

February 20, 2024

Teresa Coley Sprague River Water Quality Lab 5671 Sprague River Road Chiloquin, OR 97624

TEL: (541) 827-5231 FAX

RE: RES Order No.: 24020374

Dear Teresa Coley:

Neilson Research Corporation received 9 sample(s) on 2/8/2024 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,

Neilson Research Corporation

Tamos Shmedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St Medford, OR 97501











**Case Narrative** 

WO#: **24020374**Date: **2/20/2024** 

**CLIENT:** Sprague River Water Quality Lab

**Project:** RES

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.



# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-01 Client Sample ID 4020703-01

**Project: RES** Sample Location: Comp **Collection Date:** 2/6/2024 9:10:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qua	DF al	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS								
Aluminum, Dissolved	E200.7	Α	ND	1	0.00895	0.0200	mg/L		02/13/24 18:44 CJS
TRACE METALS BY	EPA 200.7 IC	Р							
Aluminum	E200.7	Α	ND	1	0.00895	0.0200	mg/L		02/13/24 21:01 CJS
DISSOLVED ORGAN	IIC CARBON I	BY SM 5310	C-2014						
Organic Carbon, Dissolv	red A5310C	Α	0.251 J	1	0.192	0.700	mg/L		02/08/24 23:14 TJW
TOTAL ORGANIC CA	ARBON SM 53	310 C-2014							
Organic Carbon, Total	A5310C	Α	0.225 J	1	0.0989	0.500	mg/L		02/12/24 12:57 TJW

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-02 **Client Sample ID** 4020703-02

**Project: RES** Sample Location: Comp **Collection Date:** 2/6/2024 8:45:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qua	DF I	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS								
Aluminum, Dissolved	E200.7	Α	0.0764	1	0.00895	0.0200	mg/L		02/13/24 18:46 CJS
TRACE METALS BY	EPA 200.7 IC	Р							
Aluminum	E200.7	Α	15.8 MI	1	0.00895	0.0200	mg/L		02/15/24 17:57 CJS
DISSOLVED ORGAN	IC CARBON E	BY SM 531	0 C-2014						
Organic Carbon, Dissolv	ed A5310C	Α	2.11	1	0.192	0.700	mg/L		02/08/24 23:32 TJW
TOTAL ORGANIC CA	ARBON SM 53	310 C-2014							
Organic Carbon, Total	A5310C	Α	2.02	1	0.0989	0.500	mg/L		02/12/24 13:34 TJW

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24020374
Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

**Lab ID:** 24020374-03 **Client Sample ID** 4020703-03

**Project:** RES **Sample Location:** Comp

**Collection Date:** 2/6/2024 9:01:00 AM **Received Date:** 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qua	DF I	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS								
Aluminum, Dissolved	E200.7	Α	0.102	1	0.00895	0.0200	mg/L		02/13/24 18:50 CJS
TRACE METALS BY	EPA 200.7 IC	Р							
Aluminum	E200.7	Α	15.8	1	0.00895	0.0200	mg/L		02/15/24 18:07 CJS
DISSOLVED ORGAN	IIC CARBON I	BY SM 5310	0 C-2014						
Organic Carbon, Dissolv	red A5310C	Α	2.06	1	0.192	0.700	mg/L		02/08/24 23:51 TJW
TOTAL ORGANIC CA	ARBON SM 53	310 C-2014							
Organic Carbon, Total	A5310C	Α	1.93	1	0.0989	0.500	mg/L		02/12/24 13:52 TJW

UALIFIER

C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceeded

H Holding times for preparation or analysis exceeded
MI Recovery outside comtrol limits due to Matrix Interference

L Permit Limit

E Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



Website: www.nrclabs.com

# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-04 Client Sample ID 4020703-04

**Project: RES** Sample Location: Comp Collection Date: 2/6/2024 10:42:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE I	METALS								
Aluminum, Dissolved	E200.7	Α	0.0833	1	0.00895	0.0200	mg/L		02/13/24 18:53 CJS
TRACE METALS BY I	EPA 200.7 ICI	•							
Aluminum	E200.7	Α	41.7	1	0.00895	0.0200	mg/L		02/15/24 18:11 CJS
DISSOLVED ORGANI	C CARBON E	BY SM 531	0 C-2014						
Organic Carbon, Dissolve	ed A5310C	Α	4.05	1	0.192	0.700	mg/L		02/09/24 0:09 TJW
TOTAL ORGANIC CA	RBON SM 53	10 C-2014	ŀ						
Organic Carbon, Total	A5310C	Α	4.18	1	0.0989	0.500	mg/L		02/12/24 14:10 TJW

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-05 **Client Sample ID** 4020703-05

**Project: RES** Sample Location: Comp Collection Date: 2/6/2024 12:31:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result	DF Qual	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS								
Aluminum, Dissolved	E200.7	Α	0.0860	1	0.00895	0.0200	mg/L		02/13/24 19:02 CJS
TRACE METALS BY	EPA 200.7 IC	Р							
Aluminum	E200.7	Α	101	10	0.0895	0.200	mg/L		02/15/24 17:54 CJS
DISSOLVED ORGAN	IIC CARBON I	BY SM 531	0 C-2014						
Organic Carbon, Dissolv	red A5310C	Α	5.28	1	0.192	0.700	mg/L		02/09/24 1:03 TJW
TOTAL ORGANIC CA	ARBON SM 53	310 C-2014	ļ						
Organic Carbon, Total	A5310C	Α	6.52	1	0.0989	0.500	mg/L		02/12/24 14:28 TJW

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24020374
Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

**Lab ID:** 24020374-06 **Client Sample ID** 4020703-06

**Project:** RES **Sample Location:** Comp

**Collection Date:** 2/6/2024 1:46:00 PM **Received Date:** 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED ORGANI	C CARBON E	SY SM 5310	C-2014						
Organic Carbon, Dissolve	ed A5310C	Α	4.87	1	0.192	0.700	mg/L		02/09/24 1:21 TJW
TOTAL ORGANIC CA	RBON SM 53	10 C-2014							
Organic Carbon, Total	A5310C	Α	5.07	1	0.0989	0.500	mg/L		02/12/24 14:46 TJW

UALIFIERS

C1 Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

L Permit Limit

E Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24020374
Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

**Lab ID:** 24020374-07 **Client Sample ID** 4020703-07

**Project:** RES **Sample Location:** Comp

**Collection Date:** 2/6/2024 3:03:00 PM

Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED ORGANI	C CARBON E	3Y SM 5310	C-2014						
Organic Carbon, Dissolve	ed A5310C	Α	3.96	1	0.192	0.700	mg/L		02/09/24 1:39 TJW
TOTAL ORGANIC CA	RBON SM 53	10 C-2014							
Organic Carbon, Total	A5310C	Α	3.52	1	0.0989	0.500	mg/L		02/12/24 15:04 TJW

UALIFIERS

C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceeded

H Holding times for preparation or analysis exceeded
MI Recovery outside comtrol limits due to Matrix Interference

L Permit Limit

E Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



Website: www.nrclabs.com

# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-08 Client Sample ID 4020703-08

**Project: RES** Sample Location: Comp **Collection Date:** 2/7/2024 8:22:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED ORGANIC	C CARBON E	SY SM 5310	C-2014						
Organic Carbon, Dissolve	d A5310C	Α	3.74	1	0.192	0.700	mg/L		02/09/24 1:57 TJW
TOTAL ORGANIC CAI	RBON SM 53	10 C-2014							
Organic Carbon, Total	A5310C	Α	3.19	1	0.0989	0.500	mg/L		02/12/24 15:59 TJW

MI

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



Website: www.nrclabs.com

# **Analytical Report**

WO#: 24020374 Date Reported: 2/20/2024

**CLIENT:** Sprague River Water Quality Lab

Lab ID: 24020374-09 Client Sample ID 4020703-09

**Project: RES** Sample Location: Comp **Collection Date:** 2/7/2024 9:19:00 AM Received Date: 2/8/2024 10:00:00 AM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED ORGANI	C CARBON E	SY SM 5310	C-2014						
Organic Carbon, Dissolve	ed A5310C	Α	4.85	1	0.192	0.700	mg/L		02/09/24 2:15 TJW
TOTAL ORGANIC CA	RBON SM 53	10 C-2014							
Organic Carbon, Total	A5310C	Α	4.90	1	0.0989	0.500	mg/L		02/12/24 16:17 TJW

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Original

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **QC SUMMARY REPORT**

WO#: 24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: DOC\_W

					.00_11
Sample ID: MB	SampType: MBLK	TestCode: DOC_W	Units: mg/L	Prep Date: <b>2/8/2024</b>	RunNo: <b>47184</b>
Client ID: PBW	Batch ID: <b>R47184</b>	TestNo: A5310C		Analysis Date: 2/8/2024	SeqNo: <b>772279</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Organic Carbon, Dissolved	ND	0.700			
Sample ID: <b>LCS 3.75 - 14323</b>	SampType: LCS	TestCode: DOC_W	Units: mg/L	Prep Date: 2/8/2024	RunNo: <b>47184</b>
Client ID: LCSW	Batch ID: <b>R47184</b>	TestNo: A5310C		Analysis Date: 2/8/2024	SeqNo: <b>772280</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Organic Carbon, Dissolved	3.63	0.700 3.750	0	96.8 90 110	
Sample ID: MB	SampType: MBLK	TestCode: DOC_W	Units: mg/L	Prep Date: <b>2/8/2024</b>	RunNo: <b>47184</b>
Client ID: PBW	Batch ID: <b>R47184</b>	TestNo: A5310C		Analysis Date: 2/8/2024	SeqNo: <b>772281</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Organic Carbon, Dissolved	ND	0.700			
Sample ID: <b>24011072-01ADUP</b>	SampType: <b>DUP</b>	TestCode: DOC_W	Units: mg/L	Prep Date: 2/8/2024	RunNo: <b>47184</b>
Client ID: BatchQC	Batch ID: R47184	TestNo: A5310C		Analysis Date: 2/8/2024	SeqNo: <b>772283</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Organic Carbon, Dissolved	2.47	0.700		2.145	14.3 15

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#:

24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: DOC\_W

Sample ID: 24020340-01DMS Client ID: BatchQC	SampType: MS Batch ID: R47184	TestCode: DOC_V	3		•	ate: 2/8/202		RunNo: <b>47</b> SeqNo: <b>77</b>		
Analyte	Result	PQL SPK val	ue SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	4.45	0.700 2.5	00 1.914	101	85	115				

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#:

24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: ICP\_200.7\_W

· ·	MB-24281 PBW	SampType: MBLK Batch ID: 24281	TestCode: ICP_200.7_W Units: mg/L TestNo: E200.7 E200.7	Prep Date: <b>2/13/2024</b> Analysis Date: <b>2/13/2024</b>	RunNo: <b>47278</b> SeqNo: <b>774217</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum		ND	0.0200		
Sample ID	LCS-24281	SampType: LCS	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 2/13/2024	RunNo: <b>47278</b>
Client ID:	LCSW	Batch ID: 24281	TestNo: <b>E200.7 E200.7</b>	Analysis Date: <b>2/13/2024</b>	SeqNo: <b>774218</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum		1.03	0.0200 1.000 0	103 85 115	
Sample ID	: 24020278-01AMS	SampType: MS	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 2/13/2024	RunNo: <b>47278</b>
Client ID:	BatchQC	Batch ID: 24281	TestNo: <b>E200.7 E200.7</b>	Analysis Date: 2/13/2024	SegNo: <b>774220</b>
				7 11 al y 010 Bato. 27 10/2021	
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Analyte Aluminum			PQL SPK value SPK Ref Val 0.0200 11.00 0.4768	,	·
Aluminum	: 24020278-01AMSD	Result	·	%REC LowLimit HighLimit RPD Ref Val	·
Aluminum	: 24020278-01AMSD BatchQC	Result 11.8	0.0200 11.00 0.4768	%REC LowLimit HighLimit RPD Ref Val 103 70 130	%RPD RPDLimit Qual
Aluminum Sample ID:		Result 11.8 SampType: MSD	0.0200 11.00 0.4768  TestCode: ICP_200.7_W Units: mg/L	%REC         LowLimit         HighLimit         RPD Ref Val           103         70         130           Prep Date: 2/13/2024	%RPD RPDLimit Qual

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: ICP\_200.7\_W

	KES			TestCode: 10	
Sample ID:	: MB-24313 PBW	SampType: MBLK Batch ID: 24313	TestCode: ICP_200.7_W Units: mg/L TestNo: E200.7 E200.7	Prep Date: <b>2/15/2024</b> Analysis Date: <b>2/15/2024</b>	RunNo: <b>47359</b> SeqNo: <b>775545</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum		ND	0.0200		
Sample ID:	LCS-24313	SampType: LCS	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 2/15/2024	RunNo: <b>47359</b>
Client ID:	LCSW	Batch ID: 24313	TestNo: <b>E200.7 E200.7</b>	Analysis Date: <b>2/15/2024</b>	SeqNo: <b>775546</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum		1.02	0.0200 1.000 0	102 85 115	
Sample ID:	: 24020374-02CMS	SampType: MS	TestCode: ICP_200.7_W Units: mg/L	Prep Date: <b>2/15/2024</b>	RunNo: <b>47359</b>
		SampType: MS Batch ID: 24313	TestCode: ICP_200.7_W Units: mg/L TestNo: E200.7 E200.7	Prep Date: <b>2/15/2024</b> Analysis Date: <b>2/15/2024</b>	RunNo: <b>47359</b> SeqNo: <b>775554</b>
				•	
Client ID:		Batch ID: 24313	TestNo: <b>E200.7 E200.7</b>	Analysis Date: <b>2/15/2024</b>	SeqNo: <b>775554</b>
Client ID: Analyte Aluminum		Batch ID: 24313  Result	TestNo: <b>E200.7 E200.7</b> PQL SPK value SPK Ref Val	Analysis Date: <b>2/15/2024</b> %REC LowLimit HighLimit RPD Ref Val	SeqNo: <b>775554</b> %RPD RPDLimit Qual
Client ID: Analyte Aluminum	4020703-02	Batch ID: 24313  Result  33.8	TestNo: <b>E200.7 E200.7</b> PQL SPK value SPK Ref Val  0.0200 11.00 15.80	Analysis Date: 2/15/2024  %REC LowLimit HighLimit RPD Ref Val  164 70 130	SeqNo: <b>775554</b> %RPD RPDLimit Qual  MI
Client ID: Analyte Aluminum Sample ID:	4020703-02 : 24020374-02CMSD	Batch ID: 24313  Result  33.8  SampType: MSD	TestNo: E200.7 E200.7  PQL SPK value SPK Ref Val  0.0200 11.00 15.80  TestCode: ICP_200.7_W Units: mg/L	Analysis Date: 2/15/2024  %REC LowLimit HighLimit RPD Ref Val  164 70 130  Prep Date: 2/15/2024	SeqNo: 775554         RPDLimit         Qual           MI         RunNo: 47359

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

L Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: ICP\_200.7\_W\_DISS2

								de: ICP_200.7		
Sample ID: Client ID:	MB-24283 PBW	SampType: MBLK Batch ID: 24283		ICP_200.7_W Units: E200.7 E3005	mg/L	Prep Date: Analysis Date:	2/13/2024 2/13/2024	RunNo: SeqNo:		
Analyte		Resu	t PQL S	PK value SPK Ref \	al %REC	LowLimit H	HighLimit RPD	Ref Val %RF	D RPDLimit	Qual
Aluminum,	Dissolved	NI	0.0200							
Sample ID:	LCS-24283	SampType: LCS	TestCode:	ICP_200.7_W Units:	mg/L	Prep Date:	2/13/2024	RunNo:	47277	
Client ID:	LCSW	Batch ID: 24283	TestNo:	E200.7 E3005		Analysis Date	2/13/2024	SeqNo:	774178	
Analyte		Resu	t PQL S	PK value SPK Ref \	al %REC	LowLimit H	HighLimit RPD	Ref Val %RF	D RPDLimit	Qual
Aluminum, I	Dissolved	1.0	0.0200	1.000	0 101	85	115			
Sample ID:	24020185-01EMS	SampType: MS	TestCode:	ICP_200.7_W Units:	mg/L	Prep Date:	2/13/2024	RunNo:	47277	
Client ID:	BatchQC	Batch ID: 24283	TestNo:	E200.7 E3005		Analysis Date	2/13/2024	SeqNo:	774180	
Analyte		Resu	t PQL S	PK value SPK Ref \	al %REC	LowLimit F	HighLimit RPD	Ref Val %RF	D RPDLimit	Qual
Aluminum, I	Dissolved	10.	7 0.0200	11.00	0 97.4	70	130			
	Dissolved <b>24020185-01EMSD</b>	SampType: MSD		11.00 ICP_200.7_W Units:			130	RunNo:	47277	
Sample ID:			TestCode:	ICP_200.7_W Units:	mg/L		2/13/2024	RunNo: SeqNo:		
Sample ID:	24020185-01EMSD	SampType: MSD	TestCode: TestNo:	ICP_200.7_W Units:	mg/L	Prep Date:	2/13/2024	SeqNo:	774181	Qual

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24020374

20-Feb-24

**Client:** Sprague River Water Quality Lab

Project: RES TestCode: TOC\_5310C

Organic Carbon, Total         ND         0.500           Sample ID: LCS 3.75 - 14323         SampType: LCS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: LCSW         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773267           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110         RunNo: 47228         RunNo: 47228         SeqNo: 773269         RunNo: 47228         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773269         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis					
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         ND         0.500         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         Revit         RunNo: 47228         Fernor: 45310C         Analysis Date: 2/12/2024         SeqNo: 773267         SeqNo: 773267         Analysis Date: 2/12/2024         SeqNo: 773267         Qual           Analyse         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD Ref Val         RPD Limit         Qual           Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110         Result         RPD Ref Val         %RPD Ref Val </th <th>Sample ID: MB</th> <th>SampType: MBLK</th> <th>TestCode: TOC_5310C Units: mg/L</th> <th>Prep Date: 2/12/2024</th> <th>RunNo: <b>47228</b></th>	Sample ID: MB	SampType: MBLK	TestCode: TOC_5310C Units: mg/L	Prep Date: 2/12/2024	RunNo: <b>47228</b>
Organic Carbon, Total         ND         0.500           Sample ID: LCS 3.75 - 14323         SampType: LCS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: LCSW         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773267           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110         RunNo: 47228         RunNo: 47228         SeqNo: 773269         RunNo: 47228         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773269         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773269         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis	Client ID: PBW	Batch ID: <b>R47228</b>	TestNo: A5310C	Analysis Date: 2/12/2024	SeqNo: <b>773266</b>
Sample ID: LCS 3.75 - 14323	Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Client ID:         LCSW         Batch ID:         R47228         TestNo:         A5310C         Analysis Date:         2/12/2024         SeqNo:         773267           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110         RunNo:         47228         FrestNo:         Analysis Date:         2/12/2024         RunNo:         47228         RunNo:         47228         Analysis Date:         2/12/2024         SeqNo:         773269         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         SeqNo:         773269         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         Analysis Date:	Organic Carbon, Total	ND	0.500		
Client ID:         LCSW         Batch ID:         R47228         TestNo:         A5310C         Analysis Date:         2/12/2024         SeqNo:         773267           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110         RunNo:         47228         FrestNo:         Analysis Date:         2/12/2024         RunNo:         47228         RunNo:         47228         Analysis Date:         2/12/2024         SeqNo:         773269         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         SeqNo:         773269         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         Analysis Date:         2/12/2024         Analysis Date:	Sample ID: 1 CS 3 75 - 1/323	SamnTyne: I CS	TestCode: TOC 5310C Units: ma/l	Pren Date: 2/12/2024	RunNo: 47228
Organic Carbon, Total         3.65         0.500         3.750         0         97.2         90         110           Sample ID: 24020043-01ADUP         SampType: DUP         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: BatchQC         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         2/12/2024         SeqNo: 773269           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         0.220         0.500         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Sample ID: 24020374-01AMS         SampType: MS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: 4020703-01         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773273           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual			_	•	
Sample ID: 24020043-01ADUP         SampType: DUP         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         2/12/2024         RunNo: 47228           Client ID: BatchQC         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773269           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         0.220         0.500         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Sample ID: 24020374-01AMS         SampType: MS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: 4020703-01         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773273           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD RPDLimit         Qual	Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Client ID:         Batch QC         Batch ID:         R47228         TestNo:         A5310C         Analysis Date:         2/12/2024         SeqNo:         773269           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           Organic Carbon, Total         0.220         0.500         Image: Carbon Ca	Organic Carbon, Total	3.65	0.500 3.750 0	97.2 90 110	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Ref Val %RPD Ref Val Qual Organic Carbon, Total 0.220 0.500 Fest Sample ID: 24020374-01AMS SampType: MS TestCode: TOC_5310C Units: mg/L Prep Date: 2/12/2024 RunNo: 47228 Client ID: 4020703-01 Batch ID: R47228 TestNo: A5310C Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD Ref Val %RPD Ref Val %RPD RepLimit Qual	Sample ID: <b>24020043-01ADUP</b>	SampType: <b>DUP</b>	TestCode: TOC_5310C Units: mg/L	Prep Date: 2/12/2024	RunNo: <b>47228</b>
Organic Carbon, Total         0.220         0.500         0.2465         11.3         15         J           Sample ID: 24020374-01AMS         SampType: MS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228         RunNo: 47228         RunNo: 773273         Analysis Date: 2/12/2024         SeqNo: 773273         Analysis Date: 2/12/2024         RunNo: 47228         RunNo: 4722	Client ID: BatchQC	Batch ID: <b>R47228</b>	TestNo: A5310C	Analysis Date: 2/12/2024	SeqNo: <b>773269</b>
Sample ID: 24020374-01AMS         SampType: MS         TestCode: TOC_5310C         Units: mg/L         Prep Date: 2/12/2024         RunNo: 47228           Client ID: 4020703-01         Batch ID: R47228         TestNo: A5310C         Analysis Date: 2/12/2024         SeqNo: 773273           Analyte         Result         PQL SPK value SPK Ref Val         %REC LowLimit HighLimit RPD Ref Val         %RPD RPDLimit Qual	Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Client ID: 4020703-01 Batch ID: R47228 TestNo: A5310C Analysis Date: 2/12/2024 SeqNo: 773273  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual	Organic Carbon, Total	0.220	0.500	0.2465	11.3 15 J
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual	Sample ID: <b>24020374-01AMS</b>	SampType: <b>MS</b>	TestCode: TOC_5310C Units: mg/L	Prep Date: <b>2/12/2024</b>	RunNo: <b>47228</b>
	Client ID: 4020703-01	Batch ID: <b>R47228</b>	TestNo: A5310C	Analysis Date: 2/12/2024	SeqNo: <b>773273</b>
Organic Carbon, Total         2.70         0.500         2.500         0.2247         98.8         85         115	Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
	Organic Carbon, Total	2.70	0.500 2.500 0.2247	98.8 85 115	

Qualifiers: C1 Sample container

21 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceede

ND Not Detected at the Reporting Limit



Temp °C

2.7

Condition

Good

Seal Intact

Cooler No

#### Neilson Research Corporation 245 S Grape St Medford, OR 97501

TEL: (541) 770-5678 FAX: (541) 770-2901 Website: www.nrclabs.com

#### Sample Log-In Check List

Client Name:		SPRAGUERIVERWATER	Work Order Number:	240203	374	RcptNo: 1				
Logge	ed by:	Ashley Spiegelberg	2/8/2024 10:00:00 AM			an	~			
Comp	pleted By:	Erin Hernandez	2/12/2024 9:57:00 AM			Cum Hum	md5			
Revie	ewed By:	Jordan Diemer	2/20/2024 10:46:40 AN	Л		ad	to Down			
Chai	n of Cus	stody								
1. 1	s Chain of	Custody complete?		Yes	✓	No 🗌	Not Present			
2. F	How was th	e sample delivered?		<u>UPS</u>						
Log I	In									
_	Coolers are	present?		Yes	<b>✓</b>	No 🗌	NA 🗌			
4. 5	Shipping co	ontainer/cooler in good condition	n?	Yes	<b>✓</b>	No 🗌				
(	Custody se	als intact on shipping containe	r/cooler?	Yes		No 🗌	Not Present 🗹			
1	No.	Seal Date:		_	ed By:					
5. \	Was an atte	empt made to cool the sample	s?	Yes	<b>✓</b>	No 🗌	NA $\square$			
6. <sup>\</sup>	Were all sa	imples received at a temperatu	re of >0° C to 6.0°C	Yes	<b>✓</b>	No 🗆	na 🗆			
7. 5	Sample(s) i	in proper container(s)?		Yes	<b>✓</b>	No $\square$				
8. 8	Sufficient s	ample volume for indicated tes	t(s)?	Yes	<b>✓</b>	No $\square$				
9. <i>F</i>	Are sample	es (except VOA and ONG) prop	erly preserved?	Yes	✓	No 🗌				
10. V	Was presei	rvative added to bottles?		Yes	✓	No $\square$	NA 🗌			
							HNO3 pH<2			
11.1	s the head	space in the VOA vials less that	an 1/4 inch or 6 mm?	Yes		No $\square$	No VOA Vials 🗹			
12. V	Were any s	sample containers received bro	ken?	Yes		No 🗸				
		rwork match bottle labels?		Yes	✓	No $\square$				
		epancies on chain of custody)	-1011-0	V		No.				
		es correctly identified on Chain	of Custody?	Yes	<b>✓</b>	No ∐				
		hat analyses were requested?		Yes		No ∐				
		olding times able to be met?  y customer for authorization.)		Yes	V	No 🗌				
		dling (if applicable)								
•		notified of all discrepancies wit	h this order?	Yes		No $\square$	NA 🗹			
	Perso	n Notified:	Date							
	By Wh		Via:	eMa	il 🗆 P	hone  Fax	In Person			
	Regar		via.		·· 🗀 '		5.3011			
	_	Instructions:								
40 /	Additional r									
_										
Cooler	r Informati	On.								

Seal No

Seal Date

Signed By

EΗ

Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A Required Client Information						Section C Invoice Information					Section D Rush Status (Subject to Scheduling)				
Company: Sprague River Water Quality Lab			Project Name: RES					Attention: Kaneeta Kirk					Standard: 10 Business Days		
Address: 5671 Sprague River Road			Project Number:					Company Name: The Klamath Tribes					Priority: 5 Busine	ss Days (List × 1.50)	
Chiloquin, OR 97624	Report To: Copy To:					Address: PO Box 436					Express: 3 Busin	ess Days (List × 1.75)			
Email: teresa.coley@klamathtribes.com						Chiloquin, OR 97624					Rush: 2 Business	s Days (List × 2.00)			
Phone: (541) 827-5231 Fax:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							#		1 - 3		Rush: 1 Business Day (List × 2.50)			
Collected D. (Delay) A M 1/ ACCC										i i i i			Rush: Same Day	(List × 3.00)	
		1									ted			zed Yes No	_
The My 100	_	-				Analysis Requested								.50 100 110	
Email Report Mail Report Fax Report								٦	Aluminum						
								<u> </u>	Ē						
Section E					ers			Aluminum	₹				NRC Workorder #	24070374	
Sample Information	T	Т	Ι	Ι	lgi.			₽	led ed	Harrier .	- 1		(Lab Use Only)	00057	
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	TOC	DOC	Total	Dissolved				Remarks / Field Data	NRC Sample # Use Only)	(Lab
4020703-01	Comp	Water	2/6/24	9:10	8	1	1	1	1					0	
4020703-02	Comp	Water	2/6/24	8:45	8	1	1	1	1				0/outo	02	
4020703-03	Comp	Water	2/6/24	9:01	8	1	1	1	1				160	03	
4020703-04	Comp	Water	2/6/24	10:42	8	1	1	1	✓				hepore	04	
4020703-05	Comp	Water	2/6/24	12:31	8	1	1	1	1				1/254	05	
4020703-06	Comp	Water	2/6/24	13:46	6	1	1						\cop',	06	
4020703-07	Comp	Water	2/6/24	15:03	6	1	1						and	07	
4020703-08	Comp	Water	2/7/24	8:22	6	1	1						0.0	06	
4020703-09	Comp	Water	2/7/24	9:19	6	1	1						\ce	09	
*Matrix: DW - Drinking Water WW - Wastewater W	- Water S - Soil/S	Solid SL - S	Sludge O - Oil	WP - Wipe O	T - Oth	er									
Section F				1923									Section G		
Relinquish/Receive Sign		1 90	,	Pri	nt				,	Date		Time	Lab Use Only		
Relinquished By:	/												Temp: Zo 7	TR-G	
Received By:  Beauthority	Harri		1.	Sen A.	Har	11/5	9		2	.7-24		1407	≤6°C:Yes	No	
Relinquished By:				and the second									Received on Ice:	Yes No	THE A
Received By:					1								Number of Bottles Received:		
Relinquished By: Ben A. K	Larris		Be	n A. K	Lari	43			Z	.7-24	,	409	pH Checked:		
Received By Laboratory:	~		Ash	lay Sp	ies	e16	en	5	2	18/24	1 10	3:00	COC Seals Intact:	Yes No NA	
		7 19	, .	01	0		d	+	-			-1 (10)	Field Blank Included: _	Yes(No)	
				2-12-12-( g							5	Received Via _	UPS FedEX(	Other Hand	
								No.	Payment:Cash			Cash	VISA, M/C Check # Amount		
														Effective 6/19	2/2020



#### **Data Flags**

WO#: **24020374**Date: **2/20/2024** 

A Total Alkalinity and Bicarbonate Alkalinity results are to a pH endpoint of 4.5. Carbonate Alkalinity result is to a pH endpoint of 8.3.

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- A-LL The total low level alkalinity results are to a pH endpoint of 4.3-4.7 pH units per SM 2320B-2011.
- B Analyte detected in the associated method blank.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS), and/or matrix spikes exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 The Relative percent difference (RPD) is not within control limits because the concentration of the sample result is too low to represent proper statistical error.
- R5 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30% because the results are too low to represent proper statistical error. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series. The sample results are not affected.
- R6 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30%. This may indicate a possible matrix interference. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.