

Job #: **W**

Project Leader	Department	Date Submitted
Sample Submitter	Phone	# of Samples

Send Data to (e-mail)

<b>BILLING INFO:</b> Please complete one of the three boxes to indicate the method of payment		<b>Non-UMN Invoice (B or C Rate) - CustomerID # :</b>
<b>Payment</b>	<b>UMN Voucher (A-Rate) - EFS Chart String:</b>	Billing Contact name/number:
Credit Card <input type="checkbox"/>		Billing Address:
Check <input type="checkbox"/>		Purchase Order:
Cash <input type="checkbox"/>	Grant Expiration Date:	

Name of Study: \_\_\_\_\_ Sample Storage:  freezer  refrigerator Will samples be picked up?

Sample source (lake, stream, etc.): \_\_\_\_\_ Stabilizer Added? \_\_\_\_\_ **ONGOING STUDY? SEE REVERSE**

**RATE SCHEDULES (SUBJECT TO CHANGE) SAMPLES WILL BE DISCARDED 3 MONTHS AFTER COMPLETION OF ANALYSIS**

- A:** University of Minnesota (all Colleges, Departments, Research and Outreach Centers)
- B:** Government Agencies, other Colleges and Universities
- C:** Private Individuals and Organizations

**NOTE:** RUSH REQUESTS WILL BE CHARGED TWO TO THREE TIMES THE RATE SHOWN

**PLEASE USE THE "SAMPLE COUNT" COLUMN TO ENTER THE NUMBER OF SAMPLES FOR EACH TEST REQUEST**

Test Code	Determinations Requested	Sample Count	Rate C	Rate B	Rate A	Rate Total	Set-Up Charge
W 01	Prep charge: <i>thawing of frozen samples or filtering</i>						
W 02	Prep charge: <i>filtering through 0.45 micron</i>		14.20	8.90	6.00		25.00
W 03	Prep charge: <i>neutralization of acidified samples, or decolorization</i>		14.20	8.90	6.00		25.00
W 04	Ammonium-N: <i>0.02 to 5.00 mg/l</i> *		22.50	14.10	9.60		30.00
W 05	Nitrate/Nitrite-N: <i>0.02 to 2.00 mg/l</i> *		21.90	13.70	8.75		30.00
W 06	Nitrate/Nitrite-N: <i>0.5 to 20.0 mg/l</i> *		21.90	13.70	8.75		30.00
W 07	Nitrite-N: <i>0.01 to 5.00 mg/l</i> *		21.90	13.70	8.75		30.00
W 08	Orthophosphate-P: <i>0.02 to 2.00 mg/l</i> *		25.50	15.90	10.50		30.00
W 09	Orthophosphate-P: <i>0.20 to 20.0 mg/l</i> *		25.50	15.90	10.50		30.00
W 10	Total phosphorus (TP): <i>0.05 to 2.00 mg/l</i> *		38.80	24.30	16.25		35.00
W 11	Chloride: <i>0.5 to 100 mg/l</i> *		21.90	13.70	8.75		35.00
W 12	Total Organic Carbon (TOC) *		27.20	17.00	12.00		30.00
	Total Nitrogen <b>quoted</b>						
W 13	Alkalinity: <input type="checkbox"/> total <input type="checkbox"/> acidity <input type="checkbox"/> hardness <i>each</i>		22.40	14.00	9.25		30.00
W 14	pH: <i>each</i>		12.70	8.00	5.50		25.00
W 15	Solids: <input type="checkbox"/> total <input type="checkbox"/> total dissolved <input type="checkbox"/> total suspended <i>each</i>		30.70	19.20	14.25		30.00
W 16	Solids: <input type="checkbox"/> total volatile <input type="checkbox"/> suspended volatile <i>each</i>						
W 17	Specific conductance		9.90	6.30	4.50		25.00
W 18	<b>CIRCLE</b> Elements or Compounds of Interest Ion Chromatography: <i>F Br Cl NO3-N NO2-N PO4-P SO4-S</i>		43.20	27.00	20.00		40.00
W 20	<b>ICP:</b> Al, B, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, Pb, Zn <i>set of 15 elements*</i>		49.60	31.00	20.50		30.00
W 21	<b>ICP:</b> Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Rb, S, Si, Sr, Ti, V, Zn <i>set of 27 elements*</i>		66.40	41.50	27.00		30.00
W 19	<b>ICP:</b> Digestion charge for "total" (may be required for certified method)		38.40	24.00	16.00		35.00
W 22	<b>ICP:</b> Additional elements by request, consult with ICP lab staff.						
W 23	<b>OTHER:</b> <i>quoted</i>						

Analysis Set-up

\*If dilutions are required, we will charge an hourly labor fee for our time starting at ~20 minutes.

A-rate = \$44/hr; B-rate = \$56/hr; C-rate = \$78/hr.

Subtotals: \$ \_\_\_\_\_

**Research Analytical Laboratory**

University of Minnesota  
135 Crops Research Building  
1902 Dudley Avenue  
St. Paul, Minnesota 55108

Total Billing: \$ \_\_\_\_\_

Date Completed: \_\_\_\_\_

ral@umn.edu -- https://ral.cfans.umn.edu  
(612) 625-3101  
(612) 624-3420 (FAX)

Billing Date: \_\_\_\_\_

See reverse side for further instructions: ↗

## SAMPLE CODES

- 1) Please provide an example of sample codes or attach a sample key. (Electronic (\*.xlsx) files are appreciated.)
- 2) Limit sample code to a maximum of six alpha-numeric characters.
- 3) Results will be reported according to the sample identifications we receive.

<i>Sample Code</i>	<i>Sample Code</i>	<i>Sample Code</i>
1 _____	18 _____	35 _____
2 _____	19 _____	36 _____
3 _____	20 _____	37 _____
4 _____	21 _____	38 _____
5 _____	22 _____	39 _____
6 _____	23 _____	40 _____
7 _____	24 _____	41 _____
8 _____	25 _____	42 _____
9 _____	26 _____	43 _____
10 _____	27 _____	44 _____
11 _____	28 _____	45 _____
12 _____	29 _____	46 _____
13 _____	30 _____	47 _____
14 _____	31 _____	48 _____
15 _____	32 _____	49 _____
16 _____	33 _____	50 _____
17 _____	34 _____	51 _____

## RECOMMENDED VOLUMES PER TEST

The recommended amounts will provide enough material for duplicate analyses, potential reruns, and for ease of handling

<b>Test Code</b>	<b>Test Description</b>	<b>Bare Minimum volume (mL)</b>	<b>Ideal volume (mL)</b>
W04	Ammonium-N	5	20
W05	Nitrate/Nitrite-N (0.02-5.00mg/L)	5	20
W06	Nitrate/Nitrite-N (0.5-20.0mg/L)	5	20
W07	Nitrite-N	5	20
W08	Orthophosphate-P (0.02 to 2.00 mg/L)	5	20
W09	Orthophosphate-P (0.20 to 20.0 mg/L)	5	20
W10	Total phosphorus (TP)	20	100
W11	Chloride	5	20
W12	Total Organic Carbon (TOC)	25	100
W13	Alkalinity	50	100
W14	pH	20	100
W15	Solids (total, total dissolved, total suspended)	100	250
W15	Solids (total volatile, suspended volatile)	100	250
W17	Specific conductance	10	50
W18	Ion chromatography	1	10
W19	ICP 15-element	10	20
W20	ICP 27-element	10	20
W21	Water Digest	25	100