

May 25, 2021

City of La Crosse Attn: Lee Anderson 400 La Crosse Street La Crosse, WI 54601

**RE: Well No. 20 Repairs** 

Dear Lee,

Based on the dynamic filming of the well, it appears the concrete plug appears to be holding. Last year there appeared to be material traveling up the well from the bottom. In addition, when we bailed the bottom of the well prior to installing the concrete plug we never stopped getting material out, so it was evident the bottom of the well was open. However, the concrete plug appears to be solid now. Furthermore, even though the well was not used extensively last fall, no gravel pack issues were reported at that time.

After the first test pumping run, we repositioned the well pump to film the well from another angle. This is when we found the hole in the casing at 88 feet. The gravel pack was falling into the well through the hole when the crew was setting up the discharge equipment. Apparently, just the vibration of the surface work was enough to cause the gravel pack to come into the well. Once the pump was started, the gravel pack blew into the well at a much greater rate.

At this point, we would recommend installing a stainless-steel pressed patch (like at Well 16). This appears to be the only hole in the casing, so we are only proposing a 3-foot patch to cover the hole with some overlap. The contractor for this says he is currently about a month away from being able to get to La Crosse.

Please review the following scopes of work and the associated cost for the initial phase of the project:

## I: Well Repairs/Install Plug

- 1. Load and mobilize rig and equipment to job site.
- 2. Set up rig and repair equipment.
- 3. Install the patching equipment into the well.
- 4. Provide and install 3-foot stainless-steel casing patch.
- 5. Video log repairs.
- 6. Bail fill/gravel pack from the bottom of the well.
- 7. Demobilization of repair equipment.

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## **II: Pump Installation/Test Pumping**

- 1. Clean, check, and straighten shafting.
- 2. Install permanent pump into well.
- 3. Set up pump to run to waste over the top for dynamic video logging.
- 4. Run pump to waste and perform dynamic video log.
- 5. Collect bacti sample from well.
- 6. Set pump head back down into system and normal orientation.
- 7. Test run equipment into system.
- 8. Demobilize from job site.

......Lump Sum Section II: <u>\$ 7,965</u>

We trust you will find this correspondence to your understanding. Should you have any questions or concerns regarding this proposal, or if there is any other way we can be of assistance to your community, please contact our offices at your earliest convenience. We appreciate this opportunity to provide you with this proposal and look forward to the opportunity to provide the City of La Crosse expert service on this project.

Sincerely, MUNICIPAL WELL & PUMP

Marty Van Ells Project Manager

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