

## CITY OF MINNETRISTA



### CITY COUNCIL AGENDA ITEM

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**Subject:** Approve purchase of HACH SL1000 PPA Portable Parallel Analyzer water testing equipment and Chemkey supplies

**Prepared By:** Gary Peters, Public Works Director

**Meeting Date:** May 19, 2025

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**Issue:**

The City Water Department needs new water testing equipment.

**Background/History:**

City Water Operators are currently using HACH SVC-DR3900 spectrophotometers for testing water samples for chlorine and fluoride residuals in the City water system. These spectrophotometers were purchased in 2017 and are not capable of meeting the new MN Department of Health (MDH) testing requirements and the City will need to upgrade.

**Overview:**

Public Works staff asked AE2S what they would recommend for testing equipment and the HACH SL1000 PPA Portable Parallel Analyzer was suggested (quote attached). This device uses slip in “keys” for water testing whereas the spectrophotometers use a small glass vacuum vial called an Accuvac. A water sample is taken and brought back to the water treatment plant. An operator then takes an Accuvac and “snaps” the inlet tip off in the sample and water is drawn into the vial as shown.



The operator then places the vial into the spectrophotometer and the sample is tested. The vial is then emptied and discarded. These steps must be done for each of the testing required (total & free chlorine and fluoride). The results are written down and then later manually input to a spreadsheet on the computer.

With the SL1000, Chemkeys are inserted into the bottom of SL1000 tester and then “dipped” into the water sampling cup and the testing is performed.



**Mission Statement:**

The City of Minnetrista will deliver quality services in a cost effective and innovative manner and provide opportunities for a high quality of life while protecting natural resources and maintaining a rural character.

The SL1000 can perform up to four different tests at once. The SL1000 can connect directly to a computer and allows names of operators to be inputted and tracked as the individual that did the testing, allows for testing “routes” to be inputted so operators do not have to input testing site addresses for every sample site, and the sampling test result data is directly inputted into the computer and stored to a spreadsheet.

Presently, water operators test total chlorine residuals, free chlorine residuals, and fluoride residuals. The new MDH testing requirements will be adding iron, manganese, ammonia & monochloramine testing, with more requirements to be added. The SL1000 also allows for a wide variety of testing “keys” to be used, and this unit can test for all of these. The unit is portable, and testing can be done right on site.

**Fiscal Impact:**

Presently, three samples are taken from six sample sites daily (one free chlorine test, one total chlorine test, and one fluoride test), with additional tests taking place at each water treatment plant. The cost of the present Accuvacs is shown in the attached sales order and is as follows:

- Total Chlorine Reagent Accuvac \$41.65/pack of 25
- Free Chlorine Reagent Accuvac \$57.95/pack of 25
- Fluoride Reagent Accuvac \$42.65/pack of 25

The cost of the new Chemkeys is shown on the attached quote and is as follows:

- Total Chlorine Chemkey Reagent \$27.73/pack of 25
- Free Chlorine Chemkey Reagent \$27.34/pack of 25
- Fluoride Chemkey Reagent \$53.35/pack of 25
- Iron Chemkey Reagent \$34.00/pack of 25
  - One test sample per week
- Manganese Chemkey Reagent \$33.55/pack of 25
  - One test sample per week
- Ammonia & Monochloramine Chemkey Reagent \$163.93/pack of 25
  - One test sample per month (more if needed from failed field tests)

The minimum monthly cost for testing with Accuvacs is \$583.80, while the minimum monthly cost for testing with SL1000 will be \$778.80; but there are times when additional tests are needed and required.

The spectrophotometer and the SL1100 will require yearly calibration. The spectrophotometers cost \$1,800.00 per unit to calibrate, and the unit needs to be shipped to HACH. The SL1100 can be calibrated in-house and only needs to be sent in when in-house calibration fails. This will save the city money.

The total cost of the SL1000 PPA Portable Parallel Analyzer and testing Chemkeys is quoted at \$5,175.86 from Core & Main. They are the local supplier of HACH equipment and ChemKeys. Staff did research and found that USABlueBook, an online vendor that public works uses, also supplies HACH equipment and ChemKeys. Both quotes are attached. Staff is recommending the purchase of the new testing unit and supplies from Core & Main. This purchase would be paid for through the 601-water maintenance fund.

**Recommended City Council Action:**

Motion to approve purchase of one SL1000 PPA Portable Parallel Analyzer and testing Chemkeys from Core & Main at a cost of \$5,175.86

**Mission Statement:**

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Core & Main  
P.O. Box  
28330  
St. Louis MO  
63146  
United States

Quote  
#Q007570  
03/25/2025

**Bill To**

MINNETRISTA CITY OF  
(952) 446-1660  
7701 County Road 110 W  
Minnetrista MN 55364-9553  
United States

**Ship To**

MINNETRISTA CITY OF  
(952) 446-1660  
7701 County Road 110 W  
Minnetrista MN 55364-9553  
United States

**TOTAL**

**\$5,175.86**

Quote Provided By	Acct#	Customer	Terms	Quote Expires
Hogan Barnes	100267S	Minnetrista City Of	NET 30	06/23/2025

Line#	QTY	Item	Rate	Amount
1	1	<b>700092</b> Hach SL1000 PPA Portable Parallel Analyzer, Portable Colorimeter w/ USB, 9430000	\$4,796.82	\$4,796.82
2	1	<b>702509</b> Hach Replacement Sample Cup for SL1000/SL250 PPA Analyzers, 9418100	\$34.14	\$34.14
3	1	<b>700120</b> Hach Dissolved Iron Chemkey® Reagents, 0.05-3.00 mg/L Fe, 25/Box, 8636000	\$34.00	\$34.00
4	1	<b>707802</b> Hach HR Manganese Chemkey® Reagents, 0.1 -25.0 mg/L as Mn, Box of 25, 3007000	\$33.55	\$33.55
5	1	<b>707800</b> Hach <b>Fluoride</b> Chemkey® Reagents, 0.10 -4.0 mg/L as F, Box of 25, 9878000	\$58.35	\$58.35
6	1	<b>700115</b> Hach <b>Free Chlorine</b> Chemkey® Reagents, 0.04-4.00 mg/L Cl2, 25/Box, 9429000	\$27.34	\$27.34
7	1	<b>700117</b> Hach <b>Total Chlorine</b> Chemkey® Reagents, 0.04-10 mg/L Cl2, 25/Box, 9429100	\$27.73	\$27.73
8	1	<b>700111</b> Hach Free Ammonia & Monochloramine Chemkey® Reagents, 25/Box Each, 9429600	\$163.93	\$163.93

**Subtotal** \$5,175.86

**Promotion**

**Tax Total (%)** \$0.00

**FedEx Ground®** \$0.00

**Total** \$5,175.86

Thank you for the opportunity to serve you! Please note that most orders ship within 2 days of receipt. To place an order please visit our website at [supply.coreandmain.com](http://supply.coreandmain.com) or call 1-888-885-2673. For technical support call or send an email to [support.supply@coreandmain.com](mailto:support.supply@coreandmain.com). This quote may include globally sourced (imported) materials that are subject to changing tariffs. Prices are subject to change due to potential additional tariffs imposed by the U.S. Government. If imposed, prices will increase by the same percentage and will be effective on the date that the new tariffs are implemented. These items should be purchased with haste to avoid any additional rising tariff costs.



Core & Main  
P.O. Box  
28330  
St. Louis MO  
63146  
United States

# Sales Order

#SO19155

Water & Wastewater Supply  
*This is not a bill*

**Bill To**

MINNETRISTA CITY OF  
(952) 446-1660  
7701 County Road 110 W  
Minnetrista MN 55364-9553  
United States

**Ship To**

MINNETRISTA CITY OF  
(952) 446-1660  
7701 County Road 110 W  
Minnetrista MN 55364-9553  
United States

**TOTAL**

**\$1,459.20**

Date	PO #	Acct#	Customer	Ordering Contact
04/03/2025	15865	100267S	Minnetrista City Of	Gary Peters

QTY	Item	Unit Price	Amount
10	<b>701650</b> Hach DPD <b>Total Chlorine</b> Reagent Accuvac® Ampules, pk/25, 2503025	<b>\$41.65</b>	\$416.50
10	<b>701672</b> Hach SPADNS 2 (Arsenic-free) <b>Fluoride</b> Reagent AccuVac® Ampules, pk/25, 2527025	<b>\$57.95</b>	\$579.50
10	<b>701649</b> Hach DPD <b>Free Chlorine</b> Reagent Accuvac® Ampules, pk/25, 2502025	<b>\$42.65</b>	\$426.50

<b>Subtotal</b>	\$1,422.50
<b>Promotion</b>	
<b>Tax Total (%)</b>	\$0.00
<b>FedEx Ground®</b>	\$36.70
<b>Total</b>	\$1,459.20

Hazard shipping fees may apply to items in this order.

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### My shopping cart

Product	Price	Quantity	UOM	Total
 <b>REPLACEMENT SAMPLE CUP FOR HACH SL1000, 9418100</b> <small>Item No.: 87364</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 36.29	<u>1</u>	each	\$ 36.29
 <b>HACH FREE AMMONIA &amp; MONO- CHLORAMINE CHEMKEY, 9429600</b> <small>Item No.: 87362</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 175.00	<u>1</u>	Piece	\$ 175.00
 <b>HACH TOTAL CHLORINE CHEMKEY REAGENTS, 25/PK, 9429100</b> <small>Item No.: 87387</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 29.45	<u>1</u>	Piece	\$ 29.45
 <b>HACH FREE CHLORINE CHEMKEY REAGENTS, 25/PK, 9429000</b> <small>Item No.: 87366</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 29.05	<u>1</u>	Piece	\$ 29.05
 <b>HACH FLUORIDE CHEMKEY REAGENTS, 25/PK 9878000</b> <small>Item No.: 402187</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 61.99	<u>1</u>	Piece	\$ 61.99
 <b>HACH HIGH RANGE MANGANESE CHEMKEY, 25/PK 3007000</b> <small>Item No.: 402189</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 35.65	<u>1</u>	Piece	\$ 35.65
 <b>HACH DISSOLVED IRON CHEMKEY REAGENTS, 25/PK, 8436000</b> <small>Item No.: 87340</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 36.15	<u>1</u>	Piece	\$ 36.15
 <b>(LI) HACH SL 1000 PPA NITRIFICATION KIT, 25632200</b> <small>Item No.: 87374</small> <a href="#">View</a> <a href="#">Delete</a>	\$ 7,512.00	<u>1</u>	each	\$ 7,512.00

### Shopping cart details

+ Enter Discount code

Items (3 units) \$ 7,915.58

Estimated Tax \$ 0.00

Total \$ 7,915.58

Unit total: 3 units of 3 items

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