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 07/16/2021

Page 6 of 6

Eaton Analytical

CHAIN OF CUSTODY RECORD

(check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) 0 = Other - Please Identify 4 (check for yes) 04:0 COMMENTS N/A SAMPLER (check for yes), OR NON-COMPLIANCE SAMPLES Thawed 30/21 SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY: 06 30 21 SAMPLES CHECKED AGAINST COC BY: REGULATION INVOLVED: 7-1-5 °C) (Final =4 °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / LiPS / DHL / Area Fast / Top Line / Other. SEE ATTACHED KIT ORDER FOR ANALYSES °C) (Corr.Factor C BW = Bottled Water SW = Storm Water C) (Corr.Factor Tetra Tech CONDITION OF ICE: Frozen Tetratech COMPLIANCE SAMPLES - Requires state forms (270 A (Observation=5 (Observation= ww = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology < 10°C) となるの 0-1404 No Ice Seas Ana Rosaba 4 ATAO OJEI: CFW = Chlor(am)inated Finished Water EUROFINS EATON ANALYTICAL USE ONLY PRINT NAME 1 day phase IR Gun ID = IR Gun ID = 1-Sauce Synthetic ATAG GJEIF SAMPLE TEMP RECEIVED AT: 2 day FW = Other Finished Water · XIRTAM lead solubility Other) LOGIN COMMENTS: TYPE OF ICE: Real PROJECT CODE: CLIENT LAB ID SAMPLE GROUP Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water TRK# 5062 0905 (008 Website: www.EatonAnalytical.com TAT requested: rush by adv notice only SAMPLE ID 750 Royal Oaks Drive, Suite 100 COC ID: 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 QA FO 0029.2 (Version 2) (08/28/2014) terna Tech 00 0 4 7-6 7-5 210 3-0 COMPANY/AGENCY NAME: tetra fech-or Phone: 626 386 1100 Fax: 626 386 1101 TO BE COMPLEILUB EEA CLIENT CODE: RELINQUISHED BY ELINQUISHED BY 13:45 200 a 13:45 TIME SAMPLE ECEIVED BY RECEIVED BY SAMPLED BY **BTA** SAMPLE

OF

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CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USF ONLY

		CONCLINS EATON AWAL TIICAL USE UNLY	OINL Y:		•	
750 Royal C	750 Royal Oaks Drive, Suite 100	LOGIN COMMENTS:		SAMPLES CHECK	SAMPLES CHECKED AGAINST COC BY:	
Monrovia, C	Monrovia, CA 91016-3629			SAM	SAMPLES LOGGED IN BY:	
Phone: 626 386 1100 Fax: 626 386 1101	386 1100 6 1101	SAMPLE TEMP RECEIVED AT: Other) IR Gun ID =		SAMPLES REC'D (Observation= °C) (Corr.Factor	SAMPLES REC'D DAY OF COLLECTION2 (check for yes)	yes)
800 566 LAE	800 566 LABS (800 566 5227)	Monrovia IR Gun ID =	= (2) A (0)	on= 2 ° (Corr.Factor &	5.9	
Website: ww	Website: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No Ice CONTINUED TYPE	Stry: 4 ± Z · C) (Microbiology: No Ice	ON OF ICE. Erozon	ì	
		HIPM	/ Walk-In C	t / To	Partially Frozen Thawed N/A	
TO BE COMPLETED BY SAMPLER:	ED BY SAMPLER:)	(check for vee)	, , , , , , , , , , , , , , , , , , , ,	7
COMPANY/AGENCY NAME:	NCY NAME:	PROJECT CODE:	_		NON-COMPLIANCE SAMPLES	Γ
Tetra	r Tech		Type of sar		IVOLVED:	
tetratech - Or	- 0,)	SAMPLE GROUP:	see ATT	SEE ATTACHED KIT ORDER FOR ANALYSES	(eg. SDWA, NPDES, etc.) (ES (check for yes), OR	etc.)
TAT requested:	TAT requested: rush by adv notice only	1 wk 3 day 2 da	+	defined from the control of bottles sent for each sample)	bottles sent for each test for each sample	Se)
STAD STAD STAD STAMAS	SAMPLEID	CLIENT LAB ID	ATAO 01319		SAMPLER	
Daze 13-45	3-11, Day 13	73	_			T
•	1, 2,-		_			T
→ →	7-13-4		→			T
6/22 12:30	3-0, Day 12		-			T
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>	7-2		+			
\$2:21	7-4			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C	T
-	7-5					T
→ >	7-6,	→ 7	-2			T
* MATRIX TY	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	Water SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil 0 = Other - Please Identify SL = Sludge	T À
SAMDLED BY:	SIGNATURE	2 PRIN	PRINT NAME	COMPANY/TITLE	DATE	
BELINOLIISHED BY	dino)	And	Rosabal	Teha Telu	N 12	
RECEIVED BY:	chann har	T.San	3	Tetra Tech	121	-
RELINQUISHED BY:	454	3	Mails	DEA	72-21 PAS	
RECEIVED BY:						Т
QA FO 0029.2 (Version 2) (08/28/2014)	on 2) (08/28/2014)				PAGE 7 OF	٦

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CHAIN OF CUSTODY RECORD

Eaton Analytical EUROFINS EATON ANALYTICAL USE ONLY:

ECKED AGAINST COC BY: SAMPLES LOGGED IN BY: EC'D DAY OF COLLECTION? C'C (Final = 2 - 7 °C) Partially Frozen Thawed N/A	NON-COMPLIANCE SAMPLES REGULATION INVOLVED: CONFIRMATION (eg. SDWA, NPDES, etc.) YSES (check for yes), OR	SAMPLER COMMENTS			SO = Soil O = Other - Please Identify SL = Sludge DATE TIME	6/30/21 (0:40 5/20/21 10:40 7-1-21 (445
SAMPLES CH SAMPLES R °C) (Corr.Factor C) °C) (Corr.Factor OFICE: Frozen V F	COMPLIANCE SAMPLES - Requires state forms Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SEE ATTACHED KIT ORDER FOR ANALYSES	SAMPLER COMMENTS			BW = Bottled Water SW = Storm Water companyrittle	Tetra Tech Etha Tech
Observa Observa Obiology: < 10°C COND	F 103	ATAD DATA				to seal
IN COMMENTS: LE TEMP RECEIVED AT: Other) IR Gun ID =	code: soup:	day 2 day метятк - татага метятк - татага метятк - татага метага	FW		r r PRIN	Trans
SAMPLE TEMP RECEIV SAMPLE TEMP RECEIV (Other) Compliance Acceptance C TYPE OF ICE: Real	PROJECT CODE: SAMPLE GROUP:	STD1wk3			*	Man de la companya de
750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227) Website: www.EatonAnalytical.com	TO BE COMPLETED BY SAMPLER: COMPANYIAGENCY NAME: Tetra Tech EEA CLIENT CODE: COC ID:	TAT requested: rush by adv notice only RATE AMPLE ID SAMPLE ID	J-2 Day 12 J-9 J-11	J-12 J-(3) J-(3) J-1 J-1 J-2	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water SIGNATURE SAMPLED BY:	Cheru
750 Royal Oaks Drive Monrovia, CA 91016-: Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 5 Website: www.EatonA	COMPANYIAGENCY NAME: Tetra Tech EEA CLIENT CODE: Tetratech - Orl	TAT reques STAG STAG STAG STAG STAG STAG STAG STAG	07:25	↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	* MATRIX TY	RECEIVED BY: RECEIVED BY: RECEIVED BY: RECEIVED BY: RECEIVED BY: QA FO 0029.2 (Version 2) (08/28/2014)

: eurofins

CHAIN OF CUSTODY RECORD

SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY °C) (Final = C) (Final = °C) (Corr.Factor O. C. °C) (Corr.Factor CONDITION OF ICE: Frozen (Observation= 3 Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) No Ice IR Gun ID = CLYOA EUROFINS EATON ANALYTICAL USE ONLY: IR Gun ID = Synthetic SAMPLE TEMP RECEIVED AT: (Other) TYPE OF ICE: Real LOGIN COMMENTS: Monrovia Eaton Analytical Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 800 566 LABS (800 566 5227) Phone: 626 386 1100 Fax: 626 386 1101

(check for yes)

() ()

N/A

Thawed

Partially Frozen

TO BE COMPLETED BY SAMPLER	SAMPLER				(check for yes)		(check for yes)	or ves)
COMPANY/AGENCY NAME:	NAME:	PROJECT CODE:		COMPLIANC	COMPLIANCE SAMPLES	NON-COMPLIANCE SAMPLES	CE SAMPI ES	(20)
Tetra Tech	4			- Require	e forms	REGULATION INVOLVED:	VOLVED:	-
TOO TENT COOL				Type of samples (circle one):	ROUTINE	SPECIAL CONFIRMATION	(eg. SDWA, I	(eg. SDWA, NPDES, etc.)
tetratech orl	-/	lead solubility - ph	- phase 2	SEE ATTACHED KI	SEE ATTACHED KIT ORDER FOR ANALYSES	YSES	(check for yes), OR	OR
TAT requested: rush by adv notice only	by adv notice only		1 day		A series in the series in the series sent for each sample)	er or bottles sent r	for each test for each	th sample
atad atad amar amit	SAMPLEID	CLIENT LAB ID	ATAG GJELD DATA	4 /24°]			SAMPLER	LER
6/24 13:55 J-	J-4, Dav 14	J. J.	+	-				
1 1 7-5								
7~	, 9~							
J.	- 2,							
7-	. 6							
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J.	. (2,							
1 1 5-13	13, 1	>		>				
6/29 12:29 J-0	0, Pay 15	FW		-				
* MATRIX TYPES	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ned Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SW = Storm Water	SO = Soil SL = Sludge	0 = Other - Please Identify	se Identif
	SIGNATURE		PRINT NAME		COMPANY/TITLE		DATE	TIME
SAMPLED BY:	(Com	1 Are	Rosa	Dev/	leta Tech			10.59
RELINGUISHED BY:	Them been	Isage	N	34	Tetra Tech	9	6/20/21 10	10:55
RELINOLIISHED BV:	ASA.	25%	っててい	5112	でを千	7	1 12-1-	44
NELITA CONTINUE OF THE	7	>						

RECEIVED BY

QA FO 0029.2 (Version 2) (08/28/2014)

PAGE 4 OF



CHAIN OF CUSTODY RECORD

		1 1 1 1 1					
		LOGIN COMMENTS.	YTICAL USE ONLY:				
750 F Monre	750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629	COMMENT OF			SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY:	ECKED AGAINST COC BY:	7
Phone Fax: 6	Phone: 626 386 1100 Fax: 626 386 1101	SAMPLE TEMP RECEIVED Other) IR	ED AT: IR Gun ID =	(Observation	SAMPLES R "C) (Corr.Factor	Y OF COLLECTION?	(check for yes)
800 5	800 566 LABS (800 566 5227)	Monrovia	IR Gun ID = 430	- L	2.5	5-2	
Webs	Website: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No Ice CONDIT	Synthetic No	°C) (Microbiology: < 10°C) No Ice CONDITION OF ICE:	OF ICE: Frozen		47.4
		METHOD OF SHIPME	NT: Pick-Up / Wa	alk-In / FedEx / UPS /	Area Fast / To	ner:	NA
TO BE CO	TO BE COMPLETED BY SAMPLER:)	(check for yes)	(Che	(check for vec)
COMPAN	COMPANY/AGENCY NAME:	PROJECT CODE:		COMPLIAN		NON-COMPLIANCE SAMPLES	(sal la l
Tel	Totra Toch			- Requires stat	te forms	WOLVED:]
EEA CLIE	EEA CLIENT CODE: COC ID:			SEE ATTACHED K	SEE ATTACHED KIT ORDER FOR ANALYSES	(eg. SDWA, NPD (check for yes), OR	(eg. SDWA, NPDES, etc.) k for yes), OR
ופוגם	ecol or	ead solubility	pnase	List ALL ANALYSE	ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	s sent for each test for	r each sample)
IAI redu	IAT requested: rush by adv notice only	SID1 wk3 day	2 day 1 day				
314MA2 3TAG	SAMPLE ID	CLIENT LAB ID	ATAO OJEIF	-142		SA	SAMPLER
6129 1	12:24 J-1, Pay 15			-			
	1 5-2 , 1			_			
	J-3 ,						
	3-4						
	7-5 ,						
	7-6						
	7-7						
	7-8,						
100	5-9 ,						
>	1 2-11,	>		>			
* MATR	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	inished Water er	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sludge	-	O = Other - Please Identify
	SIGNATURE		PRINT NAME			DATE	TIME
SAMPLED BY:	min min		An Raaba) pc	Tetra fech	12 05 190	18. I
RECEIVED BY	TEU OT.	14	Saac Sees	X	Tetra Tech	0/2	19:51
RELINQUISHED BY:	NED BY:) -	えしる	SM	Eleva	1-1-6	(44°C
RECEIVED BY	N						
QA FO 0029	QA FO 0029.2 (Version 2) (08/28/2014)					PAGE	0.5

Eaton Analytical

CHAIN OF CUSTODY RECORD

(check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc.) O = Other - Please Identify (check for yes) COMMENTS N/A SAMPLER (check for yes), OR P PAGE LE NON-COMPLIANCE SAMPLES Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION 2/01/90 SAMPLES LOGGED IN BY 6/30121 REGULATION INVOLVED: 2-1-6 °C) (Corr.Factor 0.1 (C) (Final = °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In /FedEx / JUPS / DHL / Area Fast / Top Line / Other: SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) Tetra tech °C) (Corr.Factor BW = Bottled Water SW = Storm Water CONDITION OF ICE: Frozen COMPANY/TITLE COMPLIANCE SAMPLES - Requires state forms CSOR (Observation=3. 000 WW = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry, 4 ± 2 °C) (Microbiology: < 10°C) Rosabal 56, 70, 13-5-B d-1991 d-12401 ter sur No Ice ATAO 0J31= EUROFINS EATON ANALYTICAL USE ONLY: CFW = Chlor(am)inated Finished Water PRINT NAME N IR Gun ID = IR Gun ID = Scal Synthetic lead solubility, Phase ATAO OJEIT 2 day SAMPLE TEMP RECEIVED AT: FW FE FW = Other Finished Water (Other) 3 day LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: 1 wk Monrovia STD * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water 15 Website: www.EatonAnalytical.com TAT requested: rush by adv notice only COC ID: SAMPLE ID 750 Royal Oaks Drive, Suite 100 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER QA FO 0029.2 (Version 2) (08/28/2014) 7-12 COMPANY/AGENCY NAME: Phone: 626 386 1100 J-13 J-0 3-7 7-5 Tech 7-3 Fax: 626 386 1101 7-4 3.5 tetratech - orl 3-5 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY Tetra 6125 (2:30 12:30 3AMPLE TIME RECEIVED BY RECEIVED BY SAMPLED BY 6219 **BTAG**

seurotins 💸

Eaton Analytical

CHAIN OF CUSTODY RECORD

(check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify (check for yes) COMMENTS N/A SAMPLER (check for yes), OR OF NON-COMPLIANCE SAMPLES PAGE Thawed 17/08/20 SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY REGULATION INVOLVED: °C) (Corr.Factor 3.2°C) (Final = 2.5 °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION Partially Frozen SL = Sludge FedEx / JPS / DHL / Area Fast / Top Line / Other: SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES 30 (check for yes) °C) (Corr.Factor BW = Bottled Water SW = Storm Water CONDITION OF ICE: Frozen V COMPANY/TITLE letra - Requires state forms COMPLIANCE SAMPLES IR Gun ID = (230 / Observation=3. (Observation= WW = Waste Water SEAW = Sea Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) 2250 And Rosabal METHOD OF SHIPMENT: Pick-Up / Walk-In d-1941 No Ice Sauc Seese ATAO OJEIT EUROFINS EATON ANALYTICAL USE ONLY: CFW = Chlor(am)inated Finished Water PRINT NAME 1 day lead solubility-phase 2 (Other) IR Gun ID = TYPE OF ICE: Real V Synthetic ATAG GJ317 2 day SAMPLE TEMP RECEIVED AT: FW FW = Other Finished Water · XIRTAM 1 wk 3 day LOGIN COMMENTS: SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: Monrovia STD * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Day 13 Website: www.EatonAnalytical.com TAT requested: rush by adv notice only SAMPLE ID 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 COC ID 800 566 LABS (800 566 5227) TO BE COMPLETED BY SAMPLER QA FO 0029.2 (Version 2) (08/28/2014) COMPANY/AGENCY NAME: Phone: 626 386 1100 Fax: 626 386 1101 2-6 5-13 3-8 7-11 Tetra Tetratech-orl EEA CLIENT CODE: RELINQUISHED BY ELINQUISHED BY 12:30 TIME RECEIVED BY RECEIVED BY: SAMPLE SAMPLED BY 52/9 **BTAG** SAMPLE



1 800 566 LABS (1 800 566 5227)

Laboratory Comments

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

Tetra Tech

201 Ea Suite 1	christopher ast Pine Street 000 o, FL 32801				07/01/2021 1	448
Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/09/2021 14:43	202107010566 Total phosphorus as P	J-0, Day 13	0.24		mg/L	0.10

07/09/2021	14:43	Total phosphorus as P		0.24	mg/L	0.10
07/12/2021	15:17	Total phosphorus as PO4	- Calc.	0.74	mg/L	0.030
		202107010567	<u>J-1, Day 13</u>			
07/09/2021	14:44	Total phosphorus as P		1.7	mg/L	0.10
07/12/2021	15:17	Total phosphorus as PO4	- Calc.	5.2	mg/L	0.030
		000407040700	10.5 40			
07/00/0004	44.45		<u>J-2, Day 13</u>	0.5		0.40
07/09/2021		Total phosphorus as P		2.5	mg/L	0.10
07/12/2021	15:17	Total phosphorus as PO4	- Calc.	7.7	mg/L	0.030
		202107010569	<u>J-3, Day 13</u>			
07/09/2021	14:45	Total phosphorus as P		3.2	mg/L	0.10
07/12/2021	15:17	Total phosphorus as PO4	- Calc.	9.8	mg/L	0.030
		202107010570	J-4, Day 13			
07/09/2021	14:46	Total phosphorus as P	3-4, Day 13	1.3	mg/L	0.10
07/12/2021		Total phosphorus as PO4	. Calc	4.0	mg/L	0.030
0771272021	13.17			4.0	mg/L	0.030
		202107010571	<u>J-5, Day 13</u>			
07/09/2021	14:47	Total phosphorus as P		2.0	mg/L	0.10
07/12/2021	15:17	Total phosphorus as PO4	- Calc.	6.1	mg/L	0.030
		202107010572	<u>J-6, Day 13</u>			
07/09/2021	16:01	Total phosphorus as P	 	2.6	mg/L	0.10
07/12/2021		Total phosphorus as PO4	- Calc.	8.0	mg/L	0.030
					J	
		202107010573	<u>J-7, Day 13</u>			
07/09/2021		Total phosphorus as P		1.6	mg/L	0.10
07/12/2021	15:30	Total phosphorus as PO4	- Calc.	4.9	mg/L	0.030
		202107010574	<u>J-8, Day 13</u>			
07/09/2021	16:02	Total phosphorus as P		2.3	mg/L	0.10
07/12/2021	15:30	Total phosphorus as PO4	- Calc.	7.1	mg/L	0.030
		202107010575	J-9, Day 13			
07/09/2021	16:05	Total phosphorus as P	3-3, Day 13	3.0	mg/L	0.10
07/12/2021		Total phosphorus as PO4	Calc	9.2	mg/L	0.030
0111212021	10.30	Total phosphorus as PO4	- Calc.	3. 2	mg/L	0.030
		202107010576	<u>J-11, Day 13</u>			
07/09/2021	16:06	Total phosphorus as P		1.1	mg/L	0.10
07/12/2021	15:30	Total phosphorus as PO4	- Calc.	3.4	mg/L	0.030





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/09/2021 16:07 07/12/2021 15:30	202107010577 Total phosphorus as P Total phosphorus as P	J-12, Day 13 O4- Calc.	1.6 4.9		mg/L mg/L	0.10 0.030
07/09/2021 16:07 07/12/2021 15:30	202107010578 Total phosphorus as P Total phosphorus as Po	J-13, Day 13 O4- Calc.	2.2 6.8		mg/L mg/L	0.10 0.030
07/05/2021 17:29	202107010579 Lead Total ICAP/MS	<u>J-0, Day 12</u>	430	15	ug/L	5.0
07/05/2021 17:33	202107010580 Lead Total ICAP/MS	<u>J-1, Day 12</u>	270	15	ug/L	5.0
07/05/2021 17:35	202107010581 Lead Total ICAP/MS	<u>J-2, Day 12</u>	250	15	ug/L	5.0
07/05/2021 17:36	202107010582 Lead Total ICAP/MS	<u>J-3, Day 12</u>	290	15	ug/L	5.0
07/05/2021 17:38	202107010583 Lead Total ICAP/MS	<u>J-4, Day 12</u>	240	15	ug/L	5.0
07/05/2021 17:39	202107010584 Lead Total ICAP/MS	<u>J-5, Day 12</u>	220	15	ug/L	5.0
07/05/2021 17:40	202107010585 Lead Total ICAP/MS	<u>J-6, Day 12</u>	390	15	ug/L	5.0
07/05/2021 17:40	202107010586 Lead Total ICAP/MS	<u>J-7, Day 12</u>	330	15	ug/L	5.0
07/05/2021 17:41	202107010587 Lead Total ICAP/MS	<u>J-8, Day 12</u>	290	15	ug/L	5.0
07/05/2021 17:42	202107010588 Lead Total ICAP/MS	<u>J-9, Day 12</u>	360	15	ug/L	5.0
07/05/2021 17:43	202107010589 Lead Total ICAP/MS	<u>J-11, Day 12</u>	670	15	ug/L	5.0
07/05/2021 17:43	202107010590 Lead Total ICAP/MS	<u>J-12, Day 13</u>	240	15	ug/L	5.0
	202107010591	J-13, Day 13				





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/12/2021 21:25	Lead Total ICAP/MS		290	15	ug/L	0.50
	202107010592	J-0, Day 14				
07/09/2021 16:08	Total phosphorus as P		0.039		mg/L	0.10
07/12/2021 15:30	Total phosphorus as PC	04- Calc.	0.12		mg/L	0.030
	202107010593	J-1, Day 14				
07/09/2021 16:09	Total phosphorus as P		1.5		mg/L	0.10
07/12/2021 15:31	Total phosphorus as PC	04- Calc.	4.6		mg/L	0.030
	202107010594	J-2, Day 14				
07/13/2021 18:30	Total phosphorus as P		2.2		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	6.8		mg/L	0.030
	202107010595	J-3, Day 14				
07/13/2021 18:31	Total phosphorus as P		2.9		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202107010596	J-4, Day 14				
07/13/2021 18:32	Total phosphorus as P		1.2		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030
	202107010597	J-5, Day 14				
07/13/2021 18:35	Total phosphorus as P		1.8		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030
	202107010598	J-6, Day 14				
07/13/2021 18:36	Total phosphorus as P	<u> </u>	2.6		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	8.0		mg/L	0.030
	202107010599	J-7, Day 14				
07/13/2021 18:37	Total phosphorus as P		1.5		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	4.6		mg/L	0.030
	202107010600	J-8, Day 14				
07/13/2021 18:38	Total phosphorus as P		2.1		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	6.4		mg/L	0.030
	202107010601	J-9, Day 14				
07/13/2021 18:39	Total phosphorus as P		2.9		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202107010602	<u>J-11, Day 14</u>				
07/13/2021 18:40	Total phosphorus as P		1.0		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	3.1		mg/L	0.030
	202107010603	<u>J-12, Day 14</u>				
07/13/2021 18:44	Total phosphorus as P		1.5		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030
	202107010604	<u>J-13, Day 14</u>				
07/13/2021 18:47	Total phosphorus as P		2.0		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	6.1		mg/L	0.030
	202107010605	J-0, Day 15				
07/13/2021 18:47	Total phosphorus as P		0.029		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	0.089		mg/L	0.030
	202107010606	<u>J-1, Day 15</u>				
07/13/2021 18:48	Total phosphorus as P		1.5		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	4.6		mg/L	0.030
	202107010607	J-2, Day 15				
07/13/2021 18:49	Total phosphorus as P		2.2		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	6.8		mg/L	0.030
	202107010608	J-3, Day 15				
07/13/2021 18:50	Total phosphorus as P		2.9		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	8.9		mg/L	0.030
	202107010609	J-4, Day 15				
07/13/2021 18:51	Total phosphorus as P		1.3		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	4.0		mg/L	0.030
	202107010610	<u>J-5, Day 15</u>				
07/13/2021 18:52	Total phosphorus as P		1.9		mg/L	0.10
07/14/2021 17:21	Total phosphorus as PO	4- Calc.	5.8		mg/L	0.030
	202107010611	<u>J-6, Day 15</u>				
07/13/2021 18:53	Total phosphorus as P		2.6		mg/L	0.10
07/14/2021 17:22	Total phosphorus as PO	4- Calc.	8.0		mg/L	0.030
	202107010612	<u>J-7, Day 15</u>				
07/14/2021 11:20	Total phosphorus as P		1.4		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
	202107010613	J-8, Day 15				





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/14/2021 11:21	Total phosphorus as P		2.0		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PC	04- Calc.	6.1		mg/L	0.030
	202107010614	J-9, Day 15				
07/14/2021 11:22	Total phosphorus as P		2.8		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PC	04- Calc.	8.6		mg/L	0.030
	202107010615	J-11, Day 15				
07/14/2021 11:23	Total phosphorus as P		1.0		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PC	04- Calc.	3.1		mg/L	0.030
	202107010616	J-12, Day 15				
07/14/2021 11:24	Total phosphorus as P		1.4		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PC	04- Calc.	4.3		mg/L	0.030
	202107010617	<u>J-13, Day 15</u>				
07/14/2021 11:25	Total phosphorus as P	- 15, - 1, 15	2.0		mg/L	0.10
07/14/2021 17:28	Total phosphorus as PC	04- Calc.	6.1		mg/L	0.030
	202107010618	J-0, Day 13				
07/05/2021 17:47	Lead Total ICAP/MS	<u> </u>	1400	15	ug/L	0.50
	202107010619	J-1, Day 13				
07/12/2021 21:48	Lead Total ICAP/MS	<u>5-1, Day 15</u>	3300	15	ug/L	10
	202407040620	L 2 Doy 12			J	
07/05/2021 17:48	202107010620 Lead Total ICAP/MS	<u>J-2, Day 13</u>	1600	15	ug/L	5.0
0770072021 17.40			1000	10	ug/L	0.0
07/05/0004 47:40	202107010621	<u>J-3, Day 13</u>	200	45		5.0
07/05/2021 17:48	Lead Total ICAP/MS		290	15	ug/L	5.0
	202107010622	<u>J-4, Day 13</u>				
07/05/2021 17:49	Lead Total ICAP/MS		190	15	ug/L	5.0
	202107010623	<u>J-5, Day 13</u>				
07/05/2021 17:50	Lead Total ICAP/MS		110	15	ug/L	5.0
	202107010624	<u>J-6, Day 13</u>				
07/05/2021 17:51	Lead Total ICAP/MS		360	15	ug/L	5.0
	202107010625	<u>J-7, Day 13</u>				
07/05/2021 17:51	Lead Total ICAP/MS		410	15	ug/L	5.0
	202107010626	J-8, Day 13				
07/05/2021 17:52	Lead Total ICAP/MS	<u> </u>	180	15	ug/L	5.0
					•	



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 07/01/2021 1448

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/05/2021 17:53	202107010627 Lead Total ICAP/MS	<u>J-9, Daγ 13</u>	170	15	ug/L	5.0
07/05/2021 17:58	202107010628 Lead Total ICAP/MS	<u>J-11, Day 13</u>	320	15	ug/L	5.0
07/05/2021 18:00	202107010629 Lead Total ICAP/MS	<u>J-12, Day 13</u>	300	15	ug/L	5.0
07/05/2021 17:27	202107010630 Lead Total ICAP/MS	<u>J-13, Day 13</u>	860	15	ug/L	5.0



Laboratory Data

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1 800 566 LABS (1 800 566 5227)

Report: 943899 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Samples Received on: 07/01/2021 1448

Prepped	Analyzed	Prep Batch	Analytical Batch	n Method	Analyte	Result	Units	MRL	Dilution
J-0, Day	y 13 (202107	010566)				Sam	pled on 06/21	/2021 134	5
		SM4500-PI	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:17	•		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	0.74 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 14:43	1	1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.24	mg/L	0.10	5
<u>J-1, Day</u>	<u>/ 13 (202107</u>	<u>010567)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:17			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 14:44		1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
J-2, Day	y 13 (202107	<u>010568)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:17	•		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 14:45	i	1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
<u>J-3, Day</u>	<u>/ 13 (202107</u>	<u>010569)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:17	•		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	9.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 14:45	j	1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.2	mg/L	0.10	5
<u>J-4, Day</u>	y 13 (202107	<u>010570)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PI	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:17			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 14:46	j	1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
1.5 Dec	. 40 (000407	040574\				Com	nlad an 06/04	12024 424	_

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

J-5, Day 13 (202107010571)

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.

Sampled on 06/21/2021 1345





1 800 566 LABS (1 800 566 5227)

Report: 943899

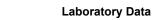
Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	07/12/21 15:17			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
1	07/09/21 14:47		1340330	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-6, Day</u>	13 (2021070	10572)				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
1	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:01		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
J-7, Day	13 (2021070	<u>10573)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	is as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:02		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
<u>J-8, Day</u>	13 (2021070	10574)				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:02		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
<u>J-9, Day</u>	13 (2021070	<u>10575)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
1	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	9.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:05		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	3.0	mg/L	0.10	5
<u>J-11, Dav</u>	y 13 (202107	<u>(010576)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/01/2021 1448

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	07/09/21 16:06		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.1	mg/L	0.10	5
I-12, Da	y 13 (202107	<u>010577)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:07		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.6	mg/L	0.10	5
<u>13, Da</u>	y 13 (202107	<u>010578)</u>				Sam	pled on 06/21	/2021 134	5
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/09/21 16:07		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
.0, Day	12 (2021070	<u>10579)</u>				Sam	pled on 06/22	/2021 123	0
		EPA 200.8	- ICPMS Meta	ls					
/01/21	07/05/21 17:29	1338588	1338936	(EPA 200.8)	Lead Total ICAP/MS	430	ug/L	5.0	10
.1, Day	12 (2021070	<u>10580)</u>				Sam	pled on 06/22	/2021 123	0
		EPA 200.8	- ICPMS Meta	ls					
'/01/21	07/05/21 17:33	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	270	ug/L	5.0	10
<u>-2, Day</u>	12 (2021070	<u>10581)</u>				Sam	pled on 06/22	/2021 123	0
		EPA 200.8	- ICPMS Meta	ls					
7/01/21	07/05/21 17:35	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	250	ug/L	5.0	10
-3, Day	12 (2021070	10582)				Sam	pled on 06/22	/2021 123	0
		EPA 200.8	- ICPMS Meta	ls					
'/01/21	07/05/21 17:36	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	5.0	10
-4, Day	12 (2021070	<u>10583)</u>				Sam	pled on 06/22	/2021 123	0
			- ICPMS Meta	_					
7/01/21	07/05/21 17:38	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	5.0	10
-5, Day	12 (2021070	<u>10584)</u>				Sam	pled on 06/22	/2021 123	5

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/01/2021 1448

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/01/21	07/05/21 17:39	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	220	ug/L	5.0	10
<u>J-6, Day</u>	12 (2021070	<u>10585)</u>				Samı	oled on 06/22	/2021 123	5
			- ICPMS Metals						
	07/05/21 17:40	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	390	ug/L	5.0	10
<u>J-7, Day</u>	12 (2021070	<u>10586)</u>				Samı	oled on 06/22	/2021 123	5
07/04/04			- ICPMS Metals		I I I I I I I I I I I I I I I I I I I	000			40
	07/05/21 17:40	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	330	ug/L	5.0	10
<u>J-8, Day</u>	12 (2021070	<u>10587)</u>				Samı	oled on 06/22	/2021 123	5
			- ICPMS Metals				_		
	07/05/21 17:41	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	5.0	10
<u>J-9, Day</u>	12 (2021070	<u>10588)</u>				Sampled on 06/22/2021 1235			
		EPA 200.8	- ICPMS Metals	5					
	07/05/21 17:42	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	360	ug/L	5.0	10
<u>J-11, Da</u>	y 12 (202107)	<u>010589)</u>				Samı	oled on 06/22	/2021 124	0
		EPA 200.8	- ICPMS Metals	3					
07/01/21	07/05/21 17:43	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	670	ug/L	5.0	10
<u>J-12, Da</u>	y 13 (202107)	<u>010590)</u>				Samı	oled on 06/22	/2021 124	0
		EPA 200.8	- ICPMS Metals	5					
07/01/21	07/05/21 17:43	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	240	ug/L	5.0	10
J-13, Da	y 13 (202107)	<u>010591)</u>				Samı	oled on 06/22	/2021 124	0
		EPA 200.8	- ICPMS Metals	5					
07/01/21	07/12/21 21:25	1338588	1339270	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	0.50	1
<u>J-0, Day</u>	14 (2021070	<u>10592)</u>				Samı	oled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	s as PO4- Calc.				
	07/12/21 15:30			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	0.12 (c)	mg/L	0.030	1
		SM4500-PE		otal phosphoru		0.000			_
	07/09/21 16:08		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.039	mg/L	0.10	5
J-1, Day 14 (202107010593) Sampled on 06/24/2						/2021 135	5		

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
C)7/12/21 15:31			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/09/21 16:09		1340332	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
J-2, Day	<u>14 (2021070</u>	<u>10594)</u>				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/13/21 18:30		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-3, Day	<u>14 (2021070</u>	<u>10595)</u>				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/13/21 18:31		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
J-4, Day	<u>14 (2021070</u>	<u>10596)</u>				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/13/21 18:32		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
-5, Day	<u>14 (2021070</u>	<u>10597)</u>				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/13/21 18:35		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
J-6, Day	14 (2021070	10598)				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Γotal phosphoru	is as P (T-P)				



Laboratory Data

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

07/01/2021 1448

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Pren Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	07/13/21 18:36	Trop Baton	1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
J-7, Day	14 (2021070	10599)		000.1)		Sam	pled on 06/24	/2021 135	5
		SM4500-PF	F/FPΔ 365 1 - 1	otal phosphoru	is as PO4. Calc				
	07/14/21 17:21	OIII-000 1 L		(SM4500-PE/EPA 365.1)		4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	07/13/21 18:37		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
-8, Day	14 (2021070	<u>10600)</u>				Sam	pled on 06/24	/2021 135	5
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	is as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.4 (c)	mg/L	0.030	1
		SM4500-PE		otal phosphoru	` '				
	07/13/21 18:38		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.1	mg/L	0.10	5
<u>-9, Day</u>	14 (2021070	<u>10601)</u>				Sam	pled on 06/24	/2021 135	55
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	07/13/21 18:39		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>-11, Da</u>	y 14 (202107	<u>010602)</u>				Sam	pled on 06/24	/2021 135	55
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	is as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.1 (c)	mg/L	0.030	1
		SM4500-PE		otal phosphoru	` '				
	07/13/21 18:40		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.0	mg/L	0.10	5
<u>l-12, Da</u>	y 14 (202107	010603)				Sam	pled on 06/24	/2021 135	55
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	otal phosphoru	ıs as P (T-P)				
	07/13/21 18:44		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
1 42 Da	y 14 (202107	010604)		,		Sam	pled on 06/24	/2024 435	5

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/01/2021 1448

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:47	,	1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-0, Day</u>	<u>/ 15 (202107)</u>	<u>010605)</u>				Samp	led on 06/29	/2021 122	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	0.089 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:47	•	1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.029	mg/L	0.10	5
<u>J-1, Day</u>	/ 15 (202107	<u>010606)</u>				Samp	oled on 06/29	/2021 122	4
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:48	3	1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-2, Day</u>	<u>/ 15 (202107</u>	<u>010607)</u>		,		Samp	led on 06/29	/2021 122	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:49)	1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-3, Day	/ 15 (202107	<u>010608)</u>				Samp	oled on 06/29	/2021 122	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:50		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
J-4, Day	/ 15 (202107	<u>010609)</u>				Sampled on 06/29/2021 1224			

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:51		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
<u>J-5, Day</u>	y 15 (2021070	<u>010610)</u>				Samı	pled on 06/29	/2021 1224	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:21			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:52		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.9	mg/L	0.10	5
<u>J-6, Day</u>	y 15 (2021070	<u>010611)</u>				Samı	pled on 06/29	/2021 1224	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:22			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	07/13/21 18:53		1341062	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
<u>J-7, Day</u>	y 15 (2021070	<u>010612)</u>				Samı	pled on 06/29	/2021 1224	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:28			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	07/14/21 11:20		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-8, Day</u>	y 15 (2021070	<u>010613)</u>				Samı	pled on 06/29	/2021 1224	4
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:28			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
	07/14/21 11:21		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-9, Day</u>	y 15 (2021070	<u>)10614)</u>				Samı	pled on 06/29	/2021 1224	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
	07/14/21 17:28			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO **Group**: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/01/2021 1448

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
(07/14/21 11:22		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.8	mg/L	0.10	5
<u>-11, Day</u>	<u>/ 15 (2021070</u>	<u>010615)</u>		,		Sam	pled on 06/29	/2021 122	4
	;	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(07/14/21 17:28				Total phosphorus as PO4- Calc.	3.1 (c)	mg/L	0.030	1
	;	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
(07/14/21 11:23		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.0	mg/L	0.10	5
<u>-12, Day</u>	<u>/ 15 (2021070</u>	<u>010616)</u>				Sam	pled on 06/29	/2021 122	4
	;	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(07/14/21 17:28			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
	;	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
(07/14/21 11:24		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
1-13, Day	<u>/ 15 (2021070</u>	<u>010617)</u>				Sam	pled on 06/29	/2021 122	4
	;	SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
(07/14/21 17:28			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE		Total phosphoru	· ,				
(07/14/21 11:25		1341063	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
I-0, Day	13 (20210701	<u>10618)</u>				Sam	pled on 06/25	5/2021 123	0
	I	EPA 200.8	- ICPMS Metal	s					
)7/01/21	07/05/21 17:47	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	1400	ug/L	0.50	1
<u>J-1, Day</u>	13 (20210701	<u>10619)</u>				Sam	pled on 06/25	5/2021 123	0
	ı	EPA 200.8	- ICPMS Metal	s					
07/01/21	07/12/21 21:48	1338588	1339270	(EPA 200.8)	Lead Total ICAP/MS	3300	ug/L	10	20
J-2, Day	13 (20210701	10620)				Sam	pled on 06/25	5/2021 123	0
	I		- ICPMS Metal	s					
07/01/21 (07/05/21 17:48	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	1600	ug/L	5.0	10
<u>J-3, Day</u>	13 (20210701	<u>10621)</u>				Sam	pled on 06/25	5/2021 123	0
07/04/04			- ICPMS Metal		Local Total I OAD (ACC	000	0		40
	07/05/21 17:48	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	290	ug/L	5.0	10
ounding on to	tals after summation								

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 943899 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-4, Day	13 (2021070 ⁻	10622)				Sam	pled on 06/25	/2021 123	0
	ı	EPA 200.8	- ICPMS Metals						
07/01/21	07/05/21 17:49	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	190	ug/L	5.0	10
<u>J-5, Day 13 (202107010623)</u>						Sam	pled on 06/25	/2021 123	0
	1	EPA 200.8	- ICPMS Metals						
07/01/21	07/05/21 17:50	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	110	ug/L	5.0	10
<u>J-6, Day</u>	13 (2021070 ⁻	10624)				Sam	pled on 06/25	/2021 123	0
			- ICPMS Metals						
	07/05/21 17:51	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	360	ug/L	5.0	10
<u>J-7, Day</u>	<u>, 13 (2021070</u>	10625)				Sam	pled on 06/25	5/2021 123	0
			- ICPMS Metals						
	07/05/21 17:51	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	410	ug/L	5.0	10
<u>J-8, Day</u>	13 (2021070	10626)				Sam	0		
			- ICPMS Metals						
	07/05/21 17:52	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	5.0	10
<u>J-9, Day</u>	<u>, 13 (2021070</u>	<u>10627)</u>				Sam	pled on 06/25	5/2021 123	0
			- ICPMS Metals				_		
	07/05/21 17:53	1338588	1338937	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	5.0	10
<u>J-11, Da</u>	y 13 (202107)	<u>)10628)</u>				Sam	pled on 06/25	/2021 123	0
			- ICPMS Metals				_		
	07/05/21 17:58	1338588	1338938	(EPA 200.8)	Lead Total ICAP/MS	320	ug/L	5.0	10
<u>J-12, Da</u>	y 13 (2021070	<u>)10629)</u>				Sam	pled on 06/25	/2021 123	0
			- ICPMS Metals						
	07/05/21 18:00	1338588	1338938	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	5.0	10
<u>J-13, Da</u>	y 13 (202107)	<u>)10630)</u>				Sam	pled on 06/25	/∠U21 123	U
			- ICPMS Metals				_		
07/01/21	07/05/21 17:27	1338588	1338936	(EPA 200.8)	Lead Total ICAP/MS	860	ug/L	5.0	10



Laboratory QC Summary

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

ICPMS Metals

Prep Batch: 1338588 Analytical Batch: 1338761

202107010626 J-8, Day 13 Ana

ICPMS Metals

Prep Batch: 1338588 Analytical Batch: 1338936

202107010579 J-0, Day 12 202107010630 J-13, Day 13

ICPMS Metals

Prep Batch: 1338588 Analytical Batch: 1338937

202107010580 J-1, Day 12 202107010581 J-2, Day 12 202107010582 J-3, Day 12 202107010583 J-4, Day 12 202107010584 J-5, Day 12 J-6, Day 12 202107010585 202107010586 J-7, Day 12 202107010587 J-8, Day 12 202107010588 J-9, Day 12 202107010589 J-11, Day 12 J-12, Day 13 202107010590 202107010618 J-0, Day 13 J-2, Day 13 202107010620 202107010621 J-3, Day 13 202107010622 J-4, Day 13 202107010623 J-5, Day 13 202107010624 J-6, Day 13

ICPMS Metals

202107010625

202107010626

202107010627

Prep Batch: 1338588 Analytical Batch: 1338938

J-7, Day 13

J-8, Day 13

J-9, Day 13

202107010628 J-11, Day 13 202107010629 J-12, Day 13

ICPMS Metals

Prep Batch: 1338588 Analytical Batch: 1339270

202107010591 J-13, Day 13 202107010619 J-1, Day 13

Total phosphorus as P (T-P)

Analytical Batch: 1340330

 202107010566
 J-0, Day 13

 202107010567
 J-1, Day 13

 202107010568
 J-2, Day 13

 202107010569
 J-3, Day 13

Analysis Date: 07/02/2021

Analyzed by: AZS

Analysis Date: 07/05/2021

Analyzed by: AZS Analyzed by: AZS

Analysis Date: 07/05/2021

Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS Analyzed by: AZS

Analysis Date: 07/05/2021

Analyzed by: AZS Analyzed by: AZS

Analyzed by: AZS

Analysis Date: 07/12/2021

Analyzed by: DHX7 Analyzed by: DHX7

Analysis Date: 07/09/2021

Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M



Laboratory QC Summary

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

202107010617

J-13, Day 15

202107010570	J-4, Day 13	Analyzed by: LQ3M
202107010570	J-5, Day 13	Analyzed by: LQ3M
Total phosphorus as P (T-F	•	· , · · · -, · <u>, · · · · · · · · · · · · · · ·</u>
Analytical Batch: 1340	•	Analysis Date: 07/09/2021
202107010572	J-6, Day 13	Analyzed by: LQ3M
202107010573	J-7, Day 13	Analyzed by: LQ3M
202107010574	J-8, Day 13	Analyzed by: LQ3M
202107010575	J-9, Day 13	Analyzed by: LQ3M
202107010576	J-11, Day 13	Analyzed by: LQ3M
202107010577	J-12, Day 13	Analyzed by: LQ3M
202107010578	J-13, Day 13	Analyzed by: LQ3M
202107010592	J-0, Day 14	Analyzed by: LQ3M
202107010593	J-1, Day 14	Analyzed by: LQ3M
Total phosphorus as P (T-F	P)	
Analytical Batch: 1341	062	Analysis Date: 07/13/2021
202107010594	J-2, Day 14	Analyzed by: LQ3M
202107010595	J-3, Day 14	Analyzed by: LQ3M
202107010596	J-4, Day 14	Analyzed by: LQ3M
202107010597	J-5, Day 14	Analyzed by: LQ3M
202107010598	J-6, Day 14	Analyzed by: LQ3M
202107010599	J-7, Day 14	Analyzed by: LQ3M
202107010600	J-8, Day 14	Analyzed by: LQ3M
202107010601	J-9, Day 14	Analyzed by: LQ3M
202107010602	J-11, Day 14	Analyzed by: LQ3M
202107010603	J-12, Day 14	Analyzed by: LQ3M
202107010604	J-13, Day 14	Analyzed by: LQ3M
202107010605	J-0, Day 15	Analyzed by: LQ3M
202107010606	J-1, Day 15	Analyzed by: LQ3M
202107010607	J-2, Day 15	Analyzed by: LQ3M
202107010608	J-3, Day 15	Analyzed by: LQ3M
202107010609	J-4, Day 15	Analyzed by: LQ3M
202107010610	J-5, Day 15	Analyzed by: LQ3M
202107010611	J-6, Day 15	Analyzed by: LQ3M
Total phosphorus as P (T-F	P)	
Analytical Batch: 1341	063	Analysis Date: 07/14/2021
202107010612	J-7, Day 15	Analyzed by: LQ3M
202107010613	J-8, Day 15	Analyzed by: LQ3M
202107010614	J-9, Day 15	Analyzed by: LQ3M
202107010615	J-11, Day 15	Analyzed by: LQ3M
202107010616	J-12, Day 15	Analyzed by: LQ3M
		A . I . I . I . CONA

Analyzed by: LQ3M





1 800 566 LABS (1 800 566 5227)

Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
ICPMS Metals by E	EPA 200.8								
Analytical B	atch: 1338761					Analysis D	ate: 07/02/	2021	
LCS1	Lead Total ICAP/MS		50	56.5	ug/L	113	(85-115)		
LCS2	Lead Total ICAP/MS		50	52.4	ug/L	105	(85-115)	20	7.5
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.514	ug/L	103	(50-150)		
MS_202107010626	Lead Total ICAP/MS	180	50	269	ug/L	87	(70-130)		
MS2_202107010654	Lead Total ICAP/MS	ND	50	49.8	ug/L	92	(70-130)		
MSD_202107010626	Lead Total ICAP/MS	180	50	264	ug/L	77	(70-130)	20	1.8
MSD2_202107010654	Lead Total ICAP/MS	ND	50	48.7	ug/L	89	(70-130)	20	2.3
ICPMS Metals by E	EPA 200.8								
Analytical B	atch: 1338936					Analysis D	ate: 07/05/	2021	
LCS1	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	53.5	ug/L	107	(85-115)	20	4.0
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.515	ug/L	103	(50-150)		
MS_202106300564	Lead Total ICAP/MS	ND	50	50.7	ug/L	101	(70-130)		
MS2_202106300602	Lead Total ICAP/MS	ND	50	52.1	ug/L	103	(70-130)		
MSD_202106300564	Lead Total ICAP/MS	ND	50	52.9	ug/L	106	(70-130)	20	4.2
MSD2_202106300602	Lead Total ICAP/MS	ND	50	51.8	ug/L	103	(70-130)	20	0.52
ICPMS Metals by E	EPA 200.8								
Analytical B	atch: 1338937					Analysis D	ate: 07/05/	2021	
LCS1	Lead Total ICAP/MS		50	52.2	ug/L	104	(85-115)		
LCS2	Lead Total ICAP/MS		50	51.9	ug/L	104	(85-115)	20	0.58
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.499	ug/L	100	(50-150)		
MS_202107010580	Lead Total ICAP/MS	270	50	877	ug/L	121	(70-130)		
MS2_202107010590	Lead Total ICAP/MS	240	50	766	ug/L	105	(70-130)		
MSD_202107010580	Lead Total ICAP/MS	270	50	837	ug/L	113	(70-130)	20	4.7
MSD2_202107010590	Lead Total ICAP/MS	240	50	799	ug/L	112	(70-130)	20	4.3
ICPMS Metals by E									
Analytical B	atch: 1338938					Analysis D	ate: 07/05/	2021	
LCS1	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	53.1	ug/L	106	(85-115)	20	3.1
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



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Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Lead Total ICAP/MS		0.5	0.489	ug/L	98	(50-150)		
MS_202107010628	Lead Total ICAP/MS	320	50	909	ug/L	118	(70-130)		
MS2_202107010656	Lead Total ICAP/MS	0.81	50	50.8	ug/L	100	(70-130)		
MSD_202107010628	Lead Total ICAP/MS	320	50	904	ug/L	117	(70-130)	20	0.46
MSD2_202107010656	Lead Total ICAP/MS	0.81	50	49.6	ug/L	98	(70-130)	20	2.4
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1339270					Analysis D	ate: 07/12	/2021	
LCS1	Lead Total ICAP/MS		50	51.7	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	47.6	ug/L	95	(85-115)	20	8.3
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.537	ug/L	107	(50-150)		
MS_202107010143	Lead Total ICAP/MS	ND	50	48.4	ug/L	97	(70-130)		
MS2_202107010498	Lead Total ICAP/MS	0.88	50	53.9	ug/L	106	(70-130)		
MSD_202107010143	Lead Total ICAP/MS	ND	50	43.1	ug/L	86	(70-130)	20	12
MSD2_202107010498	Lead Total ICAP/MS	0.88	50	48.5	ug/L	95	(70-130)	20	11
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1340330					Analysis D	ate: 07/09	/2021	
LCS1	Total phosphorus as P		0.4	0.388	mg/L	97	(90-110)		
LCS2	Total phosphorus as P		0.4	0.367	mg/L	92	(90-110)	20	5.6
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0220	mg/L	110	(50-150)		
MS_202107020203	Total phosphorus as P	ND	0.4	0.449	mg/L	108	(90-110)		
MS2_202106240278	Total phosphorus as P	0.054	0.4	0.485	mg/L	108	(90-110)		
MSD_202107020203	Total phosphorus as P	ND	0.4	0.464	mg/L	<u>112</u>	(90-110)	20	3.2
MSD2_202106240278	Total phosphorus as P	0.054	0.4	0.488	mg/L	109	(90-110)	20	0.57
	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1340332					Analysis D	ate: 07/09	/2021	
LCS1	Total phosphorus as P		0.4	0.429	mg/L	107	(90-110)		
LCS2	Total phosphorus as P		0.4	0.430	mg/L	107	(90-110)	20	0.23
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0204	mg/L	102	(50-150)		
MS_202107010294	Total phosphorus as P	0.077	0.4	0.508	mg/L	108	(90-110)		
MSD_202107010294	Total phosphorus as P	0.077	0.4	0.520	mg/L	<u>111</u>	(90-110)	20	2.4

Total phosphorus as P (T-P) by SM4500-PE/EPA 365.1

Analytical Batch: 1341062 Analysis Date: 07/13/2021

Spike recovery is already corrected for native results. Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

⁽S) - Indicates surrogate compound.

⁽I) - Indicates internal standard compound.





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Report: 943899

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Total phosphorus as P		0.4	0.431	mg/L	108	(90-110)		
LCS2	Total phosphorus as P		0.4	0.424	mg/L	106	(90-110)	20	1.6
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0189	mg/L	95	(50-150)		
MS_202107090062	Total phosphorus as P	ND	0.4	0.450	mg/L	109	(90-110)		
MS2_202107090063	Total phosphorus as P	0.021	0.4	0.471	mg/L	<u>113</u>	(90-110)		
MSD_202107090062	Total phosphorus as P	ND	0.4	0.437	mg/L	106	(90-110)	20	3.0
MSD2_202107090063	Total phosphorus as P	0.021	0.4	0.452	mg/L	108	(90-110)	20	4.2
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
	atch: 1341063					Analysis D	ate: 07/14/	2021	
LCS1	Total phosphorus as P		0.4	0.420	mg/L	105	(90-110)		
LCS2	Total phosphorus as P		0.4	0.432	mg/L	108	(90-110)	20	2.8
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0248	mg/L	124	(50-150)		
MS_202107090064	Total phosphorus as P	ND	0.4	0.434	mg/L	105	(90-110)		
MS2_202107010617	Total phosphorus as P	2.0	0.4	4.08	mg/L	103	(90-110)		
MSD_202107090064	Total phosphorus as P	ND	0.4	0.442	mg/L	107	(90-110)	20	1.7
MSD2 202107010617	Total phosphorus as P	2.0	0.4	4.16	mg/L	107	(90-110)	20	1.9



750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100

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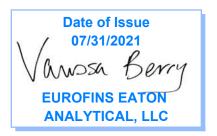


Laboratory Report

for

Tetra Tech 201 East Pine Street Suite 1000 Orlando, FL 32801

Attention: James Christopher Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	1 1
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	х		х
1,4-Dioxane	EPA 522	х		х
2,3,7,8-TCDD	Modified EPA 1613B	x		X
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	х	х
Ammonia	EPA 350.1		х	х
Ammonia	SM 4500-NH3 H		х	х
Anions and DBPs by IC	EPA 300.0	х	х	х
Anions and DBPs by IC	EPA 300.1	х		х
Asbestos	EPA 100.2	х	x	
BOD / CBOD	SM 5210B		х	х
Bromate	In House Method (2447)	х		х
Carbamates	EPA 531.2	х		х
Carbonate as CO3	SM 2330B	х	х	х
Carbonyls	EPA 556	х		х
COD	EPA 410.4 / SM 5220D		х	
Chloramines	SM 4500-CL G	Х	Х	х
Chlorinated Acids	EPA 515.4	Х		х
Chlorinated Acids	EPA 555	х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	х		х
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	х	х	х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	х	x
Corrosivity (Langelier Index)	SM 2330B	x	^	x
Cyanide, Amenable	SM 4500-CN G	х	х	
	SM 4500-CN G SM 4500CN F	X		v
Cyanide, Free Cyanide, Total	EPA 335.4	X	X X	X X
Cyanogen Chloride	In House Method (2470)	x	^	x
(screen) Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	X		X
Dissolved Oxygen	SM 4500-O G	^	х	x
DOC DOC	SM 5310C	х	^	x
E. Coli	(MTF/EC+MUG)	Х		х
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	Х		Х
E. Coli (Enumeration)	SM 9223B	х		Х
EDB/DCBP	EPA 504.1	Х		
EDTA and NTA	EPA 551.1	x x		x x
EDTA and NTA Endothall	In House Method (2454) EPA 548.1	X		X
		×		X
Endothall	In-house Method (2445)	X		X
Enterococci Eacal Coliform	SM 9230B	x	Х	
Fecal Coliform	SM 9221 E (MTF/EC)	Х	v	
Fecal Coliform Fecal Coliform	SM 9221C, E (MTF/EC)	1	Х	
(Enumeration)	SM 9221E (MTF/EC)	х		x
Fecal Coliform with				
Chlorine Present	SM 9221E		х	
Fecal Streptococci	SM 9230B	х	х	
Fluoride	SM 4500-F C	×	X	x
Glyphosate	EPA 547	Х		Х
Glyphosate + AMPA	In House Method (3618)	х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	x	х	х
Hardness	SM 2340B	х	х	х
Heterotrophic Bacteria	In House Method (2439)	х		x
Heterotrophic Bacteria	SM 9215 B	х		х
Hexavalent Chromium	EPA 218.6	Х	Х	х

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		Х	
Hormones	EPA 539	Х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella Mercury	Legiolert EPA 200.8	X X		X X
Metals	EPA 200.8	X	х	X
Microcystin LR	ELISA (2360)	X		x
Microcystin, Total	EPA 546	Х		х
NDMA	EEA/Agilent 521.1 In house method (2425)	х		х
Nitrate/Nitrite Nitrogen	EPA 353.2	Х	Х	х
OCL, Pesticides/PCB	EPA 505	Х		х
Ortho Phosphate	EPA 365.1	X	Х	X
Ortho Phosphorous Oxyhalides Disinfection	SM 4500P E	Х		Х
Byproducts	EPA 317.0	х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	Х		х
Perfluorinated Alkyl Acids	EPA 537	Х		х
Perfluorinated Polutant	In house Method (2434)	Х		х
pH	EPA 150.1	x		
рН	SM 4500-H+B	x	Х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		х
Pseudomonas	IDEXX Pseudalert (2461)	Х		х
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	Х		х
Radon-222	SM 7500RN	Х		х
Residue, Filterable	SM 2540C	Х	Х	х
Residue, Non-filterable	SM 2540D		Х	
Residue, Total Residue, Volatile	SM 2540B EPA 160.4		X	х
Semi-VOC	EPA 525.2	х	Х	х
Silica	SM 4500-Si D	X	х	^
Silica	SM 4500-SiO2 C	х	х	
Sulfide	SM 4500-S ⁻ D		х	
Sulfite	SM 4500-SO ³ B	х	x	х
Surfactants	SM 5540C	х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		х
Total Coliform	SM 9221 A, B, C	x		x
(Enumeration)				
Total Coliform / E. coli	Colisure SM 9223	Х		Х
Total Coliform Total Coliform with Chlorine	SM 9221B SM 9221B		X X	
Present Total Coliform / E.coli (P/A				
and Enumeration)	SM 9223	Х		х
TOC	SM 5310C	Х	Х	х
TOX	SM 5320B		Х	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	X	Х
Total Phosphorous Triazine Pesticides &	SM 4500 P E		Х	
Degradates	In House (3617)	x		х
Turbidity	EPA 180.1	х	Х	х
Turbidity	SM 2130B	х	х	
Uranium by ICP/MS	EPA 200.8	х		х
UV 254	SM 5910B	х		
VOC	EPA 524.2	х		х
VOC	In House Method (2411)	х		х
Yeast and Mold	SM 9610	х		х
Field Compling	N/A			

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 946504 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 14**, **2021** at **2128**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202107150476	J-0, Day 16	07/10/2021 1030
	@ICPMS	
202107150480	J-1, Day 16	07/10/2021 1030
	@ICPMS	
202107150481	J-2, Day 16	07/10/2021 1030
	. @ICPMS	
202107150482	J-3, Day 16	07/10/2021 1030
	. @ICPMS	
202107150483	J-4, Day 16	07/10/2021 1030
	. @ICPMS	
202107150484	J-5, Day 16	07/10/2021 1030
	@ICPMS	
<u>202107150485</u>	J-6, Day 16	07/10/2021 1030
	@ICPMS	
<u>202107150486</u>	J-7, Day 16	07/10/2021 1030
	@ICPMS	:
<u>202107150487</u>	J-8, Day 16	07/10/2021 1030
	@ICPMS	
202107150488	J-9, Day 16	07/10/2021 1030
	@ICPMS	:
202107150489	J-11, Day 16	07/10/2021 1030
	@ICPMS	
202107150490	J-12, Day 16	07/10/2021 1030
	@ICPMS	
202107150491	J-13, Day 16	07/10/2021 1030
_	@ICPMS	
	:	

Reported: 07/31/2021



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

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Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID	Sample Date
202107150492	J-0, Day 14	07/01/2021 1155
	@ICPMS	
202107150493	J-1, Day 14	07/01/2021 1155
	@ICPMS	
202107150494	J-2, Day 14	07/01/2021 1155
	@ICPMS	
202107150495	J-3, Day 14	07/01/2021 1155
	@ICPMS	
202107150496	J-4, Day 14	07/01/2021 1155
	@ICPMS	
202107150497	J-5, Day 14	07/01/2021 1155
	@ICPMS	
202107150498	J-6, Day 14	07/01/2021 1155
	@ICPMS	
202107150499	J-7, Day 14	07/01/2021 1155
	@ICPMS	
202107150500	J-8, Day 14	07/01/2021 1155
	@ICPMS	
202107150501	J-9, Day 14	07/01/2021 1155
	@ICPMS	
202107150502	J-11, Day 14	07/01/2021 1155
	@ICPMS	
202107150503	J-12, Day 14	07/01/2021 1155
	@ICPMS	
202107150504	J-13, Day 14	07/01/2021 1155
	@ICPMS	

Reported: 07/31/2021



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Client ID: TETRATECH-ORLAN

Folder #: 946504

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID		Sample Date
202107150505	J-0, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150506	J-1, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150507	J-2, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150508	J-3, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150509	J-4, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150510	J-5, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150511	J-6, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150512	J-7, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150513	J-8, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150514	J-9, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150515	J-11, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150516	J-12, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150517	J-13, Day 16		07/08/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 07/31/2021

Page 3 of 6



Addr: Tetra Tech

201 East Pine Street

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Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 946504 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID		Sample Date
202107150518	J-0, Day 16		07/02/2021 1042
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150519	J-1, Day 16		07/02/2021 1103
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150520	J-2, Day 16		07/02/2021 1103
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150521	J-3, Day 16		07/02/2021 1103
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150522	J-4, Day 16		07/02/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150523	J-5, Day 16		07/02/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150524	J-6, Day 16		07/02/2021 1140
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150525	J-7, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150526	J-8, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150527	J-9, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150528	J-11, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150529	J-12, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107150530	J-13, Day 16		07/02/2021 1330
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
	Total phospholus as F	Total phosphorus as FO4- Galt.	

Reported: 07/31/2021

Page 4 of 6



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 946504 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

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Sample #	Sample ID	Sample Date
202107150531	J-0, Day 17	07/13/2021 1055
	@ICPMS	
202107150532	J-1, Day 17	07/13/2021 1055
	@ICPMS	
202107150533	J-2, Day 17	07/13/2021 1055
	@ICPMS	
202107150534	J-3, Day 17	07/13/2021 1055
	@ICPMS	
202107150535	J-4, Day 17	07/13/2021 1055
	@ICPMS	
202107150536	J-5, Day 17	07/13/2021 1055
	@ICPMS	
202107150537	J-6, Day 17	07/13/2021 1055
	@ICPMS	
202107150538	J-7, Day 17	07/13/2021 1055
	@ICPMS	
202107150539	J-8, Day 17	07/13/2021 1055
	@ICPMS	
202107150540	J-9, Day 17	07/13/2021 1055
	@ICPMS	
202107150541	J-11, Day 17	07/13/2021 1055
	@ICPMS	
202107150542	J-12, Day 17	07/13/2021 1055
	@ICPMS	
202107150543	J-13, Day 17	07/13/2021 1055
	@ICPMS	
	<u> </u>	



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 946504 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 14**, **2021** at **2128**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 07/31/2021

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	Eaton Analytical						
		7	YTICAL USE ONLY:		7	46509	1
750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629	Drive, Suite 100 016-3629	LOGIN COMMENTS:			SAMPLES CHECKED AGAINST COC BY:	ECKED AGAINST COC BY:	m'
Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227) Website: www.EatonAnalytical	Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227) Website: www.EatonAnalytical.com	SAMPLE TEMP RECEIVED AT: Other) IR Gun ID = 456 ff (Observation Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology < 10°C) TYPE OF ICE: Real 1/2 Synthetic No Ice CONDIT	IR Gun ID = $\frac{256}{100}$ Micro Synthetic No Ice	(Observation=	SAMPLES REC'D DAY OF C "C) (Corr.Factor C) (C) OF ICE: Frozen Partially Frozen	inal = S C C	(check for yes)
TO BE COMPLETED BY SAMPLER	SAMPLER		do voi		redex Jores / UHL / Area Fast / Top Line / Other:		
COMPANYIAGENCY NAME: Tetra Tech	vame: ch	PROJECT CODE:		COMPLIANCE SA - Requires star	(check for yes) MPLES te forms	IVOLVED:	(check for yes)
EEA CLIENT CODE: Tetra tech-or,	COC ID:	SAMPLE GROUP: Lead Solubility	Phase 2	SEE ATTACHED KILLIST ALL AND YSES	SEE ATTACHED KIT ORDER FOR ANALYSES List All ANALYSES RECIIIDED (order promise of the	RMATION (chec	(eg. SDWA, NPDES, etc.) k for yes), OR
TAT requested: rush by adv notice only	by adv notice only	1	2 day 1 day	_	(Single House of Dougles Sent for each sample)	tiles sent for each test for e	each sample)
BTAO BTAO BAMAS BMIT	SAMPLEID	CLIENT LAB ID	FIELD DATA	-W 12T		SAN	SAMPLER
7/10 10:36 J-	-0 Day 16	FW	_				
5-3	3						
	. ,						
N . N							
3-6	-						
7.8							
N 13-9	>	>					
* MATRIX TYPES	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water		SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Slud	SO = Soil 0 = Other - Please Identify SL = Sludge	ease Identify
SAMPLED BY:	SIGNATURE		PRINT NAME		COMPANY/TITLE	DATE	TIME
REI INOUISHED BY:							1
RECEIVED BY:	Sum Low	I Saac	ic Sease	-	etra Tech	7-13-21	11:50
RELINQUISHED BY:	To and	183	していると		SEK.	744.21	8217
RECEIVED BY:	•						
QA FO 0029.2 (Version 2) (08/28/2014)	08/28/2014)						

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	Laton Analytical	EUROFINS EATON ANALYTICAL USE ONLY:			ちいいりつら	
750 Royal Oaks Drive, Suite 100	e, Suite 100	LOGIN COMMENTS:		SAMPLES CHECKED AGAINST COC BY:	GAINST COC BY:	
Monrovia, CA 91016-3629	-3629			SAMPLES	SAMPLES LOGGED IN BY:	
Phone: 626 386 1100 Fax: 626 386 1101	0	SAMPLE I EMP RECEIVED AT: Other) IR Gun ID =	(Observation=	SAMPLES REC'D DAY OF COLLECTION?		(sa,
800 566 LABS (800 566 5227)	566 5227)	Monrovia IR Gun ID = (25)	Observation=S	2.0	$^{\circ}$ C) (Final = $\xrightarrow{\circ}$ C)	
Website: www.EatonAnalytical.com	Analytical.com	TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen METHOD OF SHIPMENT: Dick-lin / Walk-lin / Malk-lin	"C) (Microbiology: < 10°C) No Ice CONDITION C	CONDITION OF ICE: Frozen Partially Frozen	ozen Thawed N/A	1
TO BE COMPLETED BY SAMPLER:	L PLER:		divini della la divini	Unit / Area Fast / Top Line / O		
COMPANY/AGENCY NAME:	ü	PROJECT CODE:	COMPLIANC	COMPLIANCE SAMPI FS NON CO	(check for yes)	
Tetra Tech			Type of samples (circle one):	e forms	VCE SAMP	
EEA CLIENT CODE: Tetra tech -or/	COC ID:	SAMPLE GROUP: Lead Solubility Phase 2	SEE ATTACHED KI	SEE ATTACHED KIT ORDER FOR ANALYSES List ALL ANALYSES REQUIRED (carbot carbot of the c	SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes), OR	itc.
TAT requested: rush by adv notice only	dv notice only	STD 1 wk 3 day 2 day 1 day	3	The latter of bottom	es sent tor each test for each sample	ol o
alamas atad alamas amit	SAMPLEID	CLIENT LAB ID MATRIX *	WdOI		SAMPLER	
7/10 10:30 J-11	Day 16	\vdash				T
1 1 5-12	,					T
1 1 2-13,	→					T
11:55 5-0	Day 14					_
1 1 7-1	, ,		-			T
7-2						\neg
5-3			-			T
7-4			-			
15-5			-			T
1 1 5-6	>	•	-			Т
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sludge	oil O = Other - Please Identify	ح ٦
No of the second	SIGNATURE	PRINT NAME			DATE	
SAMPLED BY:		and the state of t				
RELINGUISHED BY:	no Lea	I Saac Seese	7	etra Tech	7-18-21 11:50	_
RELINQUISHED BY:	Jess Jess Jess Jess Jess Jess Jess Jess	our has	S	不管不	7-14-21 2128	
RECEIVED BY:						
QA FO 0029.2 (Version 2) (08/28/2014)	2014)				nova	7

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(check for yes) O = Other - Please Identify (eg. SDWA, NPDES, etc. List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (check for yes) N/A COMMENTS SAMPLER (check for yes), OR NON-COMPLIANCE SAMPLES 496504 Thawed SAMPLES LOGGED IN BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: REGULATION INVOLVED: 7-13-21 °C) (Corr.Factor 6 . C.C) (Final 5 . DATE °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION Partially Frozen SL = Sludge FedEx LUPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) °C) (Corr.Factor BW = Bottled Water SW = Storm Water CONDITION OF ICE: Frozen V COMPANY/TITLE - Requires state forms COMPLIANCE SAMPLES (Observation= (Observation= Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) SEAW = Sea Water WW = Waste Water Tatal METHOD OF SHIPMENT: Pick-Up / Walk-In No Ice IR Gun 10 = 650 Lead Solubility Phase 2 ATAO 0J317 EUROFINS EATON ANALYTICAL USE ONLY: 1 day CFW = Chlor(am)inated Finished Water PRINT NAME (Other) IR Gun ID = Synthetic ATAO OJBIR SAMPLE TEMP RECEIVED AT: FE FW = Other Finished Water · XIRTAM 3 day LOGIN COMMENTS: TYPE OF ICE: Real PROJECT CODE: SAMPLE GROUP: CLIENT LAB ID 1 wk Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Eaton Analytical Day 14 Website: www.EatonAnalytical.com Day 16 750 Royal Oaks Drive, Suite 100 COC ID: TAT requested: rush by adv notice only SAMPLE ID SIGNATURE 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER: QA FO 0029.2 (Version 2) (08/28/2014) COMPANY/AGENCY NAME: Phone: 626 386 1100 tetratech -orl 7-7 Tetra Tech 3-13 7-0 Fax: 626 386 1101 5-12 5-9 1-1 7-2 5-3 1-5 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 11:55 3AMPLE 3MIT 7/8 13:30 RECEIVED BY: RECEIVED BY: SAMPLED BY **3TAG** 1/1 SAMPLE

PAGE

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Eaton Analytical

CHAIN OF CUSTODY RECORD

(check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify (check for yes) COMMENTS N/A SAMPLER TIME (check for yes), OR 9F 99 6504 NON-COMPLIANCE SAMPLES PAGE Thawed SAMPLES CHECKED AGAINST COC BY: SAMPLES REC'D DAY OF COLLECTION? SAMPLES LOGGED IN BY: 7-13-2 REGULATION INVOLVED: DATE C) (Corr.Factor 6 - C°C) (Final = S °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION SO = Soil SL = Sludge CONDITION OF ICE: Frozen Y Partially Frozen METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx) UPS / DHL / Area Fast / Top Line / Other. SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) °C) (Corr.Factor BW = Bottled Water SW = Storm Water COMPANY/TITLE - Requires state forms COMPLIANCE SAMPLES (Observation= 236 K (Observation= SEAW = Sea Water ww = Waste Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) 12401 No Ice ATAO 0J317 EUROFINS EATON ANALYTICAL USE ONLY. CFW = Chlor(am)inated Finished Water PRINT NAME 1 day Lead Solubility Phase 2 IR Gun ID = IR Gun ID = TYPE OF ICE: Real 💉 Synthetic ATAG GJEIF Sauc SAMPLE TEMP RECEIVED AT: FE FW = Other Finished Water · XIRTAM (Other) 1 wk 3 day LOGIN COMMENTS: SAMPLE GROUP: PROJECT CODE: CLIENT LAB ID Monrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Day 16 Website: www.EatonAnalytical.com COC ID: TAT requested: rush by adv notice only SAMPLE ID 750 Royal Oaks Drive, Suite 100 SIGNATURE 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER: QA FO 0029.2 (Version 2) (08/28/2014) Tech COMPANY/AGENCY NAME: 7-種| Phone: 626 386 1100 5-12 7-4 5-13 7-5 7-6 7-7 Fax: 626 386 1101 5-5 tetratech-orl 3-9 Tetra EEA CLIENT CODE: RELINQUISHED BY: *ELINQUISHED BY* 5.3 **JMIT** RECEIVED BY: RECEIVED BY SAMPLE SAMPLED BY 3/1 3J9MA2 3TA0

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		- Factor or any order	EUROFINS EATON ANALYTICAL USE ONLY:	LYTICAL USE ONLY:			996509	
75() Royal	750 Royal Oaks Drive, Suite 100	LOGIN COMMENTS:			SAMPLES CHECKED AGAINST COC BY:	AINST COC BY:	
Mo	nrovia,	Monrovia, CA 91016-3629				SAMPLES L	SAMPLES LOGGED IN BY:) (
Ph	one: 62	6 386 1100	SAMPLE TEMP RECEIVED AT:	IVED AT:		SAMPLES REC'D DAY OF COLLECTION?		(check for year)
Fax	x: 626 3	Fax: 626 386 1101	(Other)		(Observation=	9 (0,	ပိ	meen ioi yes)
80(0 566 L	800 566 LABS (800 566 5227)	Monrovia	IR Gun ID = 62	0bservation=	on=>-4 °C) (Corr.Factor 0 .2	°C) (Final = 5 C)	
We	bsite: w	Website: www.EatonAnalytical.com	Compliance Acceptance	try: 4±2	°C) (Microbiology: < 10	١,٥)		
	1		TYPE OF ICE: Real	OF ICE: Real Synthetic No Ice METHOD OF SHIPMENT: Pick-Up / Walk-In	+	CONDITION OF ICE: Frozen Partially Frozen FedEx JUPS / DHL / Area Fast / Top Line / Other:	ren Thawed er:	N/A
TO BE	COMPLE	TO BE COMPLETED BY SAMPLER:				(check for ves)		
COMP	ANYIAG	COMPANY/AGENCY NAME:	PROJECT CODE:		loo		NON-COMPLIANCE SAMPI FS	(cneck for yes)
	Tetra	Tetra Tech			Type of sample	- Requires state forms REGULATION IN Type of samples (circle one): ROITINE SPECIAL CONFIDENTION	WOLVED:	7
tet	EEA CLIENT CODE:	Tetra tech -orl	SAMPLE GROUP: Lead Solubility	Lity Phase 2	SEE ATTAC	DER FOR	(check for yes), OR	(eg. SDWA, NPDES, etc.) k for yes), <u>OR</u>
TAT re	adnestec	TAT requested: rush by adv notice only	STD1 wk3 day				Sent for each test for each	acn sample)
3J4MA2 3TAG	SAMPLE	SAMPLEID	CLIENT LAB ID	• XIRTAM ATAO QJEIR	d 1749_		SAMPLER	PLER
712	10:42	J-0, Day 16		\vdash	~			
_	11:03	5-1, ,			_			
	-	J-2 ,			-			
	>	J-3 /			_			
	11:40	J-41						
	-	7-5,			_			I
	→	7-6			-			
	13:36	7-7'			-			
	>	7-8,		98.	_			
>	7	J-9 V		7	_			
* MA	TRIX T	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inat FW = Other Finished	ated Finished Water d Water	SEAW = Sea Water WW = Waste Water	Vater BW = Bottled Water SO = Soil Vater SW = Storm Water SL = Sludge	i 0 = Other - Please Identify	ase Identify
	200	SIGNATURE		PRINT NAME		COMPANY/TITLE	DATE	TIME
SAMPLED BY	ED BY:			The second second	A 100			
RELING	RELINQUISHED BY:	draw seen		Isaac Se	2656	Tetra Tech	7-13-21 17	1.15
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RELING	RELINQUISHED BY:)					المدرا	0 1
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	Eaton Analytical						
750 Roya	750 Royal Oaks Drive, Suite 100	LOGIN COMMENTS:	YIICAL USE ONLY:		SAMPLES CHECK	SAMPLES CHECKED AGAINST COC BY:	4
Phone: 6 Fax: 626 800 566 Website:	Monitoria, CA 910 to 5029 Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227) Website: www.EatonAnalytical.com	SAMPLE TEMP RECEIVED AT: (Other) IR Gur Compliance Acceptance Criteria: (C) TYPE OF ICE: Real Synth METHOD OF SHIPMENT:	ID = Control of the c	(Observation= °C °C) (Microbiology: < 10°C) No Ice CONDITION OF ICE:) () () ()	GGED IN BY: COLLECTION?	(check for yes) °C) °C)
TO BE COMPL	TO BE COMPLETED BY SAMPLER:				do to		
COMPANY	companyiagency name: Tetra Tech	PROJECT CODE:		COMPLIAN - Requi	MPLES (et forms	VOLVED:	(check for yes)
EEA CLIENT CODE:	total total	SAMPLE GROUP:	It. Phace 2	SEE ATTACHED KIT OR	SEE ATTACHED KIT ORDER FOR ANALYSES	RMATION (chec	(eg. SDWA, NPDES, etc.) (check for yes), OR
TAT request	TAT requested: rush by adv notice only	vk 3 day	2 day 1 day	LIST ALL ANAL TOE	LIST ALL ANALTSES REQUIRED (enter number of bottles sent for each test for each sample)	bottles sent for each test f	or each sample)
atad atad alamas amit	SAMPLEID	CLIENT LAB ID	ATAO OJEIF	d 1491		Ø 00	SAMPLER
7/2 13:36			Th				
-	5-12						
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					9		
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* MATRIX	* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	.00	SEAW = Sea Water WW = Waste Water	ater	SO = Soil 0 = Other - SL = Sludge	O = Other - Please Identify
SAMPLED BY:	70.000		PRINI NAME		COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	dense Seu	3	Isaac Sees	3	Tetro Toch	7-13-71	17:15
RECEIVED BY:	S	9	Silve	(AC	ter 4	7.44.71	X C) C
RELINQUISHED BY:	·ΒΥ:	2				1	2 2
RECEIVED BY:		~~		-			
QA FO 0029.2 (1	QA FO 0029.2 (Version 2) (08/28/2014)						

QA FO 0029.2 (Version 2) (08/28/2014)	RECEIVED BY:	RELINQUISHED BY:	RECIEVED BY:	SAMPLED BY:		* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	W & J-9 /	1	J-7 /	J-6'	J-5	J-4"	J-3	J-2	1 3-1	7/13 10:55 J-O, Day 17	SAMPLE TIME SAMPLE TIME	TAT requested: rush by adv notice only	tetratech-orl	EEA CLIENT CODE: COC ID:		TO BE COMPLETED BY SA. 0221 3062 0905 6019	TRK#	vvebsite: www.EatonAnalytical.com	800 566 LABS (800 566 5227)	Fax: 626 386 1101	Dhone, 626, 386, 1100	750 Royal Oaks Drive, Suite 100		e curonns
		7 Out May	I sauc S		PRINT NAME	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	_									J-W-	CLIENT LAB ID	STD 1 wk 3 day 2 day 1 day	Lead Solubility Phase		PROJECT CODE:		METHOD OF SHIPMENT: Pick-Up / Walk-In	TYPE OF ICE: Real Synthetic	Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10 °C	(Other) IR Gun ID =	SAMPLE TEMP RECEIVED AT:	LOGIN COMMENTS:	EUROFINS EATON ANALYTICAL USE ONLY	CHAIN
		45	To see			er SEAW = Sea Water WW = Waste Water					- -						TCPM	15	Z SEE ATTACHI	Type of samples (circle one):	COMPLIANCE SAMPLES		/ FedEx	No Ice CONDITION OF ICE: Frozen	4±2°C) (Microbiology < 10°C)	(Observation= S			LY	OF CUST
		teh	etra Tech	COMPANY/IIILE	e	BW = Bottled Water SO = Soil													SEE ATTACHED KIT ORDER FOR ANALYSES List ALL ANALYSES REQUIRED (enter number of bottle	s (circle one): ROUTINE SPECIAL CONFIRMATION		(check for yes)	st / To	ICE: Frozen Partially Frozen	°C) (Corr.Factor C. C°C		SAMPLES	SAMPLES CHECKED AGAINST COC BY:		ODY RECORD
PAGE OF		8212 12-4-6	7-13-21 18:90	DATE TIME		oil O = Other - Please Identify											SAMPLER COMMENTS	And the man of politics sent for each test for each sample)	(check for yes), <u>OR</u>	REGULATION INVOLVED: (eg. SDWA, NPDES, etc.)	NON-COMPLIANCE SAMPLES			zen Thawed N/A	°C) (Final => °C)	0			202975	pages

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Eaton Analytical	EUROFINS FATON ANALYTICAL USE ONLY	N INC EX		0,11	
750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629	LOGIN COMMENTS:	ור כעמר גי	SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY:	ECKED AGAINST COC BY:	
Phone: 626 386 1100 Fax: 626 386 1101 800 566 LABS (800 566 5227)	SAMPLE TEMP RECEIVED AT: (Other) IR Gun ID =	$D = \underbrace{\frac{\text{(Observation} = 0)}{\text{(Observation} = 0)}}_{\text{(Observation} = 0)}$	SAMPLES R "C) (Corr.Factor C (C) (Corr.Factor	AY OF COLLECTION? (check for yes) °C) (Final = °C) °C)	or yes)
Website: www.EatonAnalytical.com	TYPE OF ICE: Real Synthetic No Ice	COND COND FedEx	CONDITION OF ICE: Frozen Partially Frozen dEx / UPS / DHL / Area Fast / Top Line / Other.	n Thawed NIA	
TO BE COMPLETED BY SAMPLER:			(check for yes)	(check for yes)	(S)
companyagency name: Tetra Tech	PROJECT CODE:	COMPLIANCE SA - Requires sta	MPLES te forms	ICE SAMP	
EEA CLIENT CODE: COCID:	SAMPLE GROUP: Lead Solubility PV	Phase 2 List ALL ANALYS	NEED (ent	(check for yes), OR	ES, etc.)
TAT requested: rush by adv notice only		Ť			(aldilli)
SAMPLE ID	CLIENT LAB ID	ATAO DATA		SAMPLER	~ 5
7115 1058 J-11 Day 17	FW				
7-12)		-			
7-13.					
	>				
* MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	CFW = Chlor(am)inated Finished Water FW = Other Finished Water	ed Water SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sludge	I 0 = Other - Please Identify	dentify
SIGNATURE SIGNATURE	PR	PRINT NAME	COMPANY/TITLE	DATE TIME	ш
DEI MOLIEUED DV.					
RECEIVED BY	Isaa	c, Seese	Tetra Tech	7-13-21 13:21	0
RELINQUISHED BY:	* Core	malls	ter	2-14-51 2/28	۵
RECEIVED BY:					

QA FO 0029.2 (Version 2) (08/28/2014)



Laboratory Comments

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

- B4 Target analyte detected in blank at or above method acceptance criteria.
- M1 Matrix spike recovery was high; the associated blank spike recovery was acceptable.
- M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
- Q5 Sample received with inadequate chemical preservation, but preserved by the laboratory.
- T6 The reported result cannot be used for compliance purposes.





1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/17/2021 14:59	202107150476 Lead Total ICAP/MS	<u>J-0, Day 16</u>	200	15	ug/L	0.50
07/17/2021 14:59	202107150480 Lead Total ICAP/MS	<u>J-1, Day 16</u>	130	15	ug/L	0.50
07/17/2021 15:00	202107150481 Lead Total ICAP/MS	<u>J-2, Day 16</u>	170	15	ug/L	0.50
07/17/2021 15:02	202107150482 Lead Total ICAP/MS	<u>J-3, Day 16</u>	110	15	ug/L	0.50
07/17/2021 15:03	202107150483 Lead Total ICAP/MS	<u>J-4, Day 16</u>	300	15	ug/L	0.50
07/17/2021 15:04	202107150484 Lead Total ICAP/MS	<u>J-5, Day 16</u>	180	15	ug/L	0.50
07/17/2021 15:05	202107150485 Lead Total ICAP/MS	<u>J-6, Day 16</u>	170	15	ug/L	0.50
07/17/2021 15:07	202107150486 Lead Total ICAP/MS	<u>J-7, Day 16</u>	200	15	ug/L	0.50
07/17/2021 15:08	202107150487 Lead Total ICAP/MS	<u>J-8, Day 16</u>	1100	15	ug/L	0.50
07/17/2021 15:08	202107150488 Lead Total ICAP/MS	<u>J-9, Day 16</u>	480	15	ug/L	0.50
07/17/2021 15:09	202107150489 Lead Total ICAP/MS	<u>J-11, Day 16</u>	1400	15	ug/L	0.50
07/17/2021 15:10	202107150490 Lead Total ICAP/MS	<u>J-12, Day 16</u>	380	15	ug/L	0.50
07/17/2021 15:16	202107150491 Lead Total ICAP/MS	<u>J-13, Day 16</u>	310	15	ug/L	0.50
07/17/2021 15:18	202107150492 Lead Total ICAP/MS	J-0, Day 14	420	15	ug/L	0.50
07/17/2021 15:19	202107150493 Lead Total ICAP/MS	<u>J-1, Day 14</u>	310	15	ug/L	0.50
	202107150494	<u>J-2, Day 14</u>				





Orlando, FL 32801

1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech
James Christopher
201 East Pine Street
Suite 1000

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/17/2021 15:20	Lead Total ICAP/MS		560	15	ug/L	0.50
07/17/2021 15:23	202107150495 Lead Total ICAP/MS	<u>J-3, Day 14</u>	210	15	ug/L	0.50
07/17/2021 15:23	202107150496 Lead Total ICAP/MS	<u>J-4, Day 14</u>	240	15	ug/L	0.50
07/17/2021 15:24	202107150497 Lead Total ICAP/MS	<u>J-5, Day 14</u>	180	15	ug/L	0.50
07/17/2021 15:25	202107150498 Lead Total ICAP/MS	<u>J-6, Day 14</u>	480	15	ug/L	0.50
07/17/2021 15:26	202107150499 Lead Total ICAP/MS	<u>J-7, Day 14</u>	500	15	ug/L	0.50
07/17/2021 15:26	202107150500 Lead Total ICAP/MS	<u>J-8, Day 14</u>	310	15	ug/L	0.50
07/17/2021 15:27	202107150501 Lead Total ICAP/MS	<u>J-9, Day 14</u>	180	15	ug/L	0.50
07/17/2021 15:29	202107150502 Lead Total ICAP/MS	<u>J-11, Day 14</u>	1500	15	ug/L	0.50
07/17/2021 15:32	202107150503 Lead Total ICAP/MS	<u>J-12, Day 14</u>	220	15	ug/L	0.50
07/17/2021 15:33	202107150504 Lead Total ICAP/MS	<u>J-13, Day 14</u>	230	15	ug/L	0.50
07/27/2021 15:24 07/27/2021 17:09	202107150506 Total phosphorus as P Total phosphorus as PO	J-1, Day 16 94- Calc.	1.4 4.3		mg/L mg/L	0.10 0.030
07/27/2021 15:25 07/27/2021 17:09	202107150507 Total phosphorus as P Total phosphorus as PO	J-2, Day 16 4- Calc.	2.1 6.4		mg/L mg/L	0.10 0.030
07/27/2021 15:26	202107150508 Total phosphorus as P	J-3, Day 16	2.8		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PO 202107150509	4- Calc. J-4, Day 16	8.6		mg/L	0.030





1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/27/2021 15:27	Total phosphorus as P		1.3		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PO	4- Calc.	4.0		mg/L	0.030
	202107150510	J-5, Day 16				
07/27/2021 15:27	Total phosphorus as P		1.9		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PO	4- Calc.	5.8		mg/L	0.030
	202107150511	J-6, Day 16				
07/27/2021 15:28	Total phosphorus as P	- 1, - 1, - 1	2.5		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PO	4- Calc.	7.7		mg/L	0.030
	202107150512	J-7, Day 16				
07/27/2021 15:29	Total phosphorus as P	<u>5-1, 54y 10</u>	1.4		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
	202107150513	J-8, Day 16			-	
07/27/2021 16:36	Total phosphorus as P	3-0, Day 10	4.4		mg/L	0.10
07/27/2021 17:16	Total phosphorus as PO	4- Calc.	14		mg/L	0.030
					Ü	
07/27/2021 16:39	202107150514 Total phosphorus as P	<u>J-9, Day 16</u>	2.8		mg/L	0.10
07/27/2021 17:18	Total phosphorus as PO	4- Calc	8.6		mg/L	0.030
0.72772021 11110			0.0		9/=	0.000
07/27/2021 16:40	202107150515 Total phosphorus as P	<u>J-11, Day 16</u>	0.97		ma/l	0.10
07/27/2021 17:18	Total phosphorus as PO	4- Calc	3.0		mg/L mg/L	0.030
0112112021 11:10			0.0		mg/L	0.000
07/07/0004 40:44	202107150516	<u>J-12, Day 16</u>	4.5		11	0.40
07/27/2021 16:41 07/27/2021 17:18	Total phosphorus as P Total phosphorus as PO	4. Colo	1.5 4.6		mg/L mg/L	0.10 0.030
07/27/2021 17.16	rotal phosphorus as PO		4.0		mg/L	0.030
	202107150517	<u>J-13, Day 16</u>				
07/27/2021 16:44	Total phosphorus as P	A Oak	2.2		mg/L	0.10
07/27/2021 17:18	Total phosphorus as PO	4- Caic.	6.8		mg/L	0.030
	202107150519	<u>J-1, Day 16</u>				
07/21/2021 11:39	Total phosphorus as P		1.4		mg/L	0.10
07/21/2021 12:08	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
	202107150520	<u>J-2, Day 16</u>				
07/21/2021 11:40	Total phosphorus as P		2.2		mg/L	0.10
07/21/2021 12:08	Total phosphorus as PO	4- Calc.	6.8		mg/L	0.030
	202107150521	<u>J-3, Day 16</u>				





1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000

Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/27/2021 15:06	Total phosphorus as P		2.8		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	8.6		mg/L	0.030
	202107150522	J-4, Day 16				
07/27/2021 15:07	Total phosphorus as P		1.2		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	3.7		mg/L	0.030
	202107150523	J-5, Day 16				
07/27/2021 15:08	Total phosphorus as P		1.8		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030
	202107150524	<u>J-6, Day 16</u>				
07/27/2021 15:11	Total phosphorus as P		2.5		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	7.7		mg/L	0.030
	202107150525	J-7, Day 16				
07/27/2021 15:12	Total phosphorus as P		1.4		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	4.3		mg/L	0.030
	202107150526	J-8, Day 16				
07/27/2021 15:13	Total phosphorus as P		2.1		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	6.4		mg/L	0.030
	202107150527	J-9, Day 16				
07/27/2021 15:14	Total phosphorus as P		2.9		mg/L	0.10
07/27/2021 17:08	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202107150528	J-11, Day 16				
07/27/2021 15:15	Total phosphorus as P		0.96		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PC	04- Calc.	2.9		mg/L	0.030
	202107150529	<u>J-12, Day 16</u>				
07/27/2021 15:16	Total phosphorus as P		1.5		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PC	04- Calc.	4.6		mg/L	0.030
	202107150530	<u>J-13, Day 16</u>				
07/27/2021 15:20	Total phosphorus as P		2.0		mg/L	0.10
07/27/2021 17:09	Total phosphorus as PC	04- Calc.	6.1		mg/L	0.030
	202107150531	J-0, Day 17				
07/17/2021 15:34	Lead Total ICAP/MS		480	15	ug/L	0.50
	202107150532	<u>J-1, Day 17</u>				



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 07/14/2021 2128

Tetra TechJames Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/17/2021 15:34	Lead Total ICAP/MS		850	15	ug/L	0.50
07/17/2021 15:35	202107150533 Lead Total ICAP/MS	<u>J-2, Day 17</u>	460	15	ug/L	0.50
07/17/2021 15:36	202107150534 Lead Total ICAP/MS	<u>J-3, Day 17</u>	190	15	ug/L	0.50
07/17/2021 15:37	202107150535 Lead Total ICAP/MS	<u>J-4, Day 17</u>	390	15	ug/L	0.50
07/17/2021 15:37	202107150536 Lead Total ICAP/MS	<u>J-5, Day 17</u>	400	15	ug/L	0.50
07/17/2021 15:43	202107150537 Lead Total ICAP/MS	<u>J-6, Day 17</u>	1700	15	ug/L	0.50
07/17/2021 15:45	202107150538 Lead Total ICAP/MS	<u>J-7, Day 17</u>	970	15	ug/L	0.50
07/17/2021 15:46	202107150539 Lead Total ICAP/MS	<u>J-8, Day 17</u>	1500	15	ug/L	0.50
07/17/2021 16:18	202107150540 Lead Total ICAP/MS	<u>J-9, Day 17</u>	3200	15	ug/L	5.0
07/17/2021 15:48	202107150541 Lead Total ICAP/MS	<u>J-11, Day 17</u>	500	15	ug/L	0.50
07/17/2021 15:53	202107150542 Lead Total ICAP/MS	<u>J-12, Day 17</u>	300	15	ug/L	0.50
07/17/2021 16:20	202107150543 Lead Total ICAP/MS	<u>J-13, Day 17</u>	2300	15	ug/L	5.0





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/14/2021 2128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-0, Day 16	(2021071	<u>50476)</u>				Samı	pled on 07/10	/2021 103	0
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
J-1, Day 16			1341030	(EFA 200.6)	Lead Total TOAL /IVIO		oled on 07/10		
<u> </u>						Jum	J. 04 011 017 10	,	-
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	130	ug/L	0.50	1
J-2, Day 16			1041000	(LI A 200.0)	Edd Total Total Total		pled on 07/10		•
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
J-3, Day 16			1341030	(LFA 200.0)	Lead Total TOAL /IVIO		oled on 07/10		
<u>,,</u>									-
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	110	ug/L	0.50	1
J-4, Day 16			1041000	(LI A 200.0)	Edd Total Total Total		pled on 07/10		•
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
J-5, Day 16				(2171200.0)	2000 7000 1070 7000		pled on 07/10		
07/16/21 07/		EPA 200.8 1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
J-6, Day 16				(2.7.200.0)			pled on 07/10		0
07/16/21 07/		1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
J-7, Day 16		50486)		(=:::====;		Samı	pled on 07/10	/2021 103	0
07/16/21 07/		1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
J-8, Day 16	(2021071	50487)				Samı	pled on 07/10	/2021 103	0
			IODMO ** · ·			·			
07/16/21 07/		1341695	- ICPMS Metals 1341856	(EPA 200.8)	Lead Total ICAP/MS	1100	ug/L	0.50	1
J-9, Day 16	(2021071	<u>50488)</u>		` '		Samı	oled on 07/10	/2021 103	0

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/16/21 0	7/17/21 15:08	1341695	1341856	(EPA 200.8)	Lead Total ICAP/MS	480	ug/L	0.50	1
<u>J-11, Day</u>	16 (202107	<u>150489)</u>				Samp	oled on 07/10	/2021 103	0
		EPA 200.8	- ICPMS Metals						
07/16/21 0	7/17/21 15:09	1341695	1341856	(EPA 200.8)	Lead Total ICAP/MS	1400	ug/L	0.50	1
<u>J-12, Day</u>	16 (202107	<u>150490)</u>				Samp	oled on 07/10	/2021 103	0
		EDA 200 8	- ICPMS Metals						
07/16/21 0	7/17/21 15:10	1341695	1341856	(EPA 200.8)	Lead Total ICAP/MS	380	ug/L	0.50	1
<u>J-13, Day</u>	16 (202107	<u>150491)</u>				Samp	oled on 07/10	/2021 103	0
		EDA 200 9	- ICPMS Metals						
07/16/21 0	7/17/21 15:16	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	310 (B4)	ug/L	0.50	1
J-0, Day '	14 (2021071	<u>50492)</u>		, ,		Samp	oled on 07/01	/2021 115	5
						-			
07/16/21 0	7/17/21 15:18	1341695	- ICPMS Metals 1341857	(EPA 200.8)	Lead Total ICAP/MS	420 (B4)	ug/L	0.50	1
J-1, Day '	14 (2021071	50493)		(=:::=:::)		` ,	oled on 07/01	/2021 115	5
						•			
07/16/21 0	7/17/21 15:19	EPA 200.8 1341695	- ICPMS Metals 1341857	(EPA 200.8)	Lead Total ICAP/MS	310 (B4)	ug/L	0.50	1
	14 (2021071		1011007	(2177200.0)	Load Foldi for it /iiio	• •	oled on 07/01		
07/16/21 0	7/17/21 15:20	EPA 200.8 1341695	- ICPMS Metals 1341857	(EPA 200.8)	Lead Total ICAP/MS	560 (B4)	ug/L	0.50	1
	14 (2021071		134 1037	(EPA 200.6)	Leau Total ICAP/IVIS	,	oled on 07/01		•
<u>o o, bay</u>	14 (2021071	<u>00400)</u>				Camp	,ica 011 0770 1	72021 110	•
07/46/04 0	7/47/04 45:00		- ICPMS Metals	(EDA 000 0)	Lood Total ICAD/MC	240 (D4)		0.50	4
)7/17/21 15:23 14 (2021071	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	210 (B4)	ug/L	0.50	1 E
3-4, Day	14 (2021071	<u> 30490)</u>				Samp	oled on 07/01	/2021 115	5
			- ICPMS Metals						
	7/17/21 15:23	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	240 (B4)	ug/L	0.50	1 -
J-5, Day '	14 (2021071	<u>50497)</u>				Samp	oled on 07/01	/2021 115	5
		EPA 200.8	- ICPMS Metals						
	7/17/21 15:24	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	180 (B4)	ug/L	0.50	1
<u>J-6, Day ′</u>	14 (2021071	<u>50498)</u>				Samp	oled on 07/01	/2021 115	5





1 800 566 LABS (1 800 566 5227)

Report: 946504

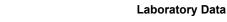
Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 200.8	- ICPMS Metals						
07/16/21	07/17/21 15:25	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	480 (B4)	ug/L	0.50	1
<u>J-7, Day</u>	14 (2021071	<u>150499)</u>				Samp	led on 07/01	/2021 115	5
		FPΔ 200 8	- ICPMS Metals						
07/16/21	07/17/21 15:26		1341857	(EPA 200.8)	Lead Total ICAP/MS	500 (B4)	ug/L	0.50	1
<u>J-8, Day</u>	14 (2021071	<u>150500)</u>				Samp	led on 07/01	/2021 115	5
		EDA 200 9	ICDMS Metale						
07/16/21	07/17/21 15:26		- ICPMS Metals 1341857	(EPA 200.8)	Lead Total ICAP/MS	310 (B4)	ug/L	0.50	1
	14 (2021071			(=:::===;		` '	led on 07/01	/2021 115	5
						·			
07/16/21	07/17/21 15:27		- ICPMS Metals 1341857	(EDA 200.9)	Lead Total ICAP/MS	190 (D4)	ug/l	0.50	1
			134 1637	(EPA 200.8)	Lead Total ICAP/IVIS	180 (B4)	ug/L		
<u>J-11, Da</u>	y 14 (202107	150502)				Samp	led on 07/01	1/2021 115	อ
		EPA 200.8	- ICPMS Metals						
07/16/21	07/17/21 15:29	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	1500 (B4)	ug/L	0.50	1
<u>J-12, Da</u>	y 14 (202107	<u>7150503)</u>				Samp	led on 07/01	/2021 115	5
		EPA 200.8	- ICPMS Metals						
07/16/21	07/17/21 15:32	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	220 (B4)	ug/L	0.50	1
<u>J-13, Da</u>	y 14 (202107	<u>7150504)</u>				Samp	led on 07/01	/2021 115	5
		EPA 200.8	- ICPMS Metals						
07/16/21	07/17/21 15:33	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	230 (B4)	ug/L	0.50	1
<u>J-0, Day</u>	16 (2021071	<u>150505)</u>				Samp	led on 07/08	3/2021 133	0
		SM4500-PI	E/EPA 365.1 - To	otal phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09			SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - To	otal phosphoru	ıs as P (T-P)				
	07/29/21 18:49		1344715 (SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.020	1
<u>J-1, Day</u>	16 (2021071	<u>150506)</u>				Samp	led on 07/08	3/2021 133	0
		SM4500-PI	E/EPA 365.1 - To	otal phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09	J 1900 1 1		SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PI	E/EPA 365.1 - To	•	is as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/14/2021 2128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	07/27/21 15:24		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-2, Day</u>	16 (2021071	<u>50507)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09				Total phosphorus as PO4- Calc.	6.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:25		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.1	mg/L	0.10	5
<u>J-3, Day</u>	16 (2021071	<u>50508)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:26		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.8	mg/L	0.10	5
<u>J-4, Day</u>	16 (2021071	<u>50509)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)		4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:27		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
<u>J-5, Day</u>	16 (2021071	<u>50510)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:27		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.9	mg/L	0.10	5
<u>J-6, Day</u>	16 (2021071	<u>50511)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:28		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
<u>J-7, Day 16 (202107150512)</u> Sampled on 07/08/2021 1330					0				

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/14/2021 2128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:09	1		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 15:29	1	1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-8, Day</u>	<u>/ 16 (202107</u>	<u>150513)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	is as PO4- Calc.				
	07/27/21 17:16	;		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	14 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 16:36	;	1343870	(SM4500-PE/EPA 365.1)	Total phosphorus as P	4.4	mg/L	0.10	5
<u>J-9, Day</u>	<u>/ 16 (202107</u>	<u>150514)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:18	1		(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 16:39	1	1343870	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.8	mg/L	0.10	5
<u>J-11, Da</u>	ay 16 (20210	<u>7150515)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:18			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 16:40	1	1343870	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.97	mg/L	0.10	5
<u>J-12, Da</u>	ay 16 (20210	<u>7150516)</u>				Sam	pled on 07/08	/2021 133	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	07/27/21 17:18			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	07/27/21 16:41		1343870	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-13, Da</u>	ay 16 (20210	<u>7150517)</u>				Sam	pled on 07/08	/2021 133	0

SM4500-PE/EPA 365.1 - Total phosphorus as PO4- Calc.





1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
C)7/27/21 17:18			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 16:44		1343870	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-0, Day	<u>16 (2021071</u>	<u>50518)</u>				Samı	oled on 07/02	/2021 1042	2
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/21/21 12:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:04		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND (M1)	mg/L	0.020	1
-1, Day	<u>16 (2021071</u>	<u>50519)</u>				Samı	oled on 07/02	/2021 110	3
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/21/21 12:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/21/21 11:39		1342581	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
J-2, Day	<u>16 (2021071</u>	<u>50520)</u>				Samı	oled on 07/02	/2021 110	3
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/21/21 12:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/21/21 11:40		1342581	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
J-3, Day	<u>16 (2021071</u>	<u>50521)</u>				Samı	oled on 07/02	/2021 1103	3
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:06		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.8	mg/L	0.10	5
J-4, Day	<u>16 (2021071</u>	<u>50522)</u>				Samı	oled on 07/02	/2021 1140	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	3.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Γotal phosphoru	ıs as P (T-P)				





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/14/2021 2128

Laboratory Data

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
C	07/27/21 15:07		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.2	mg/L	0.10	5
<u>J-5, Day</u>	<u>16 (2021071</u>	<u>50523)</u>				Sampl	ed on 07/02	/2021 114	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08				Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:08		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
<u>J-6, Day</u>	<u>16 (2021071</u>	<u>50524)</u>				Sampl	led on 07/02	/2021 114	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	is as PO4- Calc.				
C	07/27/21 17:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	7.7 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:11		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.5	mg/L	0.10	5
<u>J-7, Day</u>	<u>16 (2021071</u>	<u>50525)</u>				Sampl	led on 07/02	/2021 133	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08				Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:12		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
J-8, Day	<u>16 (2021071</u>	<u>50526)</u>				Sampl	led on 07/02	/2021 133	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.4 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:13		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.1 (Q5,T6)	mg/L	0.10	5
<u>J-9, Day</u>	<u>16 (2021071</u>	<u>50527)</u>				Sampl	ed on 07/02	/2021 133	0
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as PO4- Calc.				
C	07/27/21 17:08			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	ıs as P (T-P)				
C	07/27/21 15:14		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
J-11, Day	J-11, Day 16 (202107150528) Sampled on 07/02/2021 1330					0			

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



Laboratory Data

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on:

07/14/2021 2128

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PF	F/FPA 365.1 - 1	Гotal phosphoru	is as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	2.9 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Γotal phosphoru	is as P (T-P)				
	07/27/21 15:15		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	0.96	mg/L	0.10	5
<u>J-12, Da</u>	y 16 (202107	<u>150529)</u>				Samp	oled on 07/02	/2021 133	0
		SM4500-PE	E/EPA 365.1 - 1	Гotal phosphoru	is as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.6 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Total phosphoru	is as P (T-P)				
	07/27/21 15:16		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.5	mg/L	0.10	5
<u>J-13, Da</u>	y 16 (202107	<u>150530)</u>				Samp	oled on 07/02	/2021 133	0
		SM4500-PE	E/EPA 365.1 - 1	Гotal phosphoru	is as PO4- Calc.				
	07/27/21 17:09			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - 1	Γotal phosphoru	is as P (T-P)				
	07/27/21 15:20		1343869	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5
<u>J-0, Day</u>	17 (2021071	<u>50531)</u>				Samp	oled on 07/13	/2021 105	5
		EPA 200.8	- ICPMS Metal	s					
07/16/21	07/17/21 15:34	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	480 (B4)	ug/L	0.50	1
<u>J-1, Day</u>	17 (2021071	<u>50532)</u>				Samp	oled on 07/13	/2021 105	5
		EPA 200.8	- ICPMS Metal	s					
07/16/21	07/17/21 15:34	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	850 (B4)	ug/L	0.50	1
<u>J-2, Day</u>	17 (2021071	<u>50533)</u>				Samp	oled on 07/13	/2021 105	5
		EPA 200.8	- ICPMS Metal	s					
07/16/21	07/17/21 15:35	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	460 (B4)	ug/L	0.50	1
<u>J-3, Day</u>	<u>17 (2021071</u>	<u>50534)</u>				Samp	oled on 07/13	/2021 105	5
		EPA 200.8	- ICPMS Metal	s					
07/16/21	07/17/21 15:36	1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	190 (B4)	ug/L	0.50	1
<u>J-4, Day</u>	17 (2021071	<u>50535)</u>				Samp	led on 07/13	/2021 105	5

EPA 200.8 - ICPMS Metals

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.





1 800 566 LABS (1 800 566 5227)

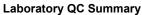
Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped Analyze	ed Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/16/21 07/17/21 1	5:37 1341695	1341857	(EPA 200.8)	Lead Total ICAP/MS	390 (B4)	ug/L	0.50	1
J-5, Day 17 (2021	<u>07150536)</u>				Samp	led on 07/13	3/2021 105	5
	EPA 200.8	- ICPMS Metals						
07/16/21 07/17/21 1		1341857	(EPA 200.8)	Lead Total ICAP/MS	400 (B4)	ug/L	0.50	1
J-6, Day 17 (2021	<u> 107150537)</u>				Samp	led on 07/13	3/2021 105	5
		- ICPMS Metals						
07/16/21 07/17/21 1	5:43 1341695	1341858	(EPA 200.8)	Lead Total ICAP/MS	1700 (M3)	ug/L	0.50	1
J-7, Day 17 (2021	07150538)				Samp	led on 07/13	3/2021 105	5
		- ICPMS Metals						
07/16/21 07/17/21 1	5:45 1341695	1341858	(EPA 200.8)	Lead Total ICAP/MS	970	ug/L	0.50	1
J-8, Day 17 (2021	<u> 107150539)</u>				Samp	led on 07/13	3/2021 105	5
		- ICPMS Metals						
07/16/21 07/17/21 1		1341858	(EPA 200.8)	Lead Total ICAP/MS	1500	ug/L	0.50	1
J-9, Day 17 (2021	<u> 07150540)</u>				Samp	led on 07/13	3/2021 105	5
		- ICPMS Metals						
07/16/21 07/17/21 1		1341859	(EPA 200.8)	Lead Total ICAP/MS	3200	ug/L	5.0	10
J-11, Day 17 (202	<u>2107150541)</u>				Samp	led on 07/13	3/2021 105	5
		- ICPMS Metals				_		
07/16/21 07/17/21 1		1341858	(EPA 200.8)	Lead Total ICAP/MS	500	ug/L	0.50	1
J-12, Day 17 (202	<u>2107150542)</u>				Samp	led on 07/13	3/2021 105	5
0=140104 0=14=104		- ICPMS Metals					0.50	
07/16/21 07/17/21 1		1341858	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
J-13, Day 17 (202	<u>(10/150543)</u>				Samp	led on 07/13	3/2021 105	5
07/40/04 07/47/04 4		- ICPMS Metals		Land Takal IOAD/MO	0000		5.0	46
07/16/21 07/17/21 1	6:20 1341695	1341859	(EPA 200.8)	Lead Total ICAP/MS	2300	ug/L	5.0	10





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Laboratory QC Summar

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

ICPMS	IVI	eta	IS
Pre	эp	Ва	tc

Prep Batch: 1341695	Analytical Ba	tch: 1341856
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202107150476	J-0, Day 16
202107150480	J-1, Day 16
202107150481	J-2, Day 16
202107150482	J-3, Day 16
202107150483	J-4, Day 16
202107150484	J-5, Day 16
202107150485	J-6, Day 16
202107150486	J-7, Day 16
202107150487	J-8, Day 16
202107150488	J-9, Day 16
202107150489	J-11, Day 16
202107150490	J-12, Day 16

ICPMS Metals

Prep Batch: 1341695 Analytical Batch: 1341857

202107150491	J-13, Day 16
202107150492	J-0, Day 14
202107150493	J-1, Day 14
202107150494	J-2, Day 14
202107150495	J-3, Day 14
202107150496	J-4, Day 14
202107150497	J-5, Day 14
202107150498	J-6, Day 14
202107150499	J-7, Day 14
202107150500	J-8, Day 14
202107150501	J-9, Day 14
202107150502	J-11, Day 14
202107150503	J-12, Day 14
202107150504	J-13, Day 14
202107150531	J-0, Day 17
202107150532	J-1, Day 17
202107150533	J-2, Day 17
202107150534	J-3, Day 17
202107150535	J-4, Day 17
202107150536	J-5, Day 17

ICPMS Metals

Prep Batch: 1341695 Analytical Batch: 1341858

202107150537	J-6, Day 17
202107150538	J-7, Day 17
202107150539	J-8, Day 17
202107150541	J-11, Day 17
202107150542	J-12, Day 17

Analysis Date: 07/17/2021

•	
Analyzed by: URDE	

Analysis Date: 07/17/2021

Analyzed by: URDE
Analyzed by: URDE

Analysis Date: 07/17/2021



Laboratory QC Summary

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Analysis Date: 07/17/2021

Analyzed by: LQ3M

Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Tetra Tech

ICPMS Metals									
	ı	40	10	N/	C	М	D	^	1

Prep Batch: 1341695 Analytical Batch: 1341859

J-13, Day 16

 202107150540
 J-9, Day 17
 Analyzed by: URDE

 202107150543
 J-13, Day 17
 Analyzed by: URDE

Total phosphorus as P (T-P)

Analytical Batch: 1342581 Analysis Date: 07/21/2021

202107150519 J-1, Day 16 Analyzed by: LQ3M 202107150520 J-2, Day 16 Analyzed by: LQ3M

Total phosphorus as P (T-P)

Analytical Batch: 1343869 Analytical Batch: 07/27/2021

Analyzed by: LQ3M 202107150506 J-1, Day 16 Analyzed by: LQ3M 202107150507 J-2, Day 16 202107150508 J-3, Day 16 Analyzed by: LQ3M Analyzed by: LQ3M 202107150509 J-4, Day 16 202107150510 J-5, Day 16 Analyzed by: LQ3M Analyzed by: LQ3M 202107150511 J-6, Day 16 Analyzed by: LQ3M 202107150512 J-7, Day 16 Analyzed by: LQ3M 202107150518 J-0, Day 16 Analyzed by: LQ3M 202107150521 J-3, Day 16 202107150522 J-4, Day 16 Analyzed by: LQ3M Analyzed by: LQ3M 202107150523 J-5, Day 16 J-6, Day 16 202107150524 Analyzed by: LQ3M 202107150525 J-7, Day 16 Analyzed by: LQ3M 202107150526 J-8, Day 16 Analyzed by: LQ3M 202107150527 J-9, Day 16 Analyzed by: LQ3M 202107150528 Analyzed by: LQ3M J-11, Day 16 Analyzed by: LQ3M 202107150529 J-12, Day 16

Total phosphorus as P (T-P)

202107150530

Analytical Batch: 1343870 Analysis Date: 07/27/2021

 202107150513
 J-8, Day 16
 Analyzed by: LQ3M

 202107150514
 J-9, Day 16
 Analyzed by: LQ3M

 202107150515
 J-11, Day 16
 Analyzed by: LQ3M

 202107150516
 J-12, Day 16
 Analyzed by: LQ3M

 202107150517
 J-13, Day 16
 Analyzed by: LQ3M

Total phosphorus as P (T-P)

Analytical Batch: 1344715 Analysis Date: 07/29/2021

202107150505 J-0, Day 16 Analyzed by: LQ3M





1 800 566 LABS (1 800 566 5227)

Report: 946504 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1341856					Analysis D	ate: 07/17/	2021	
LCS1	Lead Total ICAP/MS		50	52.2	ug/L	104	(85-115)		
LCS2	Lead Total ICAP/MS		50	52.2	ug/L	104	(85-115)	20	0.0
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.500	ug/L	100	(50-150)		
MS_202107150331	Lead Total ICAP/MS	ND	50	42.8	ug/L	85	(70-130)		
MS2_202107150481	Lead Total ICAP/MS	170	50	220	ug/L	104	(70-130)		
MSD_202107150331	Lead Total ICAP/MS	ND	50	42.0	ug/L	84	(70-130)	20	1.8
MSD2_202107150481	Lead Total ICAP/MS	170	50	211	ug/L	86	(70-130)	20	4.2
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1341857					Analysis D	ate: 07/17/	2021	
LCS1	Lead Total ICAP/MS		50	52.6	ug/L	105	(85-115)		
LCS2	Lead Total ICAP/MS		50	52.5	ug/L	105	(85-115)	20	0.19
MBLK	Lead Total ICAP/MS			0.0837	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.513	ug/L	103	(50-150)		
MS_202107150491	Lead Total ICAP/MS	310	50	361	ug/L	96	(70-130)		
MS2_202107150501	Lead Total ICAP/MS	180	50	227	ug/L	97	(70-130)		
MSD_202107150491	Lead Total ICAP/MS	310	50	355	ug/L	82	(70-130)	20	1.8
MSD2_202107150501	Lead Total ICAP/MS	180	50	228	ug/L	98	(70-130)	20	0.26
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1341858					Analysis D	ate: 07/17/	2021	
LCS1	Lead Total ICAP/MS		50	53.2	ug/L	107	(85-115)		
LCS2	Lead Total ICAP/MS		50	54.3	ug/L	109	(85-115)	20	1.9
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.512	ug/L	102	(50-150)		
MS_202107150537	Lead Total ICAP/MS	1700	50	1710	ug/L	<u>31</u>	(70-130)		
MS2_202107081095	Lead Total ICAP/MS	ND	50	44.2	ug/L	88	(70-130)		
MSD_202107150537	Lead Total ICAP/MS	1700	50	1720	ug/L	<u>46</u>	(70-130)	20	0.66
MSD2_202107081095	Lead Total ICAP/MS	ND	50	45.6	ug/L	91	(70-130)	20	3.1
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1341859					Analysis D	ate: 07/17/	2021	
LCS1	Lead Total ICAP/MS		50	55.0	ug/L	110	(85-115)		
LCS2	Lead Total ICAP/MS		50	54.9	ug/L	110	(85-115)	20	0.18
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used. RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.



1 800 566 LABS (1 800 566 5227)

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%	
MRL_CHK	Lead Total ICAP/MS		0.5	0.527	ug/L	105	(50-150)			
MS_202107081135	Lead Total ICAP/MS	ND	50	43.9	ug/L	88	(70-130)			
MSD_202107081135	Lead Total ICAP/MS	ND	50	42.7	ug/L	85	(70-130)	20	2.9	
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1									
Analytical B	atch: 1342581				,	Analysis D	ate: 07/21/	2021		
LCS1	Total phosphorus as P		0.4	0.430	mg/L	108	(90-110)			
LCS2	Total phosphorus as P		0.4	0.429	mg/L	107	(90-110)	20	0.23	
MBLK	Total phosphorus as P			<0.0108	mg/L					
MRL_CHK	Total phosphorus as P		0.02	0.0158	mg/L	79	(50-150)			
MS_202107090825	Total phosphorus as P	0.047	0.4	0.475	mg/L	107	(90-110)			
MS2_202107160756	Total phosphorus as P	ND	0.4	0.419	mg/L	105	(90-110)			
MSD_202107090825	Total phosphorus as P	0.047	0.4	0.483	mg/L	109	(90-110)	20	1.7	
MSD2_202107160756	Total phosphorus as P	ND	0.4	0.426	mg/L	106	(90-110)	20	1.6	
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1									
Analytical B	atch: 1343869				Analysis Date: 07/27/2021					
LCS1	Total phosphorus as P		0.4	0.424	mg/L	106	(90-110)			
LCS2	Total phosphorus as P		0.4	0.426	mg/L	106	(90-110)	20	0.47	
MBLK	Total phosphorus as P			<0.0108	mg/L					
MRL_CHK	Total phosphorus as P		0.02	0.0119	mg/L	60	(50-150)			
MS_202107150518	Total phosphorus as P	ND	0.4	0.466	mg/L	<u>112</u>	(90-110)			
MS2_202107070773	Total phosphorus as P	ND	0.4	0.429	mg/L	107	(90-110)			
MSD_202107150518	Total phosphorus as P	ND	0.4	0.451	mg/L	108	(90-110)	20	3.3	
MSD2_202107070773	Total phosphorus as P	ND	0.4	0.420	mg/L	105	(90-110)	20	2.0	
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1									
Analytical B					Analysis D	ate: 07/27/	2021			
LCS1	Total phosphorus as P		0.4	0.439	mg/L	110	(90-110)			
LCS2	Total phosphorus as P		0.4	0.427	mg/L	107	(90-110)	20	2.8	
MBLK	Total phosphorus as P			<0.0108	mg/L					
MRL_CHK	Total phosphorus as P		0.02	0.0140	mg/L	70	(50-150)			
MS_202107150513	Total phosphorus as P	4.4	0.4	3.42	mg/L	<u>-48.2</u>	(90-110)			
MS2_202107150466	Total phosphorus as P	0.40	0.4	0.683	mg/L	<u>71</u>	(90-110)			
MSD_202107150513	Total phosphorus as P	4.4	0.4	3.43	mg/L	<u>-47.6</u>	(90-110)	20	0.34	
MSD2_202107150466	Total phosphorus as P	0.40	0.4	0.607	mg/L	<u>52</u>	(90-110)	20	12	

Total phosphorus as P (T-P) by SM4500-PE/EPA 365.1

Analytical Batch: 1344715 Analysis Date: 07/29/2021

Spike recovery is already corrected for native results. Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

⁽S) - Indicates surrogate compound.

⁽I) - Indicates internal standard compound.



1 800 566 LABS (1 800 566 5227)

Laboratory QC

Report: 946504

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Total phosphorus as P		0.4	0.422	mg/L	105	(90-110)		
LCS2	Total phosphorus as P		0.4	0.422	mg/L	106	(90-110)	20	0.0
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0171	mg/L	86	(50-150)		
MS_202107150505	Total phosphorus as P	ND	0.4	0.410	mg/L	103	(90-110)		
MS2_202107120289	Total phosphorus as P	ND	0.4	0.420	mg/L	105	(90-110)		
MSD_202107150505	Total phosphorus as P	ND	0.4	0.429	mg/L	107	(90-110)	20	4.5
MSD2_202107120289	Total phosphorus as P	ND	0.4	0.409	mg/L	102	(90-110)	20	2.7



ACCREDITED

CERTIFICATE #'s 5890.01 & 5890.02

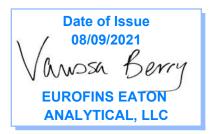
750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: (626) 386-1100 Fax: (866) 988-3757 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Tetra Tech
201 East Pine Street
Suite 1000
Orlando, FL 32801
Attention: James Christopher

Fax: 407-839-3790



ZIA8: Vanessa Berry Project Manager



Report: 948220 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

- * Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
- * Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
- * This report shall not be reproduced except in full, without the written approval of the laboratory.
- * This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.



STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA000062018
California	2813	New Hampshire *	2959
Colorado	Certified	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	Certified
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	18-005R	Oregon *	CA200003-005
Hawaii	Certified	Pennsylvania *	68-565
Idaho	Certified	Puerto Rico	Certified
Illinois *	200033	Rhode Island	LAO00326
Indiana	C-CA-01	South Carolina	87016
Iowa - Asbestos	413	South Dakota	Certified
Kansas *	E-10268	Tennessee	TN02839
Kentucky	90107	Texas *	T104704230-18-15
Louisiana *	LA180000	Utah (Primary AB) *	CA00006
Maine	CA0006	Vermont	VT0114
Maryland	224	Virginia *	460260
Commonwealth of Northern Marianas Is.	MP0004	Washington	C838
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264
Mississippi	Certified		

^{*} NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025 Accredited Method List

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.

Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

		Environ-	Environ-	1 1
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	mental (Drinking Water)	mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	х		х
1,4-Dioxane	EPA 522	х		х
2,3,7,8-TCDD	Modified EPA 1613B	x		X
Acrylamide	In House Method (2440)	х		х
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	х	х	х
Ammonia	EPA 350.1		х	х
Ammonia	SM 4500-NH3 H		х	х
Anions and DBPs by IC	EPA 300.0	х	х	х
Anions and DBPs by IC	EPA 300.1	х		х
Asbestos	EPA 100.2	х	x	
BOD / CBOD	SM 5210B		х	х
Bromate	In House Method (2447)	х		х
Carbamates	EPA 531.2	х		х
Carbonate as CO3	SM 2330B	х	х	х
Carbonyls	EPA 556	х		х
COD	EPA 410.4 / SM 5220D		х	
Chloramines	SM 4500-CL G	Х	Х	х
Chlorinated Acids	EPA 515.4	Х		х
Chlorinated Acids	EPA 555	х		х
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	х		х
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	х	х	х
Conductivity	EPA 120.1		х	
Conductivity	SM 2510B	х	х	x
Corrosivity (Langelier Index)	SM 2330B	x	^	x
Cyanide, Amenable	SM 4500-CN G	х	х	
	SM 4500-CN G SM 4500CN F	X		v
Cyanide, Free Cyanide, Total	EPA 335.4	X	X X	X X
Cyanogen Chloride	In House Method (2470)	x	^	x
(screen) Diquat and Paraquat	EPA 549.2	х		x
DBP/HAA	SM 6251B	X		X
Dissolved Oxygen	SM 4500-O G	^	х	x
DOC DOC	SM 5310C	х	^	x
E. Coli	(MTF/EC+MUG)	Х		х
E. Coli	CFR 141.21(f)(6)(i)	х		х
E. Coli	SM 9223		х	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	Х		Х
E. Coli (Enumeration)	SM 9223B	х		Х
EDB/DCBP	EPA 504.1	Х		
EDTA and NTA	EPA 551.1	x x		x x
EDTA and NTA Endothall	In House Method (2454) EPA 548.1	X		X
		×		X
Endothall	In-house Method (2445)	X		X
Enterococci Eacal Coliform	SM 9230B	x	Х	
Fecal Coliform	SM 9221 E (MTF/EC)	Х	v	
Fecal Coliform Fecal Coliform	SM 9221C, E (MTF/EC)	1	Х	
(Enumeration)	SM 9221E (MTF/EC)	х		x
Fecal Coliform with				
Chlorine Present	SM 9221E		х	
Fecal Streptococci	SM 9230B	х	х	
Fluoride	SM 4500-F C	×	X	x
Glyphosate	EPA 547	Х		Х
Glyphosate + AMPA	In House Method (3618)	х		х
Gross Alpha/Beta	EPA 900.0	Х	Х	х
Gross Alpha Coprecipitation	SM 7110 C	x	х	х
Hardness	SM 2340B	х	х	х
Heterotrophic Bacteria	In House Method (2439)	х		x
Heterotrophic Bacteria	SM 9215 B	х		х
Hexavalent Chromium	EPA 218.6	Х	Х	х

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ- mental (Drinking Water)	Environ- mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
Hexavalent Chromium	EPA 218.7	х		х
Hexavalent Chromium	SM 3500-Cr B		Х	
Hormones	EPA 539	Х		х
Hydroxide as OH Calc.	SM 2330B	Х		х
Kjeldahl Nitrogen	EPA 351.2		Х	
Legionella Mercury	Legiolert EPA 200.8	X X		X X
Metals	EPA 200.8	X	х	X
Microcystin LR	ELISA (2360)	X		x
Microcystin, Total	EPA 546	Х		х
NDMA	EEA/Agilent 521.1 In house method (2425)	х		х
Nitrate/Nitrite Nitrogen	EPA 353.2	Х	Х	х
OCL, Pesticides/PCB	EPA 505	Х		х
Ortho Phosphate	EPA 365.1	X	Х	X
Ortho Phosphorous Oxyhalides Disinfection	SM 4500P E	Х		Х
Byproducts	EPA 317.0	х		х
Perchlorate	EPA 331.0	Х		х
Perchlorate (low and high)	EPA 314.0	Х		х
Perfluorinated Alkyl Acids	EPA 537	Х		х
Perfluorinated Polutant	In house Method (2434)	Х		х
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	Х	х
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		х
Pseudomonas	IDEXX Pseudalert (2461)	Х		х
Radium-226	GA Institute of Tech	x		х
Radium-228	GA Institute of Tech	Х		х
Radon-222	SM 7500RN	Х		х
Residue, Filterable	SM 2540C	Х	Х	х
Residue, Non-filterable	SM 2540D		Х	
Residue, Total Residue, Volatile	SM 2540B EPA 160.4		X	х
Semi-VOC	EPA 525.2	х	Х	х
Silica	SM 4500-Si D	X	х	^
Silica	SM 4500-SiO2 C	х	х	
Sulfide	SM 4500-S ⁻ D		х	
Sulfite	SM 4500-SO ³ B	х	x	х
Surfactants	SM 5540C	Х	х	х
Taste and Odor Analytes	SM 6040E	Х		х
Total Coliform (P/A)	SM 9221 A, B	Х		х
Total Coliform	SM 9221 A, B, C	x		x
(Enumeration)				
Total Coliform / E. coli	Colisure SM 9223	Х		Х
Total Coliform Total Coliform with Chlorine	SM 9221B SM 9221B		X X	
Present Total Coliform / E.coli (P/A				
and Enumeration)	SM 9223	Х		х
TOC	SM 5310C	Х	Х	х
TOX	SM 5320B		X	
Total Phenols	EPA 420.1		х	
Total Phenols	EPA 420.4	х	X	Х
Total Phosphorous Triazine Pesticides &	SM 4500 P E		Х	
Degradates	In House (3617)	x		х
Turbidity	EPA 180.1	х	Х	х
Turbidity	SM 2130B	х	х	
Uranium by ICP/MS	EPA 200.8	х		х
UV 254	SM 5910B	х		
VOC	EPA 524.2	х		х
VOC	In House Method (2411)	х		х
Yeast and Mold	SM 9610	х		х
Field Compling	N/A			

N/A

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 https://www.eurofinsus.com/Eaton_Version 006 issued: 05/04/20

Field Sampling



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 948220

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 22, 2021** at **1825**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202107220631	J-0, Day 16	07/03/2021 1114
	@ICPMS	
202107220632	J-1, Day 16	07/03/2021 1115
	@ICPMS	
202107220633	J-2, Day 16	07/03/2021 1116
	@ICPMS	
<u>202107220634</u>	J-3, Day 16	07/03/2021 1117
	@ICPMS	
202107220635	J-4, Day 16	07/03/2021 1118
	@ICPMS	
<u>202107220636</u>	J-5, Day 16	07/03/2021 1119
	@ICPMS	
202107220637	J-6, Day 16	07/03/2021 1120
	@ICPMS	
202107220638	J-7, Day 16	07/03/2021 1121
	@ICPMS	
202107220639	J-8, Day 16	07/03/2021 1121
	@ICPMS	
202107220640	J-9, Day 16	07/03/2021 1122
	@ICPMS	
202107220641	J-11, Day 16	07/03/2021 1123
	@ICPMS	
202107220642	J-12, Day 16	07/03/2021 1124
	@ICPMS	
202107220643	J-13, Day 16	07/03/2021 1126
	@ICPMS	



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 948220

Project: KALAMAZOO Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 22**, **2021** at **1825**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID		Sample Date
202107220644	J-0, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220645	J-1, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220646	J-2, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220647	J-3, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220648	J-4, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220649	J-5, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220650	J-6, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220651	J-7, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220652	J-8, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220653	J-9, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220654	J-11, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220655	J-12, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	
202107220656	J-13, Day 17		07/09/2021 1400
	Total phosphorus as P	Total phosphorus as PO4- Calc.	

Reported: 08/09/2021



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 948220

Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 22, 2021** at **1825**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202107220657	J-0, Day 15	07/08/2021 1255
	@ICPMS	
202107220658	J-1, Day 15	07/08/2021 1255
	@ICPMS	
202107220659	J-2, Day 15	07/08/2021 1255
	@ICPMS	
202107220660	J-3, Day 15	07/08/2021 1255
	@ICPMS	
<u>202107220661</u>	J-4, Day 15	07/08/2021 1255
	@ICPMS	
202107220662	J-5, Day 15	07/08/2021 1255
	@ICPMS	
202107220663	J-6, Day 15	07/08/2021 1255
	@ICPMS	
202107220664	J-7, Day 15	07/08/2021 1255
	@ICPMS	
202107220665	J-8, Day 15	07/08/2021 1255
	@ICPMS	
202107220666	J-9, Day 15	07/08/2021 1255
	@ICPMS	
202107220667	J-11, Day 15	07/08/2021 1255
	@ICPMS	
202107220668	J-12, Day 15	07/08/2021 1255
	@ICPMS	
202107220669	J-13, Day 15	07/08/2021 1255
	@ICPMS	
	<u> </u>	



Addr: Tetra Tech

201 East Pine Street

Suite 1000

Orlando, FL 32801

Attn: James Christopher Phone: 407-480-3907

Client ID: TETRATECH-ORLAN

Folder #: 948220 Project: KALAMAZOO

Sample Group: Lead Solubility Testing - Phase 2

Project Manager: Vanessa Berry

Phone: 503-310-3905

The following samples were received from you on **July 22**, **2021** at **1825**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #

Sample ID

Sample Date

Test Description

@ICPMS -- ICPMS Metals

Reported: 08/09/2021

se eurofins

Eaton Analytical

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY

DATE FRANCHIME BY 25 (check for yes) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) (eg. SDWA, NPDES, etc.) 0 = Other - Please Identify (check for yes) 12:55 FASTULY SOLL N/A COMMENTS SAMPLER (check for yes), OR (O° > NON-COMPLIANCE SAMPLES Thawed SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: REGULATION INVOLVED: SAMPLES LOGGED IN BY 7-13-21 °C) (Corr.Factor C. C.C) (Final = 5 °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION CONDITION OF ICE: Frozen Zeartially Frozen SL = Sludge METHOD OF SHIPMENT: Pick-Up / Walk-In /(FedEx2/ UPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES INITIAL ASSET (check for yes) °C) (Corr.Factor BW = Bottled Water SW = Storm Water COMPANY/TITLE Tetra Tech Requires state forms COMPLIANCE SAMPLES en = (Observation= Observation= SEAW = Sea Water WW = Waste Water biology; < 10°C) rapi Compliance Acceptance Criteria: (Chemistry 4±2°C) (Microl SNUT No Ice Seese Phase 2 ATAO 0J314 CFW = Chlor(am)inated Finished Water PRINT NAME IR Gun ID = IR Gun ID = Synthetic ATAO OJEIT Isaac SAMPLE TEMP RECEIVED AT: 2 day 万万 Lead Solubility · XIATAM FW = Other Finished Water (Other) 3 day LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: CLIENT LAB ID PROJECT CODE: STD 1 wk Menrovia * MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629 TAT requested: rush by adv notice only COC ID SAMPLE ID Day SIGNATURE 800 566 LABS (800 566 5227) TO BE COMPLETED BY SAMPLER: QA FO 0029.2 (Version 2) (08/28/2014) COMPANY/AGENCY NAME: Phone: 626 386 1100 Tetralech 11:20 5-6 Fax: 626 386 1101 5-0 11:21 7-8 11:22 5-9 1-3 tetratech-orl J-2 7-4 1-11:19 7-5 EEA CLIENT CODE: 1:/5 1:18 RELINQUISHED BY #:1 91:11 RELINQUISHED BY 11:11 **JMIT** SAMPLE RECEIVED BY RECEIVED BY SAMPLED BY **BTAG** SAMPLE

SULLOTINS ...

CHAIN OF CUSTODY RECORD [A3721]

FAS7211	GAINST COC BY:	SAWPLES LOGGED IN BY: C EC'D DAY OF COLLECTION? C $^{\circ}$ C) (Final = C $^{\circ}$ C) (Final = C $^{\circ}$ C)	ozen Thawed N/A	(check for yes) NON-COMPLIANCE SAMPLES REGULATION INVOLVED:	MATION (eg. SDWA, NPDES, etc.)	es sent for each test for each sample	SAMPLER				NITIA ASSESSMENT ABELVERHEATION			393691	ioil 0 = Other - Please Identify Iudge DATE TREATURE IR.	Bau	1-13-7 Z:BS	H154m 970	PAGE OF
CALUSE ONLY.	SAMPLES CHECKED AGAINST COC BY:	SAMPLES R on= °C) (Corr.Factor on= 3. 6 °C) (Corr.Factor	CONDITION OF ICE: Frozen Partially Frozen FedEx // UPS / DHL / Area Fast / Top Line / Other:	(check for yes) MPLES e forms	SEE ATTACHED KIT ORDER FOR ANALYSES	Section 1 and 1 an			-		IN				Nater BW = Bottled Water SO = Soil Vater SW = Storm Water SL = Sludge COMPANYTITE CRAP		icila lech	565	
ALYT	LOGIN COMMENTS:	er) IR Gun ID = 6004 IR Gun ID = 6004 In Gun ID = 6004	METHOD OF SHIPMENT: Pick-Up / Walk-In FedEx	PROJECT CODE:	Solubility Phase 2	y 2 day 1 day	CLIENT LAB ID MATRIX - M	+		-				>	CFW = Chlor(am)inated Finished Water FW = Other Finished Water PRINT NAME (LD)	I Same Sosse	1 1	Keter III	
Eaton Analytical EUROFIA	750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629	EI S	I A BE	rname: Tech		red	SAMPLE ID CLIE	7/3 11:23 J-11 Day 16	11:26	DI	J-2 /	7-3	7-5	V 126 V	* MATRIX TYPES: RSW = Raw Surface Water CFW = RGW = Raw Ground Water FW = C	RELINQUISHED BY: & Juna Jun	RECEIVED BY:	#	QA FO 0029.2 (Version 2) (08/28/2014)

" curorins

Eaton Analytical

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

FA87211

DATE TRUES I TIME OF 25 (check for yes) (eg. SDWA, NPDES, etc.) List ALL ANALYSES REQUIRED (enter number of bottles sent for each test for each sample) O = Other - Please Identify (check for yes) COMMENTS 3 13:00 N/A SAMPLER (check for yes), OR 9 000 NON-COMPLIANCE SAMPLES PAGE Thawed SAMPLES REC'D DAY OF COLLECTION? SAMPLES CHECKED AGAINST COC BY: SAMPLES LOGGED IN BY: 7-13-21 °C) (Corr.Factor 2 °C) (Final = 3 - 4 REGULATION INVOLVED: N INITIAL ASSESSIV °C) (Final = Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION Partially Frozen SL = Sludge METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other. SO = Soil SEE ATTACHED KIT ORDER FOR ANALYSES (check for yes) C) (Corr.Factor BW = Bottled Water SW = Storm Water COMPANY/TITLE CONDITION OF ICE: Frozen Tetra Tech COMPLIANCE SAMPLES Requires state forms 386 (Observation= (Observation= SEAW = Sea Water WW = Waste Water Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: < 10°C) (u) SWUDI 1 1240 I Seese No Ice ATAO OJE 1 day CFW = Chlor(am)inated Finished Water PRINT NAME Lead Solubility Phase IR Gun ID = (Other) IR Gun ID = Isaac Synthetic ATAO OJE SAMPLE TEMP RECEIVED AT: 2 day 五 FW = Other Finished Water · XIRTAM 1 wk 3 day LOGIN COMMENTS: TYPE OF ICE: Real SAMPLE GROUP: PROJECT CODE: CLIENT LAB ID Monrovia RGW = Raw Ground Water * MATRIX TYPES: RSW = Raw Surface Water ecer Day 17 Day 15 Website: www.EatonAnalytical.com 750 Royal Oaks Drive, Suite 100 COCID TAT requested: rush by adv notice only SAMPLE ID SIGNATURE 800 566 LABS (800 566 5227) Monrovia, CA 91016-3629 TO BE COMPLETED BY SAMPLER QA FO 0029.2 (Version 2) (08/28/2014) Tetra Tech Phone: 626 386 1100 COMPANY/AGENCY NAME: 7-12 5-13 Fax: 626 386 1101 tetratech -orl 2-6 1. 1-0 コート 1-1 7-7 7-9 EEA CLIENT CODE: RELINQUISHED BY RELINQUISHED BY 4:60 1/8 12:51 **JMIT** SAMPLE RECEIVED BY: RECEIVED BY: SAMPLED BY **3TAG** 1/4 SAMPLE 22

Eaton Analytical

EUROFINS EATON ANALYTICAL USE ONLY:

FA8721

750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016-3629	LOGIN COMMENTS:			SAMPLES CHECKED AGAINST COC BY:	SAINST COC BY: 4	(
Phone: 626 386 1100 Fax: 626 386 1101	SAMPLE TEMP RECEIVED AT:	VED AT: IR Gun ID =	(Observation=	SAMPLES REC'D DAY OF COLLECTION?		(check for yes
800 566 LABS (800 566 5227)	Monrovia	IR Gun ID = 64	(Observation=	22	°C) (Final = 3 4 °C)	
Website: www.EatonAnalytical.com	TYPE OF ICE: Real	E OF ICE: Real Synthetic No Ice CONDIT	"C) (Microbiology: < 10°C) No IceCONDITION OF ICE:	OF ICE: Frozen Partially Frozen	Thawe	Š
ST STAND STEED WAS DEAD OF	METHOD OF SHII	PMENT: Pick-Up / W	alk-in / FedEx / UPS	Area Fast /		A/N
COMPANY/AGENCY NAME:				(check for yes)	Check	(check for yes)
Tetra Tech	PROJECT CODE:		COMPLIAN - Requi	MPLES e forms	NON-COMPLIANCE SAMPLES REGULATION INVOLVED:	7 (2)
EEA CLIENT CODE: COC ID:	SAMPLE GROUP:		Type of samples (circle one):	ROUTINE SPECIAL		(eg. SDWA, NPDES, etc.)
tetratech-orl	Lead Solub.	Solubility Phase 2	List ALL ANALYSE	List ALL ANALYSES REQUIRED (enter number of bottless continues of bottless and formally continues).	(check for yes), OR	OR .
TAT requested: rush by adv notice only	STD1 wk3 day_	2 day 1 day	5		sem for each test for each	sch sample)
SAMPLE ID	CLIENT LAB ID	ATAD DJBI	ICPM		SAMPLER	PLER
3/ 7/8 1235 J-4, Day 15		-				
32 5-5 1						
ח						
5-7			_			
35 7-8			_			
7			_		LABEL VERIFICATION	
		Nico.				
38 5-12, 7-12	Rome DAY 12		1			
30 3-13		7			7961	
4			-		0000	
MATRIX TYPES: RSW = Raw Surface Water RGW = Raw Ground Water	iter CFW = Chlor(am)inated Finished Water the FW = Other Finished Water	ed Finished Water Water	SEAW = Sea Water WW = Waste Water	BW = Bottled Water SO = Soil SW = Storm Water SL = Sludge	0 = Oth	ase Identify
SAMPLED BY:		PRINT NAME *	1000	COMPANYTITLE (CAN)	DATE HEAP	22/2 TIME (K)
BELINOUISHED BY:				*	1	1
RECEIVED BY:	7	Isaac Se	ecse	Tetra Tech	7-13-21 13	13:05
RELINQUISHED BY:						
RECEIVED BY:	Ä	Wer to		598	7/15/21	730
QA FO 0029.2 (Version 2) (08/28/2014)	X				PAGE	96



After printing this label:

Use the 'Print' button on this page to print your label to your laser or inkjet printer.

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Laboratory Comments

Tel: (626) 386-1100 Fax: (866) 988-3757

1 800 566 LABS (1 800 566 5227)

Project: KALAMAZOO **Group:** Lead Solubility Testing - Phase 2

Report: 948220

Tetra Tech James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Flags Legend:

B4 - Target analyte detected in blank at or above method acceptance criteria.

M3 - The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.





1 800 566 LABS (1 800 566 5227)

Report: 948220

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/29/2021 19:57	202107220631 Lead Total ICAP/MS	<u>J-0, Day 16</u>	350	15	ug/L	0.50
07/29/2021 19:58	202107220632 Lead Total ICAP/MS	<u>J-1, Day 16</u>	200	15	ug/L	0.50
07/31/2021 12:51	202107220633 Lead Total ICAP/MS	<u>J-2, Day 16</u>	240	15	ug/L	0.50
07/31/2021 12:53	202107220634 Lead Total ICAP/MS	<u>J-3, Day 16</u>	120	15	ug/L	0.50
07/31/2021 12:55	202107220635 Lead Total ICAP/MS	<u>J-4, Day 16</u>	180	15	ug/L	0.50
07/31/2021 12:56	202107220636 Lead Total ICAP/MS	<u>J-5, Day 16</u>	99	15	ug/L	0.50
07/31/2021 12:56	202107220637 Lead Total ICAP/MS	<u>J-6, Day 16</u>	330	15	ug/L	0.50
07/31/2021 12:57	202107220638 Lead Total ICAP/MS	<u>J-7, Day 16</u>	660	15	ug/L	0.50
07/31/2021 12:58	202107220639 Lead Total ICAP/MS	<u>J-8, Day 16</u>	140	15	ug/L	0.50
07/31/2021 12:58	202107220640 Lead Total ICAP/MS	<u>J-9, Day 16</u>	140	15	ug/L	0.50
07/31/2021 14:54	202107220641 Lead Total ICAP/MS	<u>J-11, Day 16</u>	2200	15	ug/L	5.0
07/31/2021 13:00	202107220642 Lead Total ICAP/MS	<u>J-12, Day 16</u>	180	15	ug/L	0.50
07/31/2021 13:00	202107220643 Lead Total ICAP/MS	<u>J-13, Day 16</u>	410	15	ug/L	0.50
07/29/2021 21:43	202107220645 Total phosphorus as P	<u>J-1, Day 17</u>	1.4		mg/L	0.10
07/30/2021 16:04	Total phosphorus as PO	4- Calc.	4.3		mg/L	0.030
07/29/2021 21:43	202107220646 Total phosphorus as P	<u>J-2, Day 17</u>	2.2		mg/L	0.10





1 800 566 LABS (1 800 566 5227)

Report: 948220

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra TechJames Christopher
201 East Pine Street
Suite 1000
Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/30/2021 16:04	Total phosphorus as PC	04- Calc.	6.8		mg/L	0.030
	202107220647	J-3, Day 17				
07/29/2021 21:44	Total phosphorus as P		2.9		mg/L	0.10
07/30/2021 16:04	Total phosphorus as PC	04- Calc.	8.9		mg/L	0.030
	202107220648	J-4, Day 17				
07/29/2021 21:45	Total phosphorus as P		1.3		mg/L	0.10
07/30/2021 16:04	Total phosphorus as PC	04- Calc.	4.0		mg/L	0.030
	202107220649	J-5, Day 17				
07/29/2021 21:46	Total phosphorus as P		1.8		mg/L	0.10
07/30/2021 16:04	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030
	202107220650	<u>J-6, Day 17</u>				
08/05/2021 17:59	Total phosphorus as P		2.3		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	7.1		mg/L	0.030
	202107220651	J-7, Day 17				
08/05/2021 18:02	Total phosphorus as P		1.4		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	4.3		mg/L	0.030
	202107220652	J-8, Day 17				
08/05/2021 18:03	Total phosphorus as P		2.0		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	6.1		mg/L	0.030
	202107220653	J-9, Day 17				
08/05/2021 18:04	Total phosphorus as P		2.6		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	8.0		mg/L	0.030
	202107220654	J-11, Day 17				
08/05/2021 18:05	Total phosphorus as P		1.7		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	5.2		mg/L	0.030
	202107220655	J-12, Day 17				
08/05/2021 18:06	Total phosphorus as P		1.3		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	4.0		mg/L	0.030
	202107220656	J-13, Day 17				
08/05/2021 18:07	Total phosphorus as P		1.8		mg/L	0.10
08/05/2021 19:12	Total phosphorus as PC	04- Calc.	5.5		mg/L	0.030
	202107220657	J-0, Day 15				
07/31/2021 13:04	Lead Total ICAP/MS		200	15	ug/L	0.50



1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 948220

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Samples Received on: 07/22/2021 1825

Tetra TechJames Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
07/31/2021 13:04	202107220658 Lead Total ICAP/MS	<u>J-1, Day 15</u>	270	15	ug/L	0.50
07/31/2021 13:05	202107220659 Lead Total ICAP/MS	<u>J-2, Day 15</u>	190	15	ug/L	0.50
07/31/2021 13:06	202107220660 Lead Total ICAP/MS	<u>J-3, Day 15</u>	180	15	ug/L	0.50
07/31/2021 13:06	202107220661 Lead Total ICAP/MS	<u>J-4, Day 15</u>	140	15	ug/L	0.50
07/31/2021 13:07	202107220662 Lead Total ICAP/MS	<u>J-5, Day 15</u>	110	15	ug/L	0.50
07/31/2021 13:08	202107220663 Lead Total ICAP/MS	<u>J-6, Day 15</u>	170	15	ug/L	0.50
07/31/2021 13:08	202107220664 Lead Total ICAP/MS	<u>J-7, Day 15</u>	480	15	ug/L	0.50
07/31/2021 13:09	202107220665 Lead Total ICAP/MS	<u>J-8, Day 15</u>	300	15	ug/L	0.50
07/31/2021 13:14	202107220666 Lead Total ICAP/MS	<u>J-9, Day 15</u>	360	15	ug/L	0.50
07/31/2021 14:55	202107220667 Lead Total ICAP/MS	<u>J-11, Day 15</u>	1000	15	ug/L	5.0
07/31/2021 13:16	202107220668 Lead Total ICAP/MS	<u>J-12, Day 15</u>	430	15	ug/L	0.50
07/31/2021 13:17	202107220669 Lead Total ICAP/MS	<u>J-13, Day 15</u>	300	15	ug/L	0.50





1 800 566 LABS (1 800 566 5227)

Report: 948220

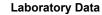
Project: KALAMAZOO **Group**: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/22/2021 1825

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-0, Day	16 (2021072	<u>20631)</u>				Samp	led on 07/03	/2021 111	4
07/23/21 (07/29/21 19:57	EPA 200.8 1343168	- ICPMS Metals 1344504	(EPA 200.8)	Lead Total ICAP/MS	350	ug/L	0.50	1
<u>J-1, Day</u>	16 (2021072	20632)		,		Samp	led on 07/03	/2021 111	5
			- ICPMS Metals						
	07/29/21 19:58 16 (2021072)	1343168 20633)	1344504	(EPA 200.8)	Lead Total ICAP/MS	²⁰⁰ Samp	ug/L oled on 07/03	0.50 /2021 111	1 6
		EPA 200.8	- ICPMS Metals						
	07/31/21 12:51 16 (2021072)	1343168 20634)	1344795	(EPA 200.8)	Lead Total ICAP/MS	240 (M3) Samp	ug/L oled on 07/03	0.50 / /2021 111	1 7
		EPA 200.8	- ICPMS Metals			•			
	07/31/21 12:53	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	120	ug/L	0.50	1
<u>J-4, Day</u>	<u>16 (2021072</u>	<u></u>	IODMO Matala			Samp	led on 07/03	72021 111	D
07/23/21 (07/31/21 12:55	1343168	- ICPMS Metals 1344795	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
J-5, Day	16 (2021072	<u>20636)</u>				Samp	led on 07/03	/2021 111	9
07/23/21 (07/31/21 12:56	EPA 200.8 1343168	- ICPMS Metals 1344795	(EPA 200.8)	Lead Total ICAP/MS	99	ug/L	0.50	1
<u>J-6, Day</u>	16 (2021072	<u>20637)</u>				Samp	led on 07/03	/2021 112	0
07/23/21 (07/31/21 12:56	EPA 200.8 1343168	- ICPMS Metals 1344795	(EPA 200.8)	Lead Total ICAP/MS	330	ug/L	0.50	1
	16 (2021072		1011100	(2177200.0)	Edda Total Total Time		led on 07/03		-
07/00/04			- ICPMS Metals	(== 1 == 1)		000	,,	0.50	
	07/31/21 12:57 16 (2021072)	1343168 20639)	1344795	(EPA 200.8)	Lead Total ICAP/MS	660 Samp	ug/L oled on 07/03	0.50 /2021 112	1 1
		EPA 200.8	- ICPMS Metals						
	07/31/21 12:58	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	140	ug/L	0.50	1
<u>J-9, Day</u>	<u>16 (2021072:</u>	<u> 20640)</u>				Samp	led on 07/03	/2021 112	2

EPA 200.8 - ICPMS Metals





1 800 566 LABS (1 800 566 5227)

Report: 948220 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/23/21	07/31/21 12:58	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	140	ug/L	0.50	1
<u>J-11, Da</u>	y 16 (202107)	<u>220641)</u>				Samp	oled on 07/03	/2021 112	3
		EPA 200.8	- ICPMS Metals	5					
07/23/21	07/31/21 14:54	1343168	1344800	(EPA 200.8)	Lead Total ICAP/MS	2200	ug/L	5.0	10
<u>J-12, Da</u>	y 16 (202107)	<u>220642)</u>				Samp	oled on 07/03	/2021 112	4
		EPA 200.8	- ICPMS Metals	5					
07/23/21	07/31/21 13:00	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
<u>J-13, Da</u>	y 16 (202107)	<u>220643)</u>				Samp	oled on 07/03	/2021 112	6
			- ICPMS Metals						
	07/31/21 13:00	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	410 (M3)	ug/L	0.50	1
<u>J-0, Day</u>	17 (2021072	<u>20644)</u>				Samp	oled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as PO4- Calc.				
	07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	ND (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as P (T-P)				
	08/03/21 14:38		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	ND	mg/L	0.10	5
<u>J-1, Day</u>	17 (2021072	<u>20645)</u>				Samp	oled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as PO4- Calc.				
	07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE		otal phosphoru	, ,				
	07/29/21 21:43		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-2, Day</u>	17 (2021072	<u>20646)</u>				Samp	oled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as PO4- Calc.				
	07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.8 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as P (T-P)				
	07/29/21 21:43		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.2	mg/L	0.10	5
<u>J-3, Day</u>	17 (2021072	<u> 20647)</u>				Samp	oled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - T	otal phosphoru	ıs as PO4- Calc.				
	07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.9 (c)	mg/L	0.030	1





1 800 566 LABS (1 800 566 5227)

Report: 948220

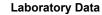
Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/29/21 21:44		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.9	mg/L	0.10	5
<u>J-4, Day</u>	17 (2021072	<u>220648)</u>				Samı	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(07/29/21 21:45		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
J-5, Day	17 (2021072	<u>220649)</u>				Samı	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(07/30/21 16:04			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
()7/29/21 21:46		1344719	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
<u>J-6, Day</u>	17 (2021072	<u>220650)</u>				Sam	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(08/05/21 19:12				Total phosphorus as PO4- Calc.	7.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(08/05/21 17:59		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.3	mg/L	0.10	5
J-7, Day	17 (2021072	<u>220651)</u>				Samı	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.3 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(08/05/21 18:02		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.4	mg/L	0.10	5
<u>J-8, Day</u>	17 (2021072	<u>220652)</u>				Sam	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
(08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	6.1 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
(08/05/21 18:03		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.0	mg/L	0.10	5





1 800 566 LABS (1 800 566 5227)

Report: 948220

Project: KALAMAZOO **Group**: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J-9, Day	/ 17 (2021072	220653)				Sam	pled on 07/09	/2021 140	0
		SM4500-PI	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	8.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	08/05/21 18:04		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	2.6	mg/L	0.10	5
<u>J-11, Da</u>	ay 17 (202107	<u> 7220654)</u>				Sam	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as PO4- Calc.				
	08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.2 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	08/05/21 18:05		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.7	mg/L	0.10	5
<u>J-12, Da</u>	ay 17 (202107	<u> 7220655)</u>				Sam	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	4.0 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	08/05/21 18:06		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.3	mg/L	0.10	5
<u>J-13, Da</u>	ay 17 (202107	<u> 7220656)</u>				Sam	pled on 07/09	/2021 140	0
		SM4500-PE	E/EPA 365.1 - ⁻	Total phosphoru	ıs as PO4- Calc.				
	08/05/21 19:12			(SM4500-PE/EPA 365.1)	Total phosphorus as PO4- Calc.	5.5 (c)	mg/L	0.030	1
		SM4500-PE	E/EPA 365.1 -	Total phosphoru	ıs as P (T-P)				
	08/05/21 18:07		1346107	(SM4500-PE/EPA 365.1)	Total phosphorus as P	1.8	mg/L	0.10	5
<u>J-0, Day</u>	<u>/ 15 (2021072</u>	<u> 220657)</u>				Sam	pled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metal	ls					
07/23/21	07/31/21 13:04	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	200	ug/L	0.50	1
<u>J-1, Day</u>	/ 15 (2021072	220658)				Sam	pled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metal	ls					
07/23/21	07/31/21 13:04	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	270	ug/L	0.50	1
<u>J-2, Day</u>	/ 15 (2021072	<u> 220659)</u>				Sam	pled on 07/08	/2021 125	5





1 800 566 LABS (1 800 566 5227)

Report: 948220 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801 Samples Received on: 07/22/2021 1825

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/02/04	7/24/24 42.05		- ICPMS Metals	(EDA 000 0)	Load Tatal ICAD/MC	400		0.50	4
)7/31/21 13:05	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	190	ug/L	0.50	1 -
J-3, Day	<u>15 (2021072</u>	<u>(20660)</u>				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 13:06	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	180	ug/L	0.50	1
J-4, Day	<u>15 (2021072</u>	20661)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 13:06	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	140	ug/L	0.50	1
J-5, Day	<u>15 (2021072</u>	20662)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 C	7/31/21 13:07	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	110	ug/L	0.50	1
J-6, Day	<u>15 (2021072</u>	20663)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
)7/23/21 C	7/31/21 13:08	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	170	ug/L	0.50	1
J-7, Day	<u>15 (2021072</u>	20664)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 13:08	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	480	ug/L	0.50	1
J-8, Day	<u>15 (2021072</u>	20665)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
)7/23/21 C	7/31/21 13:09	1343168	1344795	(EPA 200.8)	Lead Total ICAP/MS	300	ug/L	0.50	1
J-9, Day	15 (2021072	20666)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 13:14	1343168	1344796	(EPA 200.8)	Lead Total ICAP/MS	360 (B4)	ug/L	0.50	1
<u>J-11, Day</u>	15 (202107	220667)				Samp	oled on 07/08	/2021 125	5
		FPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 14:55	1343168	1344800	(EPA 200.8)	Lead Total ICAP/MS	1000	ug/L	5.0	10
<u>J-12, Day</u>	15 (202107	220668)				Samp	oled on 07/08	/2021 125	5
		EPA 200.8	- ICPMS Metals						
07/23/21 0	7/31/21 13:16	1343168	1344796	(EPA 200.8)	Lead Total ICAP/MS	430 (B4)	ug/L	0.50	1
<u>J-13, Day</u>	15 (202107	<u> 220669)</u>				Samp	oled on 07/08	/2021 125	5

Rounding on totals after summation.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



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Laboratory Data

Report: 948220

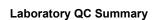
Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

James Christopher 201 East Pine Street Suite 1000 Orlando, FL 32801

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
07/23/21	07/31/21 13:17		- ICPMS Metals 1344796	(EPA 200.8)	Lead Total ICAP/MS	300 (B4)	ug/L	0.50	1





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Tetra Tech

Prep Batch: 1343168 Analytical Batch: 1344504

202107220631 J-0, Day 16 202107220632 J-1, Day 16

Total phosphorus as P (T-P)

Analytical Batch: 1344719

 202107220644
 J-0, Day 17

 202107220645
 J-1, Day 17

 202107220646
 J-2, Day 17

 202107220647
 J-3, Day 17

 202107220648
 J-4, Day 17

 202107220649
 J-5, Day 17

ICPMS Metals

Prep Batch: 1343168 Analytical Batch: 1344795

202107220633 J-2, Day 16 202107220634 J-3, Day 16 202107220635 J-4, Day 16 J-5, Day 16 202107220636 202107220637 J-6, Day 16 J-7, Day 16 202107220638 202107220639 J-8, Day 16 202107220640 J-9, Day 16 202107220642 J-12, Day 16 202107220643 J-13, Day 16 202107220657 J-0, Day 15 202107220658 J-1, Day 15 J-2, Day 15 202107220659 202107220660 J-3, Day 15 202107220661 J-4, Day 15 202107220662 J-5, Day 15 202107220663 J-6, Day 15 202107220664 J-7, Day 15 202107220665 J-8, Day 15

ICPMS Metals

Prep Batch: 1343168 Analytical Batch: 1344796

202107220666 J-9, Day 15 202107220668 J-12, Day 15 202107220669 J-13, Day 15

ICPMS Metals

Prep Batch: 1343168 Analytical Batch: 1344800

202107220641 J-11, Day 16 202107220667 J-11, Day 15 Analysis Date: 07/29/2021

Analyzed by: DHX7
Analyzed by: DHX7

Analysis Date: 08/03/2021

Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M Analyzed by: LQ3M

Analysis Date: 07/31/2021

Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE

Analysis Date: 07/31/2021

Analyzed by: URDE Analyzed by: URDE Analyzed by: URDE

Analysis Date: 07/31/2021

Analyzed by: URDE Analyzed by: URDE



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Laboratory QC Summary

Report: 948220

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Analyzed by: LQ3M

Tetra Tech

202107220656

Total phosphorus as	Ρ ((T-P)	
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 Analytical Batch: 1346107
 Analysis Date: 08/05/2021

 202107220650
 J-6, Day 17
 Analyzed by: LQ3M

 202107220651
 J-7, Day 17
 Analyzed by: LQ3M

J-13, Day 17

 202107220652
 J-8, Day 17
 Analyzed by: LQ3M

 202107220653
 J-9, Day 17
 Analyzed by: LQ3M

 202107220654
 J-11, Day 17
 Analyzed by: LQ3M

 202107220655
 J-12, Day 17
 Analyzed by: LQ3M





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Report: 948220 Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

MBLC	QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	ICPMS Metals by E	EPA 200.8								
LCS2	Analytical B	atch: 1344504				4	Analysis D	ate: 07/29/	2021	
MRIL, CHR Lead Total ICAPIMS 10,00000 10,00000 10,00000 10,00000 10,00000 10,00000 10,00000 10,00000 10,00000 10,	LCS1	Lead Total ICAP/MS		50	49.3	ug/L	99	(85-115)		
MR_CHK	LCS2	Lead Total ICAP/MS		50	51.2	ug/L	102	(85-115)	20	3.8
MS_202107211301 Lead Total ICAPIMS ND 50 47.6 ugl. 95 (70-130)	MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MSQ_20107211315	MRL_CHK	Lead Total ICAP/MS		0.5	0.406	ug/L	81	(50-150)		
MSD_202107211301 Lead Total ICAP/MS	MS_202107211301	Lead Total ICAP/MS	ND	50	47.6	ug/L	95	(70-130)		
MSD2_202107211315	MS2_202107211315	Lead Total ICAP/MS	ND	50	50.6	ug/L	101	(70-130)		
Total phosphorus	MSD_202107211301	Lead Total ICAP/MS	ND	50	45.9	ug/L	92	(70-130)	20	3.6
Analytical Bath: 1344719 104 105 107	MSD2_202107211315	Lead Total ICAP/MS	ND	50	51.5	ug/L	103	(70-130)	20	1.8
CCS1	Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
CSS	Analytical Ba	atch: 1344719				1	Analysis D	ate: 07/29/	2021	
MBLK Total phosphorus as P MRL_CHK Total phosphorus as P MRL_CHK Total phosphorus as P MRS_202107211023 Total phosphorus as P MRS_202107211044 Total phosphorus as P MRS_202107211044 Total phosphorus as P MRS_202107211044 Total phosphorus as P MRS_202107211045 Total phosphorus as P MRS_202107211046 Total phosphorus as P MRS_202107211047 Total phosphorus as P MRS_202107211048 Total phosphorus as P MRS_202107211049 Total phosphorus as P MRS_202107211040 Total phosphorus as P MRS_202107211040 Total phosphorus as P MRS_202107211044 Total phosphorus as P MRS_20210722063 Lead Total ICAP/MS MRS_20210722063	LCS1	Total phosphorus as P		0.4	0.437	mg/L	109	(90-110)		
MRL_CHK Total phosphorus as P 0.02 0.0197 mg/L 99 (50-150)	LCS2	Total phosphorus as P		0.4	0.430	mg/L	108	(90-110)	20	1.6
MS_202107211023	MBLK	Total phosphorus as P			<0.0108	mg/L				
MS2_202107211044 Total phosphorus as P ND 0.4 0.420 mg/L 105 (90-110) 20 4.2 MSD_202107211023 Total phosphorus as P ND 0.4 0.422 mg/L 106 (90-110) 20 0.90 100 1	MRL_CHK	Total phosphorus as P		0.02	0.0197	mg/L	99	(50-150)		
MSD_202107211023 Total phosphorus as P ND 0.4 0.422 mg/L 106 (90-110) 20 4.2 MSD_202107211044 Total phosphorus as P ND 0.4 0.424 mg/L 106 (90-110) 20 4.2 ICPMS Metals by EPA 200.8 Analytical Batch: 1344795 Each analytical Value of Color (Batch) 100 (Batch) 10	MS_202107211023	Total phosphorus as P	ND	0.4	0.404	mg/L	101	(90-110)		
MSDZ_202107211044 Total phosphorus as P ND 0.4 0.424 mg/L 106 (90-110) 20 0.90 ICPMS Metals by EPA 200.8	MS2_202107211044	Total phosphorus as P	ND	0.4	0.420	mg/L	105	(90-110)		
CPMS Metals by EPA 200.8	MSD_202107211023	Total phosphorus as P	ND	0.4	0.422	mg/L	106	(90-110)	20	4.2
Analytical Bath: 1344795	MSD2_202107211044	Total phosphorus as P	ND	0.4	0.424	mg/L	106	(90-110)	20	0.90
LCS1	ICPMS Metals by E	EPA 200.8								
LCS2	Analytical Ba	atch: 1344795				1	Analysis D	ate: 07/31/	2021	
MBLK Lead Total ICAP/MS Value	LCS1	Lead Total ICAP/MS		50	53.6	ug/L	107	(85-115)		
MRL_CHK Lead Total ICAP/MS MS_202107220633 Lead Total ICAP/MS MS2_202107220643 Lead Total ICAP/MS MSD_202107220633 Lead Total ICAP/MS MSD_202107220633 Lead Total ICAP/MS MSD_202107220633 Lead Total ICAP/MS MSD_202107220633 Lead Total ICAP/MS MSD_202107220643 Lead Total ICAP/MS MSD_202107220643 Lead Total ICAP/MS MSD_202107220645 Lead	LCS2	Lead Total ICAP/MS		50	52.5	ug/L	105	(85-115)	20	2.1
MS_202107220633	MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MS2_202107220643	MRL_CHK	Lead Total ICAP/MS		0.5	0.524	ug/L	105	(50-150)		
MSD_202107220633	MS_202107220633	Lead Total ICAP/MS	240	50	276	ug/L	81	(70-130)		
MSD2_202107220643 Lead Total ICAP/MS 410 50 463 ug/L 109 (70-130) 20 6.1 ICPMS Metals by EPA 200.8	MS2_202107220643	Lead Total ICAP/MS	410	50	435	ug/L	<u>54</u>	(70-130)		
ICPMS Metals by EPA 200.8 Analytical Batch: 1344796 Analysis Date: 07/31/2021 LCS1 Lead Total ICAP/MS 50 54.1 ug/L 108 (85-115) LCS2 Lead Total ICAP/MS 50 54.2 ug/L 108 (85-115) 20 0.19	MSD_202107220633	Lead Total ICAP/MS	240	50	270	ug/L	<u>69</u>	(70-130)	20	2.3
Analytical Batch: 1344796 LCS1 Lead Total ICAP/MS 50 54.1 ug/L 108 (85-115) LCS2 LCS2 Lead Total ICAP/MS 50 54.2 ug/L 108 (85-115) 20 0.19	MSD2_202107220643	Lead Total ICAP/MS	410	50	463	ug/L	109	(70-130)	20	6.1
LCS1 Lead Total ICAP/MS 50 54.1 ug/L 108 (85-115) LCS2 Lead Total ICAP/MS 50 54.2 ug/L 108 (85-115) 20 0.19	ICPMS Metals by E	EPA 200.8								
LCS2 Lead Total ICAP/MS 50 54.2 ug/L 108 (85-115) 20 0.19	Analytical Ba	atch: 1344796					Analysis D	ate: 07/31/	2021	
	LCS1	Lead Total ICAP/MS		50	54.1	ug/L	108	(85-115)		
MBLK Lead Total ICAP/MS <0.0608 ug/L	LCS2	Lead Total ICAP/MS		50	54.2	ug/L	108	(85-115)	20	0.19
	MBLK	Lead Total ICAP/MS			<0.0608	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u>

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

 ⁽S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.





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Report: 948220

Project: KALAMAZOO

Group: Lead Solubility Testing - Phase 2

Tetra Tech

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Lead Total ICAP/MS		0.5	0.528	ug/L	106	(50-150)		
MS_202107220666	Lead Total ICAP/MS	360	50	416	ug/L	110	(70-130)		
MS2_202107270196	Lead Total ICAP/MS	ND	50	45.6	ug/L	91	(70-130)		
MSD_202107220666	Lead Total ICAP/MS	360	50	402	ug/L	82	(70-130)	20	3.3
MSD2_202107270196	Lead Total ICAP/MS	ND	50	45.5	ug/L	91	(70-130)	20	0.29
ICPMS Metals by	EPA 200.8								
Analytical B	atch: 1344800				4	Analysis D	ate: 07/31	2021	
LCS1	Lead Total ICAP/MS		50	51.4	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		50	54.3	ug/L	109	(85-115)	20	5.5
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.513	ug/L	103	(50-150)		
MS_202107280693	Lead Total ICAP/MS	67	50	117	ug/L	101	(70-130)		
MSD_202107280693	Lead Total ICAP/MS	67	50	118	ug/L	102	(70-130)	20	0.72
Total phosphorus	as P (T-P) by SM4500-PE/EPA 365.1								
Analytical B	atch: 1346107				1	Analysis D	ate: 08/05	2021	
LCS1	Total phosphorus as P		0.4	0.412	mg/L	103	(90-110)		
LCS2	Total phosphorus as P		0.4	0.405	mg/L	101	(90-110)	20	1.7
MBLK	Total phosphorus as P			<0.0108	mg/L				
MRL_CHK	Total phosphorus as P		0.02	0.0212	mg/L	106	(50-150)		
MS_202107280360	Total phosphorus as P	2.0	0.4	NR	mg/L		(90-110)		
MS2_202107151028	Total phosphorus as P	0.31	0.4	0.760	mg/L	<u>111</u>	(90-110)		
MSD_202107280360	Total phosphorus as P	2.0	0.4	NR	mg/L				
MSD2_202107151028	Total phosphorus as P	0.31	0.4	0.760	mg/L	<u>112</u>	(90-110)	20	0.066