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May 18, 2013

Mr. Matthew A. Supert  
Director of Municipal Services  
Village of Western Springs  
740 Hillgrove Avenue  
Western Springs, IL 60558

Subject: Low Pressure Reverse Osmosis Water Treatment Plant  
Water Quality

Dear Director Supert:

The new low pressure reverse osmosis (LPRO) system installed at the treatment plant has been in continuous operation for approximately two months. To prove conformance with the contract requirements, the Contractor hired a certified laboratory to measure the permeate water quality produced from Well #3 and Well #4. Additionally, the Village took two additional samples to measure the finished water quality entering the distribution system. A summary of the water quality data and the maximum contaminant levels regulated by the United States Environmental Protection Agency and the Illinois Environmental Protection Agency are shown in **Table 1**.

The water quality data indicate that the finished water from the new LPRO system exceeds all federal, state and local water quality standards.

If you have any questions or need any further information, please do not hesitate to call.

Very truly yours,

A handwritten signature in blue ink that reads "Robert S. Isabel".

Robert S. Isabel, P.E., BCEE  
Principal Engineer & Senior Project Manager  
CDM Smith Inc.





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**Table 1: Summary of Permeate and Finished Water Quality**

Parameter	Permeate Water Quality at 85% RO Recovery		Finished Water Entering the Distribution System		EPA Regulated Maximum Contaminant Level
	Well #3	Well #4	80% RO Recovery	85% RO Recovery	
	4/3/13	4/3/13	4/2/13	4/11/13	
Radium – 226 (pCi/L)	0	0.26	0.07	0.80	NL
Radium – 228 (pCi/L)	0	0.07	1.63	2.41	NL
Radium – 226 & 228 (pCi/L) <sup>1</sup>	0	0.33	1.70	3.21	5.0
Gross Alpha (pCi/L)	NR	NR	4.85	4.05	NL
Iron (mg/L) <sup>2</sup>	ND	ND	ND	ND	0.300
Fluoride (mg/L) <sup>2</sup>	ND	ND	0.551	0.533	2.0
Hardness (mg/L as CaCO <sub>3</sub> )	NR	NR	92.5	98.8	NL
Calcium (mg/L as Ca)	54.5	59.1	25	26.7	NL
Magnesium (mg/L as Mg)	ND	ND	7.32	7.80	NL
pH <sup>2</sup>	5.92	6.28	7.30	7.28	6.5-8.5
Total Dissolved Solids (mg/L) <sup>2</sup>	120	114	58	228	500

Notes:

1. National Primary Drinking Water Regulations (NPDWRs or primary standards) are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.
2. National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

Abbreviations:

ND – Not Detected; NL – No Limit; NR – Not Reported