

Job # **S**

Project Leader:		Department:		Date Submitted:	
Person submitting samples:		Phone:		# of Samples:	
Send Data to (e-mail):			Name of Study:		
BILLING INFO: Please complete one of the three boxes to indicate the method of payment			3. Non-UMN Invoice (B or C Rate) - CustomerID # :		
1. Upfront Payment		2. UMN Invoice (A-Rate) - EFS Chart String:		Billing Contact name/number:	
Credit Card	Last 4 digits:			Mailing Address (required):	
Check	Number:				
Cash	Grant Expiration Date:			Purchase Order (if needed):	
Sample Handling			Rate Schedules <i>RUSH requests are 2X the cost - call to discuss</i>		
Samples are submitted: <input type="checkbox"/> dried <input type="checkbox"/> sieved <input type="checkbox"/> moist <input type="checkbox"/> frozen			<input type="checkbox"/> Rate A U of MN (all Colleges, Departments, Research and Outreach Centers)		
Will samples be picked up after analysis?* <input type="checkbox"/> yes <input type="checkbox"/> no			<input type="checkbox"/> Rate B Government Agencies, other Colleges and Universities		
*SAMPLES WILL BE DISCARDED 3 MONTHS AFTER COMPLETION OF ANALYSIS			<input type="checkbox"/> Rate C Private Individuals and Organizations		

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

Test Code	TEST DESCRIPTIONS	Sample Count	Rate C	Rate B	Rate A	Rate Subtotal	Set-up Charge
S 01	Crushing and Sieving: <i>prerequisite for all dried sample tests</i>		7.00	5.00	3.00		
S 02	Crushing and Sieving on Moist/Frozen Soil <i>prerequisite for wet nitrate & ammonium test (S05)</i>		18.25	12.50	7.75		
Routine Soil Testing Lab tests (mineral soils only) using volumetric sub-sampling rather than weight.							
S 03	Regular series: O.M., pH (H ₂ O), Bray-P1, K, (and Olsen-P, if pH > 7.4)		25.00	16.00	11.25		
S 04	Regular series: O.M., pH (H ₂ O), Bray-P1, K, (and Olsen-P, if pH > 7.4) with buffer index (if pH<6.0)		25.75	16.50	11.75		
S 05	Organic Matter (O.M.) <i>L.O.I. method</i>		11.00	7.00	5.10		
S 06	A <input type="checkbox"/> Salts (E.C.) B <input type="checkbox"/> Ca & Mg C <input type="checkbox"/> Boron D <input type="checkbox"/> Sulfate E <input type="checkbox"/> pH (H ₂ O) <i>price for each selected</i>		10.00	7.00	4.50		
S 07	A <input type="checkbox"/> Nitrate B <input type="checkbox"/> Bray-P1 C <input type="checkbox"/> Olsen-P D <input type="checkbox"/> Potassium (K) <i>price for each selected</i>		10.00	7.00	4.50		
S 08	A <input type="checkbox"/> DTPA-Zn, Cu, Fe, Mn B <input type="checkbox"/> Exchangeable Ca, Mg, Na, K <i>price for each selected</i>		23.00	14.00	10.40		
Extractable nutrient tests using sample weight for sub-sampling							
S 09	Nitrate (NO ₃ -N) <i>CaSO₄ extraction on dried samples</i>		18.00	11.00	7.40		25.00
S 10	Nitrate & Ammonium on dried samples <i>NOTE significant NH₄ losses may occur with sample drying</i>		32.00	19.00	13.00		30.00
S 11	Nitrate & Ammonium on moist/wet samples <i>includes percent moisture determination at 105°C</i>		39.00	24.00	16.50		40.00
S 12	Aluminum (Al) <i>exchangeable with 1M KCL</i>		42.00	27.00	18.00		25.00
S 13	Boron (B) <i>available hot water soluble</i>		23.00	15.00	11.00		20.00
S 14	Chloride (Cl) <i>CaSO₄ extraction on dried samples</i>		25.00	16.00	12.00		30.00
S 15	Exchangeable Potassium <i>atomic absorption spectrometer</i>		14.00	9.00	7.00		20.00
S 16	Exchangeable Ca, K, Mg, Na <i>equilibrium with ammonium acetate and ICP measurement</i>		31.00	19.00	14.00		25.00
S 17	Phosphate <i>extractable Bray P-1</i>		13.00	8.00	6.00		20.00
S 18	Phosphate <i>extractable, Olsen's sodium bicarbonate</i>		13.00	8.00	6.00		20.00
S 19	Sulfate <i>extractable with 0.008 M Calcium Phosphate</i>		22.00	14.00	10.00		25.00
S 20	Extractable with DTPA: <i>Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn</i>		38.00	23.00	15.00		25.00
S 21	Extractable with Mehlich III: <i>Al, Ca, Cu, Fe, K, Mn, Mg, Na, P, Zn</i>		53.00	32.00	22.00		50.00
Microwave Assisted Nitric Acid Digestion with elemental analysis by ICP-OES							
S 22	A) Elemental Analysis (EPA 3051) - Basic Set (15) - Al, B, Ca, Cd, Cr, Cu, Fe, K, Mn, Mg, Na, Ni, P, Pb, Zn		98.00	61.00	42.00		40.00
	B) Elemental Analysis (EPA 3051) - Full Set (27) - 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		115.00	72.00	50.00		40.00
	C) Total Phosphorus		74.25	49.50	33.00		40.00
Combustion Analysis - Total C, Total N, Total S, Total Hg							
S 23	Total Nitrogen (TN) <i>Elementar VarioMAX Cube C/N Analyzer</i>		35.00	19.00	12.60		30.00
S 24	Total Carbon (TC) <i>Elementar VarioMAX C/N Analyzer; samples run as-is</i>		35.00	22.00	12.40		30.00
S 25	Total Organic Carbon (TOC) <i>Includes HCl fumigation to remove carbonates prior to analysis</i>		47.00	29.00	18.20		30.00
S 26	Total Carbon and Total Nitrogen (TC and TN) <i>Elementar VarioMAX Cube C/N Analyzer</i>		42.00	27.00	19.40		30.00
S 27	Total Sulfur (S) <i>Elementar Rapid CS Cube</i>		38.00	24.00	18.00		25.00
S 28	Total Mercury (Hg) <i>Milestone Inc. Direct Mercury Analyzer 80</i>		call for price				55.00
Salts, Cations, and Carbonates							
S 29	Calcium Carbonate Equivalent (CCE) <i>Acetic Acid Dissolution</i>		25.00	16.00	11.30		30.00
S 30	Cation Exchange Capacity (CEC) <i>measures exchange sites via NH₄ saturation/displacement</i>		64.00	40.00	28.00		50.00
S 31	Cation Exchange Capacity (CEC), Estimated <i>summation of Al, Ca, K, Mg, Na (includes each result)</i>		53.00	33.00	21.90		50.00
S 32	Saturation Extract Electrical Conductance (E.C.)		22.00	14.00	10.10		25.00
S 33	Sodium Adsorption Ratio (SAR) on saturation extract and Estimated Exchangeable Na %		50.00	31.00	20.50		30.00
S 34	Exchangeable Sodium Percentage (ESP) <i>measured directly</i>		call for price				50.00
Physical Tests							
S 35	Percent Moisture (%) <i>105°C (oven dry weight determination)</i>		9.00	6.00	4.00		25.00
S 36	Textural Analysis <i>Hydrometer</i>		46.00	29.00	19.00		55.00
S 37	Other Tests Quoted						

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(612) 625-3101 fax (612) 624-3420

Subtotals \$ - |
Total Billing _____
Date Completed _____
Billing Date _____

See reverse side for further instructions



