

CERTIFICATE OF ANALYSIS

REPORTED TO Newell Regional Services Corporation
P.O. Box 638
Brooks, AB T1R 1B6

ATTENTION Kole Steinley

PO NUMBER 4569

PROJECT Schedule 4

PROJECT INFO August microcystin/Summer Analysis 2022

WORK ORDER 22H0303

RECEIVED / TEMP REPORTED 2022-08-03 09:00 / 17.0°C
2022-08-24 16:48

COC NUMBER 14293

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

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If you have any questions or concerns, please contact me at rpschyk@caro.ca

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TEST RESULTS

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WTP Header #1 (22H0303-01) Matrix: Water Sampled: 2022-08-02 10:15						
Acid Herbicides						
2,4-D	< 0.10	MAC = 100	0.10	µg/L	2022-08-24	HT1
MCPA	< 0.02	MAC = 100	0.02	µg/L	2022-08-24	HT1
2,4,5-T	< 0.10	N/A	0.10	µg/L	2022-08-24	HT1
Dicamba	< 0.10	MAC = 120	0.10	µg/L	2022-08-24	HT1
Picloram	< 0.10	MAC = 190	0.10	µg/L	2022-08-24	HT1
Dinoseb	< 0.10	N/A	0.10	µg/L	2022-08-24	HT1
Anions						
Bromate	< 0.010	MAC = 0.01	0.010	mg/L	2022-08-11	
Chlorate	< 0.50	MAC = 1	0.50	mg/L	2022-08-10	
Chloride	16.6	AO ≤ 250	0.50	mg/L	2022-08-06	
Chlorite	< 0.50	MAC = 1	0.50	mg/L	2022-08-10	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2022-08-06	
Nitrate (as N)	< 0.050	MAC = 10	0.050	mg/L	2022-08-06	HT1
Nitrite (as N)	< 0.050	MAC = 1	0.050	mg/L	2022-08-06	HT1
Sulfate	50.7	AO ≤ 500	1.0	mg/L	2022-08-06	
Calculated Parameters						
Chloramines	0.260	MAC = 3	0.0400	mg/L	N/A	
Total Trihalomethanes	0.0349	MAC = 0.1	0.00400	mg/L	N/A	
Hardness, Total (as CaCO ₃)	160	None Required	0.541	mg/L	N/A	
Solids, Total Dissolved	223	AO ≤ 500	3.35	mg/L	N/A	
Chlorinated Phenols						
2-Chlorophenol	< 0.10	N/A	0.10	µg/L	2022-08-10	
3 & 4-Chlorophenol	< 0.10	N/A	0.10	µg/L	2022-08-10	
4-Chloro-3-Methylphenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,3-Dichlorophenol	< 0.20	N/A	0.20	µg/L	2022-08-10	
2,4 & 2,5-Dichlorophenol	< 0.20	AO ≤ 0.3	0.20	µg/L	2022-08-10	
2,6-Dichlorophenol	< 0.20	N/A	0.20	µg/L	2022-08-10	
3,4-Dichlorophenol	< 0.20	N/A	0.20	µg/L	2022-08-10	
3,5-Dichlorophenol	< 0.20	N/A	0.20	µg/L	2022-08-10	
2,3,4-Trichlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,3,5-Trichlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,3,6-Trichlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,4,5-Trichlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,4,6-Trichlorophenol	< 0.50	AO ≤ 2	0.50	µg/L	2022-08-10	
3,4,5-Trichlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.50	N/A	0.50	µg/L	2022-08-10	
2,3,4,6-Tetrachlorophenol	< 0.50	AO ≤ 1	0.50	µg/L	2022-08-10	
Pentachlorophenol	< 0.50	AO ≤ 30	0.50	µg/L	2022-08-10	
Surrogate: 2,4-Dibromophenol	75		60-130	%	2022-08-10	
Surrogate: 2,4,6-Tribromophenol	76		60-130	%	2022-08-10	

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WTP Header #1 (22H0303-01) Matrix: Water Sampled: 2022-08-02 10:15, Continued						
General Parameters						
Alkalinity, Total (as CaCO ₃)	133	N/A	2.0	mg/L	2022-08-04	
Bicarbonate (HCO ₃)	162	N/A	2.0	mg/L	2022-08-04	
Carbonate (CO ₃)	< 2.0	N/A	2.0	mg/L	2022-08-04	
Hydroxide (OH)	< 2.0	N/A	2.0	mg/L	2022-08-04	
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2022-08-10	
Carbon, Total Organic	2.08	N/A	0.50	mg/L	2022-08-08	
Chlorine, Total	1.63	None Required	0.02	mg/L	2022-08-04	HT2
Chlorine, Free	1.37	N/A	0.02	mg/L	2022-08-04	HT2
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2022-08-05	
Conductivity (EC)	408	N/A	2.0	µS/cm	2022-08-09	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2022-08-06	
Nitritotriacetic Acid	< 0.20	MAC = 0.4	0.20	mg/L	2022-08-06	
pH	7.99	7.0-10.5	0.10	pH units	2022-08-04	HT2
Sulfide, Total	< 0.020	AO ≤ 0.05	0.020	mg/L	2022-08-04	
Turbidity	0.10	OG < 1	0.10	NTU	2022-08-04	
Microbiological Parameters						
Microcystin, total	< 0.05	MAC = 1.5	0.05	µg/L	2022-08-08	
Miscellaneous Herbicides						
Glyphosate	< 0.050	MAC = 0.28	0.050	mg/L	2022-08-09	
Miscellaneous Organics						
N-Nitrosodimethylamine	0.0020	MAC = 0.04	0.0016	µg/L	2022-08-22	
Pesticides, Herbicides, and Fungicides						
Alachlor	< 0.100	N/A	0.100	µg/L	2022-08-13	
Aldrin	< 0.006	N/A	0.006	µg/L	2022-08-13	
Atrazine and metabolites	< 0.100	MAC = 5	0.100	µg/L	2022-08-13	
Azinphos-methyl	< 0.200	MAC = 20	0.200	µg/L	2022-08-13	
alpha-BHC	< 0.010	N/A	0.010	µg/L	2022-08-13	
beta-BHC	< 0.050	N/A	0.050	µg/L	2022-08-13	
delta-BHC	< 0.050	N/A	0.050	µg/L	2022-08-13	
gamma-BHC (Lindane)	< 0.050	N/A	0.050	µg/L	2022-08-13	
Bromacil	< 0.100	N/A	0.100	µg/L	2022-08-13	
Bromoxynil	< 0.200	MAC = 5	0.200	µg/L	2022-08-13	
Butachlor	< 0.020	N/A	0.020	µg/L	2022-08-13	
Captan	< 0.100	N/A	0.100	µg/L	2022-08-13	
Chlordane (cis + trans)	< 0.050	N/A	0.050	µg/L	2022-08-13	
Chlorothalonil	< 0.050	N/A	0.050	µg/L	2022-08-13	
Chlorpyrifos	< 0.010	MAC = 90	0.010	µg/L	2022-08-13	
Cyanazine	< 0.100	N/A	0.100	µg/L	2022-08-13	
DDT, Total	< 0.010	N/A	0.010	µg/L	2022-08-13	
Deltamethrin	< 0.100	N/A	0.100	µg/L	2022-08-13	

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WTP Header #1 (22H0303-01) | Matrix: Water | Sampled: 2022-08-02 10:15, Continued

Pesticides, Herbicides, and Fungicides, Continued

Diazinon	< 0.020	MAC = 20	0.020	µg/L	2022-08-13	
Dichlorvos	< 0.100	N/A	0.100	µg/L	2022-08-13	
Diclofop-methyl	< 0.100	MAC = 9	0.100	µg/L	2022-08-13	
Dieldrin	< 0.010	N/A	0.010	µg/L	2022-08-13	
Dimethoate	< 0.200	MAC = 20	0.200	µg/L	2022-08-13	
Disulfoton	< 0.100	N/A	0.100	µg/L	2022-08-13	
Diuron	< 0.200	MAC = 150	0.200	µg/L	2022-08-13	
Endosulfan I + II	< 0.010	N/A	0.010	µg/L	2022-08-13	
Endosulfan sulfate	< 0.050	N/A	0.050	µg/L	2022-08-13	
Endrin	< 0.020	N/A	0.020	µg/L	2022-08-13	
Endrin aldehyde	< 0.020	N/A	0.020	µg/L	2022-08-13	
Endrin ketone	< 0.020	N/A	0.020	µg/L	2022-08-13	
Fenchlorphos (Ronnell)	< 0.100	N/A	0.100	µg/L	2022-08-13	
Heptachlor	< 0.010	N/A	0.010	µg/L	2022-08-13	
Heptachlor epoxide	< 0.010	N/A	0.010	µg/L	2022-08-13	
Linuron	< 0.050	N/A	0.050	µg/L	2022-08-13	
Malathion	< 0.100	MAC = 190	0.100	µg/L	2022-08-13	
Methoxychlor	< 0.050	N/A	0.050	µg/L	2022-08-13	
Methyl parathion	< 0.100	N/A	0.100	µg/L	2022-08-13	
Metolachlor	< 0.100	MAC = 50	0.100	µg/L	2022-08-13	
Metribuzin	< 0.200	MAC = 80	0.200	µg/L	2022-08-13	
Parathion	< 0.100	N/A	0.100	µg/L	2022-08-13	
Pentachloronitrobenzene	< 0.100	N/A	0.100	µg/L	2022-08-13	
Permethrin	< 0.010	N/A	0.010	µg/L	2022-08-13	
Phorate	< 0.100	MAC = 2	0.100	µg/L	2022-08-13	
Prometon	< 0.300	N/A	0.300	µg/L	2022-08-13	
Prometryne	< 0.100	N/A	0.100	µg/L	2022-08-13	
Simazine	< 0.200	MAC = 10	0.200	µg/L	2022-08-13	
Sulfotep	< 0.100	N/A	0.100	µg/L	2022-08-13	
Tebuthiuron	< 0.200	N/A	0.200	µg/L	2022-08-13	
Temephos (Abate)	< 0.500	N/A	0.500	µg/L	2022-08-13	
Terbufos	< 0.100	MAC = 1	0.100	µg/L	2022-08-13	
Triallate	< 0.100	N/A	0.100	µg/L	2022-08-13	
Trifluralin	< 0.200	MAC = 45	0.200	µg/L	2022-08-13	
Surrogate: Tributyl Phosphate	94		50-140	%	2022-08-13	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	86		50-140	%	2022-08-13	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	N/A	0.050	µg/L	2022-08-05	
Acenaphthylene	< 0.200	N/A	0.200	µg/L	2022-08-05	
Anthracene	< 0.010	N/A	0.010	µg/L	2022-08-05	
Benz(a)anthracene	< 0.010	N/A	0.010	µg/L	2022-08-05	
Benzo(a)pyrene	< 0.010	MAC = 0.04	0.010	µg/L	2022-08-05	

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WTP Header #1 (22H0303-01) | Matrix: Water | Sampled: 2022-08-02 10:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Benzo(b+j)fluoranthene	< 0.050	N/A	0.050	µg/L	2022-08-05	
Benzo(g,h,i)perylene	< 0.050	N/A	0.050	µg/L	2022-08-05	
Benzo(k)fluoranthene	< 0.050	N/A	0.050	µg/L	2022-08-05	
2-Chloronaphthalene	< 0.100	N/A	0.100	µg/L	2022-08-05	
Chrysene	< 0.050	N/A	0.050	µg/L	2022-08-05	
Dibenz(a,h)anthracene	< 0.010	N/A	0.010	µg/L	2022-08-05	
Fluoranthene	< 0.030	N/A	0.030	µg/L	2022-08-05	
Fluorene	< 0.050	N/A	0.050	µg/L	2022-08-05	
Indeno(1,2,3-cd)pyrene	< 0.050	N/A	0.050	µg/L	2022-08-05	
1-Methylnaphthalene	< 0.100	N/A	0.100	µg/L	2022-08-05	
2-Methylnaphthalene	< 0.100	N/A	0.100	µg/L	2022-08-05	
Naphthalene	< 0.200	N/A	0.200	µg/L	2022-08-05	
Phenanthrene	< 0.100	N/A	0.100	µg/L	2022-08-05	
Pyrene	< 0.020	N/A	0.020	µg/L	2022-08-05	
Quinoline	< 0.050	N/A	0.050	µg/L	2022-08-05	
Surrogate: Naphthalene-d8	109		50-140	%	2022-08-05	
Surrogate: Perylene-d12	106		50-140	%	2022-08-05	

Total Metals

Aluminum, total	0.0842	OG < 0.1	0.0050	mg/L	2022-08-15	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2022-08-15	
Arsenic, total	0.00140	MAC = 0.01	0.00050	mg/L	2022-08-15	
Barium, total	0.0702	MAC = 2	0.0050	mg/L	2022-08-15	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2022-08-15	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010	mg/L	2022-08-15	
Calcium, total	37.7	None Required	0.20	mg/L	2022-08-15	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2022-08-15	
Copper, total	0.00052	MAC = 2	0.00040	mg/L	2022-08-15	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2022-08-15	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2022-08-15	
Magnesium, total	15.8	None Required	0.010	mg/L	2022-08-15	
Manganese, total	0.00051	MAC = 0.12	0.00020	mg/L	2022-08-15	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2022-08-08	
Potassium, total	1.74	N/A	0.10	mg/L	2022-08-15	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2022-08-15	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2022-08-15	
Sodium, total	19.5	AO ≤ 200	0.10	mg/L	2022-08-15	
Strontium, total	0.206	MAC = 7	0.0010	mg/L	2022-08-15	
Uranium, total	0.000643	MAC = 0.02	0.000020	mg/L	2022-08-15	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2022-08-15	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5	µg/L	2022-08-04	
Bromodichloromethane	3.9	N/A	1.0	µg/L	2022-08-04	

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WTP Header #1 (22H0303-01) Matrix: Water Sampled: 2022-08-02 10:15, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Bromoform	< 1.0	N/A	1.0	µg/L	2022-08-04	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2022-08-04	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2022-08-04	
Chloroethane	< 2.0	N/A	2.0	µg/L	2022-08-04	
Chloroform	31.1	N/A	1.0	µg/L	2022-08-04	
Dibromochloromethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,2-Dibromoethane	< 0.3	N/A	0.3	µg/L	2022-08-04	
Dibromomethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	µg/L	2022-08-04	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	µg/L	2022-08-04	
1,1-Dichloroethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2022-08-04	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	µg/L	2022-08-04	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2022-08-04	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2022-08-04	
Dichloromethane	< 3.0	MAC = 50	3.0	µg/L	2022-08-04	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	µg/L	2022-08-04	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	µg/L	2022-08-04	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	µg/L	2022-08-04	
Styrene	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	µg/L	2022-08-04	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	µg/L	2022-08-04	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2022-08-04	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2022-08-04	
Trichlorofluoromethane	< 1.0	N/A	1.0	µg/L	2022-08-04	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2022-08-04	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2022-08-04	
Surrogate: Toluene-d8	86		70-130	%	2022-08-04	
Surrogate: 4-Bromofluorobenzene	103		70-130	%	2022-08-04	

Sample Qualifiers:

HT1 The sample was prepared and/or analyzed past the recommended holding time.
HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

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Analysis Description	Method Ref.	Technique	Accredited	Location
Acid Herbicides in Water in Water	In-House	N/A	✓	Richmond
Alkalinity in Water	SM 2320 B* (2017)	Titration with H2SO4	✓	Edmonton
Ammonia, Total in Water	SM 4500-NH3 D* (2017)	Ion Selective Electrode	✓	Edmonton
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓	Edmonton
Bromate in Water	SM 4110 B (2017)	Ion Chromatography	✓	Sublet
Carbon, Total Organic in Water	SM 5310 B (2017)	Combustion, Infrared CO2 Detection	✓	Kelowna
Chlorine, Free in Water	SM 4500-Cl G (2017)	Colorimetry (DPD)	✓	Edmonton
Chlorine, Total in Water	SM 4500-Cl G (2017)	Colorimetry (DPD)	✓	Edmonton
Colour, True in Water	SM 2120 C (2017)	Spectrophotometry (456 nm)	✓	Edmonton
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓	Edmonton
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
Cyanobacterial Toxins in Water	EPA 546*	Adda Enzyme-Linked Immunosorbent Assay (ELISA)	✓	Sublet
Glyphosate in Water	EPA 547*	Direct Aqueous Injection HPLC with Post-Column Derivatization and Fluorescence Detection	✓	Richmond
Hardness in Water	SM 2340 B (2017)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Nitrilotriacetic Acid in Water	EPA 430.1	Manual Colorimetry (Zinc-Zincon)		Kelowna
N-Nitrosodimethylamine in Water	In-House	N/A	✓	Sublet
Pesticides in Water	EPA 3510C* / EPA 8270D*	Liquid-Liquid DCM Extraction (B/N) / GC-MSD (SIM)	✓	Richmond
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Edmonton
Phenols, Chlorinated in Water	EPA 3510C* / EPA 8270D	Liquid-Liquid DCM Extraction (Acidic) / GC-MSD (SIM)	✓	Richmond
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)		Edmonton
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)	✓	N/A
Sulfide, Total in Water	SM 4500-S2 D* (2017)	Colorimetry (Methylene Blue)	✓	Edmonton
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓	Edmonton
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)		Edmonton

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

APPENDIX 1: SUPPORTING INFORMATION

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Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
AO	Aesthetic Objective
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: rpshyk@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk):** A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup):** An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS):** A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS):** A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM):** A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Acid Herbicides, Batch B2H2863									
Blank (B2H2863-BLK1)					Prepared: 2022-08-23, Analyzed: 2022-08-24				
2,4-D	< 0.10	0.10 µg/L							
MCPA	< 0.02	0.02 µg/L							
2,4,5-T	< 0.10	0.10 µg/L							
Dicamba	< 0.10	0.10 µg/L							
Picloram	< 0.10	0.10 µg/L							
Dinoseb	< 0.10	0.10 µg/L							
LCS (B2H2863-BS1)					Prepared: 2022-08-23, Analyzed: 2022-08-24				
2,4-D	5.04	0.10 µg/L	5.05		100	70-130			
MCPA	5.03	0.02 µg/L	5.00		101	70-130			
2,4,5-T	4.67	0.10 µg/L	5.15		91	70-130			
Dicamba	4.58	0.10 µg/L	5.05		91	70-130			
Picloram	4.90	0.10 µg/L	5.10		96	70-130			
Dinoseb	4.61	0.10 µg/L	5.10		90	70-130			
LCS (B2H2863-BS2)					Prepared: 2022-08-23, Analyzed: 2022-08-24				
2,4-D	5.30	0.10 µg/L	5.05		105	70-130			
MCPA	4.97	0.02 µg/L	5.00		99	70-130			
2,4,5-T	4.51	0.10 µg/L	5.15		88	70-130			
Dicamba	5.62	0.10 µg/L	5.05		111	70-130			
Picloram	5.27	0.10 µg/L	5.10		103	70-130			
Dinoseb	4.57	0.10 µg/L	5.10		90	70-130			
LCS (B2H2863-BS3)					Prepared: 2022-08-23, Analyzed: 2022-08-24				
2,4-D	5.00	0.10 µg/L	5.05		99	70-130			
MCPA	4.97	0.02 µg/L	5.00		99	70-130			
2,4,5-T	4.21	0.10 µg/L	5.15		82	70-130			
Dicamba	5.41	0.10 µg/L	5.05		107	70-130			
Picloram	4.83	0.10 µg/L	5.10		95	70-130			
Dinoseb	4.59	0.10 µg/L	5.10		90	70-130			
LCS (B2H2863-BS4)					Prepared: 2022-08-23, Analyzed: 2022-08-24				
2,4-D	5.14	0.10 µg/L	5.05		102	70-130			
MCPA	4.77	0.02 µg/L	5.00		95	70-130			
2,4,5-T	5.57	0.10 µg/L	5.15		108	70-130			
Dicamba	4.78	0.10 µg/L	5.05		95	70-130			
Picloram	4.58	0.10 µg/L	5.10		90	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Acid Herbicides, Batch B2H2863, Continued									
LCS (B2H2863-BS4), Continued				Prepared: 2022-08-23, Analyzed: 2022-08-24					
Dinoseb	4.54	0.10 µg/L	5.10		89	70-130			
Anions, Batch B2H0463									
Blank (B2H0463-BLK1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
Chloride	< 0.50	0.50 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.050	0.050 mg/L							
Nitrite (as N)	< 0.050	0.050 mg/L							
Sulfate	< 1.0	1.0 mg/L							
Blank (B2H0463-BLK2)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Chloride	< 0.50	0.50 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.050	0.050 mg/L							
Nitrite (as N)	< 0.050	0.050 mg/L							
Sulfate	< 1.0	1.0 mg/L							
Blank (B2H0463-BLK3)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Chloride	< 0.50	0.50 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.050	0.050 mg/L							
Nitrite (as N)	< 0.050	0.050 mg/L							
Sulfate	< 1.0	1.0 mg/L							
LCS (B2H0463-BS1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
Chloride	10.3	0.50 mg/L	10.0		103	90-110			
Fluoride	1.01	0.10 mg/L	1.00		101	85-115			
Nitrate (as N)	0.935	0.050 mg/L	1.00		94	92-108			
Nitrite (as N)	0.496	0.050 mg/L	0.500		99	85-115			
Sulfate	51.0	1.0 mg/L	50.0		102	90-110			
LCS (B2H0463-BS2)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Chloride	10.4	0.50 mg/L	10.0		104	90-110			
Fluoride	0.92	0.10 mg/L	1.00		92	85-115			
Nitrate (as N)	0.927	0.050 mg/L	1.00		93	92-108			
Nitrite (as N)	0.516	0.050 mg/L	0.500		103	85-115			
Sulfate	50.7	1.0 mg/L	50.0		101	90-110			
LCS (B2H0463-BS3)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Chloride	10.2	0.50 mg/L	10.0		102	90-110			
Fluoride	1.07	0.10 mg/L	1.00		107	85-115			
Nitrate (as N)	0.936	0.050 mg/L	1.00		94	92-108			
Nitrite (as N)	0.493	0.050 mg/L	0.500		99	85-115			
Sulfate	49.6	1.0 mg/L	50.0		99	90-110			
Anions, Batch B2H0999									
Blank (B2H0999-BLK1)				Prepared: 2022-08-10, Analyzed: 2022-08-10					
Chlorate	< 0.50	0.50 mg/L							
Chlorite	< 0.50	0.50 mg/L							
LCS (B2H0999-BS1)				Prepared: 2022-08-10, Analyzed: 2022-08-11					
Chlorate	10.9	0.50 mg/L	10.0		109	89-112			
Chlorite	9.77	0.50 mg/L	10.0		98	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Chlorinated Phenols, Batch B2H0866									
Blank (B2H0866-BLK1)				Prepared: 2022-08-08, Analyzed: 2022-08-10					
2-Chlorophenol	< 0.10	0.10 µg/L							
3 & 4-Chlorophenol	< 0.10	0.10 µg/L							
4-Chloro-3-Methylphenol	< 0.50	0.50 µg/L							
2,3-Dichlorophenol	< 0.20	0.20 µg/L							
2,4 & 2,5-Dichlorophenol	< 0.20	0.20 µg/L							
2,6-Dichlorophenol	< 0.20	0.20 µg/L							
3,4-Dichlorophenol	< 0.20	0.20 µg/L							
3,5-Dichlorophenol	< 0.20	0.20 µg/L							
2,3,4-Trichlorophenol	< 0.50	0.50 µg/L							
2,3,5-Trichlorophenol	< 0.50	0.50 µg/L							
2,3,6-Trichlorophenol	< 0.50	0.50 µg/L							
2,4,5-Trichlorophenol	< 0.50	0.50 µg/L							
2,4,6-Trichlorophenol	< 0.50	0.50 µg/L							
3,4,5-Trichlorophenol	< 0.50	0.50 µg/L							
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.50	0.50 µg/L							
2,3,4,6-Tetrachlorophenol	< 0.50	0.50 µg/L							
Pentachlorophenol	< 0.50	0.50 µg/L							
Surrogate: 2,4-Dibromophenol	1.37	µg/L	2.00		69	60-130			
Surrogate: 2,4,6-Tribromophenol	1.28	µg/L	2.00		64	60-130			
LCS (B2H0866-BS1)				Prepared: 2022-08-08, Analyzed: 2022-08-10					
2-Chlorophenol	7.37	0.10 µg/L	10.0		73	60-130			
3 & 4-Chlorophenol	16.1	0.10 µg/L	19.8		82	60-130			
4-Chloro-3-Methylphenol	7.92	0.50 µg/L	10.2		78	60-130			
2,3-Dichlorophenol	6.87	0.20 µg/L	10.1		68	60-130			
2,4 & 2,5-Dichlorophenol	15.0	0.20 µg/L	20.2		74	60-130			
2,6-Dichlorophenol	7.48	0.20 µg/L	10.0		75	60-130			
3,4-Dichlorophenol	7.29	0.20 µg/L	10.0		72	60-130			
3,5-Dichlorophenol	9.07	0.20 µg/L	10.2		89	60-130			
2,3,4-Trichlorophenol	7.82	0.50 µg/L	10.0		78	60-130			
2,3,5-Trichlorophenol	7.50	0.50 µg/L	10.0		75	60-130			
2,3,6-Trichlorophenol	7.87	0.50 µg/L	10.0		78	60-130			
2,4,5-Trichlorophenol	7.11	0.50 µg/L	10.0		71	60-130			
2,4,6-Trichlorophenol	7.72	0.50 µg/L	9.95		78	60-130			
3,4,5-Trichlorophenol	7.92	0.50 µg/L	10.0		79	60-130			
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	14.6	0.50 µg/L	19.9		73	60-130			
2,3,4,6-Tetrachlorophenol	7.96	0.50 µg/L	10.0		80	60-130			
Pentachlorophenol	8.96	0.50 µg/L	9.95		90	60-130			
Surrogate: 2,4-Dibromophenol	1.52	µg/L	2.00		76	60-130			
Surrogate: 2,4,6-Tribromophenol	1.37	µg/L	2.00		68	60-130			
LCS Dup (B2H0866-BSD1)				Prepared: 2022-08-08, Analyzed: 2022-08-10					
2-Chlorophenol	8.21	0.10 µg/L	10.0		82	60-130	11	40	
3 & 4-Chlorophenol	17.1	0.10 µg/L	19.8		87	60-130	6	40	
4-Chloro-3-Methylphenol	8.53	0.50 µg/L	10.2		84	60-130	7	40	
2,3-Dichlorophenol	7.88	0.20 µg/L	10.1		78	60-130	14	40	
2,4 & 2,5-Dichlorophenol	16.9	0.20 µg/L	20.2		83	60-130	12	40	
2,6-Dichlorophenol	8.38	0.20 µg/L	10.0		84	60-130	11	40	
3,4-Dichlorophenol	8.19	0.20 µg/L	10.0		81	60-130	12	40	
3,5-Dichlorophenol	10.3	0.20 µg/L	10.2		101	60-130	13	40	
2,3,4-Trichlorophenol	8.33	0.50 µg/L	10.0		83	60-130	6	40	
2,3,5-Trichlorophenol	8.66	0.50 µg/L	10.0		86	60-130	14	40	
2,3,6-Trichlorophenol	8.54	0.50 µg/L	10.0		85	60-130	8	40	
2,4,5-Trichlorophenol	8.22	0.50 µg/L	10.0		82	60-130	14	40	
2,4,6-Trichlorophenol	8.72	0.50 µg/L	9.95		88	60-130	12	40	
3,4,5-Trichlorophenol	8.96	0.50 µg/L	10.0		90	60-130	12	40	

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Chlorinated Phenols, Batch B2H0866, Continued

LCS Dup (B2H0866-BSD1), Continued			Prepared: 2022-08-08, Analyzed: 2022-08-10						
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	17.4	0.50 µg/L	19.9		88	60-130	18	40	
2,3,4,6-Tetrachlorophenol	8.19	0.50 µg/L	10.0		82	60-130	3	40	
Pentachlorophenol	10.6	0.50 µg/L	9.95		107	60-130	17	40	
Surrogate: 2,4-Dibromophenol	1.74	µg/L	2.00		87	60-130			
Surrogate: 2,4,6-Tribromophenol	1.60	µg/L	2.00		80	60-130			

General Parameters, Batch B2H0247

Blank (B2H0247-BLK1)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	< 0.50	0.50 mg/L							
Blank (B2H0247-BLK2)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	< 0.50	0.50 mg/L							
Blank (B2H0247-BLK3)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	< 0.50	0.50 mg/L							
Blank (B2H0247-BLK4)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	< 0.50	0.50 mg/L							
LCS (B2H0247-BS1)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	9.53	0.50 mg/L	10.0		95	78-116			
LCS (B2H0247-BS2)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	9.43	0.50 mg/L	10.0		94	78-116			
LCS (B2H0247-BS3)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	9.42	0.50 mg/L	10.0		94	78-116			
LCS (B2H0247-BS4)			Prepared: 2022-08-08, Analyzed: 2022-08-08						
Carbon, Total Organic	9.61	0.50 mg/L	10.0		96	78-116			

General Parameters, Batch B2H0366

Blank (B2H0366-BLK1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Turbidity	< 0.10	0.10 NTU							
LCS (B2H0366-BS1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Turbidity	39.8	0.10 NTU	40.0		100	90-110			

General Parameters, Batch B2H0381

Blank (B2H0381-BLK1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Chlorine, Total	< 0.02	0.02 mg/L							
Chlorine, Free	< 0.02	0.02 mg/L							
Reference (B2H0381-SRM1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Chlorine, Total	1.60	0.02 mg/L	1.59		101	91.2-108.8			
Chlorine, Free	1.60	0.02 mg/L	1.59		101	91.2-108.8			

General Parameters, Batch B2H0382

Blank (B2H0382-BLK1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Sulfide, Total	< 0.020	0.020 mg/L							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2H0382, Continued									
LCS (B2H0382-BS1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
Sulfide, Total	0.444	0.020 mg/L	0.500		89	80-120			
Matrix Spike (B2H0382-MS1)				Source: 22H0303-01 Prepared: 2022-08-04, Analyzed: 2022-08-04					
Sulfide, Total	0.423	0.020 mg/L	0.500	< 0.020	85	70-130			
General Parameters, Batch B2H0383									
Blank (B2H0383-BLK1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
Alkalinity, Total (as CaCO ₃)	< 2.0	2.0 mg/L							
Bicarbonate (HCO ₃)	< 2.0	2.0 mg/L							
Carbonate (CO ₃)	< 2.0	2.0 mg/L							
Hydroxide (OH)	< 2.0	2.0 mg/L							
LCS (B2H0383-BS1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
Alkalinity, Total (as CaCO ₃)	246	2.0 mg/L	250		99	94-108			
Reference (B2H0383-SRM1)				Prepared: 2022-08-04, Analyzed: 2022-08-04					
pH	7.10	0.10 pH units	7.00		101	98-102			
General Parameters, Batch B2H0537									
Blank (B2H0537-BLK1)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Colour, True	< 5.0	5.0 CU							
LCS (B2H0537-BS1)				Prepared: 2022-08-05, Analyzed: 2022-08-05					
Colour, True	26	5.0 CU	25.0		104	90-109			
General Parameters, Batch B2H0674									
Blank (B2H0674-BLK1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	< 0.0020	0.0020 mg/L							
Blank (B2H0674-BLK2)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	< 0.0020	0.0020 mg/L							
LCS (B2H0674-BS1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	0.0181	0.0020 mg/L	0.0200		91	82-120			
LCS (B2H0674-BS2)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	0.0179	0.0020 mg/L	0.0200		90	82-120			
LCS Dup (B2H0674-BSD1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	0.0179	0.0020 mg/L	0.0200		89	82-120	1	10	
LCS Dup (B2H0674-BSD2)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Cyanide, Total	0.0182	0.0020 mg/L	0.0200		91	82-120	2	10	
General Parameters, Batch B2H0691									
Blank (B2H0691-BLK1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Nitritotriacetic Acid	< 0.20	0.20 mg/L							
LCS (B2H0691-BS1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Nitritotriacetic Acid	1.11	0.20 mg/L	1.00		111	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2H0691, Continued									
LCS Dup (B2H0691-BSD1)				Prepared: 2022-08-06, Analyzed: 2022-08-06					
Nitrilotriacetic Acid	1.03	0.20 mg/L	1.00		103	80-120	7	20	
Matrix Spike (B2H0691-MS1)				Source: 22H0303-01		Prepared: 2022-08-06, Analyzed: 2022-08-06			
Nitrilotriacetic Acid	2.03	0.20 mg/L	2.00	< 0.20	102	70-130			
General Parameters, Batch B2H0952									
Blank (B2H0952-BLK1)				Prepared: 2022-08-09, Analyzed: 2022-08-09					
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B2H0952-BS1)				Prepared: 2022-08-09, Analyzed: 2022-08-09					
Conductivity (EC)	1020	2.0 µS/cm	1000		102	95-105			
General Parameters, Batch B2H1089									
Blank (B2H1089-BLK1)				Prepared: 2022-08-10, Analyzed: 2022-08-10					
Ammonia, Total (as N)	< 0.050	0.050 mg/L							
LCS (B2H1089-BS1)				Prepared: 2022-08-10, Analyzed: 2022-08-10					
Ammonia, Total (as N)	0.192	0.050 mg/L	0.200		96	85-115			
Miscellaneous Herbicides, Batch B2H0793									
Blank (B2H0793-BLK1)				Prepared: 2022-08-08, Analyzed: 2022-08-09					
Glyphosate	< 0.050	0.050 mg/L							
LCS (B2H0793-BS1)				Prepared: 2022-08-08, Analyzed: 2022-08-09					
Glyphosate	0.270	0.050 mg/L	0.250		108	70-130			
LCS Dup (B2H0793-BSD1)				Prepared: 2022-08-08, Analyzed: 2022-08-09					
Glyphosate	0.269	0.050 mg/L	0.250		108	70-130	< 1	20	
Pesticides, Herbicides, and Fungicides, Batch B2H0925									
Blank (B2H0925-BLK1)				Prepared: 2022-08-09, Analyzed: 2022-08-13					
Alachlor	< 0.100	0.100 µg/L							
Aldrin	< 0.006	0.006 µg/L							
Atrazine and metabolites	< 0.100	0.100 µg/L							
Azinphos-methyl	< 0.200	0.200 µg/L							
alpha-BHC	< 0.010	0.010 µg/L							
beta-BHC	< 0.050	0.050 µg/L							
delta-BHC	< 0.050	0.050 µg/L							
gamma-BHC (Lindane)	< 0.050	0.050 µg/L							
Bromacil	< 0.100	0.100 µg/L							
Bromoxynil	< 0.200	0.200 µg/L							
Butachlor	< 0.020	0.020 µg/L							
Captan	< 0.100	0.100 µg/L							
Chlordane (cis + trans)	< 0.050	0.050 µg/L							
Chlorothalonil	< 0.050	0.050 µg/L							
Chlorpyrifos	< 0.010	0.010 µg/L							
Cyanazine	< 0.100	0.100 µg/L							
DDT, Total	< 0.010	0.010 µg/L							
Deltamethrin	< 0.100	0.100 µg/L							
Diazinon	< 0.020	0.020 µg/L							
Dichlorvos	< 0.100	0.100 µg/L							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2H0925, Continued									
Blank (B2H0925-BLK1), Continued					Prepared: 2022-08-09, Analyzed: 2022-08-13				
Diclofop-methyl	< 0.100	0.100 µg/L							
Dieldrin	< 0.010	0.010 µg/L							
Dimethoate	< 0.200	0.200 µg/L							
Disulfoton	< 0.100	0.100 µg/L							
Diuron	< 0.200	0.200 µg/L							
Endosulfan I + II	< 0.010	0.010 µg/L							
Endosulfan sulfate	< 0.050	0.050 µg/L							
Endrin	< 0.020	0.020 µg/L							
Endrin aldehyde	< 0.020	0.020 µg/L							
Endrin ketone	< 0.020	0.020 µg/L							
Fenchlorphos (Ronnell)	< 0.100	0.100 µg/L							
Heptachlor	< 0.010	0.010 µg/L							
Heptachlor epoxide	< 0.010	0.010 µg/L							
Linuron	< 0.050	0.050 µg/L							
Malathion	< 0.100	0.100 µg/L							
Methoxychlor	< 0.050	0.050 µg/L							
Methyl parathion	< 0.100	0.100 µg/L							
Metolachlor	< 0.100	0.100 µg/L							
Metribuzin	< 0.200	0.200 µg/L							
Parathion	< 0.100	0.100 µg/L							
Pentachloronitrobenzene	< 0.100	0.100 µg/L							
Permethrin	< 0.010	0.010 µg/L							
Phorate	< 0.100	0.100 µg/L							
Prometon	< 0.300	0.300 µg/L							
Prometryne	< 0.100	0.100 µg/L							
Simazine	< 0.200	0.200 µg/L							
Sulfotep	< 0.100	0.100 µg/L							
Tebuthiuron	< 0.200	0.200 µg/L							
Temephos (Abate)	< 0.500	0.500 µg/L							
Terbufos	< 0.100	0.100 µg/L							
Triallate	< 0.100	0.100 µg/L							
Trifluralin	< 0.200	0.200 µg/L							
Surrogate: Tributyl Phosphate	0.731	µg/L	0.998		73	50-140			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	0.775	µg/L	1.00		77	50-140			
LCS (B2H0925-BS1)					Prepared: 2022-08-09, Analyzed: 2022-08-13				
Alachlor	0.811	0.100 µg/L	1.01		80	50-140			
Aldrin	0.732	0.006 µg/L	1.00		73	50-140			
Atrazine	0.819	0.100 µg/L	1.01		81	50-140			
Atrazine-desethyl	0.607	0.100 µg/L	1.03		59	50-140			
Azinphos-methyl	0.971	0.200 µg/L	0.981		99	50-140			
alpha-BHC	0.792	0.010 µg/L	1.01		78	50-140			
beta-BHC	0.804	0.050 µg/L	1.01		80	50-140			
delta-BHC	0.895	0.050 µg/L	1.00		90	50-140			
gamma-BHC (Lindane)	0.835	0.050 µg/L	1.00		83	50-140			
Bromacil	0.793	0.100 µg/L	1.01		78	50-140			
Bromoxynil	0.933	0.200 µg/L	0.978		95	50-140			
Butachlor	0.809	0.020 µg/L	1.01		80	50-140			
Captan	0.890	0.100 µg/L	0.996		89	50-140			
Chlordane (cis + trans)	1.60	0.050 µg/L	2.01		80	50-140			
Chlorothalonil	0.959	0.050 µg/L	1.01		95	50-140			
Chlorpyrifos	0.745	0.010 µg/L	1.00		74	50-140			
Cyanazine	0.836	0.100 µg/L	1.01		83	50-140			
DDT, Total	4.39	0.010 µg/L	5.99		73	50-140			
Deltamethrin	9.03	0.100 µg/L	10.1		89	50-140			
Diazinon	0.800	0.020 µg/L	1.00		80	50-140			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2H0925, Continued									
LCS (B2H0925-BS1), Continued					Prepared: 2022-08-09, Analyzed: 2022-08-13				
Dichlorvos	0.827	0.100 µg/L	1.09		76	50-140			
Diclofop-methyl	0.706	0.100 µg/L	1.02		69	50-140			
Dieldrin	0.753	0.010 µg/L	1.00		75	50-140			
Dimethoate	0.733	0.200 µg/L	0.990		74	50-140			
Disulfoton	0.793	0.100 µg/L	1.02		78	50-140			
Diuron	1.12	0.200 µg/L	1.06		105	50-140			
Endosulfan I + II	1.53	0.010 µg/L	2.01		76	50-140			
Endosulfan sulfate	0.802	0.050 µg/L	1.01		79	50-140			
Endrin	0.729	0.020 µg/L	1.01		72	50-140			
Endrin aldehyde	0.731	0.020 µg/L	1.00		73	50-140			
Endrin ketone	0.856	0.020 µg/L	1.01		85	50-140			
Fenchlorphos (Ronnel)	0.797	0.100 µg/L	1.03		77	50-140			
Heptachlor	0.846	0.010 µg/L	1.01		84	50-140			
Heptachlor epoxide	0.805	0.010 µg/L	1.01		80	50-140			
Linuron	1.01	0.050 µg/L	1.07		95	50-140			
Malathion	0.851	0.100 µg/L	1.00		85	50-140			
Methoxychlor	1.01	0.050 µg/L	1.01		100	50-140			
Methyl parathion	0.772	0.100 µg/L	0.997		77	50-140			
Metolachlor	0.809	0.100 µg/L	1.00		81	50-140			
Metribuzin	0.813	0.200 µg/L	1.00		81	50-140			
Parathion	0.875	0.100 µg/L	0.999		88	50-140			
Pentachloronitrobenzene	0.782	0.100 µg/L	0.989		79	50-140			
Permethrin	0.899	0.010 µg/L	1.04		86	50-140			
Phorate	0.779	0.100 µg/L	1.00		78	50-140			
Prometon	0.748	0.300 µg/L	1.00		75	50-140			
Prometryne	0.792	0.100 µg/L	1.00		79	50-140			
Simazine	0.803	0.200 µg/L	1.01		79	50-140			
Sulfotep	0.834	0.100 µg/L	1.04		80	50-140			
Tebuthiuron	0.782	0.200 µg/L	1.01		77	50-140			
Temephos (Abate)	10.5	0.500 µg/L	10.5		100	50-140			
Terbufos	0.830	0.100 µg/L	0.994		83	50-140			
Triallate	0.790	0.100 µg/L	0.992		80	50-140			
Trifluralin	0.830	0.200 µg/L	1.00		83	50-140			
Surrogate: Tributyl Phosphate	0.836	µg/L	0.998		84	50-140			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	0.772	µg/L	1.00		77	50-140			
LCS Dup (B2H0925-BSD1)					Prepared: 2022-08-09, Analyzed: 2022-08-13				
Alachlor	0.606	0.100 µg/L	1.01		60	50-140	29	30	
Aldrin	0.780	0.006 µg/L	1.00		78	50-140	6	30	
Atrazine	< 0.100	0.100 µg/L	1.01		4	50-140	182	30	RPD, SPK1
Atrazine-desethyl	< 0.100	0.100 µg/L	1.03		2	50-140	186	30	RPD, SPK1
Azinphos-methyl	0.649	0.200 µg/L	0.981		66	50-140	40	30	RPD
alpha-BHC	0.762	0.010 µg/L	1.01		75	50-140	4	30	
beta-BHC	0.804	0.050 µg/L	1.01		80	50-140	< 1	30	
delta-BHC	0.953	0.050 µg/L	1.00		95	50-140	6	30	
gamma-BHC (Lindane)	0.833	0.050 µg/L	1.00		83	50-140	< 1	30	
Bromacil	0.691	0.100 µg/L	1.01		68	50-140	14	30	
Bromoxynil	0.754	0.200 µg/L	0.978		77	50-140	21	30	
Butachlor	0.650	0.020 µg/L	1.01		64	50-140	22	30	
Captan	0.939	0.100 µg/L	0.996		94	50-140	5	30	
Chlordane (cis + trans)	1.61	0.050 µg/L	2.01		80	50-140	< 1	30	
Chlorothalonil	0.916	0.050 µg/L	1.01		91	50-140	5	30	
Chlorpyrifos	0.832	0.010 µg/L	1.00		83	50-140	11	30	
Cyanazine	< 0.100	0.100 µg/L	1.01		9	50-140	162	30	RPD, SPK1

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2H0925, Continued									
LCS Dup (B2H0925-BSD1), Continued					Prepared: 2022-08-09, Analyzed: 2022-08-13				
DDT, Total	4.34	0.010 µg/L	5.99		72	50-140	1	30	
Deltamethrin	10.0	0.100 µg/L	10.1		99	50-140	10	30	
Diazinon	0.398	0.020 µg/L	1.00		40	50-140	67	30	RPD, SPK1
Dichlorvos	0.852	0.100 µg/L	1.09		78	50-140	3	30	
Diclofop-methyl	0.683	0.100 µg/L	1.02		67	50-140	3	30	
Dieldrin	0.690	0.010 µg/L	1.00		69	50-140	9	30	
Dimethoate	0.307	0.200 µg/L	0.990		31	50-140	82	30	RPD, SPK1
Disulfoton	0.772	0.100 µg/L	1.02		76	50-140	3	30	
Diuron	0.643	0.200 µg/L	1.06		61	50-140	54	30	RPD
Endosulfan I + II	1.54	0.010 µg/L	2.01		77	50-140	< 1	30	
Endosulfan sulfate	0.773	0.050 µg/L	1.01		77	50-140	4	30	
Endrin	0.369	0.020 µg/L	1.01		37	50-140	66	30	RPD, SPK1
Endrin aldehyde	0.567	0.020 µg/L	1.00		57	50-140	25	30	
Endrin ketone	1.16	0.020 µg/L	1.01		114	50-140	30	30	
Fenchlorphos (Ronnel)	0.788	0.100 µg/L	1.03		76	50-140	1	30	
Heptachlor	0.838	0.010 µg/L	1.01		83	50-140	1	30	
Heptachlor epoxide	0.795	0.010 µg/L	1.01		79	50-140	1	30	
Linuron	1.03	0.050 µg/L	1.07		96	50-140	1	30	
Malathion	0.820	0.100 µg/L	1.00		82	50-140	4	30	
Methoxychlor	0.973	0.050 µg/L	1.01		96	50-140	4	30	
Methyl parathion	0.756	0.100 µg/L	0.997		76	50-140	2	30	
Metolachlor	0.816	0.100 µg/L	1.00		82	50-140	< 1	30	
Metribuzin	< 0.200	0.200 µg/L	1.00		4	50-140	183	30	RPD, SPK1
Parathion	0.810	0.100 µg/L	0.999		81	50-140	8	30	
Pentachloronitrobenzene	0.733	0.100 µg/L	0.989		74	50-140	7	30	
Permethrin	0.867	0.010 µg/L	1.04		83	50-140	4	30	
Phorate	0.710	0.100 µg/L	1.00		71	50-140	9	30	
Prometon	< 0.300	0.300 µg/L	1.00		14	50-140	136	30	RPD, SPK1
Prometryne	0.253	0.100 µg/L	1.00		25	50-140	103	30	RPD, SPK1
Simazine	< 0.200	0.200 µg/L	1.01		0.7	50-140	197	30	RPD, SPK1
Sulfotep	0.816	0.100 µg/L	1.04		78	50-140	2	30	
Tebuthiuron	< 0.200	0.200 µg/L	1.01		3	50-140	185	30	RPD, SPK1
Temephos (Abate)	10.9	0.500 µg/L	10.5		104	50-140	4	30	
Terbufos	0.673	0.100 µg/L	0.994		68	50-140	21	30	
Triallate	0.782	0.100 µg/L	0.992		79	50-140	1	30	
Trifluralin	0.763	0.200 µg/L	1.00		76	50-140	8	30	
Surrogate: Tributyl Phosphate	0.836	µg/L	0.998		84	50-140			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	0.705	µg/L	1.00		71	50-140			

Polycyclic Aromatic Hydrocarbons (PAH), Batch B2H0359

Blank (B2H0359-BLK1)			Prepared: 2022-08-04, Analyzed: 2022-08-05						
Acenaphthene	< 0.050	0.050 µg/L							
Acenaphthylene	< 0.200	0.200 µg/L							
Anthracene	< 0.010	0.010 µg/L							
Benz(a)anthracene	< 0.010	0.010 µg/L							
Benzo(a)pyrene	< 0.010	0.010 µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050 µg/L							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Polycyclic Aromatic Hydrocarbons (PAH), Batch B2H0359, Continued

Blank (B2H0359-BLK1), Continued

Prepared: 2022-08-04, Analyzed: 2022-08-05

Benzo(g,h,i)perylene	< 0.050	0.050 µg/L							
Benzo(k)fluoranthene	< 0.050	0.050 µg/L							
2-Chloronaphthalene	< 0.100	0.100 µg/L							
Chrysene	< 0.050	0.050 µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010 µg/L							
Fluoranthene	< 0.030	0.030 µg/L							
Fluorene	< 0.050	0.050 µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050 µg/L							
1-Methylnaphthalene	< 0.100	0.100 µg/L							
2-Methylnaphthalene	< 0.100	0.100 µg/L							
Naphthalene	< 0.200	0.200 µg/L							
Phenanthrene	< 0.100	0.100 µg/L							
Pyrene	< 0.020	0.020 µg/L							
Quinoline	< 0.050	0.050 µg/L							
Surrogate: Naphthalene-d8	28.9	µg/L	29.6		98	50-140			
Surrogate: Perylene-d12	27.6	µg/L	29.6		93	50-140			

LCS (B2H0359-BS2)

Prepared: 2022-08-04, Analyzed: 2022-08-05

Acenaphthene	23.7	0.050 µg/L	22.2		107	50-140			
Acenaphthylene	26.0	0.200 µg/L	22.2		117	50-140			
Anthracene	24.8	0.010 µg/L	22.2		112	50-140			
Benz(a)anthracene	22.5	0.010 µg/L	22.2		101	50-140			
Benzo(a)pyrene	27.9	0.010 µg/L	22.2		125	50-140			
Benzo(b+)fluoranthene	51.9	0.050 µg/L	44.4		117	50-140			
Benzo(g,h,i)perylene	21.4	0.050 µg/L	22.2		96	50-140			
Benzo(k)fluoranthene	24.4	0.050 µg/L	22.2		110	50-140			
2-Chloronaphthalene	19.7	0.100 µg/L	22.4		88	50-140			
Chrysene	23.5	0.050 µg/L	22.2		106	50-140			
Dibenz(a,h)anthracene	19.8	0.010 µg/L	22.2		89	50-140			
Fluoranthene	24.1	0.030 µg/L	22.2		108	50-140			
Fluorene	23.6	0.050 µg/L	22.2		106	50-140			
Indeno(1,2,3-cd)pyrene	20.8	0.050 µg/L	22.2		93	50-140			
1-Methylnaphthalene	23.8	0.100 µg/L	22.2		107	50-140			
2-Methylnaphthalene	23.8	0.100 µg/L	22.2		107	50-140			
Naphthalene	24.3	0.200 µg/L	22.2		109	50-140			
Phenanthrene	24.0	0.100 µg/L	22.2		108	50-140			
Pyrene	23.8	0.020 µg/L	22.2		107	50-140			
Quinoline	25.2	0.050 µg/L	23.4		107	50-140			
Surrogate: Naphthalene-d8	32.8	µg/L	29.6		111	50-140			
Surrogate: Perylene-d12	30.1	µg/L	29.6		102	50-140			

Total Metals, Batch B2H0799

Blank (B2H0799-BLK1)

Prepared: 2022-08-08, Analyzed: 2022-08-08

Mercury, total	< 0.000010	0.000010 mg/L							
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Blank (B2H0799-BLK2)

Prepared: 2022-08-08, Analyzed: 2022-08-08

Mercury, total	< 0.000010	0.000010 mg/L							
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Blank (B2H0799-BLK3)

Prepared: 2022-08-08, Analyzed: 2022-08-08

Mercury, total	< 0.000010	0.000010 mg/L							
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LCS (B2H0799-BS1)

Prepared: 2022-08-08, Analyzed: 2022-08-08

Mercury, total	0.000460	0.000010 mg/L	0.000500		92	80-120			
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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2H0799, Continued									
LCS (B2H0799-BS2)				Prepared: 2022-08-08, Analyzed: 2022-08-08					
Mercury, total	0.000471	0.000010 mg/L	0.000500		94	80-120			
LCS (B2H0799-BS3)				Prepared: 2022-08-08, Analyzed: 2022-08-08					
Mercury, total	0.000492	0.000010 mg/L	0.000500		98	80-120			
Total Metals, Batch B2H0801									
Blank (B2H0801-BLK1)				Prepared: 2022-08-08, Analyzed: 2022-08-15					
Aluminum, total	< 0.0050	0.0050 mg/L							
Antimony, total	< 0.00020	0.00020 mg/L							
Arsenic, total	< 0.00050	0.00050 mg/L							
Barium, total	< 0.0050	0.0050 mg/L							
Boron, total	< 0.0500	0.0500 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Silver, total	< 0.000050	0.000050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
LCS (B2H0801-BS1)				Prepared: 2022-08-08, Analyzed: 2022-08-15					
Aluminum, total	4.03	0.0050 mg/L	4.00		101	80-120			
Antimony, total	0.0373	0.00020 mg/L	0.0400		93	80-120			
Arsenic, total	0.0407	0.00050 mg/L	0.0400		102	80-120			
Barium, total	0.0396	0.0050 mg/L	0.0400		99	80-120			
Boron, total	< 0.0500	0.0500 mg/L	0.0400		96	80-120			
Cadmium, total	0.0368	0.000010 mg/L	0.0400		92	80-120			
Calcium, total	3.87	0.20 mg/L	4.00		97	80-120			
Chromium, total	0.0407	0.00050 mg/L	0.0400		102	80-120			
Copper, total	0.0401	0.00040 mg/L	0.0400		100	80-120			
Iron, total	4.07	0.010 mg/L	4.00		102	80-120			
Lead, total	0.0378	0.00020 mg/L	0.0400		94	80-120			
Magnesium, total	4.16	0.010 mg/L	4.00		104	80-120			
Manganese, total	0.0406	0.00020 mg/L	0.0400		102	80-120			
Potassium, total	3.98	0.10 mg/L	4.00		100	80-120			
Selenium, total	0.0355	0.00050 mg/L	0.0400		89	80-120			
Silver, total	0.0376	0.000050 mg/L	0.0400		94	80-120			
Sodium, total	4.00	0.10 mg/L	4.00		100	80-120			
Strontium, total	0.0390	0.0010 mg/L	0.0400		97	80-120			
Uranium, total	0.0382	0.000020 mg/L	0.0400		95	80-120			
Zinc, total	0.0392	0.0040 mg/L	0.0400		98	80-120			

Volatile Organic Compounds (VOC), Batch B2H0361

Blank (B2H0361-BLK1)			Prepared: 2022-08-04, Analyzed: 2022-08-04						
Benzene	< 0.5	0.5 µg/L							
Bromodichloromethane	< 1.0	1.0 µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Newell Regional Services Corporation
Schedule 4

WORK ORDER REPORTED 22H0303
2022-08-24 16:48

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2H0361, Continued									
Blank (B2H0361-BLK1), Continued					Prepared: 2022-08-04, Analyzed: 2022-08-04				
Bromoform	< 1.0	1.0 µg/L							
Carbon tetrachloride	< 0.5	0.5 µg/L							
Chlorobenzene	< 1.0	1.0 µg/L							
Chloroethane	< 2.0	2.0 µg/L							
Chloroform	< 1.0	1.0 µg/L							
Dibromochloromethane	< 1.0	1.0 µg/L							
1,2-Dibromoethane	< 0.3	0.3 µg/L							
Dibromomethane	< 1.0	1.0 µg/L							
1,2-Dichlorobenzene	< 0.5	0.5 µg/L							
1,3-Dichlorobenzene	< 1.0	1.0 µg/L							
1,4-Dichlorobenzene	< 1.0	1.0 µg/L							
1,1-Dichloroethane	< 1.0	1.0 µg/L							
1,2-Dichloroethane	< 1.0	1.0 µg/L							
1,1-Dichloroethylene	< 1.0	1.0 µg/L							
cis-1,2-Dichloroethylene	< 1.0	1.0 µg/L							
trans-1,2-Dichloroethylene	< 1.0	1.0 µg/L							
Dichloromethane	< 3.0	3.0 µg/L							
1,2-Dichloropropane	< 1.0	1.0 µg/L							
1,3-Dichloropropene (cis + trans)	< 1.0	1.0 µg/L							
Ethylbenzene	< 1.0	1.0 µg/L							
Methyl tert-butyl ether	< 1.0	1.0 µg/L							
Styrene	< 1.0	1.0 µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5 µg/L							
Tetrachloroethylene	< 1.0	1.0 µg/L							
Toluene	< 1.0	1.0 µg/L							
1,1,1-Trichloroethane	< 1.0	1.0 µg/L							
1,1,2-Trichloroethane	< 1.0	1.0 µg/L							
Trichloroethylene	< 1.0	1.0 µg/L							
Trichlorofluoromethane	< 1.0	1.0 µg/L							
Vinyl chloride	< 1.0	1.0 µg/L							
Xylenes (total)	< 2.0	2.0 µg/L							
Surrogate: Toluene-d8	17.4	µg/L	20.0		87	70-130			
Surrogate: 4-Bromofluorobenzene	19.2	µg/L	20.0		96	70-130			
LCS (B2H0361-BS1)					Prepared: 2022-08-04, Analyzed: 2022-08-04				
Benzene	17.3	0.5 µg/L	20.1		86	70-130			
Bromodichloromethane	17.2	1.0 µg/L	20.1		85	70-130			
Bromoform	17.5	1.0 µg/L	20.1		87	70-130			
Carbon tetrachloride	17.5	0.5 µg/L	20.0		88	70-130			
Chlorobenzene	17.9	1.0 µg/L	20.0		90	70-130			
Chloroethane	19.1	2.0 µg/L	20.1		95	60-140			
Chloroform	16.4	1.0 µg/L	20.1		82	70-130			
Dibromochloromethane	17.7	1.0 µg/L	20.1		88	70-130			
1,2-Dibromoethane	17.8	0.3 µg/L	20.1		88	70-130			
Dibromomethane	16.2	1.0 µg/L	20.0		81	70-130			
1,2-Dichlorobenzene	16.6	0.5 µg/L	20.1		82	70-130			
1,3-Dichlorobenzene	16.5	1.0 µg/L	20.1		82	70-130			
1,4-Dichlorobenzene	16.6	1.0 µg/L	20.0		83	70-130			
1,1-Dichloroethane	16.1	1.0 µg/L	20.1		80	70-130			
1,2-Dichloroethane	16.7	1.0 µg/L	20.1		83	70-130			
1,1-Dichloroethylene	21.9	1.0 µg/L	20.1		109	70-130			
cis-1,2-Dichloroethylene	18.1	1.0 µg/L	20.1		90	70-130			
trans-1,2-Dichloroethylene	17.7	1.0 µg/L	20.1		88	70-130			
Dichloromethane	23.5	3.0 µg/L	20.1		117	70-130			
1,2-Dichloropropane	18.0	1.0 µg/L	20.0		90	70-130			
1,3-Dichloropropene (cis + trans)	41.5	1.0 µg/L	40.0		104	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Newell Regional Services Corporation
Schedule 4

WORK ORDER REPORTED 22H0303
2022-08-24 16:48

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2H0361, Continued									
LCS (B2H0361-BS1), Continued					Prepared: 2022-08-04, Analyzed: 2022-08-04				
Ethylbenzene	18.1	1.0 µg/L	20.0		90	70-130			
Methyl tert-butyl ether	20.2	1.0 µg/L	20.0		101	70-130			
Styrene	20.7	1.0 µg/L	20.1		103	70-130			
1,1,2,2-Tetrachloroethane	15.6	0.5 µg/L	20.1		78	70-130			
Tetrachloroethylene	12.3	1.0 µg/L	20.1		61	70-130			SPK1
Toluene	19.7	1.0 µg/L	20.1		98	70-130			
1,1,1-Trichloroethane	18.1	1.0 µg/L	20.1		90	70-130			
1,1,2-Trichloroethane	17.1	1.0 µg/L	20.1		85	70-130			
Trichloroethylene	18.4	1.0 µg/L	20.1		92	70-130			
Trichlorofluoromethane	19.2	1.0 µg/L	20.1		95	60-140			
Vinyl chloride	20.0	1.0 µg/L	20.1		100	60-140			
Xylenes (total)	59.5	2.0 µg/L	60.2		99	70-130			
Surrogate: Toluene-d8	15.3	µg/L	20.0		76	70-130			
Surrogate: 4-Bromofluorobenzene	16.8	µg/L	20.0		84	70-130			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
 SPK1 The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

SCHEDULE 4

Table of Physical, Inorganic chemicals, Organic chemicals and Pesticides

Substance	Specific Parameter	Substance	Specific Parameter
Physical Parameters (Primary and Secondary)	Colour; pH; Total Dissolved Solids	Organic Chemicals and Pesticides (Primary)	Atrazine + metabolites; Benzene; Benzo(a)pyrene; Bromoxynil; Carbon Tetrachloride; Chlorpyrifos; Cyanazine; Cyanobacterial toxins (as Total Microcystin); Diazinon; Dicamba; 1,2-Dichlorobenzene; 1,4-Dichlorobenzene; 1,2-Dichloroethane; Dichloromethane; 2,4-Dichlorophenol; 2,4-D; Dichloro-p-methyl; Diuron; Dimethoate; Ethylbenzene; Glyphosate; Malathion; Methoxychlor; Metolachlor; Metribuzin; Monochlorobenzene; Nitrotriacetic Acid (NTA); Pentachlorophenol; Picloram; Simazine; Terbufos; Tetrachloroethylene; 2,3,4,6-Tetrachlorophenol; Toluene; Trichloroethylene; 2,4,6-Trichlorophenol; Trifluralin; and Vinyl Chloride.
Inorganic chemicals (Primary)	Antimony; Arsenic; Barium; Boron; Bromate; Cadmium; Chloramines; Chromium; Cyanide; Fluoride; Lead; Mercury; Nitrate; Nitrite; Selenium; and Uranium;		
Inorganic and Organic Chemicals (Secondary)	Aluminum; Ammonia; Calcium; Chloride; Copper; Total Hardness; Iron; Magnesium; Manganese; Silver; Sodium; Sulphate; Sulphide; Total Organic Carbon; Xylenes (total); and Zinc;		

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