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June 24, 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**. For comparison, the table also includes water quality data from the plant prior to initiation of the plant upgrades.

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,

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





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Table 1: Finished Water Quality Before and After the Plant Rehabilitation Project

Parameter	Lime Softening WTP Prior to Plant Rehabilitation Project	LPRO WTP After Plant Rehabilitation Project	EPA Regulated Maximum Contaminant Level
Radium – 226 & 228 (pCi/L)	3.05	1.7 – 3.2	5.0
Iron (mg/L)	0.05	ND	0.300
Fluoride (mg/L)	1.02	0.53 - 0.55	2.0
Hardness (mg/L as CaCO ₃)	119	93 – 99	NL
Calcium (mg/L as Ca)	19.2	25 – 27	NL
Magnesium (mg/L as Mg)	NR	7 - 8	NL
pH	8.3 to 8.5	7.3	6.5-8.5
Total Dissolved Solids (mg/L)	NR	58 - 228	500

Abbreviations:

- LPRO – Low Pressure Reverse Osmosis
- mg/L – milligrams per liter
- ND – Not Detected
- NL – No Limit
- NR – Not Reported
- pCi/L – picocuries per liter
- WTP – Water Treatment Plant