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Seattle, WA 98121
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September 15, 2025
File No. 0202561-001

City of Tacoma
Public Works Department, Engineering Division
747 Market Street, Room 544
Tacoma, Washington 98402

Attention: Charla Kinlow, Project Manager

Subject: American Plating Cleanup Site
2110 East D Street, Tacoma, Washington
Groundwater Monitoring Results, July 2025

Dear Charla Kinlow:

This letter transmits the results of the July 2025 groundwater monitoring event conducted for the American Plating Cleanup Site (Cleanup Site ID number 2539) by Haley & Aldrich, Inc. (Haley & Aldrich) (Figure 1). Groundwater sampling activities were performed in accordance with our proposal dated March 12, 2025, and included the re-development of monitoring wells on July 28, 2025, sample collection on July 29, 2025, and laboratory analysis from the following monitoring wells (Figure 2):

- MW-20;
- MW-21;
- MW-22.

According to information available on the Department of Ecology's website, groundwater sampling has not been conducted at the site since 2011. Monitoring wells were re-developed at least 12 hours prior to sampling, ensuring productive wells for representative sampling.

The monitoring wells were purged and sampled using a peristaltic pump with dedicated tubing for each well. The tubing intake was placed at the approximate middle of the screened interval. Wells were purged at a rate of approximately 0.05 gallons per minute (gpm) or less through a continuous flow cell with a multi-parameter probe to measure temperature, pH, conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity. The purge continued until parameters were stable (within 10 percent for at least three consecutive readings), or until at least three casing volumes were purged.

Purge water from the wells from re-development and purging during sampling was collected, labeled, and stored on site in a 55-gallon drum for future disposal.

Samples were collected into laboratory-supplied containers, which were analyzed by the City of Tacoma Environmental Services Laboratory for:

- dissolved cadmium, by U.S. Environmental Protection Agency (EPA) Method 200.8;
- dissolved copper and dissolved nickel, by EPA Method 6020B;
- hexavalent chromium, by EPA Method SM3500 Cr B; and
- weak acid dissociable cyanide, by Method SM 4500-CN-1.

Table I presents the water levels measured in each well at the specified date and time. Field groundwater sampling data forms are included as Appendix A. The laboratory report, along with the data usability summary report, is included in Appendix B.

Results of chemical analyses and a comparison to surface water-based screening levels are summarized in Table II. The screening levels for the site were determined based on the Washington Administrative Code (WAC) §173-201A Surface Water Quality Standards for Marine Waters, Aquatic Life/Chronic. No analyte concentrations were detected above the respective screening levels. A summary of the detections is provided below:

- Hexavalent chromium and dissolved nickel were detected at the three sample locations, but concentrations were detected below the respective screening levels of 50 micrograms per liter (µg/L) for hexavalent chromium and 8.2 µg/L for nickel.
- Cadmium was detected at MW-20 and MW-22, at concentrations of 0.0902 J µg/L and 0.149 J µg/L, respectively, but concentrations do not exceed the screening level of 7.9 µg/L. Cadmium was not detected at MW-21.
- Copper and weak acid dissociable cyanide were not detected at the three sample locations.

The next sampling event will be conducted in the first quarter of 2026.

We appreciate the opportunity to work on this project, please contact us with any questions or project details.

Sincerely yours,
HALEY & ALDRICH, INC.

Becca Dozier, L.G.
Assistant Project Manager, Hydrogeologist

Laura Menken, L.G.
Technical Expert, Hydrogeologist

Attachments:

Table I – Summary of Depth to Groundwater Manual Measurements
Table II – Summary of Groundwater Quality Data
Figure 1 – Vicinity Map
Figure 2 – Site Plan
Appendix A – Groundwater Sampling Field Forms
Appendix B – Data Quality Review and Laboratory Data Report

TABLES

TABLE I

SUMMARY OF DEPTH TO GROUNDWATER MANUAL MEASUREMENTS

AMERICAN PLATING CLEANUP SITE

TACOMA, WASHINGTON

Location Name	Date	Time	Depth to Water (feet BTOC)
MW-20	7/29/2025	9:35	7.58
MW-21	7/29/2025	10:25	7.72
MW-22	7/29/2025	8:40	8.19

Notes:

All times are in Pacific Standard Time

BTOC = below top of casing

TABLE II

SUMMARY OF GROUNDWATER QUALITY DATA

AMERICAN PLATING CLEANUP SITE

TACOMA, WASHINGTON

Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	Surface Water Standards for Marine Waters, Chapter 173-201A WAC Aquatic Life, Chronic	MW-20 MW-20-20250729 07/29/2025 2507018-01 -	MW-21 MW-21-20250729 07/29/2025 2507018-02 -	MW-22 MW-22-20250729 07/29/2025 2507018-03 -
Inorganic Compounds (ug/L)				
Cadmium, Dissolved	7.9	**0.0902 J**	0.0451 U	**0.149 J**
Copper, Dissolved	3.1	0.236 U	0.118 U	0.118 U
Nickel, Dissolved	8.2	**1.88**	**3.86**	**5.31**
Inorganic Compounds (mg/L)				
Cyanide	1	0.005 UJ	0.005 UJ	0.005 UJ
Inorganic Compounds (ug/L)				
Chromium VI (Hexavalent), Total	50	**9.8 J-**	**35.8 J-**	**21.1 J-**
Field Parameters				
Temperature (Deg C)	NA	15.8	15.1	14.8
Dissolved Oxygen, Field (mg/L)	NA	1.81	0.20	2.57
Conductivity, Field (mS/cm)	NA	15546	6057	10740
Oxidation Reduction Potential (ORP), Field (mv)	NA	-94.2	-200.8	-65.9
Turbidity, Field (NTU)	NA	23.1	11.5	20.9
pH, Field (pH units)	NA	7.98	7.11	7.07

ABBREVIATIONS AND NOTES:

Deg C: degrees Celsius

J: result is an estimate

J-: result is an estimate, biased low

mg/L: milligrams per liter

mv: millivolts

NA: Not Available

NTU: nephelometric turbidity units

U: not detected, value is the laboratory reporting limit

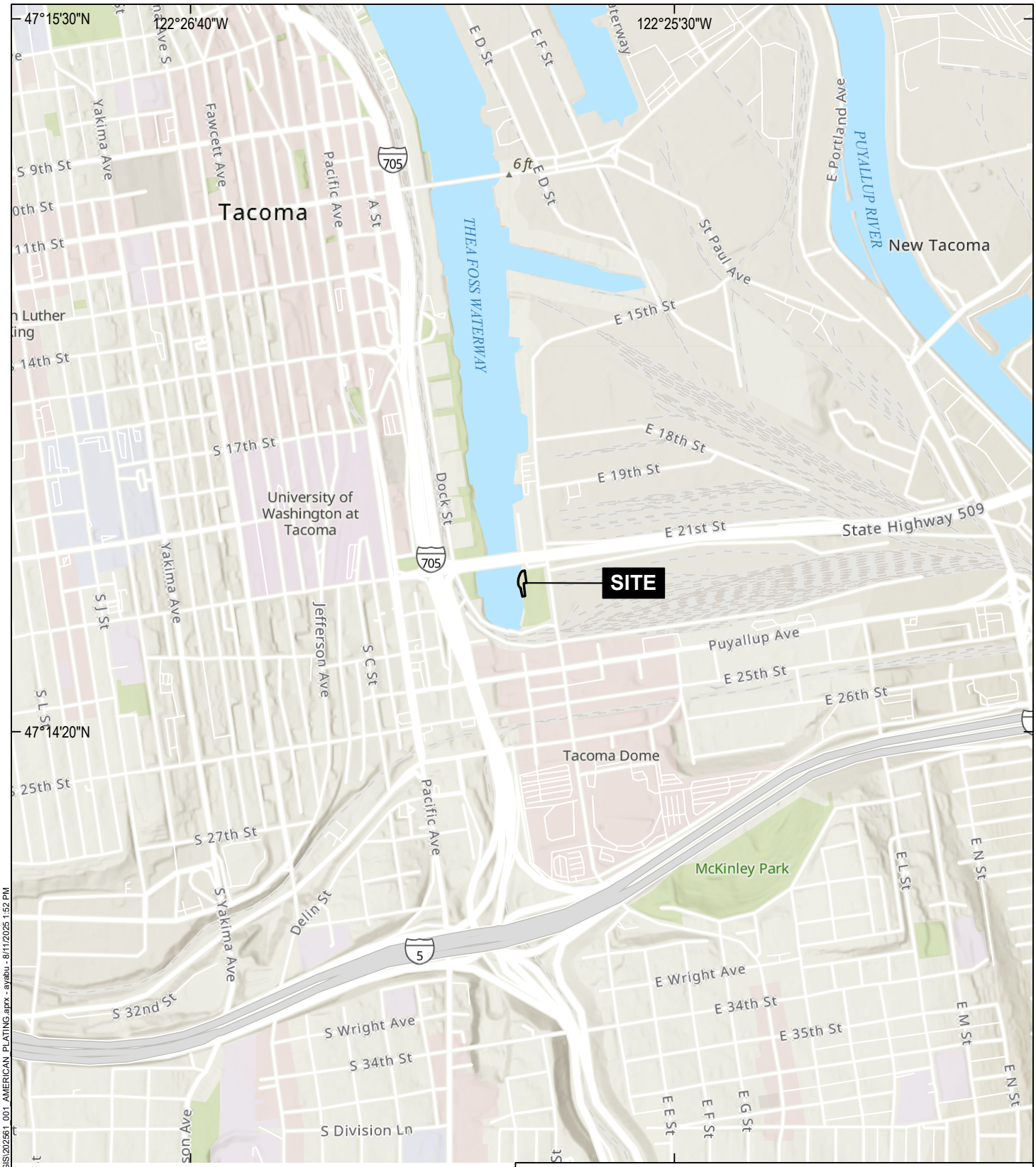
ug/L: micrograms per liter

mS/cm: milliSiemens per centimeter

Bold *indicates a detection above the reporting limit.*

Screening level for cyanide is based on the statewide marine surface water aquatic life criterion for both acute and chronic effects.

FIGURES



MAP SOURCE: ESRI
SITE COORDINATES: 47°14'35"N, 122°25'52"W

HALEY ALDRICH

THEA FOSS WW ESPLANADE UPLANDS
AMERICAN PLATING CLEANUP SITE
TACOMA, WASHINGTON

VICINITY MAP

APPROXIMATE SCALE: 1 IN = 2000 FT
AUGUST 2025

FIGURE 1

GIS: \\haleyaldrich.com\share\CF\Projects\202561\GIS\202561_001_AMERICAN_PLATING.aprx - ayabu - 8/11/2025 1:52 PM

LEGEND

MONITORING WELL

SITE BOUNDARY

NOTES
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, APRIL 13, 2025

N

0 150
SCALE IN FEET

HALEY ALDRICH

THEA FOSS WW ESPLANADE UPLANDS
AMERICAN PLATING CLEANUP SITE
TACOMA, WASHINGTON

SITE PLAN

AUGUST 2025

FIGURE 2

GIS: \\haleyaldrich.com\share\CF\Projects\0202561\GIS\202561_001_AMERICAN_PLATING.aprx - ayabu - 8/11/2025 1:52 PM

APPENDIX A
Groundwater Sampling Field Forms

HALEY ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

PROJECT	AMERICAN PLATING	H&A FILE NO.	0202561-001
LOCATION	TACOMA, WA	PROJECT MGR.	BELLA D.
CLIENT	CITY OF TACOMA	FIELD REP.	AARON G.
CONTRACTOR	HA	SAMPLING DATE	7-29-25

Sampling Data:

Well ID:	MW-20	Well Depth:	MEASURED 19.80 ft	Initial Depth To Water:	7.58 ft	Purging Device:	PERI. PUMP
Start time:	0935	Depth To Top Of Screen:	~10 ft	Depth Of Pump Intake:	~15 ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1015	Depth To Bottom Of Screen	~20 ft	Date Well Installed:		Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C) +/- 10 %	pH +/- 0.1	Conduct-ivity (us/cm) +/- 10 %	Dissolved Oxygen (mg/L) +/- 10 %	Turbidity (NTU) <25 NTU	ORP/eH (mv) +/- 10 mv	Comments
0940	8.41			0.20	15.5	7.96	15605	2.45	8.83	-83.4	*WATER IS CLEAR, NO ODOR, NO SHEEN
0945	9.06			0.35	15.6	7.97	15620	2.11	12.5	-85.5	
0950	9.83			0.50	15.6	7.97	15618	1.96	16.3	-88.5	
0955	10.29			0.65	15.7	7.98	15561	1.87	21.5	-90.8	
1000	10.80			0.80	15.8	7.98	15546	1.81	23.1	-94.2	
											*SAMPLE COLLECTED AT 1005
											*TOTAL GALLONS PURGED = ~1.0 GAL

Form 3010

HALEY ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

PROJECT	AMERICAN PLATING	H&A FILE NO.	0202561-001
LOCATION	TACOMA, WA	PROJECT MGR.	BECCA D.
CLIENT	CITY OF TACOMA	FIELD REP.	AARON G.
CONTRACTOR	HA	SAMPLING DATE	7-29-25

Sampling Data:

Well ID:	MW-21	Well Depth:	MEASURED 19.81' ft	Initial Depth To Water:	7.72' ft	Purging Device:	PERI. PUMP
Start time:	1025	Depth To Top Of Screen:	~10 ft	Depth Of Pump Intake:	~15 ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1110	Depth To Bottom Of Screen	~20 ft	Date Well Installed:		Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C) +/- 10 %	pH +/- 0.1	Conduct-ivity (us/cm) +/- 10 %	Dissolved Oxygen (mg/L) +/- 10 %	Turbidity (NTU) < 25 NTU	ORP/eH (mv) +/- 10 mv	Comments
1030	7.92			0.20	15.1	7.09	6888	0.88	22.4	-184.3	*WATER IS CLEAR, NO ODOR, NO SHEEN
1035	8.00			0.45	15.1	7.09	6734	0.36	20.7	-192.0	
1040	8.06			0.60	15.1	7.09	6501	0.28	17.5	-194.3	
1045	8.10			0.75	15.1	7.10	6287	0.23	15.6	-198.3	
1050	8.13			0.95	15.1	7.10	6119	0.21	12.8	-201.0	
1055	8.17			1.20	15.1	7.11	6057	0.20	11.5	-200.8	
											*SAMPLE COLLECTED AT 1100
											*TOTAL GALLONS PURGED = 1.3 GAL

Form 3010

HALEY ALDRICH

LOW FLOW/MNA FIELD SAMPLING FORM

Page 1 of 1

PROJECT	AMERICAN PLATING	H&A FILE NO.	0202561-001
LOCATION	TACOMA, WA	PROJECT MGR.	BECCA D.
CLIENT	CITY OF TACOMA	FIELD REP.	AARON G.
CONTRACTOR	HA	SAMPLING DATE	7-29-25

Sampling Data:

Well ID:	MW-22	Well Depth:	MEASURED 19.83 ft	Initial Depth To Water:	8.19 ft	Purging Device:	PERI. PUMP
Start time:	840	Depth To Top Of Screen:	~10 ft	Depth Of Pump Intake:	~15 ft	Tubing Present In Well: ☐ Yes	(N) No
Finish Time:	0920	Depth To Bottom Of Screen	~20 ft	Date Well Installed:		Tubing Type:	LDPE

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temp-erature (°F) or (°C) +/- 10 %	pH +/- 0.1	Conduct-ivity (us/cm) +/- 10 %	Dissolved Oxygen (mg/L) +/- 10 %	Turbidity (NTU) < 25 NTU	ORP/eH (mv) +/- 10 mv	Comments
0845	9.39			0.25	14.7	6.94	10900	2.99	20.8	-57.1	* WATER IS CLEAR, NO ODOR, NO SHEEN
0850	9.86			0.45	14.8	7.00	10657	3.04	22.2	-53.1	
0855	10.41			0.60	14.9	7.04	10707	2.85	21.7	-58.9	
0900	10.81			0.75	14.9	7.06	10732	2.62	15.4	-63.0	
0905	11.33			0.95	14.8	7.07	10740	2.57	20.9	-65.9	
											* SAMPLE COLLECTED @ 910
											* TOTAL GALLONS PURGED = ~1.25 GAL

Form 3010

APPENDIX B
Data Quality Review and Laboratory Data Report

Data Usability Summary Report

Project Name: American Plating

Project Description: Water Samples

Sample Dates: July 29, 2025

Analytical Laboratories: City of Tacoma Environmental Services Department – Tacoma, WA

Analytical Resources, LLC – Tukwila, WA

Validation Performed by: Eric Hitchens

Validation Reviewed by: Katherine Miller

Validation Date: August 27, 2025

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for the Sample Delivery Group (SDG) listed. This DUSR is organized into the following sections:

1. **Sample Delivery Group Number**
2. **Explanations**
3. **Glossary**
4. **Abbreviations**
5. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review.

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results reported between the MDL and reporting limit (RL) are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQOs) for the project and are therefore usable; any exceptions are noted in the following pages and listed below.

1. Sample Delivery Group Number

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 662319, also referred to as SDG 2507018 within the laboratory report. Samples were collected, preserved, and shipped following standard chain of custody (COC) protocols. Samples were also received appropriately, identified correctly, and analyzed according to the COC.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
MW-20-20250729	N	2507018-01	07/29/2025	WG	A, B, C
MW-21-20250729	N	2507018-02	07/29/2025	WG	A, B, C
MW-22-20250729	N	2507018-03	07/29/2025	WG	A, B, C

Method Holding Times			
A.	SM3500-CR B	Hexavalent Chromium	24 hours
B.	SW6020B	Metals	180 days
C.	SM4500-CN-I	Cyanide, Weak Acid Dissociable (WAD)	24 hours unpreserved 14 days preserved

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol, with the following exceptions:

- Hexavalent chromium analysis exceeded holding time; associated sample results were qualified J-.
- Cyanide analysis exceeded holding time; associated sample results were qualified UJ.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the Model Toxics Control Act (MTCA) cleanup levels.

1.4 LABORATORY CONTROL SAMPLES

Refer to Section E 1.3. Compounds associated with the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits.

1.5 MATRIX SPIKE SAMPLES

Refer to Section E 1.4. The sample below were used for matrix spike/matrix spike duplicate (MS/MSD) analysis:

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Methods
2507018-01	MW-20-20250729	SM3500-CR B, 6020B

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits.

1.6 BLANK SAMPLE ANALYSIS

Refer to Section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

1.7 DUPLICATE SAMPLE ANALYSIS

Refer to Section E 1.6. No client samples were used for laboratory duplicate analysis.

1.8 PRECISION AND ACCURACY

Refer to Section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

1.9 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable, as no data was rejected. The qualifiers applied to this dataset are summarized in the table below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
MW-20-20250729	Chromium VI (Hexavalent)	9.8 J	9.8 J-	Holding time exceedance
MW-20-20250729	Cyanide	U	UJ	
MW-21-20250729	Chromium VI (Hexavalent)	35.8	35.8 J-	
MW-21-20250729	Cyanide	U	UJ	
MW-22-20250729	Chromium VI (Hexavalent)	21.1	21.1 J-	
MW-22-20250729	Cyanide	U	UJ	

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.3 Laboratory Control Samples
  - The LCS/LCSD analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - MS/MSD data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post-digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
- E 1.6 Laboratory Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the RPD found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

3. Glossary

*Analyte names may be abbreviated for simplicity. Please refer to the laboratory report for the full analyte name.
Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - ng/kg nanograms per kilogram
  - µg/L micrograms per liter
  - µg/m3 micrograms per cubic meter
  - mg/kg milligrams per kilogram
  - mg/L milligrams per liter
  - ppbv/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
  - pg/L picograms per liter
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - ST Solid Waste
  - WM Stormwater
  - WQ Water Quality control matrix
  - WS Surface Water
  - WW Waste Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)
- Fractions:
  - N Normal (method cannot be filtered)
  - D Dissolved (filtered)
  - T Total (unfiltered)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EIS	Extraction Internal Standard
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H_2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post-Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorobutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SAP	Sampling Analysis Plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Standard Operating Procedure
SPE	Solid-Phase Extraction
SVOC	Semi-Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.

  UJ The compound was not detected. The reported sample quantitation limit is approximate.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency, 2020. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November.

CITY OF Tacoma
STORMWATER SOLID WASTE WASTEWATER
ENVIRONMENTAL SERVICES DEPARTMENT

19 August 2025

Charla Kinlow
PW Engineering
747 Market Street, Rm 744
Tacoma, WA 98402

Subject: American Plating project (2110 East D Street)

Enclosed are the analytical results for samples collected 07/29/2025.

Quality Control Data are included with the sample results for your review.

If you have any questions concerning this report, call me at (253) 345-0312. Please note that remaining samples associated with this report will be discarded **3 months** from the date of this report unless we are notified otherwise.

Sincerely,

Signed by:
Tiffany Ryan
9D4B4D82A1DE4B7...

Tiffany Ryan
Assistant Division Manager
Environmental Services Laboratory

cc. Becca Dozier

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled
MW-20	2507018-01	Water	Grab	29-Jul-25 10:05
MW-21	2507018-02	Water	Grab	29-Jul-25 11:00
MW-22	2507018-03	Water	Grab	29-Jul-25 09:10

CHAIN OF CUSTODY, SAMPLE RECEIPT, PRESERVATION AND STORAGE

Samples were received under appropriate Chain of Custody procedures. Containers were properly preserved and stored in accordance with the applicable method requirements.

HOLDING TIMES

All analyses were performed within the required holding times.

METHODS

The samples were analyzed by the following methods:

Standard Methods 3500-CN- I-99 for Weak Acid Dissociable Cyanide
Standard Methods 3500 Cr B for Hexavalent Chromium
EPA Method 6020B for Dissolved Metals

CONTRACT LABS

Weak Acid Dissociable Cyanide by Standard Methods 3500-CN- I was performed by Analytical Resources Inc. (ARI). The contract laboratory results and Chain of Custody are included in this report.

MINIMUM REPORTING LIMITS

All analytes are reported to the Minimum Project Report Limit. Some analytes may be reported to the Method Detection Limit (MDL) to meet the Minimum Project Reporting Limit. In these cases, values are qualified as estimated (J) between the MDL and Practical Quantitation Limit (PQL) as not as accurate as values reported greater than the PQL (the low standard or 3 - 5 times the MDL).

BLANKS

Blanks were analyzed at the required frequencies of the methods. Analytes were not detected in the blanks, sample concentrations were greater than 10 times the blank values, or the analytes detected in the blanks were not detected in associated samples.

LABORATORY CONTROL SAMPLES

Laboratory Control Samples were analyzed with these samples. The recoveries were within the laboratory or project limits.

DUPLICATE SAMPLE ANALYSIS

Duplicate analysis was performed with these samples. Relative percent differences were within the laboratory or project limits.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSIS

Matrix Spike and/or Matrix Spike Duplicate analysis was performed with these samples. The recoveries were within the laboratory or project limits.

INTERNAL STANDARDS

Internal Standards were added to these samples to monitor instrument performance related to calibration drift of matrix interference in the analysis by ICP-MS. The Internal Standards met the method criteria.

DATA AVAILABILITY

All data associated with the samples referenced in this report are archived at the Environmental Services Laboratory and are available upon request.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and project QAPP.

Signed by:
Terri Torres
570FA1DF52144D6...
Reviewed By

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

MW-20

2507018-01 (Water)

29-Jul-25 10:05

Analyte	Result	PQL	MDL	Units
Subcontract				
SM 4500-CN I	Prepared: 12-Aug-25 Analyzed: 14-Aug-25			
Cyanide (weak acid dissociable)	**0.005** U	0.005		mg/L

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

MW-21

2507018-02 (Water)

29-Jul-25 11:00

Analyte	Result	PQL	MDL	Units
Subcontract				
SM 4500-CN I	Prepared: 12-Aug-25 Analyzed: 14-Aug-25			
Cyanide (weak acid dissociable)	**0.005** U	0.005		mg/L

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

MW-22

2507018-03 (Water)

29-Jul-25 09:10

Analyte	Result	PQL	MDL	Units
Subcontract				
SM 4500-CN I	Prepared: 12-Aug-25 Analyzed: 14-Aug-25			
Cyanide (weak acid dissociable)	**0.005** U	0.005		mg/L

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

MW-20

2507018-01 (Water)

29-Jul-25 10:05

Analyte	Result	PQL	MDL	Units
Conventional				
SM 3500-Cr B-2011	Prepared: 19-Aug-25 Analyzed: 19-Aug-25			
Chromium, hexavalent	**9.8** J	10.0	4.0	ug/L
Metals				
EPA 6020B_(7/14)	Prepared: 15-Aug-25 Analyzed: 15-Aug-25			
Cadmium, Dissolved	**0.0902** J	1.00	0.0902	ug/L
Copper, Dissolved	0.236 U	1.00	0.236	ug/L
Nickel, Dissolved	**1.88**	1.00	0.858	ug/L

MW-21

2507018-02 (Water)

29-Jul-25 11:00

Analyte	Result	PQL	MDL	Units
Conventional				
SM 3500-Cr B-2011 Prepared: 19-Aug-25 Analyzed: 19-Aug-25				
Chromium, hexavalent	**35.8**	10.0	4.0	ug/L
Metals				
EPA 6020B_(7/14) Prepared: 15-Aug-25 Analyzed: 15-Aug-25				
Cadmium, Dissolved	0.0451 U	0.500	0.0451	ug/L
Copper, Dissolved	0.118 U	0.500	0.118	ug/L
Nickel, Dissolved	**3.86**	0.500	0.429	ug/L

MW-22

2507018-03 (Water)

29-Jul-25 09:10

Analyte	Result	PQL	MDL	Units
Conventional				
SM 3500-Cr B-2011 Prepared: 19-Aug-25 Analyzed: 19-Aug-25				
Chromium, hexavalent	**21.1**	10.0	4.0	ug/L
Metals				
EPA 6020B_(7/14) Prepared: 15-Aug-25 Analyzed: 15-Aug-25				
Cadmium, Dissolved	**0.149** J	0.500	0.0451	ug/L
Copper, Dissolved	0.118 U	0.500	0.118	ug/L
Nickel, Dissolved	**5.31**	0.500	0.429	ug/L

Conventional - Quality Control

Environmental Services Laboratory

Sample ID / Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BIH0102 - SM 3500-Cr B-2011									
Blank (BIH0102-BLK1)				Prepared & Analyzed: 19-Aug-25					
BIH0102-BLK1									
Chromium, hexavalent	**4.0 U**	**4.0**	**ug/L**						
LCS (BIH0102-BS1)				Prepared & Analyzed: 19-Aug-25					
BIH0102-BS1									
Chromium, hexavalent	**46.5**	**4.0**	**ug/L**	**50.0**		**93**	**80-120**		
Matrix Spike (BIH0102-MS1)	**Source: 2507018-01**			Prepared & Analyzed: 19-Aug-25					
BIH0102-MS1									
Chromium, hexavalent	**59.3**	**4.0**	**ug/L**	**50.0**	**9.8**	**99**	**70-130**		
Matrix Spike Dup (BIH0102-MSD1)	**Source: 2507018-01**			Prepared & Analyzed: 19-Aug-25					
BIH0102-MSD1									
Chromium, hexavalent	**54.2**	**4.0**	**ug/L**	**50.0**	**9.8**	**89**	**70-130**	**9**	**20**

Metals - Quality Control

Environmental Services Laboratory

Sample ID / Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BIH0010 - EPA 6020B_(7/14)									
Blank (BIH0010-BLK1)				Prepared & Analyzed: 15-Aug-25					
BIH0010-BLK1									
Cadmium, Dissolved	**0.0451 U**	**0.0451**	**ug/L**						
Copper, Dissolved	**0.118 U**	**0.118**	**ug/L**						
Nickel, Dissolved	**0.429 U**	**0.429**	**ug/L**						
Duplicate (BIH0010-DUP1)	**Source: 2507018-01**			Prepared & Analyzed: 15-Aug-25					
BIH0010-DUP1									
Cadmium, Dissolved	**0.132 J**	**0.0902**	**ug/L**		**0.0902**				**20**
Copper, Dissolved	**0.236 U**	**0.236**	**ug/L**		**ND**				**20**
Nickel, Dissolved	**1.68**	**0.858**	**ug/L**		**1.88**			**11**	**20**
LCS (BIH0010-BS1)				Prepared & Analyzed: 15-Aug-25					
BIH0010-BS1									
Cadmium, Dissolved	**25.1**	**0.0451**	**ug/L**	**25.0**		**101**	**80-120**		
Copper, Dissolved	**124**	**0.118**	**ug/L**	**125**		**99**	**80-120**		
Nickel, Dissolved	**195**	**0.429**	**ug/L**	**200**		**97**	**80-120**		
Matrix Spike (BIH0010-MS1)	**Source: 2507018-01**			Prepared & Analyzed: 15-Aug-25					
BIH0010-MS1									
Cadmium, Dissolved	**89.1**	**0.0902**	**ug/L**	**100**	**0.0902**	**89**	**75-125**		
Copper, Dissolved	**83.8**	**0.236**	**ug/L**	**100**	**ND**	**84**	**75-125**		
Nickel, Dissolved	**80.3**	**0.858**	**ug/L**	**100**	**1.88**	**78**	**75-125**		

Subcontract - Quality Control

Analytical Resources, Inc

Sample ID / Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BNH0215 - SM 4500-CN I									
BLK (BNH0215-BLK1)				Prepared: 12-Aug-25 Analyzed: 14-Aug-25					
BNH0215-BLK1									
Cyanide (weak acid dissociable)	**0.005 U**	**0.005**	**mg/L**				**-**		
BS (BNH0215-BS1)				Prepared: 12-Aug-25 Analyzed: 14-Aug-25					
BNH0215-BS1									
Cyanide (weak acid dissociable)	**0.137**	**0.005**	**mg/L**	**0.15**		**91.4**	**75-125**		
DUP (BNH0215-DUP1)	**Source: 2507018-01**			Prepared: 12-Aug-25 Analyzed: 14-Aug-25					
BNH0215-DUP1									
Cyanide (weak acid dissociable)	**0.008**	**0.005**	**mg/L**		**ND**		**-**		**20**
MS (BNH0215-MS1)	**Source: 2507018-01**			Prepared: 12-Aug-25 Analyzed: 14-Aug-25					
BNH0215-MS1									
Cyanide (weak acid dissociable)	**0.145**	**0.005**	**mg/L**	**0.15**	**ND**	**96.7**	**75-125**		

PW Engineering	Project: **American Plating project (2110 East D Street)**	
747 Market Street, Rm 744	Project Number: 662319	**Reported:**
Tacoma WA, 98402	Project Manager: Charla Kinlow	19-Aug-25 15:50

Notes and Definitions

U	Analyte Not Detected at or above the associated value
UJ	Analyte Not Detected at or above the associated estimated value
J	The analyte was positively identified. The associated value is an estimate. For BOD Analysis: The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/l dissolved oxygen depletion. Therefore the reported BOD result is estimated biased high
ND	Analyte NOT DETECTED at or above the reporting limit
E	Analyte was determined above the upper quantitation range of the method. The associated value is an estimate.
NJ	There is evidence the analyte is present. The associated value is an estimate.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

15 August 2025

Terri Torres
City of Tacoma
326 E. D Street
Tacoma, WA 98421

RE: 2507018 (2507018)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
25H0004	N/A

Phillip Bates
Digitally signed by Phillip Bates
Date: 2025.08.15 16:12:19 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory

Analytical Resources, LLC

Phillip Bates, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-018

25H0004

Analyical Services Request
CHAIN OF CUSTODY

SENDING LABORATORY:	RECEIVING LABORATORY:	Samplers (Printed):
Environmental Services Laboratory 326 East D Street Tacoma, WA 98421 Phone: (253) 591-5588 Fax: (253) 502-2107 City Contact: Terri Torres	Analytical Resources, Inc 4611 S 134th Place Tukwila, WA 98168-3240 Phone: (206) 695-6200 Fax: (206) 695-6201	Samplers Signatures:

Environmental Services Work Order Number: 2507018

Analysis	Sample Date/Time	Comments
Sample ID: 2507018-01 **Location ID: MW-20** **Matrix: Water**		
Subcontract - Cyanide, Weak Acid Dissociable		
Sample ID: 2507018-02 **Location ID: MW-21** **Matrix: Water**		
Subcontract - Cyanide, Weak Acid Dissociable		
Sample ID: 2507018-03 **Location ID: MW-22** **Matrix: Water**		
Subcontract - Cyanide, Weak Acid Dissociable		

Please provide a Tier II or Tier IV data package, as noted below. Perform batch quality control (matix spike, duplicate or matrix spike duplicate) as required by the methods. Send the final report and a standard Excel file, which includes the sample and batch QC data, to **CUWLab@CityofTacoma.org**. If your laboratory uses Promium's Element LIMS system, please call the City Contact listed above.

Released By	Date	Received By			Report type:	Tier II	Tier IV
	8/1/2025		1015	8/11/25	Detection Limit:	MDL	MRL/ LLOQ
Released By	Date	Received By					

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
2507018-01 (MW-20)	25H0004-01	Water	29-Jul-2025 10:05	01-Aug-2025 10:15
2507018-02 (MW-21)	25H0004-02	Water	29-Jul-2025 11:00	01-Aug-2025 10:15
2507018-03 (MW-22)	25H0004-03	Water	29-Jul-2025 09:10	01-Aug-2025 10:15

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

Work Order Case Narrative

Client: City of Tacoma
Project: 2507018
Project Number: 2507018
Work Order: 25H0004

Sample receipt

The sample(s) as listed on the preceding page were received 01-Aug-2025 10:15 under ARI work order 25H0004. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

WORK ORDER

25H0004

Client: City of Tacoma	**Project Manager:** Phillip Bates
Project: 2507018	**Project Number:** 2507018

Preservation Confirmation

Container ID	Container Type	pH	pH Paper Lot#: L006061
25H0004-01 A	Miscellaneous container, NaOH	>12 p	
25H0004-02 A	Miscellaneous container, NaOH	>12 p	
25H0004-03 A	Miscellaneous container, NaOH	>12 p	

SA
Preservation Confirmed By

8/1/25
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: City of Tacoma Project Name: 25070018

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other:____

Assigned ARI Job No: 25H0004 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	(YES)	NO
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) Time 1015 ____ 2.0 ____ ____ ____ ____ ____ Temp Gun ID#: 9708		
Was a temperature blank included in the cooler?	YES	(NO)
Were coolers received between 0°- 6° (°C)	(YES)	NO
Was sufficient ice used (if appropriate)? NA	(YES)	NO

Cooler Accepted by: SA Date: 8/1/25 Time: 1015

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block N/A Other: _____

Are any samples that were out of temperature compliance documented in LIMS?		YES	(NO)
How were bottles sealed in plastic bags?	Individually	Grouped	(Not)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	_____	

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SA Date: 8/1/25 Time: 1040 Labels checked by: SA

***** Notify Project Manager of discrepancies or concerns *****

Additional Notes, Discrepancies, & Resolutions:

By: Date:

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

2507018-01 (MW-20)

25H0004-01 (Water)

Wet Chemistry

Method: SM 4500-CN^- I-11 — Sampled: 07/29/2025 10:05

Instrument: UV1800-2 Analyst: RMS — Analyzed: 08/14/2025 20:47

Sample Preparation: Preparation Method: SM 4500-CN^- I-99 — Extract ID: 25H0004-01 A

Preparation Batch: BNH0215 — Sample Size: 50 mL

Prepared: 08/12/2025 — Final Volume: 50 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Cyanide, Weak Acid Dissociable	57-12-5	1	0.005	ND	mg/L	U

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

2507018-02 (MW-21)

25H0004-02 (Water)

Wet Chemistry

Method: SM 4500-CN⁻ I-11 — Sampled: 07/29/2025 11:00

Instrument: UV1800-2 Analyst: RMS — Analyzed: 08/14/2025 20:48

Sample Preparation: Preparation Method: SM 4500-CN⁻ I-99 — Extract ID: 25H0004-02 A

Preparation Batch: BNH0215 — Sample Size: 50 mL

Prepared: 08/12/2025 — Final Volume: 50 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Cyanide, Weak Acid Dissociable	57-12-5	1	0.005	ND	mg/L	U

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

2507018-03 (MW-22)

25H0004-03 (Water)

Wet Chemistry

Method: SM 4500-CN^- I-11 — Sampled: 07/29/2025 09:10

Instrument: UV1800-2 Analyst: RMS — Analyzed: 08/14/2025 20:49

Sample Preparation: Preparation Method: SM 4500-CN^- I-99 — Extract ID: 25H0004-03 A

Preparation Batch: BNH0215 — Sample Size: 50 mL

Prepared: 08/12/2025 — Final Volume: 50 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Cyanide, Weak Acid Dissociable	57-12-5	1	0.005	ND	mg/L	U

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNH0215 - SM 4500-CN⁻ I-11 in Water

Instrument: UV1800-2 Analyst: RMS

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BNH0215-BLK1)				Prepared: 12-Aug-2025 Analyzed: 14-Aug-2025 20:46						
Cyanide, Weak Acid Dissociable	ND	0.005	mg/L							U
LCS (BNH0215-BS1)				Prepared: 12-Aug-2025 Analyzed: 14-Aug-2025 20:47						
Cyanide, Weak Acid Dissociable	0.137	0.005	mg/L	0.150		91.4	75-125			
Duplicate (BNH0215-DUP1)	**Source: 25H0004-01**			Prepared: 12-Aug-2025 Analyzed: 14-Aug-2025 20:47						
Cyanide, Weak Acid Dissociable	0.008	0.005	mg/L		ND				20	
Matrix Spike (BNH0215-MS1)	**Source: 25H0004-01**			Prepared: 12-Aug-2025 Analyzed: 14-Aug-2025 20:48						
Cyanide, Weak Acid Dissociable	0.145	0.005	mg/L	0.150	ND	96.7	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

Uncertified Analytes included in this Report

Analysis Matrix & Analyte
None

Certified Analyses included in this Report

Analysis Matrix & Analyte	Certification Codes
SM 4500-CN⁻ I-11 in Water	
Cyanide, Weak Acid Dissociable	NELAP,WADOE

Certifications

Code	Description	Number	Expires
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-018	05/12/2026
WADOE	WA Dept of Ecology	C558	08/31/2025

City of Tacoma	Project: 2507018	
326 E. D Street	Project Number: 2507018	**Reported:**
Tacoma WA, 98421	Project Manager: Terri Torres	15-Aug-2025 16:09

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'
#	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.

Chain of Custody

Tacoma

326 East D Street
Tacoma
WA, 98421-1801

phone (253) 502-2130
fax (253) 502-2170

Lab Work Order Number 2507018

Client Name: PW Engineering	Project Name: American Plating
Client Contact: Charla Kinlow	Project Number: 0202561-001
Address: 747 Market Street, Rm 744	Project Description:
City: Tacoma	PO Number:
State/Zip: WA, 98402	Sampler Signatures: Aaron Galletly
Phone: (253) 591-5433 / (253) 594-7941	Fax:
Sampler: Becca Dozier	

Requested Turn Around: Rush requests subject to additional charge. Rush requests subject to lab approval. Standard (days) | Expedited (days) | Due Date

Sample Name or Field ID	Sampled Date	Sampled Time	Sample Type	Matrix Code	Container Count	Preservation Code	Requested Analyses: Cadmium, Dissolved 200.8::Copper, Dissolved 6020B::Nickel, Dissolved 6020B	Hexavalent Chromium SM3500 Cr B	Subcontract - Cyanide, Weak Acid Dissociable							Sample Number	Sample Comments
						B	A	C									
MW-20	7-29-25	1005	G	W	3	1	1	1								-01	
MW-21	7-29-25	1100	G	W	3	1	1	1								-02	
MW-22	7-29-25	0910	G	W	3	1	1	1								-03	

Relinquished By: Aaron Galletly HA	Received By:	Date/Time: 7/29/25 @ 11:53	Comments: Filter Lot # 1423882
Relinquished By:	Received By:	Date/Time:	
Relinquished By:	Received By:	Date/Time:	
Cooler Numbers and Temperatures			13.0°C corrected S/N 12026693

Matrix Codes: W=Water

Cont Codes: A=125 mL WM HDPE Amber, Filter, Buff, pH9.3-9.7 :Cr6, B=125 mL WM HDPE HNO3 Filter :Metals Diss, C=500 mL BR AG NaOH :CN

Review 7/29/25 12:52