

Ms. Ann DiDonato
U.S. EPA Region 3
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Philadelphia, PA 19103

Arcadis U.S., Inc.
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Subject:

Quarterly Progress Report: January through March 2020
Precision National Plating Services, Inc.
Clarks Summit, Pennsylvania
Docket No. CERC-03-2012-0031DC

ELECTRONIC MAIL

Dear Ms. DiDonato:

On behalf of Precision National Plating Services, Inc. (Precision), Arcadis U.S., Inc. (Arcadis) is submitting this progress report to summarize the activities completed between January 1, 2020 and March 31, 2020. This progress report is being submitted in accordance with Section 8.7 of the Administrative Settlement Agreement and Order on Consent (AS) for Removal Response Action (Docket No. CERC-03-2012-0031DC).

1. Response actions completed and the actions that have been taken toward achieving compliance with the Settlement Agreement:

General

Precision and Arcadis worked closely with the U.S. Environmental Protection Agency (U.S. EPA) from January through March 2020 to do the following:

- Precision performed surface water monitoring of Ackerly Creek on January 21, 2020 as approved in the RAP and in accordance with the semiannual monitoring schedule recently approved by the U.S. EPA.
- Precision performed general site maintenance activities.
- Precision also provided the U.S. EPA and PADEP with available sampling information.

Ongoing Administrative Settlement (AS) Activities

Seep Remediation

- Precision continued the operation of the Seep Shed treatment system.
- The influent and effluent of the Seep Shed Treatment System were sampled on January 21, 2020 for hexavalent chromium and total chromium. The midpoints between the resin beds of the system also were sampled. At the time of sampling, the influent pH was 7.0 su.

ENVIRONMENT

Date:
June 25, 2020

Contact:
Lawrence G. Brunt, PE

Phone:
908.526.1000

Email:
Larry.brun@arcadis.com

Our ref:
30003895.00004

- On January 21, 2020, the flow totalizer reading for the Seep Shed Treatment System was 6,718,827 gallons.
- The influent and effluent of the Seep Shed Treatment System were sampled on February 27, 2020 for hexavalent chromium and total chromium. The midpoints between the resin beds of the system were also sampled for hexavalent and total chromium. At the time of sampling, the influent pH was 6.18 su and the temperature was 7.1° C.
- On February 27, 2020, the Seep Shed flow totalizer reading was 6,814,460 gallons.
- The influent and effluent of the Seep Shed Treatment System were sampled on March 26, 2020 for hexavalent chromium and total chromium. The midpoints between the resin beds of the system were also sampled for hexavalent and total chromium. At the time of sampling, the influent pH was 7.12 su and the temperature was 10.1° C.
- On March 26, 2020, the flow totalizer reading for the Seep Shed Treatment System was 6,825,312 gallons.

Lagoon Assessment/Remediation Activities

- Precision continued the operation of the Lagoon Treatment System.
- The influent and system effluent of the Lagoon Treatment System were sampled on January 21, 2020 for hexavalent chromium and TAL metals. The effluent of the lead resin bed was also sampled for hexavalent chromium and total chromium. The pH of the lagoon system influent at the time of sampling was 7.0 su.
- By January 21, 2020, the total volume treated by the Lagoon Treatment System was approximately 35,977,290 gallons.
- The influent and system effluent of the Lagoon Treatment System were sampled on February 27, 2020 for hexavalent chromium and TAL metals. The effluent of the lead resin bed was also sampled for hexavalent chromium and total chromium. The pH of the lagoon system influent at the time of sampling was 6.36 su and the temperature was 5.8° C.
- By February 27, 2020, the total volume treated by the Lagoon Treatment System was 36,220,360 gallons.
- The influent and system effluent of the Lagoon Treatment System were sampled on March 26, 2020 for hexavalent chromium and TAL metals. The effluent of the lead resin bed was also sampled for hexavalent chromium and total chromium. The pH of the lagoon system influent at the time of sampling was 7.22 su and the temperature was 10.0° C.
- By March 26, 2020, the total volume treated by the Lagoon Treatment System was 36,351,363 gallons.

Surface Water Monitoring

- As approved in the RAP and in accordance with the semiannual monitoring schedule recently approved by the U.S. EPA, Precision performed surface water monitoring of Ackerly Creek on January 21, 2020. The next surface water monitoring event is planned for July 2020.

2. Description of all data anticipated, and activities scheduled for the next ninety (90) calendar days:

- Operation of the treatment systems will continue at the site.
- Precision will sample the Lagoon and Seep Shed Treatment systems monthly in April, May, and June 2020. Data is anticipated to be received four weeks after each sampling event.
- Based on the recent analytical results, Precision plans to perform a resin change in the lead vessel of the Lagoon Treatment System and the total chromium removal vessel in the Seep Shed Treatment System in April 2020.
- In accordance with the RAP, the next semiannual groundwater monitoring well, residential well, and seep monitoring event is scheduled for April 2020.

3. Description of any problems encountered or anticipated:

- None.

4. Any actions taken to prevent or mitigate such problems.

- None.

5. A schedule for completion of such actions:

- Containment and treatment of water in the lagoon will continue as needed.
- Operation of the Seep Shed treatment system will continue as needed.

6. Analytical data received during the reporting period:

- Laboratory data for the January 21, 2020 sampling of the Seep Shed Treatment System and the Lagoon Treatment System were received from TestAmerica Laboratories and validated. A summary of the data is attached.

Hexavalent chromium and total chromium were not detected above the laboratory method detection limits in the effluent of the Lagoon Treatment System.

Hexavalent chromium and total chromium were not detected above the laboratory method detection limits in the effluent of the Seep Shed Treatment System.

- Laboratory data for the semiannual surface water monitoring samples collected on January 21, 2020 were received from TestAmerica Laboratories and validated. A summary of the data is attached.
- Laboratory data for the February 27, 2020 sampling of the Lagoon and Seep Shed Treatment Systems were received from TestAmerica Laboratories and validated. A summary of the data is attached.

Hexavalent chromium was not detected above the laboratory method detection limit in the effluent of the Lagoon Treatment System. Total chromium was detected in the effluent at an estimated concentration of 8.0 ug/L, which does not exceed the MCL of 100 ug/L.

Hexavalent chromium was not detected above the laboratory method detection limit in the effluent of the Seep Shed Treatment System. Total chromium was detected in the effluent at an estimated concentration of 8.1 ug/L, which does not exceed the MCL of 100 ug/L.

- Laboratory data for the March 26, 2020 sampling of the Lagoon Treatment System and the Seep Shed Treatment System were received from TestAmerica Laboratories and validated. A summary of the data is attached.

Hexavalent chromium and total chromium were not detected above the laboratory method detection limits in the effluent of the Lagoon Treatment System.

Hexavalent chromium was not detected above the laboratory method detection limit in the effluent of the Seep Shed Treatment System. Total chromium was detected in the effluent at a concentration of 130 ug/L, which exceeds the MCL of 100 ug/L. Based on these results, Precision will perform a resin change out for the total chromium removal vessel in the Seep Shed Treatment System in April 2020.

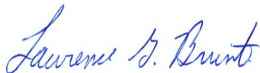
7. Modifications to the response action, RAP, and schedule made in accordance with Section XIV of the Settlement Agreement during this reporting period.

- None.

If you have any questions or require additional information, please call me at 908.526.1000.

Sincerely,

Arcadis U.S., Inc.



Lawrence G. Brunt, P.E.
Principal Engineer

Copies:

D. Rood - PADEP

Enclosure

Data Validation Summary

Arcadis U.S., Inc. (Arcadis) performed a level III data validation evaluation of the analytical data collected during the Precision National Plating site investigation. The data evaluation was conducted in accordance with the United States Environmental Protection Agency's (USEPA) Data Validation Functional Guidelines for Evaluating Environmental Analyses, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," dated October 1999, and "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," dated October 2004 ("the USEPA Guidance"). The following is a summary of the analytical data review for samples collected and analyzed from January through March 2020. The samples were submitted to TestAmerica Laboratories located in Edison, New Jersey for analysis. The TestAmerica sample delivery groups (SDGs) evaluated for this report include: 460-201236-1, 460-201237-1, 460-203826-1, and 460-205859-1.

The samples were analyzed using the following methods:

EPA Method 200.7 for metals
EPA Method 245.1 for mercury
EPA Method 7196A for hexavalent chromium

The data were evaluated based on the following parameters according to the USEPA Guidance for Level III data validation:

- data completeness
- holding times
- blanks
- duplicates and ICP serial dilution
- matrix spike/matrix spike duplicate/post-digestion spike recoveries (MS/MSD/PDS)
- laboratory control spike/laboratory control spike duplicate recoveries (LCS/LCSD)

A review of the laboratory reports revealed no issues which caused the data to be qualified.

The sample temperature, hold times, calibrations, laboratory control samples, duplicates, serial dilutions, and all other laboratory blanks were all within compliance criteria for all samples.

The following items were noted during the data review:

In metals batch 460-671808, which included samples from PNP SDG 460-201236-1, the recovery of sodium was lower than the acceptable range in the matrix spike analyzed with this batch. However, the concentration of sodium in the sample was greater than four times the spike amount, so the percent recovery criteria does not apply, and the recovery in the PDS was acceptable. The sample utilized for the MS was not a PNP sample. All of the other QA/QC parameters were in compliance, so the results are not qualified.

The relative percent difference was high (27%) between the concentration of lead in the initial result and the duplicate analyzed along with metals batch 460-678387, which included samples from PNP SDG 460-203826-1. However, the concentrations of lead in the sample and the duplicate were less than the reporting limit and less than five times the method detection limit, so the criteria for comparison becomes the method detection limit. The difference in results is not greater than the method detection limit. The sample used for the duplicate analysis was not a PNP sample. All of the other QA/QC parameters were in compliance, so the results are not qualified.

The relative percent difference was high (21%) between the concentration of beryllium in the initial result and the duplicate analyzed along with metals batch 460-684470, which included samples from PNP SDG 460-205859-1. However, the concentrations of beryllium in the sample and the duplicate were less than the reporting limit and less than five times the method detection limit, so the criteria for comparison becomes the method detection limit. The difference in results is not greater than the method detection

Data Validation Summary

limit. The sample used for the duplicate analysis was PNP sample Seep Shed Influent (460-205859-1). All of the other QA/QC parameters were in compliance, so the beryllium results are not qualified.

In metals batch 460-684589, which also included samples from PNP SDG 460-205859-1, the recoveries of iron and sodium were lower than the acceptable range in the matrix spike analyzed with this batch. However, the concentrations of iron and sodium in the sample were greater than four times the spike amount, so the percent recovery criterion does not apply, and the recoveries in the PDS were acceptable. The sample utilized for the MS was not a PNP sample. All of the other QA/QC parameters were in compliance, so the results are not qualified.

Also, the relative percent difference was high (50%) between the concentration of thallium in the initial result and the duplicate analyzed in this metals batch. However, the concentrations of thallium in the sample and the duplicate were less than the reporting limit and less than five times the method detection limit, so the criteria for comparison become the method detection limits. The difference in results is not greater than the method detection limit. The sample used for the duplicate analysis was not a PNP sample. All of the other QA/QC parameters were in compliance, so the results are not qualified.

Summary of Quality Assurance/Quality Control Evaluation of Data

Based upon the QA/QC review, the project data are valid and available for use in site characterization without further qualification beyond those exceptions noted by the laboratory.

TREATMENT SYSTEM MONITORING RESULTS

TestAmerica Laboratories, Inc.**Eurofins TestAmerica, Edison****SUMMARY OF ANALYTICAL RESULTS: 460-201236-****1****Job Description: Precision National Plating****For:****ARCADIS U.S., Inc****1 Harvard Way**

Client ID	Lagoon Influent			Lagoon Post Lead			Lagoon Effluent			Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent			Lagoon Seep		
Lab Sample ID	460-201236-1			460-201236-2			460-201236-3			460-201236-4			460-201236-5			460-201236-6			460-201236-7		
Sampling Date	01/21/2020 12:45:00			01/21/2020 12:50:00			01/21/2020 12:55:00			01/21/2020 14:10:00			01/21/2020 14:15:00			01/21/2020 14:20:00			01/21/2020 12:40:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
Unit																					
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 200.7 REV 4.4(UG/L)																					
Aluminum	20.7	U	20.7	NR			20.7	U	20.7	NR			NR			NR			NR		
Antimony	5.9	U	5.9	NR			5.9	U	5.9	NR			NR			NR			NR		
Arsenic	3.6	U	3.6	NR			3.6	U	3.6	NR			NR			NR			NR		
Barium	14.1	J	7.9	NR			11.8	J	7.9	NR			NR			NR			NR		
Beryllium	0.30	U	0.30	NR			0.30	U	0.30	NR			NR			NR			NR		
Cadmium	0.31	U	0.31	NR			0.31	U	0.31	NR			NR			NR			NR		
Calcium	64100		130	NR			56900		130	NR			NR			NR			NR		
Chromium	179		5.7	157		5.7	5.7	U	5.7	553		5.7	419		5.7	5.7	U	5.7	6290		5.7
Cobalt	1.5	U	1.5	NR			1.5	U	1.5	NR			NR			NR			NR		
Copper	5.5	U	5.5	NR			5.5	U	5.5	NR			NR			NR			NR		
Iron	404		76.8	NR			76.8	U	76.8	NR			NR			NR			NR		
Lead	3.1	U	3.1	NR			3.1	U	3.1	NR			NR			NR			NR		
Magnesium	6340		160	NR			5730		160	NR			NR			NR			NR		
Manganese	164		0.66	NR			1.5	J	0.66	NR			NR			NR			NR		
Nickel	3.6	J	2.1	NR			2.1	U	2.1	NR			NR			NR			NR		
Potassium	1810	J	127	NR			1620	J	127	NR			NR			NR			NR		
Selenium	4.9	U	4.9	NR			4.9	U	4.9	NR			NR			NR			NR		
Silver	5.0	U	5.0	NR			5.0	U	5.0	NR			NR			NR			NR		
Sodium	30800		107	NR			27800		107	NR			NR			NR			NR		
Thallium	2.8	U	2.8	NR			2.8	U	2.8	NR			NR			NR			NR		
Vanadium	3.9	U	3.9	NR			3.9	U	3.9	NR			NR			NR			NR		
Zinc	10.4	J	2.6	NR			3.5	J	2.6	NR			NR			NR			NR		

WATER BY 245.1(UG/L)																					
Mercury	0.091	U	0.091	NR			0.091	U	0.091	NR			NR			NR			NR		

NR: Not Analyzed

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:

Grace Chang

Project Manager II

(732)593-2579

TestAmerica Laboratories, Inc.**Eurofins TestAmerica, Edison****SUMMARY OF ANALYTICAL****RESULTS: 460-201236-1****Job Description: Precision****National Plating****For:****ARCADIS U.S., Inc****1 Harvard Way****Hillsborough, New Jersey 08844**

Client ID	Lagoon Influent			Lagoon Post Lead			Lagoon Effluent			Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent			Lagoon Seep		
Lab Sample ID	460-201236-1			460-201236-2			460-201236-3			460-201236-4			460-201236-5			460-201236-6			460-201236-7		
Sampling Date	01/21/2020 12:45:00			01/21/2020 12:50:00			01/21/2020 12:55:00			01/21/2020 14:10:00			01/21/2020 14:15:00			01/21/2020 14:20:00			01/21/2020 12:40:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 7196A																					
Cr (VI) (ug/l)	182		8.1	133		8.1	8.1	U	8.1	431		40.7	8.1	U	8.1	8.1	U	8.1	136		32.6

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:

Grace Chang

Project Manager II

(732)593-2579

TestAmerica Laboratories, Inc.
Eurofins TestAmerica, Edison

SUMMARY OF ANALYTICAL

RESULTS: 460-203826-1

Job Description: Precision

National Plating

For:

ARCADIS U.S., Inc

1 Harvard Way

Hillsborough, New Jersey 08844

Client ID	Lagoon Influent			Lagoon Post Lead			Lagoon Effluent			Lagoon Seep			Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent		
Lab Sample ID	460-203826-1			460-203826-2			460-203826-3			460-203826-4			460-203826-5			460-203826-6			460-203826-7		
Sampling Date	02/27/2020 09:40:00			02/27/2020 09:45:00			02/27/2020 09:50:00			02/27/2020 11:30:00			02/27/2020 10:45:00			02/27/2020 10:50:00			02/27/2020 10:55:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
Unit																					
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 200.7 REV 4.4(UG/L)																					
Aluminum	39.4	J	20.7	NR			20.7	U	20.7	NR			NR			NR			NR		
Antimony	5.9	U	5.9	NR			5.9	U	5.9	NR			NR			NR			NR		
Arsenic	3.6	U	3.6	NR			3.6	U	3.6	NR			NR			NR			NR		
Barium	7.9	J	7.9	NR			7.9	U	7.9	NR			NR			NR			NR		
Beryllium	0.30	U	0.30	NR			0.30	U	0.30	NR			NR			NR			NR		
Cadmium	0.31	U	0.31	NR			0.31	U	0.31	NR			NR			NR			NR		
Calcium	35000		130	NR			36900		130	NR			NR			NR			NR		
Chromium	98.9		5.7	113		5.7	8.0	J	5.7	328		5.7	499		5.7	477		5.7	8.1	J	5.7
Cobalt	1.5	U	1.5	NR			1.5	U	1.5	NR			NR			NR			NR		
Copper	20.5	J	5.5	NR			5.5	U	5.5	NR			NR			NR			NR		
Iron	113	J	76.8	NR			76.8	U	76.8	NR			NR			NR			NR		
Lead	3.1	U	3.1	NR			3.1	U	3.1	NR			NR			NR			NR		
Magnesium	3690	J	160	NR			3580	J	160	NR			NR			NR			NR		
Manganese	24.6		0.66	NR			1.1	J	0.66	NR			NR			NR			NR		
Nickel	53.8		2.1	NR			2.1	U	2.1	NR			NR			NR			NR		
Potassium	2070	J	127	NR			1870	J	127	NR			NR			NR			NR		
Selenium	4.9	U	4.9	NR			4.9	U	4.9	NR			NR			NR			NR		
Silver	5.0	U	5.0	NR			5.0	U	5.0	NR			NR			NR			NR		
Sodium	17200		107	NR			17700		107	NR			NR			NR			NR		
Thallium	3.9	J	2.8	NR			2.8	U	2.8	NR			NR			NR			NR		
Vanadium	3.9	U	3.9	NR			3.9	U	3.9	NR			NR			NR			NR		
Zinc	67.4		2.6	NR			5.1	J	2.6	NR			NR			NR			NR		
WATER BY 245.1(UG/L)																					
Mercury	0.091	U	0.091	NR			0.091	U	0.091	NR			NR			NR			NR		

NR: Not Analyzed

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:

Grace Chang

Project Manager II

(732)593-2579

TestAmerica Laboratories, Inc.
Eurofins TestAmerica, Edison

SUMMARY OF ANALYTICAL

RESULTS: 460-203826-1

Job Description: Precision National

Plating

For:

ARCADIS U.S., Inc

1 Harvard Way

Hillsborough, New Jersey 08844

Client ID	Lagoon Influent			Lagoon Post Lead			Lagoon Effluent			Lagoon Seep			Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent		
Lab Sample ID	460-203826-1			460-203826-2			460-203826-3			460-203826-4			460-203826-5			460-203826-6			460-203826-7		
Sampling Date	02/27/2020 09:40:00			02/27/2020 09:45:00			02/27/2020 09:50:00			02/27/2020 11:30:00			02/27/2020 10:45:00			02/27/2020 10:50:00			02/27/2020 10:55:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 7196A																					
Cr (VI) (ug/l)	86.6		8.1	81.0		8.1	8.1	U	8.1	151		8.1	428		40.7	8.1	U	8.1	8.1	U	8.1

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:
 Grace Chang
 Project Manager II
 (732)593-2579

Eurofins TestAmerica, Edison

TestAmerica Laboratories, Inc.

Eurofins TestAmerica, Edison

205859-1

Job Description: Precision National

Plating

For:

ARCADIS U.S., Inc

1 Harvard Way

Client ID	Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent			Lagoon Influent			Lagoon Post lead			Lagoon Effluent			Lagoon Seep		
Lab Sample ID	460-205859-1			460-205859-2			460-205859-3			460-205859-4			460-205859-5			460-205859-6			460-205859-7		
Sampling Date	03/26/2020 13:30:00			03/26/2020 13:31:00			03/26/2020 13:32:00			03/26/2020 12:45:00			03/26/2020 12:46:00			03/26/2020 12:47:00			03/26/2020 13:00:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
Unit																					
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 200.7 REV 4.4(UG/L)																					
Aluminum	NR			NR			NR			20.7	U	20.7	NR			20.7	U	20.7	NR		
Antimony	NR			NR			NR			5.9	U	5.9	NR			5.9	U	5.9	NR		
Arsenic	NR			NR			NR			5.2		3.6	NR			3.6	U	3.6	NR		
Barium	NR			NR			NR			11.0	J	7.9	NR			9.2	J	7.9	NR		
Beryllium	NR			NR			NR			0.30	U	0.30	NR			0.30	U	0.30	NR		
Cadmium	NR			NR			NR			0.31	U	0.31	NR			0.31	U	0.31	NR		
Calcium	NR			NR			NR			48000		130	NR			44100		130	NR		
Chromium	417		5.7	251		5.7	130		5.7	119		5.7	113		5.7	5.7	U	5.7	377		5.7
Cobalt	NR			NR			NR			1.5	U	1.5	NR			1.5	U	1.5	NR		
Copper	NR			NR			NR			5.5	U	5.5	NR			5.5	U	5.5	NR		
Iron	NR			NR			NR			103	J	76.8	NR			76.8	U	76.8	NR		
Lead	NR			NR			NR			3.1	U	3.1	NR			3.1	U	3.1	NR		
Magnesium	NR			NR			NR			4860	J	160	NR			4410	J	160	NR		
Manganese	NR			NR			NR			35.2		0.66	NR			0.66	U	0.66	NR		
Nickel	NR			NR			NR			23.5	J	2.1	NR			2.1	U	2.1	NR		
Potassium	NR			NR			NR			1710	J	127	NR			1530	J	127	NR		
Selenium	NR			NR			NR			4.9	U	4.9	NR			4.9	U	4.9	NR		
Silver	NR			NR			NR			5.0	U	5.0	NR			5.0	U	5.0	NR		
Sodium	NR			NR			NR			24500		107	NR			21500		107	NR		
Thallium	NR			NR			NR			2.8	U	2.8	NR			2.8	U	2.8	NR		
Vanadium	NR			NR			NR			3.9	U	3.9	NR			3.9	U	3.9	NR		
Zinc	NR			NR			NR			23.4	J	2.6	NR			3.7	J	2.6	NR		
WATER BY 245.1(UG/L)																					
Mercury	NR			NR			NR			0.091	U	0.091	NR			0.091	U	0.091	NR		

NR: Not Analyzed

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:

Angelica Rosaperez

Project Mgmt. Assistant

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TestAmerica Laboratories, Inc.
Eurofins TestAmerica, Edison

SUMMARY OF ANALYTICAL RESULTS: 460-205859-1

Job Description: Precision National
Plating

For:
ARCADIS U.S., Inc
1 Harvard Way
Hillsborough, New Jersey 08844

Client ID	Seep Shed Influent			Seep Shed Mid			Seep Shed Effluent			Lagoon Influent			Lagoon Post lead			Lagoon Effluent			Lagoon Seep		
Lab Sample ID	460-205859-1			460-205859-2			460-205859-3			460-205859-4			460-205859-5			460-205859-6			460-205859-7		
Sampling Date	03/26/2020 13:30:00			03/26/2020 13:31:00			03/26/2020 13:32:00			03/26/2020 12:45:00			03/26/2020 12:46:00			03/26/2020 12:47:00			03/26/2020 13:00:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 7196A																					
Cr (VI) (ug/l)	429		40.7	8.1	U	8.1	8.1	U	8.1	106		8.1	94.7		8.1	8.1	U	8.1	148		8.1

U : Indicates the analyte was analyzed for but not detected.

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SEMIANNUAL SURFACE WATER MONITORING RESULTS

TestAmerica Laboratories, Inc.**Eurofins TestAmerica, Edison****SUMMARY OF ANALYTICAL RESULTS: 460-****201237-1****Job Description: Precision National****Plating****For:****ARCADIS U.S., Inc****1 Harvard Way****Hillsborough, New Jersey 08844**

Client ID	SW-16			SW-14DE			SW-14BC2			SW-14G			SW-14			SW-15			SW-10		
Lab Sample ID	460-201237-1			460-201237-2			460-201237-3			460-201237-4			460-201237-5			460-201237-6			460-201237-7		
Sampling Date	01/21/2020 12:18:00			01/21/2020 11:52:00			01/21/2020 11:48:00			01/21/2020 11:56:00			01/21/2020 11:38:00			01/21/2020 12:00:00			01/21/2020 11:35:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
Unit																					
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 200.7 REV 4.4(UG/L)																					
Chromium	5.7	U	5.7	5.7	U	5.7	5.7	U	5.7	5.7	U	5.7	5.7	U	5.7	5.7	U	5.7	5.7	U	5.7

U : Indicates the analyte was analyzed for but not detected.

Lab Contact:

Grace Chang

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TestAmerica Laboratories, Inc.**Eurofins TestAmerica, Edison****SUMMARY OF ANALYTICAL RESULTS: 460****201237-1****Job Description: Precision National****Plating****For:****ARCADIS U.S., Inc****1 Harvard Way****Hillsborough, New Jersey 08844**

Client ID	SW-16			SW-14DE			SW-14BC2			SW-14G			SW-14			SW-15			SW-10		
Lab Sample ID	460-201237-1			460-201237-2			460-201237-3			460-201237-4			460-201237-5			460-201237-6			460-201237-7		
Sampling Date	01/21/2020 12:18:00			01/21/2020 11:52:00			01/21/2020 11:48:00			01/21/2020 11:56:00			01/21/2020 11:38:00			01/21/2020 12:00:00			01/21/2020 11:35:00		
Matrix	Water			Water			Water			Water			Water			Water			Water		
	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
WATER BY 7196A																					
Cr (VI) (ug/l)	8.1	U	8.1	8.1	U	8.1	8.1	U	8.1	8.1	U	8.1	8.1	U	8.1	8.1	U	8.1	8.1	U	8.1

U : Indicates the analyte was analyzed for but not detected.

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