

OFFICIAL
EXHIBITS

STATE OF INDIANA

FILED
June 30, 2020
INDIANA UTILITY
REGULATORY COMMISSION

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF COMMUNITY UTILITIES)
OF INDIANA, INC. FOR APPROVAL OF (1))
EXPENDITURES FOR CONSTRUCTION OF)
ADDITIONS AND IMPROVEMENTS TO)
PETITIONER'S WATER UTILITY)
PROPERTIES AND (2) THE INCLUSION OF)
SUCH NEW FACILITIES IN)
PETITIONER'S RATE BASE IN)
FUTURE CASES.)

IURC
PUBLIC'S
EXHIBIT NO. 3
7-10-20 AT
DATE REPORTER

CAUSE NO. 45342

REDACTED SUPPLEMENTAL TESTIMONY

of

JAMES T. PARKS – PUBLIC'S EXHIBIT NO. 3

On Behalf of

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

June 30, 2020

Respectfully Submitted,

Lorraine Hitz-Bradley

Lorraine Hitz-Bradley, Atty. No. 18006-29
Deputy Consumer Counselor

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Office of Utility Consumer Counselor's Redacted Supplemental Testimony of James T. Parks* has been served upon the following counsel of record in the captioned proceeding by electronic service on June 30, 2020.

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REDACTED SUPPLEMENTAL TESTIMONY OF OUCC WITNESS
JAMES T. PARKS
CAUSE NO. 45342
COMMUNITY UTILITIES OF INDIANA, INC.

I. INTRODUCTION

1 **Q:** Please state your name and business address.

2 A: My name is James T. Parks, P.E., and my business address is 115 W. Washington
3 Street, Suite 1500 South, Indianapolis, IN 46204.

4 **Q:** Are you the same James T. Parks who provided testimony in this cause as
5 Public's Exhibit No. 1?

6 A: Yes.

7 **Q:** What is the purpose of your supplemental testimony?

8 A: On June 8, 2002, the OUCC filed its *Objection to and Motion to Strike Portions of*
9 *the Rebuttal Testimony of Petitioner's Witnesses*. In a June 29, 2020 Docket Entry,
10 the Commission permitted the OUCC to file supplemental evidence on the
11 objected-to items in Petitioner's rebuttal. The purpose of my testimony is to address
12 the new rebuttal evidence, which includes the following:

- 13 1. Pages 6-7 of the Rebuttal Testimony of Sean Carbonaro, discussion
14 of DR 5-10 (Q&A 14) and Attachment SC-R4 (Supplemental
15 response to DR 5-10 with 8 photos, May 21, 2020);
- 16 2. Rebuttal Testimony of Mr. Carbonaro Regarding LAN letter report,
17 May 21, 2020, Lan Report, Attachment SC-R3; and
- 18 3. Loren Grosvenor's Rebuttal Testimony about the condition of the
19 metal of the South Filter.

II. CARBONARO DISCUSSION OF DR 5-10 AND ATTACHMENT SC-R4

20 **Q:** What did you recommend about the South Filter in your testimony filed on
21 May 19, 2020?

22 A: I recommended the South Filter not be demolished and replaced but rather

1 rehabilitated. The South Filter is younger than CUII stated, it has remaining service
2 life with proper maintenance, was rehabilitated in 2017 with new underdrains and
3 media, and with production increases at WTP #2 is less critical to meet demand.¹ I
4 also testified that the statements in the Symbiont Technical Memorandum that CUII
5 used to justify filter replacement were themselves unsupported by any actual
6 inspections or condition assessments.²

7 **Q: Why did you state in your May 19, 2020 testimony that Symbiont's statements**
8 **about the filter were unsupported by an actual inspection or condition**
9 **assessment (i.e. by Symbiont)?**

10 A: In response to OUCC DR 5-10 on April 17, 2020, CUII responded that Symbiont
11 did not inspect the filter interior and no interior photographs were taken.³

12 **Q: Did CUII supplement its response to DR 5-10?**

13 A: Yes, two days *after* the OUCC filed its testimony. CUII filed its supplemental
14 response on May 21, 2020 stating Symbiont *did* inspect the filter interior. Because
15 Petitioner's new response contradicted its previous response and was not received
16 until after the OUCC filed its testimony, on June 8, 2020, the OUCC filed a *Motion*
17 *to Strike*⁴ this new information as well as the mischaracterization of my testimony
18 by CUII witness Carbonaro in his rebuttal.

19 **Q: Please describe Mr. Carbonaro's mischaracterization of your testimony**
20 **regarding Symbiont's filter inspection.**

¹ Public's Exhibit No. 1, page 56.

² *Id.*, page 50.

³ See Petitioner's response to OUCC DR 5-10 in Public's Exhibit No. 1, Attachment JTP 4.

⁴ The Presiding Officers denied the OUCC's Motion to Strike on June 29, 2020, one day before this testimony was due to be filed.

1 A: Mr. Carbonaro omits the fact that CUII changed its original response to OUCC DR
2 5-10 after the OUCC filed its testimony. This leaves the false impression that I
3 purposely left out this information, when in fact it was unknown to me. On pages
4 7 and 8 of his Rebuttal Testimony, Mr. Carbonaro testified as follows:

5 **Q14. ON PAGES 7 AND 22 OF HIS TESTIMONY, MR. PARKS**
6 **RAISES ISSUES WITH THE SYMBIONT REPORT AND**
7 **TESTIFIES THAT THE CONCERNS IDENTIFIED IN THE**
8 **SYMBIONT REPORT "APPEAR TO BE**
9 **UNSUBSTANTIATED." DO YOU AGREE?**

10 A14. No. First, Symbiont inspected both the exterior and interior of the
11 South Filter. A photograph of the exterior of the South Filter was
12 previously provided in Attachment SC-1. Further, as stated in the
13 Company's Supplemental Response to OUCC DR 5-10, provided as
14 Attachment SC-R4, the Company followed up with Symbiont
15 during discovery to inquire whether it performed an interior
16 inspection of the filter, and Symbiont indicated it did inspect the
17 South Filter interior and provided photographs from the inspection.⁴
18 Accordingly, Mr. Parks' concerns about a lack of "supporting
19 documents and an actual inspection" are unfounded and thus should
20 be rejected. Further, his criticism of the Symbiont Report ignores
21 the recommendation from Peerless-Midwest that the South Filter be
22 replaced, which was provided in Response to OUCC DR 1-4 and
23 with this testimony as Attachment SC-R2.

24 Carbonaro footnote 4: *See* Petitioner's Supplemental Response to OUCC DR 5-10.

25 Mr. Carbonara also referenced the photograph of the filter's exterior
26 without acknowledging that I included Symbiont's Technical Memorandum
27 containing the photo (Figure 3) in Attachment JTP-3. This exterior photograph was
28 the sole filter photo Symbiont provided. My discussion concerned the lack of
29 *interior* photographs and that no detailed inspection report or photographs taken by
30 others in 2017 were provided. I testified that Task 3 of Symbiont's proposal stated

31 [CONFIDENTIAL] "cc [REDACTED]"
32 [REDACTED]

1 [REDACTED]."⁵ [CONFIDENTIAL] I interpreted this to mean
2 *interior* photographs, which were not provided in Symbiont's Technical
3 Memorandum or by CUII in response to discovery.

4 **Q: What did Mr. Carbonaro conclude regarding your concerns about a lack of**
5 **"supporting documents and an actual inspection"?**

6 A: He asserted my concerns are unfounded and should thus be rejected.⁶ I assume his
7 position is that Symbiont's interior filter photographs corroborate that Symbiont
8 "inspected" the filter interior and that Symbiont's recommendation to replace the
9 filter is therefore valid.

10 **Q: Have you reviewed CUII's supplemental response to OUCC DR 5-10, which**
11 **includes the photographs?**

12 A: Yes. CUII provided these photographs to the OUCC and LOFS on May 21, 2020.
13 These are the same photographs provided in Mr. Carbonaro's Rebuttal Attachment
14 SC-R4.

15 **Q: Do you agree that Symbiont's interior photographs and inspection validates**
16 **Symbiont's recommendation and CUII's decision to replace the South Filter?**

17 A: No. CUII provided eight photographs taken only of the detention tank interior from
18 a vertical access hatch through the filter shell.⁷ The detention tank sits above the
19 four filter cells. CUII did not provide any photographs of the filter cells or the
20 internal components. The photos show what I would expect to see in a detention
21 tank that always contains precipitated (i.e., insoluble) iron. In other words,

⁵ Public's Redacted Exhibit No. 1, pages 23-24.

⁶ See the Rebuttal Testimony of Sean Carbonaro, page 7.

⁷ In OUCC DR 8-2 the OUCC requested copies of all photographs taken by CUII or Symbiont during its July 24, 2018 site visit but CUII only provided Symbiont's eight detention tank interior photos. See Attachment JTP-S 5 for Petitioner's response to OUCC DR 8-2.

1 everything in the detention tank is rust colored (walls, detention tank floor,
2 groundwater inlet pipe, horizontal access hatches to the filter cells below, etc.). The
3 interior photographs do not show any patches on the detention tank floor or the
4 filter shell, and do not show any structural damage to the steel. Based on my review,
5 these eight interior photographs do not support or validate Symbiont's
6 recommendation or CUII's decision to demolish the South Filter and replace it with
7 a new filter. I reiterate my recommendation that the Commission deny CUII's pre-
8 approval request to replace the South Filter.

9 **Q: Did CUII identify what defects are shown in the eight interior photographs?**

10 A: No. In OUCC DR 8-2 (i), the OUCC asked CUII to identify defects in each of
11 Symbiont's eight photos. CUII's response stated that "[t]he photographs speak for
12 themselves." I agree with CUII, but I reach the opposite conclusion. The photos do
13 speak for themselves and show there are no defects warranting filter demolition and
14 replacement.

15 **Q: Why didn't Symbiont photograph filter internals below the detention tank**
16 **floor?**

17 A: Because Symbiont staff did not enter the filter and therefore could not access the
18 filter cells below. The eight interior detention tank photographs were all taken from
19 the outside through the vertical access hatch. This causes me to question
20 Symbiont's statement on page 5 of the Technical Memorandum: "[w]hen tank
21 media and internals were inspected from the horizontal access hatch, internal
22 components exhibited wear and conditions of equipment nearing the end of its
23 useful life." Even if Symbiont entered the filter but took no photos other than of
24 the detention tank, a good deal of the internal components would have been covered

1 by media and not observable. Each of the four filter cells is only accessible via the
2 four horizontal access hatches through the detention tank floor.⁸

3 **Q: Would access to the filter interior have been restricted?**

4 A: Yes. As noted below, it has since been verified that Symbiont did not enter the
5 filter. Before that verification, it was a supportable conclusion that Symbiont could
6 not have entered the filter, as the filter media was in place so that viewing filter
7 internals would be limited to the bottom of the detention tank floor, the top of the
8 media, the partitions visible above the media, the backwash boxes and backwash
9 drain piping. The filters are permit-only confined spaces.⁹ Only trained personnel
10 are allowed confined space entry to enter the detention tank, open the horizontal
11 access hatch and view the media and internals. CUII would also have had to issue
12 a permit for Symbiont to enter the confined space. In addition to the training
13 requirement for confined space entry, there must be a responsible person on-site
14 directing the entry, the air space must be continuously monitored, and equipment
15 must be on hand for personnel rescue. There is no evidence this occurred.

16 **Q: Is there other evidence that Symbiont staff never entered the filter and**
17 **therefore never inspected the media and internal components?**

18 A: Yes. May 2020 emails between CUII and Symbiont show that Symbiont staff did
19 not enter the filter and therefore could not have viewed the filter internals. In a

⁸ See Attachment MAW-2, Bill of Materials from the Filter manufacturer, General Filter in the Testimony of LOFS witness Martin A. Wessler.

⁹ See the exterior filter photograph with the Confined Space Entry warning sign on page 2 of 9 in Attachment LG-R2 of Grosvenor's Rebuttal Testimony. Entrance to permit only confined spaces are restricted and requires compliance with Occupational Safety and Health Administration ("OSHA") standards for confined spaces (29 CFR 1910.146).

1 May 21, 2020 email to Pat Carnahan of Symbiont, Sean Carbonaro asked: "[d]o
2 you know if the media or other internal components were also inspected? Or just
3 the upper portion shown in these pictures?" Pat Carnahan replied on May 26, 2020
4 as follows:

5 Sean, we were not able to take any media samples as we were given the
6 size and gradation of the media and some samples of what were put into
7 the other tank were available at the inspection. The down time was to
8 be as short as possible the day we performed the inspection so we were
9 only able to take the upper portion photos and an exterior inspection.

10 **Q: What do you conclude about Symbiont's inspection documented by the newly**
11 **provided interior detention tank photographs?**

12 **A:** I conclude that CUII has failed to provide evidence that its 2018 decision to replace
13 the South Filter is reasonable or justified. Symbiont did not adequately inspect the
14 filter and lacked a discernible basis for recommending replacement. The eight
15 photographs do not provide a basis for replacement, and there is no evidence
16 supporting Petitioner's claim that the South Filter has reached the end of its useful
17 life or that it is no longer feasible to repair. Symbiont's brief filter review did not
18 include entering the filter or documenting conditions except for these eight
19 photographs [CONFIDENTIAL] ([CONFIDENTIAL]).
20 Symbiont's inspection did not include metal testing or other condition
21 measurements and Symbiont did not review repairs, previous inspections, or
22 photographs because CUII did not provide them to Symbiont. Petitioner has also
23 not provided evidence of contact between Symbiont and repair contractors or
24 welders to ascertain filter conditions or whether the steel was feasible to repair.
25 More importantly, the eight photographs do not show any defects or patches.
26 Therefore, it is unreasonable for Petitioner to dismiss the OUCC's objection to

1 demolishing the filter on the basis that Symbiont "inspected" the filter because they
2 inserted a camera into the access hatch and took eight photos of the detention tank.

III. NEW EVIDENCE IN REBUTTAL

3 **Q: Did CUII provide evidence in rebuttal that was not previously provided in its**
4 **case-in-chief or discovery?**

5 A: Yes. There were multiple references to material and issues that the OUCC had
6 never seen until CUII filed its rebuttal, even though the OUCC investigated the
7 issues and issued discovery to obtain information.

8 **Q: What are the new issues/evidence?**

9 A: The new material addresses the following:

- 10 1. May 21, 2020, LAN Report, Attachment SC-R3;
- 11 2. Metal condition of South Filter;
- 12 3. 2009 South Filter media replacement and repairs;
- 13 4. February 2016 media replacement and repairs; and
- 14 5. December 2016 to March 2017 media replacement and repairs.

15 **Q: Does any of this new information change your previous recommendations?**

16 A: No. The new information does not change my previous recommendations, as I
17 explain further below.

A. Mr. Carbonaro's Rebuttal Regarding May 21, 2020, LAN Report, Attachment SC-R3

18 **Q: On page 22 of his rebuttal testimony, has Mr. Carbonaro introduced new**
19 **evidence to contradict your recommendations?**

20 A: Yes. On page 22, Mr. Carbonaro states the Company has additional support for
21 claims regarding the hydraulics of the existing arrangement. He indicates that

1 Attachment SC-R3 includes a LAN Report that describes the present issues with
2 WTP #1.¹⁰ The four page LAN letter report is broken into four sections; 1)
3 Background; 2) Current Operation; 3) Present Issues; and 4) Proposed Design.

4 **Q: When was this document from LAN created?**

5 A: The LAN Report was recently prepared on May 21, 2020, after the OUCC filed its
6 case-in-chief.

7 **Q: What was the apparent purpose of this document?**

8 A: The LAN Report states, “[a]s requested, the following summarizes the design
9 concept for the improvements at the Twin Lakes WTP #1.” The LAN letter report
10 is new evidence Petitioner is offering to support its case. In its case-in-chief and in
11 response to OUCC discovery, Petitioner did not provide support for its statements
12 that there are numerous hydraulic, piping, and water quality issues at WTP #1 and
13 the ground storage tanks (“GSTs”).

14 **Q: Did the LAN Report support the need to replace rather than rehabilitate the**
15 **South Filter?**

16 A: No. LAN discusses the steel tank and what welders told CUII about the metal
17 condition, but offers no documentation in support.

18 **Q: What does LAN say about the condition of the steel tank?**

19 A: On page 2, LAN states:

20 Corrosion of the steel tankage of the south package iron removal
21 unit is significant, with numerous coating failures and steel plate
22 patches from previous leak repairs visible. Welders have conveyed
23 to CUII that future steel plate repairs may not be possible as there is
24 not enough competent material, or ‘good steel’ as they described, to
25 weld steel plate to. Also contributing to the tank corrosion is the
26 location of corrosive chemicals (i.e. sodium hypochlorite and
27 hydrofluosilicic acid) in the Filter Room.

¹⁰ LAN stands for the design engineering firm, Lockwood, Andrews & Newnam, Inc,

1 **Q: Does LAN's letter report change your opinion that the South Filter should be**
2 **rehabilitated instead of demolished?**

3 A: No. LAN was not hired to evaluate the filter condition or rehabilitation
4 alternatives.¹¹ LAN does not state it performed its own filter inspection (including
5 entering and viewing the interior), or that it reviewed past repairs, or how it
6 determined that corrosion was significant. LAN did not quantify or define
7 significant corrosion or provide evidence that the extent of the corrosion meant the
8 filter must be scrapped. LAN provided no inspection(s) and did not refer to what
9 documents it reviewed about the filter condition.

10 LAN provided no evidence that the South Filter must be demolished; no
11 engineering opinions about remaining service life; whether CUII could maintain
12 the filter (metal patching and recoating); what would be needed to enable reaching
13 the filter's service life; or what the costs would be for rehabilitation.¹² Neither CUII
14 nor LAN prepared a cost-benefit analysis justifying South Filter demolition or
15 replacement instead of rehabilitation.¹³ LAN's inclusion of what CUII was told by

¹¹ See confidential Attachment SC-4 to the Direct Testimony of Sean Carbonaro, *Iron Filter Selection Technical Memorandum*, Lockwood, Andrews & Newnam, Inc., May 14, 2019. LAN stated that CUII contracted with LAN to provide engineering and design services for the replacement of the South Filter and distribution system improvements recommended in the 2018 Symbiont report.

¹² LAN states that many of the unit processes and equipment are at the end of their useful life and must be replaced to restore reliability to the treatment facility. However, LAN does not identify the unit processes and equipment nor discuss what parts of the treatment plant are unreliable.

¹³ The Final Order under Cause No. 44724 required cost-benefit analyses. "In the SIP, Petitioner shall provide detailed plans to measurably improve performance in the Three Key Aspects through use of two primary components: a comprehensive inflow and infiltration ('I&I') program and a multi-faceted program to decrease incidences of discolored water, as described below. The detailed plans shall include descriptions of the activities, measurable outcomes, cost-benefit analyses, and timelines." *In re Community Utilities*, Cause No. 44724, Final Order, page 76.

welders is also not supported by any study, inspection, metal measurements, or other evidence.

Q: What does LAN say about the hydraulic conditions of the filters?

A: LAN makes numerous unsupported statements about hydraulic and water quality issues on pages 2-3. LAN's partial list of issues is below, followed by my comments.

1. The north package iron removal unit is a few feet higher than the south unit preventing fully filling the north unit without overflowing the south unit. The inability to fill the detention tank of the north unit reduces the filter output, as well as increases the number of well pump starts.

OUEC Comments: Information about height differences between filters is new and not previously disclosed. This design error should have been addressed by CUII when it installed the North Filter in 2007. Aerator filters typically are equipped with a flow control valve to limit overfilling the detention tank (see Intervenor's Attachment MAW-2 for South Filter design details showing a float assembly connected to a butterfly valve on the inlet pipe). LAN provided no support for its claims that the filter output is reduced or well starts are increased.

2. Furthermore, there is no way to currently control total flow to the two treatment units, other than through a combination of various well pumps. However, it is possible to pump more raw water than the rated capacity of 700 gpm of the package iron removal units, which would reduce the effectiveness of treatment.

OUEC Comment: LAN provided no support for its claims.

3. The existing suction piping of HSP-1, 2, and 3 that draw water from the filter effluent do not have proper valving and is not hydraulically balanced to be able to adequately control withdrawal rates from each filter.

OUEC Comment: LAN provided no support for its claims.

4. Since each filter effluent is connected to a common suction header, with the pumps closer to the north filter, flow cannot be controlled, and an imbalance of withdrawal rates occurs between the two filters. Control of the filtration rates is critical to the performance of the filters.

OUEC Comment: LAN provided no support for its claims.

5. Currently, the north filter produces more finished water than the south filter, most likely exceeding its design filtration rate. This imbalance causes the north filter to backwash more frequently reducing the life of the media.

OUEC Comments: Neither CUII nor LAN have provided any flow data for the individual filters to show how much is filtered through each filter. In response

1 to OUCC DR 4-11, CUII stated there are no flow meters on each filter.¹⁴ LAN
2 provided no indication of what the filtration rate is through the north filter or
3 that it exceeds its design rate.

- 4 6. The current piping configuration of HSP-1, 2 and 3 do not meet current
5 Hydraulic Institute standards for suction piping to reduce flow imbalances to
6 the inlet side of the pumps. Flow imbalances can cause vibration and other
7 hydraulic issues resulting in excessive wear reducing the life of the equipment.
8 Test records and previous inspections of these pumps indicate significant wear
9 on HSP-1, which has been rebuilt seven times since 1985. HSP-2 has been
10 rebuilt five times since 1988.

11 OUCC Comments: LAN does not cite the specific Hydraulic Institute standard
12 or support for its claim that pump wear is caused by non-compliance with the
13 standard, rather than by lack of proper maintenance, or by failure to replace
14 pumps beyond their service lives.

- 15 7. The inability to pump treated water directly to the GSTs impacts the operator's
16 ability to accurately maintain a consistent water age and quality in the
17 distribution system.

18 OUCC Comments: LAN provided no support for its claims. Neither CUII nor
19 LAN have provided any study, evaluation, report, or water quality analysis
20 (reported to IDEM) documenting water age, stagnant water, or chlorine
21 residuals are a problem.

- 22 8. To maintain water quality, the American Water Works Association (AWWA)
23 recommends removing half of the stored water and replacing it with fresh water.
24 The existing system refills the GSTs with water from the distribution system,
25 which can be several days old before going into storage.

26 OUCC Comment: LAN provided no support for its claims that water from the
27 distribution system can be several days old before going into storage.

- 28 9. Additionally, if not controlled correctly or when the elevated tower is low,
29 backfilling the tanks with water from the distribution system could create low
30 pressure conditions in the distribution system.

31 OUCC Comment: LAN provided no support for its claim about low
32 pressure potential. This potential has existed since the 500,000-
33 gallon Peabody GST was installed in 1992. RHMG Engineers
34 designed the system to backfill the GST from the distribution system
35 when the GST level is below the set point during low demand

¹⁴ Petitioner's response to OUCC DR 4-11. "The flow imbalance is caused by the layout of High Service Pumps #1, #2, and #3 relative to the filters. The current layout of HSP #1, #2, and #3 most likely existed prior to the construction of South Filter, based on review of the historical plans previously provided. The flow imbalance likely started with the construction of the South Filter in approximately 1982. HSP #1, #2, and #3 are located closer to the North Filter. The exact flow imbalance cannot be quantified because the filters do not have individual flow meters."

1 periods (early morning hours). This system appears to have worked
2 well as shown by CUII's response to OUCC DR 3-4 which provided
3 the minimum and maximum water levels in the GSTs and the
4 elevated tower for 2018-2019. These levels show Petitioner is able
5 to maintain the tank levels on a daily basis even during peak demand
6 periods.

7 **Q: Does LAN's letter report change your opinion about the piping and pump**
8 **changes to WTP #1?**

9 A: No. LAN has not provided evidence to support any of its assertions about hydraulic
10 and water quality issues it lists.

11 **Q: What information does the LAN Report not discuss?**

12 A: The LAN Report does not address rehabilitation of the South Filter, or why a new
13 South Filter must be built instead of a rehabilitated South Filter to meet average
14 day and peak day demands, given the new supply wells recently added at WTP #2
15 amid continuing declining usage.

16 **Q: Did you find errors in LAN's report?**

17 A: Yes. There are numerous errors in the report regarding CUII's water system at Twin
18 Lakes. Some of these errors include the following:

1

LAN Error	Correction	Data Source
The original iron filter was a single 350 gpm unit. (p. 1)	The actual iron filter capacity was 398 gpm.	2008 McDonough Water Master Plan
WTP #1 treats groundwater from six wells (five on-site wells and one off-site well). (p. 1)	WTP #1 treats groundwater from five wells (four on-site wells and one off-site well).	DNR Significant Water Withdrawal Records, 44724 Haas Direct Testimony, p. 4
CUII added a second iron filter doubling capacity to 700 gpm. (p. 1)	The second iron filter was rated at 450 gpm.	Original Bill of Materials and Drawing – Attachment MAW-2
In 2015, the existing GST was replaced, and a second GST was constructed. (p. 1)	The South GST was added in 2014 so the Peabody GST could be rehabilitated, but CUII demolished it instead and added the new North GST in 2015.	Cause No. 44724
Fluoride was discontinued in early 2020. (p. 1)	Fluoride was discontinued on May 2, 2020.	May 2020 Monthly Report of Operation (“MRO”)
A 300,000 gallon spheroid elevated storage tank. (p. 1)	Actual elevated tower size is 200,000 gallons.	Tank Industry Consultants Inspection, Nov. 2015
A differential pressure reading across the filter controls the backwash cycle to clean the filter beds. (p. 2)	CUII backwashes the North Filter daily and the South Filter every other day. The operator manually controls the South Filter Backwash. The North Filter backwash is automated but is initiated by the operator.	Filter backwash procedures – CUII response to DR 4-8.

B. Mr. Grosvenor's Rebuttal Testimony about the condition of the metal in the South Filter

1 **Q:** In its Rebuttal Testimony and in responses to discovery, Petitioner calls the
2 South Filter both an aged asset¹⁵ and an aged and deteriorated asset.¹⁶ Was
3 this in CUII's case-in-chief?

4 **A:** No. As I testified, Petitioner's witness Carbonaro stated that "[g]enerally, the South
5 Filter is approaching the end of its useful life, primarily due to poor metal condition
6 that is no longer feasible to repair",¹⁷ but provided no evidence to support this claim
7 other than a Technical Memorandum prepared by Symbiont Engineers.¹⁸ I testified
8 that Petitioner provided no inspection reports, photographs, steel testing reports,
9 wall thickness reports, metal analyses, or any other documents to support
10 demolishing the filter because of repair infeasibility.¹⁹

11 **Q:** In its case-in-chief, did Petitioner support its claim that the South Filter was
12 repaired in 2016 and 2017?

13 **A:** No. Petitioner provided no evidence regarding filter repairs such as inspection
14 reports, repair invoices, or photographs, only statements that it made repairs on two
15 occasions. Petitioner assumed that the asserted (but incorrect) filter age (52 years)

¹⁵ See the Rebuttal Testimony of Sean Carbonaro, page 51.

¹⁶ See Attachment JTP-9 in Public's Exhibit No. 1 for Petitioner's responses to OUCC DR 1-13 and OUCC DR 4-6 where CUII states in part "[t]he intent of this project is to proactively replace the South Filter, an aged and deteriorated asset."

¹⁷ See the Direct Testimony of Sean Carbonaro, page 4.

¹⁸ See Attachment JTP-3 in Public's Exhibit No. 1, *Technical Memorandum, Crown Point Water System Filtration Evaluation and Recommendation*, Symbiont Engineers, October 3, 2018.

¹⁹ Public's Exhibit No. 1, page 27.

1 and the Symbiont Technical Memorandum²⁰ were sufficient in its case-in-chief to
2 support its decision to replace the South Filter.

3 **Q: Prior to the OUCC filing its case-in-chief on May 19, 2020, what efforts did the**
4 **OUCC make to determine the South Filter's actual age, condition, and repair**
5 **history?**

6 A: After concluding the South Filter was twenty years younger than CUII claimed, the
7 OUCC issued discovery regarding filter installation, inspections, repairs, painting,
8 and media replacements. The OUCC also reviewed discovery responses and
9 invoices from prior Causes. To inform the Commission, I described these repairs²¹
10 and assembled available invoices and DR responses.²² I included a \$8,980 Gaskill
11 & Walton invoice for filter cleaning and repairs made on November 13 and 16,
12 2009. I provided the 2009 invoice for informational purposes but did not discuss it
13 in testimony, other than noting the 2009 invoice date contradicted CUII's discovery
14 response that it replaced the South Filter media in 2011.^{23,24}

15 I also noted the \$20,800 February 2016 South Filter media replacement and
16 repair, but did not have an invoice.²⁵ I testified it was unclear why CUII did not

²⁰ Provided as Confidential Attachment SC-1 to the Sean Carbonaro Direct Testimony. CUII previously submitted the same Symbiont Technical Memorandum as a non-confidential document on October 31, 2018 with the Q3 2018 Quarterly Report under Cause No. 44724. The OUCC included Symbiont's Technical memorandum as non-confidential Attachment JTP-3.

²¹ Public's Exhibit No. 1, page 18.

²² See Public's Exhibit No. 1 (filed May 19, 2020), Attachment JTP-4, Petitioner's responses to OUCC DR 1-2, 1-3, 1-4, 4-13, and 5-10 regarding South Filter rehabilitation, including copies of repair invoices, and the February 6, 2017 Peerless-Midwest repair proposal.

²³ *Id.* page 18.

²⁴ Gaskill & Walton Invoice No. 6669-1451, dated December 10, 2009 for filter cleaning and repairs completed on November 13 and 16, 2009 at a cost of \$8,980. Gaskill & Walton did not identify the filter but the OUCC believes it to be the South Filter.

²⁵ Public's Exhibit No. 1, page 18.

1 provide copies of these separate repair invoices (i.e. February 2016) in its discovery
2 response or why CUII had two seemingly identical projects within less than a year.

C. 2009 South filter media replacement and repairs

3 **Q: In its case-in-chief or in response to discovery, did Petitioner provide any**
4 **inspection reports or photographs of the filter's 2009 condition when it cleaned**
5 **the filter, made repairs, and replaced the media?**

6 A: No. Petitioner did not mention the 2009 work in its case-in-chief or in discovery.

7 **Q: When did Petitioner first discuss the 2009 repairs?**

8 A: In rebuttal, Petitioner's witness Grosvenor described the 2009 work, stating the
9 contractor "removed media to do extensive metal patching inside and outside of
10 filter."²⁶ Petitioner provided no other information.

11 **Q: Did Petitioner provide any evidence in rebuttal that it made extensive patching**
12 **in 2009?**

13 A: No. Mr. Grosvenor did not provide any inspection report, photographs, or other
14 documentation that "extensive metal patching" both inside and outside the filter
15 was performed in 2009. This is new information offered to supplement Petitioner's
16 case-in-chief that does not rebut any OUCC testimony.

17 **Q: For its supplemental testimony, did the OUCC seek additional information**
18 **about the 2009 repairs by Gaskill & Walton?**

19 A: Yes. The OUCC asked about the number of patches and locations on the filter's
20 interior and exterior, and asked for the Gaskill & Walton inspection report and
21 copies of all condition and repair photographs taken by Gaskill & Walton and CUII.

22 **Q: What was CUII's response to the OUCC?**

²⁶ See Petitioner's Rebuttal Testimony of Loren Grosvenor, page 3.

1 A: Petitioner stated it was unaware of and unable to locate records of a Gaskill &
2 Walton inspection report and said it could not locate records of any photographs
3 taken by Gaskill & Walton or CUII during the 2009 repairs. Petitioner could not
4 say how many patches were placed, but indicated they were on the detention tank
5 floor (interior) and that Gaskill & Walton welded metal around the entire perimeter
6 of the South Filter near the center of the filter and detention tank floor. Petitioner
7 also stated, “[c]urrent company employees were not directly involved with
8 rehabilitation but believed further patching was done on the interior in the media
9 portion of the filter.”²⁷

10 **Q: Based on Mr. Grosvenor’s assertion that repairs were extensive in 2009, did**
11 **CUII conduct follow-up inspections, repairs, and painting of the South Filter?**

12 A: Petitioner did not report any further South Filter inspection, media replacement or
13 repair work until February 2016, over six years later.

14 **Q: During your March 9, 2016 site visit to the Twin Lakes water and wastewater**
15 **systems, did you see any metal patching on the South Filter’s exterior?**

16 A: No. I did not see any of the four small exterior patches visible today. I did see a
17 metal band around the exterior but thought it was as supplied by the manufacturer.

18 **Q: Does this additional information from Petitioner support the need to replace**
19 **rather than rehabilitate the South Filter?**

20 A: No. This additional information about the 2009 repairs provides no evidence of
21 damage to the structural integrity of the tank and no evidence that the South Filter
22 could not be rehabilitated.

²⁷ See Petitioner’s June 26, 2020 response to OUCC DR 9-1 in Attachment JTP-S1.

D. February 2016 media replacement and repairs

1 **Q: When did Petitioner provide a copy of the February 2016 repair invoice?**

2 A: Petitioner provided the invoice in Loren Grosvenor's Rebuttal Testimony.²⁸ In
3 discovery issued before the OUCC filed its case-in-chief, the OUCC asked for work
4 descriptions and invoices for both the 2016 and 2017 repairs. In response, Petitioner
5 provided information only for the 2017 repair that was finished in March 2017.²⁹
6 In rebuttal, Petitioner's witness Grosvenor indicated the reason CUII did not
7 provide information on the February 2016 repairs was because CUII understood the
8 OUCC's request pertained only to the repair made by Peerless-Midwest in 2017.³⁰

9 **Q: What repairs were made in February 2016?**

10 A: CUII rebuttal witness Grosvenor stated that "[i]n February 2016, G&W removed
11 the media from one cell that had lost a large amount, inspected and patched steel
12 inside the filter. Media was then replaced and all cells were topped off."³¹

13 **Q: Did Petitioner provide an inspection report, filter condition evaluation or**
14 **photographs of the filter's February 2016 condition in its case-in-chief, in**
15 **response to OUCC or LOFS discovery?**

16 A: No. Up through its June 3, 2020 rebuttal, Petitioner did not include support
17 documents for the February 2016 repairs except the Gaskill & Walton invoice
18 provided in Grosvenor's Rebuttal Testimony, Attachment LG-R1.

²⁸ See Attachment LG-R1. Gaskill & Walton Invoice No. 7227-1764, dated February 22, 2016 for filter inspection, patching, painting patches, furnishing, and installing media in one cell (of four cells) and adding anthracite media to all four cells at a cost of \$20,800. Gaskill & Walton did not identify the filter or dates of service but the OUCC believes it to be the South Filter.

²⁹ See CUII's responses to OUCC DRs 1-2 and 1-3 provided in Public's Exhibit No. 1, Attachment JTP-4.

³⁰ Rebuttal Testimony of Loren Grosvenor, page 4.

³¹ *Id.* page 3.

1 **Q: Did the OUCC seek information about the February 2016 Gaskill & Walton**
2 **repairs?**

3 A: Yes. In DR 8-5, the OUCC asked for inspection reports and photographs taken by
4 Gaskill & Walton and CUII. Petitioner responded that neither the contractor nor
5 CUII prepared an inspection report and that it does not have records of any
6 photographs from this inspection. *See* Attachment JTP-S2 for CUII's June 12, 2020
7 response to OUCC DR 8-5.

8 **Q: Did the OUCC again seek information about the February 2016 Gaskill &**
9 **Walton repairs?**

10 A: Yes. In Cause No. 44724, I remembered seeing an invoice and filter photographs
11 submitted with CUII's internal investigation regarding the physical inspection or
12 auditing of invoices to hard assets that CUII conducted in four phases.³² In OUCC
13 DR 9-3, the OUCC asked CUII to provide copies of the audited invoices and the
14 corresponding photographs for work completed at Water Treatment Plant #1
15 including the South Filter from 2012 to the end of CUII's internal investigation.

16 **Q: How did Petitioner respond?**

17 A: Petitioner provided eight photographs from the February 2016 filter repairs in
18 response to OUCC DR 9-3. Petitioner had previously responded that neither the
19 contractor nor CUII prepared an inspection report. *See* Attachment JTP-S3 for
20 CUII's June 26, 2020 response to OUCC DR 9-3. I believe that Petitioner also
21 provided the same photographs in its supplemental response to OUCC DR 8-5,
22 which the OUCC had not yet received before filing its Supplemental Testimony.

³² *See* Questions 4 through 10 in Lubertoizzi Supplemental Testimony, Cause No. 44724, pages 1-3, filed on June 27, 2016.

1 **Q: What do these photographs from February 2016 show?**

2 A: The photographs were all taken of patches placed by the contractor, Gaskill &
3 Walton, on the top of the detention tank floor. There are no photographs of any
4 patches of the filter shell or the internal components below the detention tank.

5 **Q: Does this additional information from Petitioner support the need to replace**
6 **rather than rehabilitate the South Filter?**

7 A: No. This additional information provides no evidence of damage to the structural
8 integrity of the tank and no evidence that the South Filter could not be rehabilitated.

E. December 2016 to March 2017 media replacement and repairs

9 **Q: What repairs were made between December 21, 2016 and March 20, 2017?**

10 A: CUII rebuttal witness Grosvenor described the most recent repairs, stating “[i]n
11 December 2016, all media was removed to do a full inspection and further patching
12 in all cells and filter floors by Peerless Midwest. Media and strainers were replaced
13 in 2017 once repairs were completed.”³³

14 **Q: Did Petitioner provide an inspection report, filter condition evaluation or**
15 **photographs of the filter’s 2017 condition in its case-in-chief, or in response to**
16 **OUCC or LOFS discovery?**

17 A: No. Up through its June 3, 2020 rebuttal, Petitioner did not include support
18 documents for the 2017 repairs except the invoices and the Peerless-Midwest repair
19 proposal provided in response to OUCC discovery.³⁴ Petitioner responded that “[a]
20 formal report was not prepared during the 2016-2017 South Filter rehabilitation.

³³ Rebuttal Testimony of Loren Grosvenor, page 3.

³⁴ See CUII’s responses to OUCC DRs 1-2, 1-3, and 1-4 with Peerless-Midwest’s February 6, 2017 repair proposal provided in Public’s Exhibit No. 1, Attachment JTP-4.

1 The Peerless-Midwest proposal, provided in Attachment to OUCC DR 1-4,
2 includes observations from a preliminary inspection.” Petitioner did not provide
3 any photographs from the 2017 repairs.

4 **Q: Does the Peerless-Midwest proposal document the filter’s condition?**

5 A: No. It contains only the brief description below:

6 During the inspection our crew found that the filter requires some
7 attention and repairing. We are proposing for a short term fix to grind
8 around the holes and weld in new steel to cover holes and thin spots.
9 Once we have fixed the holes then we would clean the strainers and
10 remove any debris or build up under them or install new ones if needed.
11 We are estimating 3-4 days to complete this work for a 2 man crew.
12 Total estimated cost for this work would be \$6,000.00. Long term we
13 recommend looking at new filter to replace this one and we would help
14 on design for long term high quality filter for your water utility.³⁵

15 Emphasis added.

16 **Q: After CUII filed its rebuttal, did the OUCC seek information about the 2017**
17 **Peerless-Midwest repairs?**

18 A: Yes. In DR 9-4, the OUCC asked for dates the filter was out of service, contractor
19 names, the dates contractors were on site, and the number and locations of patches
20 placed on the filter’s interior and exterior.

21 **Q: When did CUII take the South Filter off-line for the 2017 repairs and how long**
22 **was the filter out of service?**

23 A: CUII took the South Filter off-line on November 29, 2016, and placed the filter
24 back in service on March 20, 2017.³⁶ This is even earlier than I assumed by over
25 three weeks.³⁷ This means the South Filter was actually off-line for 111 days,
26 instead of the three months I reported in my testimony on page 20.

³⁵ *Id.*

³⁶ Per the 11th Semi-Annual Report, dated July 31, 2017 under Cause No. 44388,

³⁷ The OUCC previously assumed the South Filter was taken off-line the same day that the filter media was removed by Great Lakes Plant Services on December 21, 2016. It was off-line earlier.

1 **Q: When did Peerless-Midwest inspect the South Filter?**

2 A: Petitioner reported that “[b]ased on review of the plant journal, Peerless-Midwest
3 did an initial inspection on November 29, 2016.”³⁸

4 **Q: When did Great Lakes Plant Services (“Great Lakes”) remove the filter**
5 **media?**

6 A: December 21, 2016.³⁹

7 **Q: What problem do you see with Peerless-Midwest inspecting the filter before**
8 **Great Lakes removed the media and cleaned the filter?**

9 A: Peerless-Midwest could not have viewed anything below the media (partitions,
10 underdrains, strainers, etc.). Since Great Lakes did not remove the media before
11 Peerless-Midwest’s inspection, Petitioner’s reliance on Peerless-Midwest’s
12 February 6, 2017 repair proposal to support its decision to replace the South Filter
13 is unwarranted.

14 **Q: When did Peerless-Midwest make the repairs?**

15 A: March 7, 2017 to March 9, 2017.

16 **Q: How did Petitioner respond to the OUCC’s discovery about the number and**
17 **locations of metal patching?**

18 A: Petitioner responded that it did not have a detailed accounting of all the patches.
19 *See* Attachment JTP-S4 for CUII’s June 26, 2020 response to OUCC DR 9-4.

20 **Q: Does the fact that Peerless-Midwest didn’t inspect any part of the filter below**
21 **the media or document the number and location of patches persuade you that**
22 **the South Filter should be replaced rather than rehabilitated?**

23 A: No. This only strengthens my recommendation that the South Filter be rehabilitated
24 rather than replaced.

³⁸ See Attachment JTP-S4 for Petitioner’s response to OUCC DR 9-4 regarding the December 2016 to March 2017 repairs to the South Filter by Peerless-Midwest.

³⁹ *Id.*

IV. RECOMMENDATIONS

1 **Q: Please summarize your recommendations.**

2 A: I reiterate my recommendations from my testimony that was filed on May 19, 2020.

3 1. I recommend the South Filter not be demolished and replaced, but rather
4 rehabilitated because it is younger than reported, it has remaining service
5 life with proper maintenance, was rehabilitated in 2017 with new
6 underdrains and media, and is less critical to meet demand with production
7 increases at WTP #2.

8 2. I recommend that CUII continue operating the South Filter with periodic
9 maintenance of all four filters for recoating the steel filter vessels, making
10 repairs and necessary media change-outs.

11 3. I recommend that the Commission deny CUII's requested piping and
12 pumping changes within the WTP #1 building, including three new low
13 service pumps and filter effluent piping, because Petitioner has not shown
14 these changes are necessary or will result in cost savings to customers.

15 4. I recommend that CUII continue distributing the filtered water directly to
16 customers using the existing high service pumps, with the existing piping
17 as currently installed so that distribution of stored water and water age are
18 both minimized.

19 **Q: Does this conclude your testimony?**

20 A: Yes.

Appendix A

List of Attachments

- | | |
|-------------------|---|
| Attachment JTP-S1 | CUII response to OUCC DR 9-1 dated June 26, 2020 regarding the 2009 repairs by Gaskill & Walton |
| Attachment JTP-S2 | CUII response to OUCC DR 8-5 dated June 12, 2020 regarding the February 2016 repairs by Gaskill & Walton |
| Attachment JTP-S3 | CUII's response to OUCC DR 9-3 dated June 26, 2020 regarding CUII's internal investigation under Cause No. 44724 of the physical inspection or auditing of invoices to hard assets that CUII conducted in four phases |
| Attachment JTP-S4 | CUII's response to OUCC DR 9-4 dated June 26, 2020 regarding the 2017 repairs by Peerless-Midwest |
| Attachment JTP-S5 | CUII's response to OUCC DR 8-2 regarding Symbiont's July 24, 2018 site visit |

Data Request OUCG DR 9 - 01

06/26/2020

Reference Grosvenor Rebuttal Testimony on page 3 which reads:

“In 2009, Gaskill & Walton (“G&W”), a contractor, removed media to do extensive metal patching inside and outside of filter.”

Please answer or provide the following for the 2009 repairs:

- a. How many patches did Gaskill & Walton weld on the filter interior?
- b. Where were patches placed on the filter interior? Please describe the locations by filter compartment (i.e. inlet pipe, detention tank floor, detention tank walls, filter section, filter section wall, baffles, partitions, underdrain, clearwell, etc.).
- c. How many patches did Gaskill & Walton weld on the outside of the filter?
- d. Where were the patches placed on the outside of the filter?
- e. Copy of the Gaskill & Walton inspection report.
- f. Copies of all condition and repair photographs taken by Gaskill & Walton.
- g. Copies of all condition and repair photographs taken by CUII staff.

Objection:

CUII objects to the request on the grounds and to the extent the request is overly broad and unduly burdensome, particularly to the extent the request seeks “all” photographs taken. CUII further objects to the request on the grounds and to the extent the request seeks information from third parties who are not a party to this proceeding. Subject to and without waiver of the foregoing objections, CUII provides the following response.

Response:

- a. The Company does not record the number of patches put on the filter because the goal is to ensure the identified defects in metal are addressed during rehabilitation. The photographs provided in Supplemental Response to OUCG DR 8-5 show the history of welding patches in the South Filter interior, including those completed in 2009. The photographs in Supplemental Response to OUCG DR 8-5 were taken in February 2016.
- b. Metals patches were welded on the detention tank floor. Current Company employees were not directly involved with rehabilitation but believe further patching was done on the interior in the media portion of the filter.
- c. The Company does not record the number of patches put on the filter because the goal is to ensure the identified defects in metal are addressed during rehabilitation. The photographs provided in Attachment LG-R2 with Mr. Grosvenor’s rebuttal testimony show the history of welding patches on the South Filter exterior, including those

06/26/2020

completed in 2009. The photographs in Supplemental Response to OUCC DR 8-5 were taken in February 2016.

- d. Gaskill & Walton welded metal around the entire perimeter of the South Filter near the center of the filter and detention tank floor.
- e. The Company was unable to locate records of an inspection report from Gaskill & Walton regarding the 2009 rehabilitation. The Company is unaware if an inspection report was prepared.
- f. The Company was unable to locate records of any photographs taken by Gaskill & Walton during the 2009 repairs.
- g. The Company was unable to locate records of any photographs taken by CUII staff during the 2009 repairs.

Data Request OUCG DR 8 - 05

06/12/2020

Reference the February 22, 2016 Gaskill & Walton invoice for \$20,800 for inspection and repairs of the South Filter provided in Attachment LG-R1 to the Rebuttal Testimony of Loren Grosvenor. Please answer or provide the following:

- a. Copy of the inspection report prepared by Gaskill & Walton. If no inspection report was prepared, so state.
- b. Copy of the inspection report prepared by or on behalf of CUII. If no inspection report was prepared, so state.
- c. Copies of all photographs taken by Gaskill & Walton during the February 2016 inspection and repairs in the original format taken as a jpg file with photograph attributes intact. For purposes of this data request, photograph attributes include but may not be limited to file name, date and time taken, file size, dimensions, shot, ISO, and device.
- d. Copies of all photographs taken by CUII staff during the February 2016 inspection and repairs in the original format taken as a jpg file with photograph attributes intact. For purposes of this data request, photograph attributes include but may not be limited to file name, date and time taken, file size, dimensions, shot, ISO, and device.

Objection:

Response:

- a. Gaskill & Walton did not prepare a report of their inspection.
- b. No inspection report prepared.
- c. The Company does not have records of any photographs from Gaskill & Walton during the February 2016 inspection and repairs.
- d. The Company does not have records of photographs from this inspection. The Company has had turnover in employees since February 2016, including management and operations staff.

Data Request OUCC DR 9 - 03

06/26/2020

Reference Questions 4 through 10 on pages 1 to 3 of Lubertozzi's Supplemental Testimony under Cause No. 44724 filed on June 27, 2016 which discusses CUII's internal investigation regarding possible fraud and the physical inspection or auditing of invoices to hard assets that CUII conducted in four phases:

Please provide copies of the CUII audited invoices and the corresponding photographs for work completed at Water Treatment Plant #1 including the South Filter from 2012 to the end of CUII's internal investigation.

Objection:

Response:

The Company identified two invoices from the audited invoices that relate to work completed on the South Filter. The audited invoices for Great Lakes Plant Services and Gaskill & Walton are provided as Attachment to OUCC DR 9-3. No photographs were identified for the Great Lakes Plant Services February 11, 2016 invoice because the work was internal to the filter. The photographs for the Gaskill & Walton are also provided in Attachment to OUCC DR 9-3, particularly the welding patches on the detention tank floor.

3023065

OUCG Attachment JTP-S3
Cause No. 45342
Page 3 of 14

GREAT LAKES
Plant Services, LLC
(219) 977-0890
james@greatlakesps.com

Batch 230402
Doc 751281

Invoice

DATE	INVOICE#
2/11/2016	5534

BILL TO:

TWIN LAKES UTILITIES INC
ATTN: ACCOUNTS PAYABLE
2335 SANDERS RD
NORTHBROOK IL 60062

PLEASE REMIT TO:

GREAT LAKES PLANT SERVICES, LLC
1030 E 10TH PLACE
GARY, IN 46402

ATTN: ACCOUNTS RECEIVABLE

PO. NO	TERMS	PROJECT
207321	Net 30	16061

QUANTITY	DESCRIPTION	RATE	AMOUNT
	VAC OUT FILTERS @ LOFS [LOREN] APPROVED: MR CHARLES ALEXANDER BU		
	02-11-16		
10	SUPERVISOR	35.00	350.00
1.5	SUPERVISOR OVERTIME	51.00	76.50
10	OPERATOR	31.00	310.00
1.5	OPERATOR OVERTIME	44.00	66.00
10	LABORER	26.00	260.00
1.5	LABORER OVERTIME	38.00	57.00
11.5	VACUUM TRUCK	68.00	782.00
11.5	UTILITY TRUCK	15.00	172.50
1	HAND TOOLS	50.00	50.00
3	LEVEL "D" PPE	25.00	75.00
100	6" PLASTIC HOSE	1.25	125.00
		RECEIVED	
		FEB 25 2016	
Thank you for your business		Total	\$2,324.00



GREAT LAKES PLANT SERVICES, LLC

WORK ORDER

GL 10735

DATE: 2-11-16

DAY: Thu

JOB #: 16061

P.O. #

CUSTOMER: Twins Lakes Utilities
STREET ADDRESS: 9201 E 123RD AVE

PHONE: ()

CITY: Crown Point

STATE: IN 46307

REPORT TO: Loren

PHONE: (815) 509-0317

TIME TO REPORT: 6am

JOB SITE: LOFS

DESCRIPTION OF WORK: Ygr out filters

EQUIPMENT REQUESTED: Vac TRK, SKVTRK, CSE, Sup, open, Lab

LUNCH TAKEN? ___ Yes ___ No		TITLE	UNIT #	MILES	TRAVEL TO JOB		ON JOB		TRAVEL TO SHOP		TOTAL HOURS
NAME					TIME	HOURS	TIME	HOURS	TIME	HOURS	
<u>ADRIAN GARZA</u>		<u>S</u>	<u>G3</u>		<u>5⁰⁰-A</u>	<u>1</u>	<u>6⁰⁰-A</u>	<u>9.5</u>	<u>3³⁰-P</u>	<u>1</u>	<u>11.5</u>
<u>MIKE OUSLEY</u>		<u>D</u>	<u>P4</u>		<u>6⁰⁰-A</u>	<u>1</u>	<u>3³⁰-P</u>	<u>1</u>	<u>4³⁰-P</u>	<u>1</u>	<u>11.5</u>
<u>BRAD SOWERS</u>		<u>T</u>			<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>11.5</u>
					<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>11.5</u>
					<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>11.5</u>
					<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>11.5</u>
					<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>11.5</u>
					<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>11.5</u>
					<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>11.5</u>
					<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>11.5</u>
					<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>S</u>	<u>1</u>	<u>11.5</u>
					<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>F</u>	<u>1</u>	<u>11.5</u>

QTY	TYPE	UNIT #'S
<u>1</u>	VACUUM TRUCK	<u>G3</u>
	VACUUM TRUCK SIDELOADER	
	VACUUM TANKER	
	WATERBLASTER	
	ROLL OFF TRUCK	
	BUCKET MACHINE	
	BOBCAT	
	GAS METER	
	PUMP	
<u>1</u>	SERVICE TRUCK	<u>P4</u>
	AIR COMPRESSOR	
	PRESSURE WASHER	
	JETTER	
	SANDBLASTING EQUIP.	
	CO ₂ BLASTING EQUIP.	
	FRESH AIR EQUIP.	
<u>1</u>	HAND TOOLS	

QTY	DESCRIPTION	QTY	DESCRIPTION
<u>3</u>	LEVEL D PROTECTION	<u>100</u>	FT.-HOSE/4" PLAST.
	LEVEL C PROTECTION		FT.-HOSE/6" PLAST.
	LEVEL B PROTECTION		FT.-HOSE/METAL
	SORBENT SWEEPS		C.S.E. GEAR
	SORBENT PADS		DRUM
	SORBENT BOOMS		OIL DRY

WORK PERFORMED: VAC UP MATERIAL FROM
#2 VESSEL.

(Job Complete)
FOREMAN SIGNATURE: Adrian

CUSTOMER COMMENTS:

Down Time? ___ YES ___ NO

IF YES, EXPLAIN:

WORK PERFORMED IS SATISFACTORY. DEBRIS REMOVAL AND DUMP LOCATION ARRANGED BY CUSTOMER

4-HOUR MINIMUM

FINISH TIME:

CUSTOMER SIGNATURE: [Signature]

WHITE - ORIGINAL

BLUE - BILLING

BUFF - CUSTOMER

3025065

SS

TLOI

Batch 230402

Doc 751281

DATE

2/11/2016

GREAT LAKES
Plant Services, LLC
(219) 977-0890
james@greatlakesps.com

BILL TO:

TWIN LAKES UTILITIES INC
ATTN: ACCOUNTS PAYABLE
2335 SANDERS RD
NORTHBROOK IL 60062

PLEASE REMIT TO:

GREAT LAKES PLANT SE
1030 E 10TH PLACE
GARY, IN 46402

ATTN: ACCOUNTS RECEI

PO. NO

TERMS

207321

Net 30

QUANTITY	DESCRIPTION	RATE
	VAC OUT FILTERS @ LOFS [LOREN] APPROVED: MR CHARLES ALEXANDER BU	
	02-11-16	
10	SUPERVISOR	35.00
1.5	SUPERVISOR OVERTIME	51.00
10	OPERATOR	31.00
1.5	OPERATOR OVERTIME	44.00
10	LABORER	26.00
1.5	LABORER OVERTIME	38.00
11.5	VACUUM TRUCK	68.00
11.5	UTILITY TRUCK	5.00
1	HAND TOOLS	00
3	LEVEL "D" PPE	00
100	6" PLASTIC HOSE	25

All Internet
No work

REC
FEB

PO 207531

Friday, June 17, 2016 9:37 AM



207531

Fax from : 07087581060000000708

02-22-16 03:53p Pg: 2

3000699

TELEPHONE 708-758-1050
FAX # 708-758-1060

INVOICE

P.O. BOX 367

GASKILL & WALTON CONSTRUCTION COMPANY
CONTRACTORS - ENGINEERS
SO. CHICAGO HEIGHTS, ILLINOIS 60412-0367

TO
TWIN LAKES UTILITIES CO.
10996 FOUR SEASONS PLACE
CROWN POINT, INDIANA 46307

Batch 230205

DATE FEBRUARY 22, 2016

Doc 750552

INVOICE NO. 7227-1704

YOUR ORDER NO. 207531 (150)

TERMS

OUR ORDER NO.

WATER TREATMENT FACILITY
LAKES OF THE FOUR SEASONS
123RD STREET

RECEIVED

FEB 22 2016

FURNISHED MATERIAL AND LABOR TO INSPECT FILTER, PATCH NUMEROUS
HOLLES IN WATER RECEIVING COMPARTMENT FLOOR, WIRE BRUSH AND
CLEAN PATCHES AND PAINT WITNEMEC POT A POX. FURNISH AND INSTALL
MEDIA FOR ONE FILTER AND ADDITIONAL ANTHRACITE FOR OTHER CELLS

AMOUNT DUE THIS INVOICE AND PAYABLE UPON RECEIPT

\$20,800.00

Fax from : 87087581060000000700

02-22-16 03:53p Pg: 1

GASKILL & WALTON CONSTRUCTION COMPANY

TELEPHONE: 708-758-1050
FAX: 708-758-1060
EMAIL: JESSE@GANDWCO.COM JESSE@GANDWCO.COM JESSE@GANDWCO.COM

MAILING ADDRESS
P.O. BOX 367
CHICAGO HEIGHTS
ILLINOIS 60411-036

SHIPPING ADDRESS
22480 MILLER RD.
STEGER, ILLINOIS

FACSIMILE COVER LETTER

DATE: 2-22-16

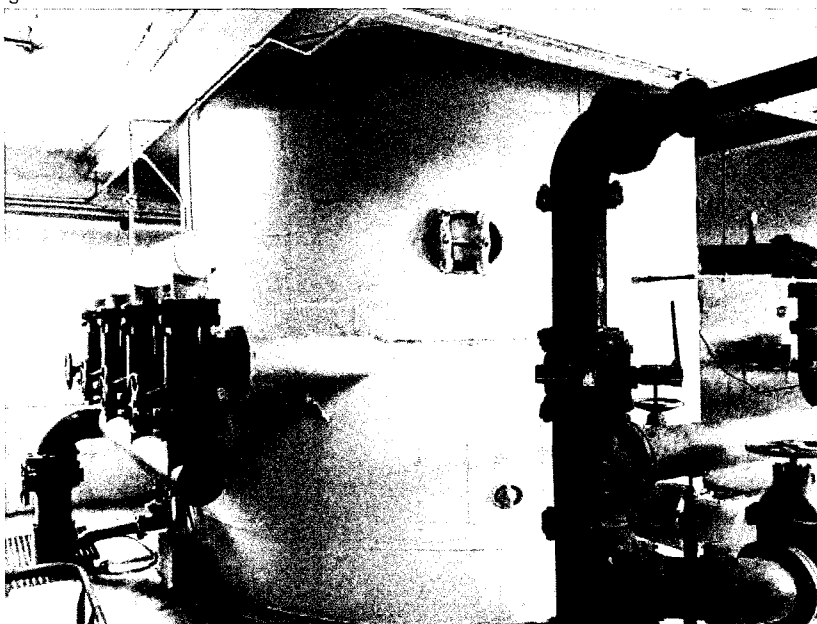
TOTAL NUMBER OF PAGES INCLUDING TRANSMITTAL PAGE: 2

TO: PHYLLIS LUPPINO 847 498 9596

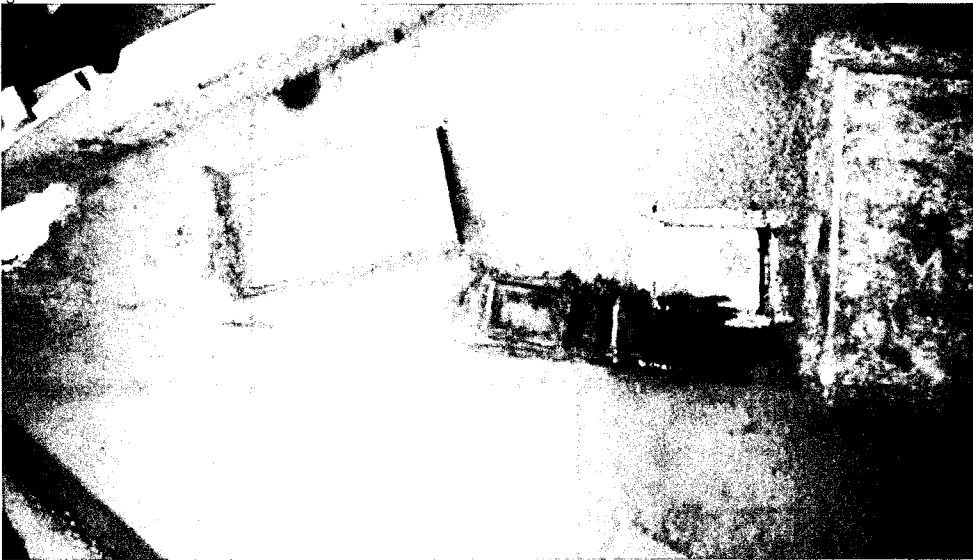
FROM: JESSE BOWMAN

RE: TWIN LAKES UTILITIES
FILTER REPAIR INVOICES

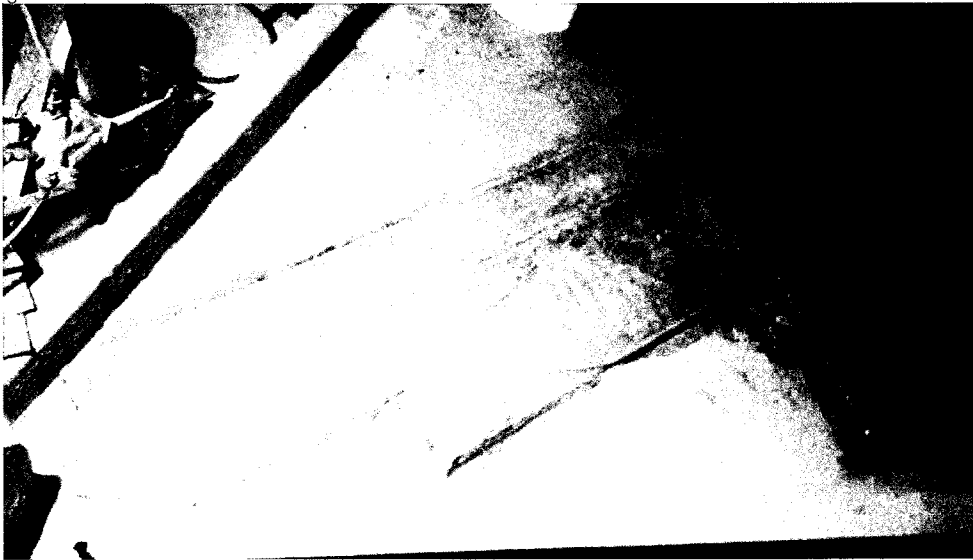
ORIGINALS IN MAIL

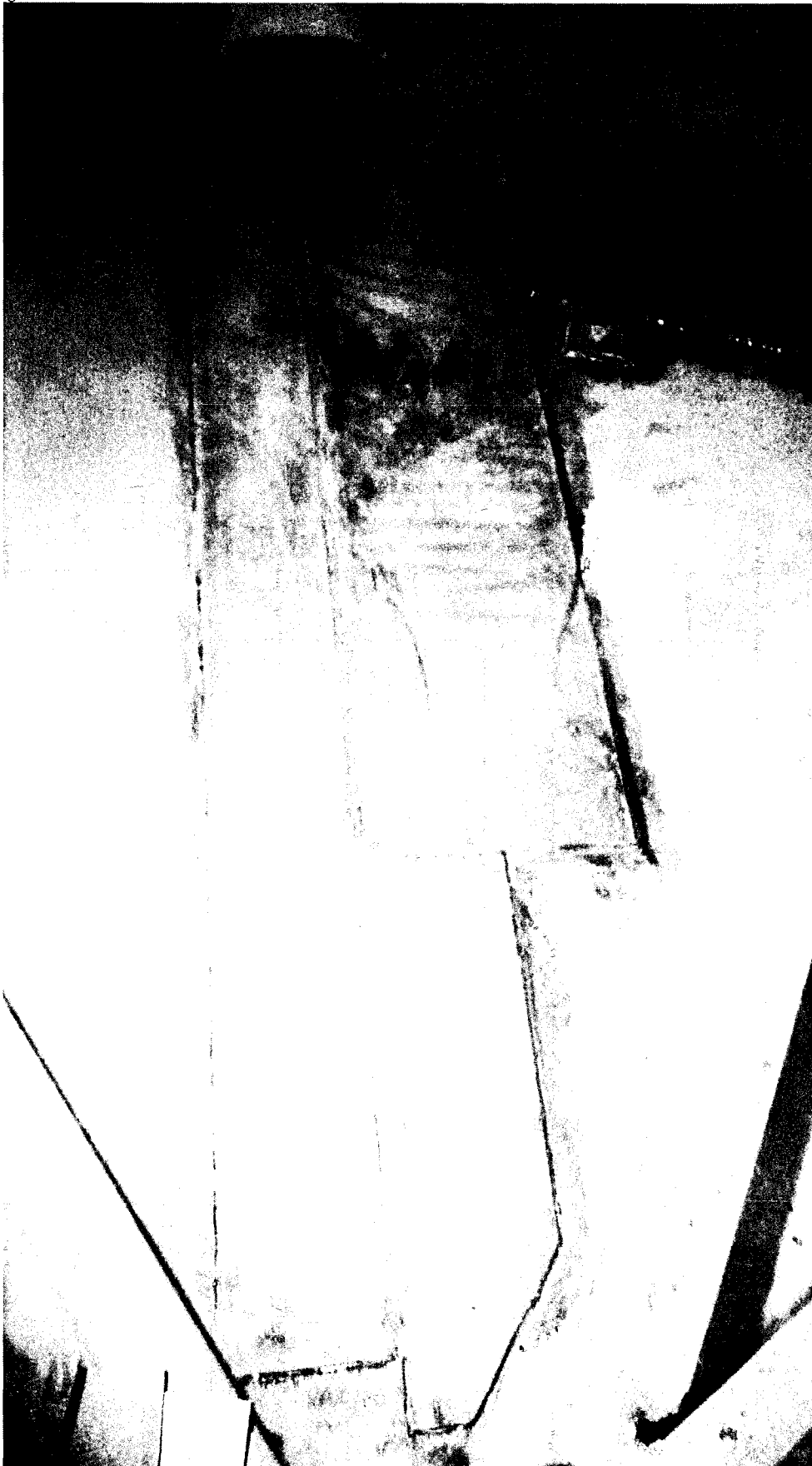












Data Request OUCG DR 9 - 04

06/26/2020

For the South Filter rehabilitation work that began in December 2016, please provide the following:

- a. The date the South Filter was taken out of service
- b. The date that repair work was completed
- c. The date the South Filter was placed back in service
- d. Names of all contractors involved in the repairs and a brief description of the work each contractor completed
- e. The specific dates each contractor was on site
- f. How many patches did Peerless-Midwest [sic] weld on the filter interior?
- g. Where were patches placed on the filter interior? Please describe the locations by filter compartment (i.e. inlet pipe, detention tank floor, detention tank walls, filter section, filter section wall, baffles, partitions, underdrain, clearwell, etc.).
- h. How many patches did Peerless-Midwest [sic] weld on the outside of the filter?
- i. Where were the patches placed on the outside of the filter?

Objection:

Response:

- a. Based on review of MROs, the South Filter was taken out of service on approximately November 29, 2016. The last backwash was on November 28, 2016.
- b. The South Filter media was removed on December 21, 2016. Based on invoice dates and media delivery dates on invoices, the work was completed in March 2016.
- c. The first backwash of the South Filter after December 2016 was on March 21, 2017. The South Filter was placed back in service around this date.
- d. Contractors and scope of work listed:
 - Great Lakes Plant Services: Cleaned the filter and removed media.
 - Peerless Midwest: Inspected filter and recommended repairs; repaired inside of filter and welded patches in the tank, removed old strainers and installed new; fixed leaks on outside after interior repair then loaded media into filter
 - WaterSurplus: Supplied materials including parts and media
- e. Great Lakes Plant Services was on-site December 21, 2016, based on the invoice information and the plant journal.
Based on review of the plant journal, Peerless-Midwest did an initial inspection on November 29, 2016. Peerless-Midwest was on-site March 7, 2017 to March 9, 2017 for welding repairs and media and strainer installation.
- f. The Company does not record the number of patches put on the filter, because the goal is ensuring the identified defects in metal are addressed during rehabilitation.
- g. The Company does not record the exact location of patches put on the filter, because the goal is ensuring the identified defects in metal are addressed during rehabilitation.

06/26/2020

Patches were installed throughout the filter, including at least the detention tank floor and detention tank walls.

- h. The Company does not have a record of exactly where and when each patch on the South Filter was placed. However, the photographs previously provided in Attachment LG-R2 in Mr. Grosvenor's testimony show the history of patches on the exterior of the South Filter.
- i. See response to h.

Data Request OUCG DR 8 - 02

Reference Q14 in the Carbonaro Rebuttal Testimony which reads in part:

Further, as stated in the Company's Supplemental Response to OUCG DR 5-10, provided as Attachment SC-R4, the Company followed up with Symbiont during discovery to inquire whether it performed an interior inspection of the filter, and Symbiont indicated it did inspect the South Filter interior and provided photographs from the inspection.

Please answer or provide the following:

- a. Admit or deny that CUII responded to OUCG DR 5-10 on April 17, 2020 and stated:

The Company understands the 'detailed inspection' to refer to Peerless-Midwest's proposal/report which was provided as Attachment to OUCG DR 1-4. The Company does not have any photographs from Peerless-Midwest's inspection. Symbiont did not inspect the filter interior. No interior photographs were taken.

Emphasis added

If your response is anything other than an unqualified admission, please explain.

- b. Admit or deny that CUII's supplemental response to OUCG DR 5-10 was sent to the OUCG on May 21, 2020, two days after the OUCG filed its testimony. If your response is anything other than an unqualified admission, please explain.
- c. Please provide the date when Sean Carbonaro initially contacted Symbiont to inquire whether an interior inspection of the filter was performed and whether any photographs taken by Symbiont existed.
- d. Copies of all communications with Symbiont regarding its site visit not previously provided to the OUCG.
- e. Copies of all communications with Symbiont about CUII's inquiry, made after April 1, 2020, regarding the inspection and follow up with Symbiont during discovery to inquire whether it performed an interior inspection of the filter.
- f. Copies of all photographs taken by Symbiont or CUII during the July 24, 2018 site visit in the original format taken as a jpg file with photograph attributes intact. For purposes of this data request, photograph attributes include but may not be limited to file name, date and time taken, file size, dimensions, shot, ISO, and device.
- g. Identify the person who provided CUII's original response to OUCG DR 5-10, dated April 17, 2020.
- h. Did the person who provided CUII's original response to OUCG DR 5-10 ask Loren

Grosvenor and Mike Whelan, employees of Utilities, Inc., if Symbiont inspected the South Filter and took photographs? If not, why not?

- i. For the eight photographs CUII provided in its Supplemental response to OUCG DR 5-10, please identify, by photograph, all filter deficiencies shown. For example, Photograph 1 shows the following deficiencies, Photograph 2 shows the following deficiencies, etc.

Objection:

CUII objects to the request on the grounds and to the extent it is overly broad and unduly burdensome in that it seeks copies of “all communications” and “all photographs” and exceeds the scope of permissible discovery. CUII further objects to the request on the grounds and to the extent it seeks a compilation or analysis CUII has not performed and which it objects to performing. CUII further objects to the request to the extent it requests identification of witnesses who will be prepared to testify concerning the matters contained in each response on the grounds that CUII has no obligation to call witnesses to respond to questions about information provided in discovery. Subject to and without waiver of the foregoing objection, CUII responds as follow.

Response:

- a. Admit. As explained in the Company’s Supplemental Response to OUCG DR 5-10, the employee who attended the entire Symbiont inspection is no longer with the Company and it was the belief of CUII’s current employees that Symbiont did not perform an inspection of the filter interior. Upon reviewing Mr. Parks’ testimony and his statements regarding the internal inspection of the South Filter, CUII contacted Symbiont to inquire whether Symbiont performed an interior inspection of the South Filter. Upon learning that Symbiont did perform an interior inspection and receiving the photographs, the Company promptly supplemented its prior discovery response in order to provide the most complete and correct information to the parties.
- b. Admit. As explained in the Company’s Supplemental Response to OUCG DR 5-10, the employee who attended the entire Symbiont inspection is no longer with the Company and it was the belief of CUII’s current employees that Symbiont did not perform an inspection of the filter interior. Upon reviewing Mr. Parks’ testimony and his statements regarding the internal inspection of the South Filter, CUII contacted Symbiont to inquire whether Symbiont performed an interior inspection of the South Filter. Upon learning that Symbiont did perform an interior inspection and receiving the photographs, the Company promptly supplemented its prior discovery response in order to provide the most complete and correct information to the parties.
- c. Sean Carbonaro contacted Symbiont on May 20, 2020 regarding inspection and photographs of the South Filter.

- d. The May 2020 emails are included as Attachment to OUCG DR 8-2d(1). The email string also includes emails from October 2018 and prior. Those emails were previously provided in Attachment to OUCG DR 4-10.

See objection. In response to previous data requests, the Company attempted to locate all communications with Symbiont regarding the site visit within the time constraint provided for discovery responses. However, individuals at the Company have tens of thousands of e-mails stored and even when using specific search terms it is possible that some communications will not be located. In searching in historical emails, the Company identified additional emails with Symbiont from July 2018. These are provided as Attachment to OUCG DR 8-2d(2).

- e. The Company first contacted Symbiont on May 20, 2020 regarding the interior inspection of the filter. Those e-mails are provided in response to subpart b. These are the only communications CUII has had with Symbiont after April 1, 2020 regarding the inspection.
- f. The original photographs are provided in Attachment to OUCG DR 8-2f. Symbiont provided the interior photographs to the Company over a file-sharing website. The Company does not believe the time and date in the file properties for the photograph are correct. The properties indicate the photos were taken on 9/20/2013 between 8:21 PM and 8:24 PM. The photographs were taken with a digital camera (Panasonic DMC-LS6) that may require manual time and date setting. These photographs are all original photographs from Symbiont's inspection we located in our files.
- g. See objection. Sean Carbonaro provided the original response.
- h. Yes, Sean Carbonaro asked Loren Grosvenor if Symbiont inspected the South Filter interior and took photographs. As explained in Response to OUCG DR 8-2a, it was the belief of current employees (including Loren Grosvenor) that Symbiont did not perform an inspection of the filter interior.
- i. See objections. The photographs speak for themselves.

Sean Carbonaro

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Sent: Tuesday, May 26, 2020 9:15 PM
To: Sean Carbonaro; John Kissel
Cc: Loren Grosvenor; Pat Carnahan
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

CUII, 45342
06/12/2020

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and verify that the content is safe.

Sean, we were not able to take any media samples as we were given the size and gradation of the media and some samples of what were put into the other tank were available at the inspection. The down time was to be as short as possible the day we performed the inspection so we were only able to take the upper portion photos and an exterior inspection.

Pat Carnahan

From: Sean Carbonaro <Sean.Carbonaro@uiwater.com>
Sent: Thursday, May 21, 2020 1:03 PM
To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; John Kissel <John.Kissel@SymbiontEngineer.com>
Cc: Loren Grosvenor <Loren.Grosvenor@uiwater.com>
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Thanks Pat. Do you know if the media or other internal components were also inspected? Or just the upper portion shown in these pictures?

Sean Carbonaro, P.E. | Director of Engineering & Asset Management
Cell 224-287-3048

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Sent: Thursday, May 21, 2020 10:07 AM
To: John Kissel <John.Kissel@SymbiontEngineer.com>; Sean Carbonaro <Sean.Carbonaro@uiwater.com>
Cc: Loren Grosvenor <Loren.Grosvenor@uiwater.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and verify that the content is safe.

I'm using Mimecast to share large files with you. Please see the attached instructions.

Sean and Loren,

I am attaching the interior tank photos taken during our inspection visit as requested.

Did you end up undertaking any of the proposed improvements we were looking at back in 2018?

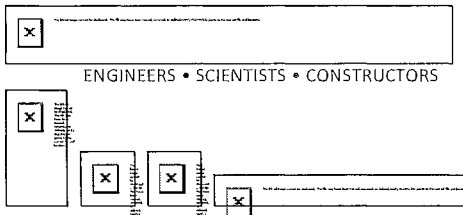
Thanks.

Patrick Carnahan, P.E.

President of Symbiont Engineering, Science and Construction

T 414.291.8840 C 414.719.1449

CUII, 45342
06/12/2020



From: Sean Carbonaro <Sean.Carbonaro@uiwater.com>

Sent: Wednesday, May 20, 2020 3:45 PM

To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; John Kissel <John.Kissel@SymbiontEngineer.com>

Cc: Loren Grosvenor <Loren.Grosvenor@uiwater.com>

Subject: FW: Utilities Inc Indiana Filter Project - Final Report

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Pat and John, I know this report is from a while ago, but we had a question. The report states that the internal components were inspected from the horizontal access hatch. We wouldn't recall if that actually happened and if any pictures were taken. Can you confirm that you did inspect the interior of the South Filter? Any pictures available? Thanks!

Sean Carbonaro, P.E. | Director of Engineering & Asset Management
Cell 224-287-3048

From: John W. Norton <JWNorton@uiwater.com>

Sent: Thursday, October 4, 2018 1:03 PM

To: Sean Carbonaro <SCarbonaro@uiwater.com>

Cc: Loren Grosvenor <LGrosvenor@uiwater.com>; Mike Miller <MAMiller@uiwater.com>

Subject: FW: Utilities Inc Indiana Filter Project - Final Report

John W. Norton, Jr., PhD, PE

Cell +1.224.545.9700

jwnorton@uiwater.com

From: John Kissel <John.Kissel@SymbiontEngineer.com>

Sent: Wednesday, October 3, 2018 5:06 PM

To: John W. Norton <JWNorton@uiwater.com>; Loren Grosvenor <lggrosvenor@uiwater.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Cc: Mike Miller <MAMiller@uiwater.com>

Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Loren and John,

Please see the attached revised summary document.

Regards,

CUII, 45342
06/12/2020

John Kissel

Project Engineer

T 414.755.1133

ENGINEERS • SCIENTISTS • CONSTRUCTORS
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From: John W. Norton <JWNorton@uiwater.com>

Sent: Wednesday, October 3, 2018 1:52 PM

To: Loren Grosvenor <LGrosvenor@uiwater.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; Mike Miller <MAMiller@uiwater.com>

Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Oh my heavens, worse design ever!

John and Pat, Please make the corrections.

John W. Norton, Jr., PhD, PE

Cell +1.224.545.9700

jwnorton@uiwater.com

From: Loren Grosvenor

Sent: Wednesday, October 3, 2018 1:15 PM

To: John W. Norton <JWNorton@uiwater.com>; Pat Carnahan <pat.carnahan@symbiontengineer.com>

Cc: John Kissel <john.kissel@symbiontengineer.com>; Mike Miller <MAMiller@uiwater.com>

Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Correct it feeds back through pumps when an altitude valve opens on a timer.

Loren Grosvenor

Area Manager

Community Utilities of Indiana, Inc.

10996 Four Seasons Pl. Suite 100G

Crown Point, IN 46307

C. 815-509-0317

P. 219-226-1630

F. 219-226-9198

Lggrosvenor@uiwater.com

From: John W. Norton

Sent: Wednesday, October 3, 2018 1:11 PM

To: Pat Carnahan <pat.carnahan@symbiontengineer.com>; Loren Grosvenor <lggrosvenor@uiwater.com>

Cc: John Kissel <john.kissel@symbiontengineer.com>; Mike Miller <MAMiller@uiwater.com>

Subject: Re: Utilities Inc Indiana Filter Project - Final Report

So the pumps just idle and spin freely when the water is going the other direction?

John W. Norton, Jr., PhD., PE
c) 224-545-9700
e) jwnorton@uiwater.com

CUII, 45342
06/12/2020

From: Loren Grosvenor
Sent: Wednesday, October 3, 2018 1:08:23 PM
To: John W. Norton; Pat Carnahan
Cc: John Kissel; Mike Miller
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Also the GSTs use the same line to pump to the system and fill from system so the red line doesn't exist.

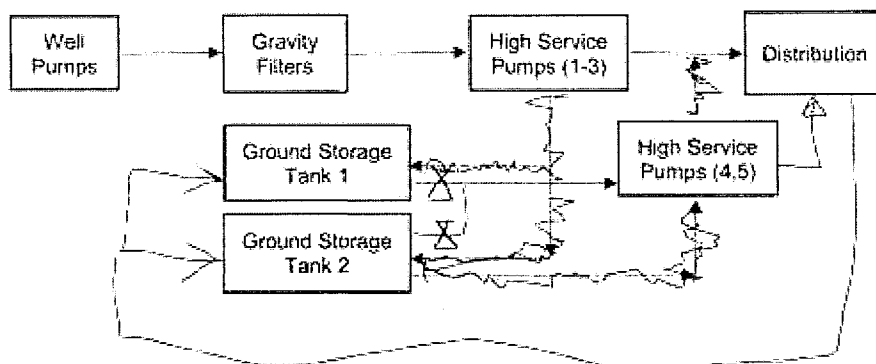
Loren Grosvenor
Area Manager
Community Utilities of Indiana, Inc.
10996 Four Seasons Pl. Suite 100G
Crown Point, IN 46307
C. 815-509-0317
P. 219-226-1630
F. 219-226-9198
Lggrosvenor@uiwater.com

From: John W. Norton
Sent: Wednesday, October 3, 2018 12:11 PM
To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; Loren Grosvenor <Lggrosvenor@uiwater.com>
Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; Mike Miller <MAMiller@uiwater.com>
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Pat,

The existing condition flow paths are not accurate. The actual situation is like this. The GSTs float off the distribution system. The blue valves, as shown, allow each tank to be isolated before the tee connection.

Figure 1. Current Water Treatment/Storage/Pumping Schematic



John W. Norton, Jr., PhD, PE
Cell +1.224.545.9700
jwnorton@uiwater.com


CUII, 45342
06/12/2020

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Sent: Wednesday, October 3, 2018 9:35 AM
To: Loren Grosvenor <lggrosvenor@uiwater.com>; John W. Norton <JWNorton@uiwater.com>
Cc: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; John Kissel <John.Kissel@SymbiontEngineer.com>
Subject: Utilities Inc Indiana Filter Project - Final Report

Here is an updated summary document. In meetings but will follow up later if needed.

Thanks

Patrick W. Carnahan, P.E.
VICE PRESIDENT ENGINEERING
T 414.755.1169
Mobile 414.719.1449
pat.carnahan@symbiontengineer.com



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From: Pat Carnahan
Sent: Tuesday, October 2, 2018 9:27 PM
To: Loren Grosvenor <LGGrosvenor@uiwater.com>; John W. Norton <JWNorton@uiwater.com>
Cc: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Subject: RE: Utilities Inc Indiana Filter Project - Final Report

Loren/John,

Updates made today to the report and will send off tomorrow.

Patrick W. Carnahan, P.E.
VICE PRESIDENT ENGINEERING
T 414.755.1169
Mobile 414.719.1449
pat.carnahan@symbiontengineer.com


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From: Loren Grosvenor <LGGrosvenor@uiwater.com>
Sent: Tuesday, October 2, 2018 1:58 PM
To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; John W. Norton <JWNorton@uiwater.com>
Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; Jeff Vanvoorhis <Jeff.Vanvoorhis@SymbiontEngineer.com>; Ryan

E. Dudley <Ryan.Dudley@SymbiontEngineer.com>

Subject: RE: Utilities Inc Indiana Filter Project - Final Report

CUII, 45342

06/12/2020

Pat,

After a quick review I see some errors in your report.

New filter wasn't installed in 2017. It was installed in 2007.

The South filter was patched in 2017.

Effluent Fe is typically 0.02 not 0.2.

The Current Water Schematic is incorrect. We've gone over how the filter feed H/S 1, 2 & 3. The GST feed H/S 4 & 5.

New schematic shows 2 H/S pumps off of filters and 6 from GST. Why do we need 6 pumps for GST?

Loren Grosvenor

Area Manager

Community Utilities of Indiana, Inc.

10996 Four Seasons Pl. Suite 100G

Crown Point, IN 46307

C. 815-509-0317

P. 219-226-1630

F. 219-226-9198

Lggrosvenor@uiwater.com

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Sent: Wednesday, September 26, 2018 12:05 PM

To: Loren Grosvenor <lggrosvenor@uiwater.com>; John W. Norton <JWNorton@uiwater.com>

Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; Jeff C. VanVoorhis <Jeff.Vanvoorhis@SymbiontEngineer.com>;

Ryan E. Dudley <Ryan.Dudley@SymbiontEngineer.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Subject: Utilities Inc Indiana Filter Project - Final Report

I'm using Mimecast to share large files with you. Please see the attached instructions.

Hello John and Loren,

We have updated the draft report taking into account your review comments and the supplemental reference information provided last week. I am attaching a copy of the report and appendices for your use.

Utilities Inc. has received our draft proposal for services related to the next project phase and we understand you are reviewing that draft and will provide feedback that meets your schedule.

Thank you for your help on this project and we look forward to continuing to work with you on this project.

Patrick W. Carnahan, P.E.

VICE PRESIDENT ENGINEERING

T 414.755.1169

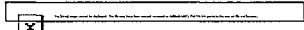
Mobile 414.719.1449

pat.carnahan@symbiontengineer.com



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From: John W. Norton <JWNorton@uiwater.com>

Sent: Tuesday, September 18, 2018 6:19 PM

CUII, 45342
06/12/2020

To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; Loren Grosvenor <LGGrosvenor@uiwater.com>; Scott A. Smith <SASmith@uiwater.com>

Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; John Nelson <John@SymbiontConstruct.com>

Subject: RE: Utilities Inc Indiana Filter Project - Status Update

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Inline below.

John W. Norton, Jr., PhD, PE

Cell +1.224.545.9700

jwnorton@uiwater.com

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Sent: Friday, September 14, 2018 4:41 PM

To: John W. Norton <JWNorton@uiwater.com>; Loren Grosvenor <lgrosvenor@uiwater.com>

Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; John Nelson <John@SymbiontConstruct.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>

Subject: RE: Utilities Inc Indiana Filter Project - Status Update

Hello John,

Here is the information and feedback we are hoping to receive.

Pat

Assumptions associated with the existing versus proposed flow schematic:

1. Please comment on the sketches of the existing filter plant well to filter to high service to ground storage flow pattern and buried piping as we understand it. The second sketch illustrates the proposed flow path and new/reused piping to address post filtration water storage and flow path improvements for the plant. JWN: Those flow paths are acceptable.
2. We are interested in your thoughts on the potential location for pumps (2) that would fill the ground storage post filtration. The well pumps (we don't have those curves) likely do not have the head to fill the ground storage tanks after filtration without boosting and the high service pumps have way more head than is needed if repurposing one or two of them. We are looking at a new 6th high service pump as discussed. JWN: I don't see that we could even use the well pumps since it is a gravity system. We would like to use the existing high service pumps to fill the GSTs. Why is excess head an issue? Can they be throttled? Were you able to track down the pump curves from the nameplate data?
3. One area that needs further follow up is the roof opening related construction. IDEM actually requires a lower rated gpm/ft² filter feed rate (3 gpm/ft²) than what is in 10 state standards (2-4 gpm/ft²) so once we obtain operating data, we can see how actual operation compares with the original design criteria. We were looking at this to hopefully make the new filter somewhat smaller in diameter to allow the new filter to be inserted into the existing opening as a possibility but we are moving ahead with same diameter filter and having to perform roof structural and roofing material work related to removal and installation. JWN: If IDEM requires the loader rate to be lower than 10-state standards, wouldn't the filter surface need to be bigger to treat the same flow? Also, isn't 3 gpm/ft² right in the middle of a 2-4 gpm/ft² range? Design loading rate is 2.65 gpm/ft² (350 gpm total)

4. Our electrical folks are asking with horsepower motors the 5 existing high service pumps are to aid in the estimate for a budget to upgrade the electrical distribution system. That should show on the pump curves we asked for earlier but if that is not able to be located, if the nameplate info can be confirmed that would help. JWN: Please clarify. Are you wanting something different than the information you got when you were out?

Filter System Operating Data (one/two years, what is electronically available)

- ▣ Influent filtration system water quality analysis to characterize typical supply water that is being filtered Attached.
- ▣ Effluent iron concentration (mg/L Fe) JWN: Effluent iron is typically around 0.04 mg/L
- ▣ Flowrate (gpm or MGD), minimum, average, and maximum JWN: Min: 500 gpm, average 575 to 600, Max is 650 gpm --- (combined through both filters)

Filtration Equipment Information

- Media type and depth Attached.
- Drawings and/or O&M for filtration equipment showing underdrain, system components and materials Do not have. Made by "General Filter Company." You should have a picture? 13 ft diameter, 11 ft 9 inches detention section, 5.5 ft filter section

Pumping and Water Storage Information

- Well water pump curves Do not have.
- Service pump curves Do not have.
- Ground storage tank drawings We have in print, requested electronic copies. Will send when we receive.
- Any yard piping drawings showing sizes and locations of valves to and from the ground storage tanks and out to distribution Do not have, asking our consultant.

Patrick W. Carnahan, P.E.
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pat.carnahan@symbiontengineer.com

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From: John W. Norton <JWNorton@uiwater.com>
Sent: Friday, September 14, 2018 4:35 PM
To: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>; Loren Grosvenor <LGGrosvenor@uiwater.com>
Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; John Nelson <John@SymbiontConstruct.com>
Subject: RE: Utilities Inc Indiana Filter Project - Status Update

Pat,

Checking in, what information do you still need for the condition evaluation?

Thank you.

CUII, 45342
06/12/2020

John W. Norton, Jr., PhD, PE
Cell +1.224.545.9700
jwnorton@uiwater.com

From: Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Sent: Wednesday, August 15, 2018 8:07 AM
To: John W. Norton <JWNorton@uiwater.com>; Loren Grosvenor <lggrosvenor@uiwater.com>
Cc: John Kissel <John.Kissel@SymbiontEngineer.com>; John Nelson <John@SymbiontConstruct.com>; Pat Carnahan <Pat.Carnahan@SymbiontEngineer.com>
Subject: RE: Utilities Inc Indiana Filter Project - Status Update

John/Loren,

Following up on the past information request and assumptions outlined below and looking for feedback. John requested an updated proposal and in order to prepare a draft and continue with our summary report draft we need the information.

Thanks

Pat

Assumptions associated with the existing versus proposed flow schematic:

1. Please comment on the sketches of the existing filter plant well to filter to high service to ground storage flow pattern and buried piping as we understand it. The second sketch illustrates the proposed flow path and new/reused piping to address post filtration water storage and flow path improvements for the plant.
2. We are interested in your thoughts on the potential location for pumps (2) that would fill the ground storage post filtration. The well pumps (we don't have those curves) likely do not have the head to fill the ground storage tanks after filtration without boosting and the high service pumps have way more head than is needed if repurposing one or two of them. We are looking at a new 6th high service pump as discussed.
3. One area that needs further follow up is the roof opening related construction. IDEM actually requires a lower rated gpm/ft² filter feed rate (3 gpm/ft²) than what is in 10 state standards (2-4 gpm/ft²) so once we obtain operating data, we can see how actual operation compares with the original design criteria. We were looking at this to hopefully make the new filter somewhat smaller in diameter to allow the new filter to be inserted into the existing opening as a possibility but we are moving ahead with same diameter filter and having to perform roof structural and roofing material work related to removal and installation.
4. Our electrical folks are asking with horsepower motors the 5 existing high service pumps are to aid in the estimate for a budget to upgrade the electrical distribution system. That should show on the pump curves we asked for earlier but if that is not able to be located, if the nameplate info can be confirmed that would help.

Filter System Operating Data (one/two years, what is electronically available)

- ▣ Influent filtration system water quality analysis to characterize typical supply water that is being filtered
- ▣ The filtered water quantity goals for the utility (as compared to primary and secondary drinking water MCLs)
- ▣ Existing process monitoring equipment information (Effluent turbidity -NTU)
- ▣ Effluent iron concentration (mg/L Fe), type of disinfection (free chlorine, chloramines, or ?? and typical residual ranges leaving plant and in system)
- ▣ Flowrate (gpm or MGD), minimum, average, and maximum

- Pre filtration, pre-oxidant method if used (air, chlorine, permanganate, ?? - type, dosage, and form of chemical)

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06/12/2020

Filtration Equipment Specifications

- Media type and depth
- Drawings and/or O&M for filtration equipment showing underdrain, system components and materials

Pumping and Water Storage Information

- Well water pump curves
- Service pump curves
- Ground storage tank drawings
- Any yard piping drawings showing sizes and locations of valves to and from the ground storage tanks and out to distribution

Thank you

Patrick W. Carnahan, P.E.
VICE PRESIDENT ENGINEERING

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From: Loren Grosvenor <LGrosvenor@uiwater.com>

Sent: Monday, July 16, 2018 2:29 PM

To: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; John W. Norton <JWNorton@uiwater.com>

Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Contact information

Loren Grosvenor
Area Manager
Community Utilities of Indiana, Inc.
10996 Four Seasons Pl. Suite 100G
Crown Point, IN 46307
C. 815-509-0317

P. 219-226-1630
F. 219-226-9198
Lggrosvenor@uiwater.com

CUII, 45342
06/12/2020

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Sent: Monday, July 16, 2018 12:06 PM
To: John W. Norton <JWNorton@uiwater.com>; Loren Grosvenor <LGGrosvenor@uiwater.com>
Cc: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>
Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

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Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

John,

I was in meetings earlier when you sent e mails and have another one now at 11:30 about a recent interview we conducted. I am free from noon central to one but can excuse myself from an internal meeting 1 cst or other in the afternoon to be available for a call.

Thanks

Pat

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CUII, 45342
06/12/2020

Sent: Monday, July 16, 2018 11:01 AM

To: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; Loren Grosvenor <LGrosvenor@uiwater.com>

Cc: Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>

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We can talk tomorrow if you wish.

Patrick W. Carnahan, P.E.

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Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

CUJL 45342
06/12/2020

Pat and team,

Would you guys be able to meet a July 27th deadline if we provided a NTP Monday or Tuesday?

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jwnorton@uiwater.com

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Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Good morning John, here is the updated proposal.

Thanks again for the quick review and feedback.

Patrick W. Carnahan, P.E.
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Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Awesome, safe travels!

John W. Norton, Jr., PhD, PE
Cell +1.224.545.9700
jwnorton@uiwater.com

CUII, 45342
06/12/2020

From: Pat Carnahan [<mailto:Pat.Carnahan@SYMBIONTONLINE.com>]
Sent: Monday, July 9, 2018 9:06 PM
To: John W. Norton <JWNorton@uiwater.com>
Cc: Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>; Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>
Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Thanks John, I will update, remove the DRAFT watermark and send a clean PDF to you before heading out to the Pennsylvania site tomorrow.

Pat W. Carnahan, P.E.
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Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Pat,

Thank you for this. Exactly what I was looking for. One minor change, there are two filters, but one is much newer than the other. The old one is the one we had work done last year, new strainers, new media, and patchwork welding and replacement of rusted out structural elements.

Please make the minor changes to reflect evaluating the single filter and resend. Sorry for the trouble!

John W. Norton, Jr., PhD, PE
Cell +1.224.545.9700
jwnorton@uiwater.com

From: Pat Carnahan [mailto:Pat.Carnahan@SYMBIONTONLINE.com]
Sent: Friday, July 6, 2018 5:08 PM
To: John W. Norton <JWNorton@uiwater.com>
Cc: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>
Subject: Draft Proposal and backup files - Utilities Inc Indiana Project

CUII, 45342
06/12/2020

John,

Hope you had a great week off. Attached is the formatted draft proposal with attachment and the filter maintenance presentation I referenced from the AWWA section meeting.

Please let me know if you have comments or questions after reviewing and I can make final and send a hard copy if needed.

Thanks

Patrick W. Carnahan, P.E.
VICE PRESIDENT ENGINEERING

6737 West Washington Street : Suite 3440 : Milwaukee, WI 53214
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06/12/2020 JTP Note: For CUII Attachment 8-2 d (1), I deleted additional email pages 16, 17, and 18 of 18 that contained only the standard disclaimer language shown here.

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Sean Carbonaro

From: Loren Grosvenor
Sent: Tuesday, June 9, 2020 2:39 PM
To: Sean Carbonaro
Subject: FW: Draft Proposal and backup files - Utilities Inc Indiana Project

Follow Up Flag: Follow up
Flag Status: Flagged

CUII, 45342
06/12/2020

Loren Grosvenor
State Operations Manager
Community Utilities of Indiana, Inc.
10996 Four Seasons Pl. Suite 100G
Crown Point, IN 46307
C. 815-509-0317
P. 219-226-1630 ext. 405
F. 219-226-9198
Loren.Grosvenor@uiwater.com

From: Loren Grosvenor
Sent: Tuesday, July 17, 2018 10:56 AM
To: John W. Norton <JWNorton@uiwater.com>; Pat Carnahan <pat.carnahan@sybiontonline.com>
Cc: Pat Carnahan <pat.carnahan@sybiontonline.com>
Subject: Re: Draft Proposal and backup files - Utilities Inc Indiana Project

Yes it is a crown point address but closer to Winfield.

Loren Grosvenor

Area Manager

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10996 Four Seasons Pl. Suite 100G
Crown Point, IN 46307
C. 815-509-0317
P. 219-226-1630
F. 219-226-9198
Lggrosvenor@uiwater.com

From: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>
Sent: Tuesday, July 17, 2018 10:20:24 AM

To: John W. Norton; Loren Grosvenor

Cc: Pat Carnahan

Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

CUII, 45342
06/12/2020

Perfect, that fits our driving down better and I just wanted to be sure as I heard some references to Twin Lakes during the call and wanted to make sure I meet at the right place.

I will be sending off information request summary and draft kick off meeting agenda separately.

Have a great day and hope that long meeting you were both going into went well.

Pat

From: John W. Norton <JWNorton@uiwater.com>

Sent: Tuesday, July 17, 2018 10:18 AM

To: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; Loren Grosvenor <LGGrosvenor@uiwater.com>

Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

10996 Four Seasons Pl. Suite 100G
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John W. Norton, Jr., PhD, PE

Cell +1.224.545.9700

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Cc: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>

Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Importance: High

Thanks for the contact information.

Please confirm the address where we are meeting. Crown Point looks to be quite a few miles from Twin Lakes.

Pat

From: Loren Grosvenor <LGGrosvenor@uiwater.com>

Sent: Monday, July 16, 2018 2:29 PM

To: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; John W. Norton <JWNorton@uiwater.com>

Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Contact information

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Area Manager
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To: John W. Norton <JWNorton@uiwater.com>
Cc: Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>; Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>
Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Thanks John, I will update, remove the DRAFT watermark and send a clean PDF to you before heading out to the Pennsylvania site tomorrow.

~~Patrick W. Carnahan, P.E.~~
VICE PRESIDENT ENGINEERING

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From: John W. Norton <JWNorton@uiwater.com>
Sent: Monday, July 9, 2018 8:37 PM
To: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>
Cc: Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>
Subject: RE: Draft Proposal and backup files - Utilities Inc Indiana Project

Pat,

Thank you for this. Exactly what I was looking for. One minor change, there are two filters, but one is much newer than the other. The old one is the one we had work done last year, new strainers, new media, and patchwork welding and replacement of rusted out structural elements.

Please make the minor changes to reflect evaluating the single filter and resend. Sorry for the trouble!

John W. Norton, Jr., PhD, PE
Cell +1.224.545.9700
jwnorton@uiwater.com

CUII, 45342
06/12/2020

From: Pat Carnahan [mailto:Pat.Carnahan@SYMBIONTONLINE.com]
Sent: Friday, July 6, 2018 5:08 PM
To: John W. Norton <JWNorton@uiwater.com>
Cc: Pat Carnahan <Pat.Carnahan@SYMBIONTONLINE.com>; Jeff Vanvoorhis <Jeff.Vanvoorhis@SYMBIONTONLINE.com>; Ryan E. Dudley <Ryan.Dudley@SYMBIONTONLINE.com>
Subject: Draft Proposal and backup files - Utilities Inc Indiana Project

John,

Hope you had a great week off. Attached is the formatted draft proposal with attachment and the filter maintenance presentation I referenced from the AWWA section meeting.

Please let me know if you have comments or questions after reviewing and I can make final and send a hard copy if needed.

Thanks

Patrick W. Carnahan, P.E.
VICE PRESIDENT ENGINEERING

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06/12/2020 JTP Note: For CUII Attachment 8-2 d (2), I deleted additional email pages 8 and 9 of 9 (pages were unnumbered) that contained only the standard disclaimer language shown here.

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