



February 23, 2023

Sent Via E-mail: jay.crawley@us.qbe.com; cheikinm@msn.com; patti.cheikin@gmail.com;

Mr. Jay Crawley
QBEIC

CC: Dr. Michael Cheikin and Mrs. Patti Cheikin
245 Bradford Circle
Blue Bell, PA 19422

Reference: Water Damage Causation Analysis – 34280 Capstan Lane, Rehoboth Beach, Delaware 19958

Dear Mr. Crawley:

As you requested the following causation analysis provides an independent engineering opinion concerning the water damage occurrence at the property owned by Dr. Michael and Mrs. Patti Cheikin (the “Owners”), located at 34820 Capstan Lane, Lewes, Delaware 19958 (the “Property”). During the approximate period of October 7, 2022, through October 13/14, 2022, water unknowingly leaked from a failure in the hot water supply pipe beneath the Kitchen cabinets. Since the cause of the leak was not apparent to the Owners nor the contractors involved, you concurred that Cogent be retained to determine the cause of the water leak and subsequent water damage.

BACKGROUND

The Owners purchased the Property in September 2019 as a retirement home. The approximately seventeen-year-old house is located in the Bay Crossing community. The house is of a slab-on-grade construction, with normal residential construction consisting of wood framing, vinyl siding and adhered stone veneer and vinyl windows, asphalt roofing, drywall interior walls with tiled bathroom construction. The house is heated with a gas furnace and cooled with heat pumps. Water supply, sewer service and electrical power are supplied by the local utility companies.

During the latter part of 2021, the Owners contracted to refurbish the house that included creating an open floor plan Living room, Dining room and Kitchen area, along with new Kitchen cabinets, granite counters, new appliances, installing vinyl plank flooring everywhere except in

the bedrooms, bathrooms and library, painting and installing new light fixtures. The scope of work included relocating the Kitchen Island, rearrange the Kitchen work areas and fans, installing stone backsplash, and installing power wiring and internet cables in the floor of new open space floor plan.

Ian McCarty of Coastal Home Experts LLC was hired as the General Contractor (GC) to perform the refurbishment. Work started in February 2022. It is unknown who the GC hired as sub-contractors. For unexplained reasons, the GC ceased work during April 2022, and disappeared from the job after the demolition was completed. The rough-in plumbing and electrical work for the new Kitchen and open floor plan living area was also completed.

The Owners were forced then to find a second GC to complete the project. Evans Tile LLC was then hired to complete the job. The new GC started work during May 2022. Work progressed as expected until the GC hired Charles Messina, Plumbing, Electrical & HVAC Co., Inc., Lewes, Delaware. Messina found undersized drain piping to the Kitchen Island and the hot and cold-water piping relocated from their original locations also needed to be replaced. The Owners also discovered that the Coastal electrical work to supply electricity and internet wiring in the floor of the open space was incomplete.

The plumbing and electrical rework required that the concrete floor slab be cut open and removed/replaced for the second time to allow the corrections to be made. Messina completed the plumbing work on June 23, 2022, and provided the means, methods, materials, manpower and supervision to perform the plumbing work. Goose Electric, the electrical contractor hired by the GC, completed the electrical work. The GC then filled-in the hole that exposed the plumbing and closed the opening in the floor slab with concrete. With the project back on track, the GC proceeded to complete the remainder of the scope of work.

On October 7, 2022, the GC installed the Kitchen sink, connected the plumbing to the sink and turned the water back on without any reported incident.

Late on October 12, 2022, the flooring sub-contractor saw water under the new Kitchen Island. On October 13, 2022, the GC saw water in the hall connecting the Living Room and Master Bedroom areas, removed the vinyl flooring plank in this area and turned off the water to the house. The work was then stopped by an apparent water leak under the vinyl plank flooring. The GC then proceeded to remove additional vinyl plank flooring hoping to find the extent of the water damage and the leak source. At that time the project was at the punch-list stage, in that, the Kitchen cabinets, granite counters, sink and appliances were set, drywall repairs and painting were essentially done, and installation of the vinyl plank floor was nearing completion.

Additional supporting information can be found in the Attachments with documents labelled as “D” entries and photographic attachments labelled as “P” entries.

METHODOLOGY

Following accepted methodology used in the development of a causation analysis, Cogent performed the following activities during a series of visits to the Property along with interviews with the people involved, and independent assessment of the accumulation of facts. These activities included:

1. Conducting a preliminary evaluation of the house to provide a basic understanding of the occurrence and resulting damage.
2. Conducting interviews with the Owners, GC, Messina plumbers and Core24 Services, Inc., the damage restoration/mold abatement contractor. What and who performed various activities become known along with the timeline of events.
3. Conducting evaluations to establish the spatial extent of water damage. Observations were collected throughout the house along with moisture measurements of various impacted materials and infrared image collection to assess residual areas of higher-than-expected moisture. Often at this point in a causation analysis the damage mechanism becomes apparent. Common water leak sources were ruled out except for a leak below the slab. The information collected to date indicated that a water leak had occurred below the floor slab, likely in the area of plumbing work below the Kitchen cabinets.
4. Exposing and inspecting the condition of the plumbing in the suspected leak area using the services of Harry Caswell, Inc., an independent plumbing contractor to perform the floor removal, excavation, and plumbing repair.
5. Collect information to establish when the leak started and stopped, and approximately how much water was involved.

BASIS OF OPINION

The following summary provides the information that was used to formulate the basis of opinion as to what caused the water damage at the Property. Cogent interpretation of the information follows.

Antecedent Conditions

Based on information provided by the Owners and GC, the refurbishment project was proceeding along a normal path, with many of the activities nearing completion. Attachment P-1 records the conditions in the house prior to the detection of the water damage. Up until the time of the occurrence, there were no indications the floor slab had been previously exposed to water.

Detection of the Water Leak

On October 13, 2022, the flooring sub-contractor reported to the GC that he found water on the vinyl plank flooring in the area of the Kitchen Island. The GC then found water under the vinyl plank flooring in the hall behind the stove area. See Attachment P-2. Plumbing and electrical openings in the floor slab area nearby this location were filled with water.

The water supply to the house was turned off in the water heater closet just after the water leak was detected. The GC promptly notified the Owners.

Water Leak Response

In addition to looking for obvious leaks, as the first activity to identify the source of the water leak, the Owners had Tidewater Utilities, Inc., the supply company, conduct a water leak check at the Property on October 14, 2022. The conclusion of this work was that a measurable leak was present inside of the house.

At the advice of Counsel, Blake W. Carey, Esquire, the Owners notified QBE, their insurance company, on October 18, 2022. See D-1 for documents recording communications between the Owners and QBE. QBE had Code Blue, a company hired by insurance companies to contract restoration companies, respond to the water leak event. Code Blue hired Silver Lake, a local restoration/mold abatement company, to start the restoration process at the property (drying, HEPA air filtration, removal of wet/water damaged materials, recovery of possessions, house restoration and mold abatement).

As explained by the Owners, Silver Lake arrived to start the restoration on October 21, 2022, but was immediately instructed by Code Blue not to start work, as the source of the water leak was not identified. The Owners privately paid Silver Lake to leaving the dehumidifier and HEPA air filtering equipment operating during the period October 21 through 24, 2022. Silver Lake returned on October 25, 2022, and immediately ceased work, removed their equipment and left

the project, for unexplained reasons. Note that the leak detection company hired by QBE, American Leak Detection, was unavailable to find the source of the leak during this period. The consequence of this lack of action only served to delay the drying of the house increasing the amount of water damage.

With the concurrence of the QBE, Core24, the second restoration/mold abatement company, commenced the restoration project on October 25, 2022. Core24 completed the removal, drying and initial decontamination portion of their work scope of work on December 22, 2022.

Cogent Involvement

Knowing that dealing with the aftermath of the water leak was going to be complex, the Owners sought the advice of Counsel. Mr. Carey advised the Owner to hire a firm specializing in building forensics and water damage assessment and response. Based on his previous experience, Mr. Carey recommended Cogent Building Diagnostics as a local firm with the range of skills and experience to support the needs of the Owners. The Owners retained Cogent on October 21, 2022. Cogent's remit was to perform leak detection diagnostics and support, observe the Core24 work to assure the accepted protocols were being used, perform indoor air quality mold testing as required, and provide expert witness services.

On October 21, 2022, Cogent started a series of visits to the Property to first stabilize the situation to assure that ongoing damage was held to a minimum. As seen in Attachment P-3, efforts had already started to find the leak source and define the extent of damage. Information was then collected to establish the extent of the water damage and to consult with Core24. Core24 provided the means, methods, materials, manpower and supervision to perform the work. Concurrently, Cogent collected information to identify the water leak source. Note that QBE supported the Owner's decision to retain Cogent, as their leak detection company could not respond in a timely manner.

Cogent evaluated the water damage, as seen in Attachments P-4a through P-4g. Core24 found the carpeting in the Bedrooms and Library were thoroughly wet. Water stains and suspected mold growth was observed scattered along all exterior walls and many interior wall locations on both the baseboard trim and drywall at the bottom of the walls. Note that the term "suspected mold" is a term commonly used when a darkened or stained area on a surface has the appearance of mold and is present in an area with environmental conditions supportive of mold growth but has been identified as mold by an accredited microbial laboratory analysis.

The baseboard trim and wall base plates were observed to be water stained in many locations around the house. This variation along a given wall is likely attributable to normal irregularities in the flatness of concrete floors. With water exposure that is not deep, some wall areas stay dry while other areas experience prolonged water exposure. Cogent reviewed these findings with Core24. The standard in the water damage restoration/mold abatement industry is to remove and discard 18" to 24" of the drywall and wall insulation above the highest water mark. The sill plate, studs and sheathing were treated by Core24 for mold, by methods that includes sanding to

bright wood, treating with an EPA registered anti-fungal solution, HEPA vacuuming to remove debris and mold spores, and encapsulating all exposed surfaces with an anti-fungal encapsulant paint. Core24's normal practice is to use the above method during their work.

Water measurements with a calibrated moisture meter and infrared images were taken at many wall locations. Since Cogent did not start its work until after the restoration process had some time to dry the house, it was not unexpected that most locations were found to be dry or with normal infrared images. Wet conditions were found occasionally throughout the house, and particularly along the right side of the house that borders the open living space area especially at the slab to wall base plate interface.

Wet conditions were consistently measured at the juncture between the floor slab and foundation walls around the house, suggesting this area had remained consistently wet, as from a recent water exposure. Normally this space is found to be no more than dry-to-damp. This finding supports a water exposure mechanism that involved having water come up from below the slab, wet the top of the slab and was available to flow under the vinyl plank flat and wet the bottom of the walls.

Areas where the floor slab had been removed to facilitate plumbing and electrical modifications were plainly evident, based on the color of the concrete. The electrical receptacle in the new floor outlet boxes were observed to be heavily corroded indicating that these new receptacles had been recently exposed to water. This finding also supports that a floor water exposure event had occurred and was present for some period of time.

During their mold abatement work, Core24 observed an extraordinary amount of suspected mold growth on the bottom of the Kitchen cabinet that vertically aligned with the plumbing work Messina had performed below the slab to connect the original water supply and drainpipes to new pipes needed to relocate the Kitchen Island. As seen in Attachment P-4e, the space below this cabinet seemed to have achieved conditions akin to a mold incubator (damp and warm). Nowhere else in the house was such concentrated and diverse suspected mold growth observed. This area needed to have achieved some combination of wetter and warmer conditions than elsewhere in the house.

Between Cogent and Core24, the bottoms, sides and backs of all cabinets in the house were observed with water damage and/or suspected mold growth. See Attachment P-4g. These conditions were observed throughout the house to a degree sufficient to require base cabinet replacement.

As part of their work, Core24 removed sample areas of ceramic floor tiles. Core24 observed that the mastic used to adhere the tile to the concrete slab was water damaged and had suspected mold growth in many areas. In Cogent's experience this finding is consistent with prolonged water exposure supporting the need for tile replacement.

Critical observations made by Cogent include:

1. Nowhere in the house were water stains observed consistent with a measurable water depth. This supports a water leak mechanism from below the vinyl plank flooring rather than from a water source that wetted the top of the vinyl plank flooring.
2. Water leaks from the above slab, such as, the plumbing, exterior walls of the house, the roof, condensation, occupant spills, vandalism, or rising water from outside of the house were not observed. Note that water stain rivulets were observed on the upper part of the rear wall of the Breakfast Nook. The rivulets did not come near the floor level and, hence, are not believed to have contributed to the water leak event. The Owners reported that water was found dripping down from the ceiling fans and HVAC registers when the water leak was first discovered. Both of these observations indicate that the interior of the house had reached a high relative humidity that would require a heat source to be achieved and favored mold growth throughout the house.

Note also that several small areas of exterior wall sheathing were observed to be water damaged, likely because of window area veneer leaks or unsealed opening in the veneer. Damage to the floor sill plates was not observed, hence, making these points of water intrusion not likely contributors to the water exposure event.

3. Since common sources of water leaks were found not to be likely contributors to the occurrence, and water appears to have come from below the slab, the mostly likely source of the water leak appeared to be from plumbing work performed below the slab in the Kitchen area. The likely leak location was further refined by the extraordinary, suspected mold growth on the bottom of a Kitchen cabinet above the plumbing work area.
4. Below-slab water leaks from the original water supply was judged to be far less likely than from the new work area, as the time coincidence of the original plumbing failing with the work performed by Messina is not likely. There is some chance that the work performed during the recent plumbing might have damaged the original plumbing. The drainage piping did not have sufficient water flow in an unoccupied house to provide the quantity of water required to explain the water damage. This left the water supply piping as the likely source of water.
5. The water level below the slab had apparently reached the top of the slab elevation and overflowed under the vinyl plank flooring and possibly through the joints and openings in the flooring and spread across the slab. The leaking water had also likely come up from the joint between the slab and foundations walls and went undetected as these junctures were covered by the baseboard trim.

For these reasons, the need to open the floor slab and inspect the new plumbing and nearby original plumb was established.

Slab Removal and Buried New Plumbing Evaluation

Harry Caswell, Inc., a plumbing contractor not involved in previous work at the Property, was hired to open the concrete floor slab, expose the plumbing in this area, and find and repair the leak. The water leak source was found on November 16, 2022. The water leak originated from a split in the brass adapter that joined the original CPVC hot-water Kitchen supply pipe to new polyethylene pipe. Messina installed this plumbing to relocate the Kitchen Island from its original to its new location. The cold-water system was found not to be leaking. See Attachment P-5 for photographs of the slab removal, leak detection and plumbing repair. Note that a video of the leak from the adapter was made and is on file with Cogent. Analysis of the video suggests that the adapter leak rate was in the range of 3 to 5 seconds per cup of water. This equates to 1.35 GPM to 0.75 GPM.

The ground below the slab did not appear very permeable, as the water that leaked during this brief test did not apparently drain away noticeably after the test ended. This observation supports the possibility that the leak from the adapter could spread across the area below the slab and reach the area above the slab. The presence of a plastic sheeting vapor barrier under the slab likely did not provide a meaningful barrier for the leaked water to reach the top of the slab, as the vapor barrier has numerous unsealed overlaps, penetrations, and junctures with foundation walls.

Note that the repaired piping has been in service without any report of leaks since the time of the Caswell repair.

At the time of the work, Mr. Caswell stated, that based on his experience, the adapter split was caused by the excessive use of pipe thread sealing tape and/or over-tightening the polyethylene pipe fitting into the adapter. He went on to say that brass fittings split or break right after excessive force is applied and do not fail at some later time. Note that Cogent has retained the split adapter as part of the project file.

Note that Messina was informed by Cogent that the slab needed to be removed and was invited to participate in the leak detection and repair work. Messina sent two plumbers to the house before the Caswell work started on October 16, 2022. One of the plumbers was "Mike," who performed the plumbing repairs under the Kitchen floor slab on June 23, 2022. He said the revised water supply and drainpipe work installed by Coastal needed to be replaced because the plumbing was sub-standard. Via a hole cut in the floor slab and with soil removed exposing the plumbing, Mike installed new water supply and drainage pipes between the original pipework and where connections were to be made to Kitchen sink inside of the sink cabinet. When asked, Mike reported to Cogent that he did not leak check his work before leaving the House. This indicates that the hot and cold water to the house was left shut off at that time. The Messina plumbers then left the House before Caswell arrived. The GC subsequently filled the hole and concreted the hole in the floor.

Analysis

It was reported to Cogent by the Owners that the water into the house was presumably left on continuously up until the time the water leak was discovered, as the toilets worked whenever the Owners visited the house.

Since only hot water leaked during the occurrence, both the water and electricity usage should have measurably increased while the leak was occurring. The water usage increase should show that sufficient water was leaked to expose the top of the slab to water. The electricity usage increase should provide an approximation of the leak rate and what time period the leak occurred. The timing of the leak should suggest that the leak occurred simply when the adapter failed on its own, failed as it was weakened by improper installation methods by Messina, or when some event in the water piping that sent water to a damaged adapter or may have further damaged a likely weakened adapter. Note that Mr. Casewell stated that brass fittings rarely fail on their own but fail immediately when they are overstressed by improper installation methods.

As requested by Cogent, the Owners obtained water and electricity usage data from the Delmarva Power and Tidewater Utilities, Inc. Refer to Document D-2 Electricity Usage Data and D-3 Water Usage Data for this information.

Electricity usage data indicated that the leak start during October 7, 2022, and continued into October 13, 2022, spanning 7 days. Recall that the GC installed the Kitchen sink, connected the plumbing to the sink and turned the water back on during October 7, 2022. The electricity usage on October 14, 2022, is likely associated with the leak check performed by Tidewater. An approximate electricity usage in excess of the norm for the period is about 120 KWH/day. If the water heater was able to continuously supply 120°F water with 70°F incoming water, the water flow would be about 0.68 GPM. Residential water heaters typically cannot sustain their discharge temperature continuously after the first tank inventory of water is depleted. For example, the following table lists the calculated hot water flow rate as a function of the sustained hot water discharge temperature:

Hot Water Discharge Temperature, °F	Hot Water Flowrate, GPM
(At 120 KWH/day electricity usage 70°F water supply temperature)	
120	0.68
110	0.85
100	1.52
90	1.71
80	3.41

Unfortunately, the water usage data is recorded on a quarterly basis. An approximate water usage in excess of the norm for the period of interest is about 7,000 to 8,000 gallons per quarter or 0.7 GPM to 0.8 GPM respectively if the leak occurred over a 7-day period, and 0.8 GPM to 0.92 GPM over a 6-day period respectively.

The concurrence of the water leak flow rate estimates is in the range of 1 GPM. Based on the available house information, the slab area contained within the foundation walls is about 2,000 ft². This water flow rate equates to 1.2 inches per day of water rise without an allowance for water drainage into the soil or water leaks through the foundation wall. The concrete floor slab thickness was observed to be in the range of 3" +/- 0.5" when observed during the leak test. This equates to 2.5 days for the water to reach the top of the slab if no water drainage into the soil occurred. Knowing the leak occurred over a 6-to-7-day period, there is a reasonable allowance for drainage to occur and still wet the top of the slab.

As a normal construction practice, there was a plastic vapor barrier placed under the slab. The barrier was cut during the trenching to modify the plumbing and electrical work and has openings to allow for the plumbing to access other water usage areas. These openings in the vapor barrier along with overlaps between vapor barrier sections and possibly areas not protected with vapor barrier, all served to channel the water flow in multiple areas of the house. The area most likely impacted by this effect is in the trenched Kitchen area, as it is closest to the water leak. Since hot water was leaked, the area closest to the leak should have reached the highest temperature. This phenomenon ties together the observation of excessive suspected mold growth on the bottom of the Kitchen cabinet above leak.

Based on the above analysis that relies on multiple and independent data sources, it can be reasonably concluded that a split pipe adapter in the hot water pipe located below the Kitchen Island provided the water volume and thermal energy that resulted in the observed damage throughout the house.

Should it become necessary to prepare an expert witness report describing this occurrence, detailed information has been retained by Cogent to further support the findings, conclusions, and recommendation in this causation analysis.

Conclusions and Recommendations

Within a reasonable degree of engineering certainty based on the application of the accepted methods of the water damage assessment industry and engineering calculation, Cogent provides the following opinions based on the assemblage of facts, investigations, and interviews available at this time. Cogent reserves the right to alter these opinions should additional information become available. Such opinion was formulated using science-based principles and methodologies that are widely accepted by experts in the field of water damage assessment and engineering.

1. The water leak is the result of the use of improper installation methods by the plumber, Charles Messina, who applied an excessive amount of sealing tape and/or over-tightened a brass adapter in the hot water supply pipe to the Kitchen sink.
2. Under this stress, the adapter split open. When the hot water was turned on just after the Kitchen sink was installed, the adapter split released water under the concrete floor slab. This unchecked flow of water accumulated under the slab causing the water level to rise up overflowing the slab and wetting the space between the floor slab and vinyl plank flooring. Overflow locations likely included plumbing and electrical openings in the floor and the open joints between the floor slab the foundation perimeter walls that resulted in water exposure to the house structure and contents throughout the house.
3. Had Charles Messina leak checked the work performed to connect the old and new Kitchen piping, as is normal practice, the adapter split would have most likely become immediately apparent. The water would have been turned off and the split adapter replaced. The water leak and subsequent water damage would have never happened as it did.
4. Remediation of the house should continue to its normal completion followed by the reconstruction of the house to the endpoint originally planned by the Owners.
5. The Owners have acted in a prompt and fully responsible manner.
6. The response to the water leak both in methods employed and the time spent is within restoration/remediation industry norms.
7. The house has been uninhabitable through no fault of the Owners between the time when Coastal left the project without completing their scope of work and Evans Tile began, and since the water leak was discovered.

Note that the conclusion and recommendations presented in this letter are based on information available at the time the letter was prepared. As additional information becomes available, Cogent reserves the right to alter the conclusions and recommendations.

Thank you for the opportunity to be of service. Contact me with your comments and questions.



J. Frank Peter
Cogent Building Diagnostics

Enclosures:

Document Attachments

- D-1 Documents Recording Communications Between the Owner and Insurance Company
- D-2 Electricity Usage Data Analysis
- D-3 Water Usage Data Analysis

Photographic Attachments

- P-1 House Conditions Before the Water Leak
- P-2 The Leak Was Detected on October 13, 2022
- P-3 Cogent First Visit
- P-4 Water Damage Evaluation
 - P-4a Exterior of the House
 - P-4b Cogent Observations of Water Stains and Suspected Mold Throughout the House
 - P-4c Water Exposure in Slab Electrical Receptacles
 - P-4d Excessive Moisture at Slab-to-Foundation Juncture
 - P-4e Suspected Mold Growth Under Kitchen Cabinet Above Leak
 - P-4f Concealed Areas of Water Exposure
 - P-4g Cabinet Damage
- P-5 Leak Source Identification

D-1 Documents Recording Communications Between the Owner and Insurance Company

FW: 872448N

Jay Crawley <Jay.Crawley@us.qbe.com>

Thu 10/20/2022 4:50 PM

To: MICHAEL Cheikin <CHEIKINM@msn.com>

Mike, see the message from American Leak Detection below. They should have emailed me this early this morning. I did give my approval.

Regards,

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 ext:146378

Email: jay.crawley@us.qbe.com

Visit us on the web at www.qbena.com

SUPPLEMENTS TO claimmail@us.qbe.com

Made possible by



From: Patricia Miller <pmiller@americanleakdetection.com>

Sent: Thursday, October 20, 2022 4:32 PM

To: Jay Crawley <jay.crawley@us.qbe.com>

Subject: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

Good afternoon Jay,

Thank you for the assignment, in addition to the detection fee, there is a mileage travel charge and a labor associated with travel charge. Please approve travel fees of \$405.00 for Michael Cheikin. Labor and mileage may be charged if the loss location exceeds 30 miles, one way. In this case, the total mileage is 228 less the base 60 = $168 \times .625 = \$105.00$. Charges for hourly labor associated with driving to the loss location are calculated as follows: $180 \text{ mins} / 15 \text{ min increments} = 12 \times \$25 \text{ per } 15 \text{ mins} = \300.00 . We cannot proceed with contacting your insured to schedule this assignment until we receive approval for the travel charges previously noted. Please reply to this email to approve as soon as possible. Thank you.

Sincerely,

Patricia Miller

Customer Service Representative

American Leak Detection, Inc.

Office: (856) 464-8707

Email: pmiller@americanleakdetection.com



----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

RE: 872448N

Jay Crawley <Jay.Crawley@us.qbe.com>

Fri 10/21/2022 4:13 PM

To: MICHAEL Cheikin <cheikinm@msn.com>

If you hire a mitigation contractor they will need to remove the carpet and padding in the affected rooms with carpet.

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 ext:146378

Email: jay.crawley@us.qbe.comVisit us on the web at www.qbena.comSUPPLEMENTS TO claimmail@us.qbe.com

Made possible by



From: MICHAEL Cheikin <cheikinm@msn.com>**Sent:** Friday, October 21, 2022 4:06 PM**To:** Jay Crawley <Jay.Crawley@us.qbe.com>**Subject:** Re: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

we have now discovered that the water also is under carpets in the bedroom, library .

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone

Get [Outlook for Android](#)

From: MICHAEL Cheikin <cheikinm@msn.com>**Sent:** Friday, October 21, 2022 3:27:17 PM**To:** Jay Crawley <Jay.Crawley@us.qbe.com>**Subject:** Re: 872448N

Sorry for the typos, using my phone.

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone

Get [Outlook for Android](#)

From: MICHAEL Cheikin <cheikinm@msn.com>**Sent:** Friday, October 21, 2022 3:25:36 PM**To:** Jay Crawley <Jay.Crawley@us.qbe.com>**Subject:** Re: 872448N

Hi Jay,

Thanks for your advise today--it was very stressful having all the decisions at one time. We Have the name of an evaluation firm that my that might be able to come out today. I am waiting for a proposal and will forward it to you as soon as I receive it.

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone
Get [Outlook for Android](#)

From: MICHAEL Cheikin <CHEIKINM@msn.com>
Sent: Thursday, October 20, 2022 5:43:32 PM
To: Jay Crawley <Jay.Crawley@us.qbe.com>
Subject: Re: 872448N

Hi Jay,

Patti at American Leak says they are 3 hrs away. They can't come till next Wed (we can't be there but can let them in) and have no Friday openings till Nov.

I did hear of other companies that might be closer. Is it worth reaching out to them?

Also having problems finding plumber that will work with slab building, or the delay is weeks to months. Trying to schedule in advance but not sure what options there are. Waiting to hear back.

Please advise, thanks.

Michael and Patti Cheikin

From: Jay Crawley <Jay.Crawley@us.qbe.com>
Sent: Thursday, October 20, 2022 4:50 PM
To: MICHAEL Cheikin <CHEIKINM@msn.com>
Subject: FW: 872448N

Mike, see the message from American Leak Detection below. They should have emailed me this early this morning. I did give my approval.

Regards,

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 ext:146378
Email: jay.crawley@us.qbe.com
Visit us on the web at www.qbena.com
SUPPLEMENTS TO claimmail@us.qbe.com

Made possible by
 QBE

From: Patricia Miller <pmiller@americanleakdetection.com>
Sent: Thursday, October 20, 2022 4:32 PM
To: Jay Crawley <jay.crawley@us.qbe.com>
Subject: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

Good afternoon Jay,

Thank you for the assignment, in addition to the detection fee, there is a mileage travel charge and a labor associated with travel charge. Please approve travel fees of \$405.00 for Michael Cheikin. Labor and mileage may be charged if the loss location exceeds 30 miles, one way. In this case, the total mileage is 228 less the base 60 = 168 x .625 = \$105.00. Charges for hourly labor associated with driving to the loss location are calculated as follows: 180 mins/15 min increments = 12 x \$25 per 15 mins= \$300.00. We cannot proceed with contacting your insured to schedule this assignment until we receive approval for the travel charges previously noted. Please reply to this email to approve as soon as possible. Thank you.

Sincerely,

Patricia Miller

Customer Service Representative

American Leak Detection, Inc.

Office: (856) 464-8707

Email: pmiller@americanleakdetection.com



----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

RE: 872448N

Jay Crawley <Jay.Crawley@us.qbe.com>

Thu 10/27/2022 9:40 AM

To: cheikinm@msn.com <cheikinm@msn.com>

Mike, thank you for providing this update. I have documented your email and added it to your file. I did receive the documents you sent via email earlier in the week. Your contractor should move forward with the dry out.

Regards,

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 text:146378

Email: jay.crawley@us.qbe.comVisit us on the web at www.qbena.comSUPPLEMENTS TO claimmail@us.qbe.com

Made possible by



From: cheikinm@msn.com <cheikinm@msn.com>**Sent:** Thursday, October 27, 2022 8:53 AM**To:** Jay Crawley <Jay.Crawley@us.qbe.com>**Cc:** Patti's Gmail <patti.cheikin@gmail.com>**Subject:** Re: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

Good morning Jay,

Here is an update from the last few days.

To review, QBE engaged Code Blue to perform water/mold evaluation/mitigation on Friday 10/21/2022. Code Blue sent Silver Lake LLC (phone 302-399-1596) to do the work. As we reviewed with you by phone on 10/21/2022, Code Blue instructed Silver Lake NOT to begin work since American Leak Detection (also engaged by QBE) had not yet evaluated the cause of the leak and were not scheduled until the following Wed, 10/26/2022. We paid Silver Lake privately on 10/21/2022 to lift flooring and leave blowers and a dehumidifier. QBE also engaged Ryze to inspect. Their agent was there at the same time. We did not see either agent evaluate the four carpeted rooms or two tiled bathrooms.

After both agents left, we found additional water damage in those rooms and contacted you and Silver Lake. As recommended in your email of 10/21/2022 4:13 pm, we contacted Silver Lake who agreed to come out on Monday or Tuesday to continue the work, including lifting the carpet and padding., which

would require moving furniture and household goods that were being stored during the renovation. Over the weekend, we arranged for a Pod to be delivered to store the furniture and household goods to enable proper diagnosis and remediation.

We arranged with Silver Lake to meet Tuesday morning, 10/25/2022 at 10 am. When they arrived, they measured the tops of the carpets that had blowers and found no wetness. Under the master bedroom bed, they did find moisture of 25%, but stated that they could not remove the carpet and padding for reasons that remain unclear. They would not accept a private payment and left without any further explanation. They removed all their equipment as well. The owner, Mike Burr did not call us as they said he would, and he did not answer our call.

We then proceeded to contact several other mitigation companies. Two that came to the house and found extensive moisture readings, up to 100%, in the four carpeted areas. When lifting the corner of the master bedroom carpet (the furthest corner of the house away from the original water discovered), there was clear mold growth.

The first, C & B Complete, declined the job due to the fact that Silver Lake "had already begun mitigation and did not use proper method for mold abatement". Their agent stated that "the blowers left on Friday by Silver Lake had compromised the mold abatement". We have photos of that agent's presence but the owner declined to provide copies of the readings and photos taken "due to liability concerns".

The second, Core24 Services (phone 833-267-3247) arrived at 2:15 pm. Their evaluation found mold and saturated padding (photos/videos taken) in the master bedroom and high moisture reading throughout the entire house. They removed a panel behind the master bathroom tub (a tiled area) and found moisture there as well. They were the first of any agent to look behind that panel.

We reviewed the situation with Cogent Building Diagnostics at approximately 4pm. They had been engaged on 10/21/2022 to perform the leak diagnostics and mold evaluation/remediation (copy of contract and retainer check previously sent to you). Frank at Cogent reviewed the proper method of mold evaluation and mitigation. We then asked Core24 what steps they would be taking and they essentially reiterated the method that Frank had outlined (such as no blowers, no carpet/pad removal until preliminary steps had occurred, dehumidification, wrapping plastic around most surfaces to contain mold spores, etc.) We immediately engaged them to do a proper evaluation and remediation.

They had 3-5 men there from approx 2:15 until 7:45 pm, emptied the rooms, and placed dehumidifiers in several locations.

They returned yesterday, 10/26/2022 to continue the process. They sent photos, enclosed, from under the island in the kitchen(after removing base molding, not done by any prior agent) which shows mold growth in several areas. They also removed kitchen flooring in that region.

The general contractor for the interior work, EvansTile, had engaged Messina plumbing, who did the plumbing work on 6/23/2022. We contacted Messina, who would only speak with EvansTile regarding any aspect of the job. Yesterday, 10/26/2022, we authorized Cogent Building Diagnostics and EvansTile to work cooperatively and proceed with the diagnostics.

Also, on 10/25/2022, when we were there, we also discovered two electric circuits that were shorted out. Wifi garage access and security cameras for the house had worked on Friday but failed over the weekend. These devices are necessary to open the garage door for workmen and to monitor activities. On 10/25, Michael re-established a working internet and wifi. We will be placing additional cameras when we are there next. Our primary home is over two hours away.

We will be separately sending copies of the contract with Core24. A pdf with photos from 10/26/2022 is enclosed.

That is the update. Please acknowledge receipt and any addition recommendations.

Sincerely,

Michael and Patti Cheikin

From: MICHAEL Cheikin <CHEIKINM@msn.com>
Sent: Monday, October 24, 2022 1:02 PM
To: Jay Crawley <Jay.Crawley@us.qbe.com>
Cc: Patti's Gmail <patti.cheikin@gmail.com>
Subject: Re: 872448N

Good morning,

Thank you for your help and advice on Friday afternoon 10/21/2022 regarding the additional water and damage discovered after the Ryze inspector and Silver Lake mitigation left.

We were able to find another Leak Detection company, Cogent Building Diagnostics, that was available Friday afternoon 10/21/2022, rather than wait 6 days for American Leak Detection on 10/28. We met with Frank Peters from 4:30 to 6:30 pm to establish the basic timeline. Enclosed is a copy of the contract with Cogent and retainer check for \$1,000.00. Cogent is proceeding to identify the proper plumbing company to evaluate the water leak.

This morning we called American Leak Detection (Patti, 856-464-8707) to cancel their evaluation scheduled for Wed 10/26 at Noon. They asked us to advise you of same.

We also have enclosed copies of the receipt for payment to Silver Lake for \$500.00, who left blowers and dehumidifer over the weekend. The water was literally dripping down the ceiling and walls. They are coming out tomorrow, Tues 10/25 to continue the mitigation to the rooms identified, including pulling up and discarding carpet and padding. They have estimated a cost of \$1,000.00 which includes emptying the rooms into a Pod that was delivered today. There is no other place to put the furniture and household items to allow for diagnostics and remediation.

We are not allowed by our condo association to leave the Pod for more than 72 hrs in the driveway so the enclosed receipt for \$438.09 to Pod covers the delivery, pickup and 1 month of storage (the minimum).

We also called ServePro to see if they could act any faster but they were not available any sooner.

Please let us know if you need other information. We have lots of photos and video. We will be there tomorrow, Tue 10/25 with Silver Lake in the event you wish to re-send the Ryze inspector.

We are available by phone if needed 610-639-6034.

We would appreciate reimbursement for the above expenses. Our understanding is that our deductible in \$1000.

Thanks again.

Please acknowledge receipt.

Sincerely,

Michael and Patti Cheikin.

From: Jay Crawley <Jay.Crawley@us.qbe.com>
Sent: Friday, October 21, 2022 4:13 PM
To: MICHAEL Cheikin <cheikinm@msn.com>
Subject: RE: 872448N

If you hire a mitigation contractor they will need to remove the carpet and padding in the affected rooms with carpet.

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 ext:146378
Email: jay.crawley@us.qbe.com
Visit us on the web at www.qbena.com
SUPPLEMENTS TO claimmail@us.qbe.com

Made possible by



From: MICHAEL Cheikin <cheikinm@msn.com>
Sent: Friday, October 21, 2022 4:06 PM
To: Jay Crawley <Jay.Crawley@us.qbe.com>
Subject: Re: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

we have now discovered that the water also is under carpets in the bedroom, library .

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone
Get [Outlook for Android](#)

From: MICHAEL Cheikin <cheikinm@msn.com>
Sent: Friday, October 21, 2022 3:27:17 PM
To: Jay Crawley <Jay.Crawley@us.qbe.com>
Subject: Re: 872448N

Sorry for the typos, using my phone.

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone

Get [Outlook for Android](#)

From: MICHAEL Cheikin <cheikinm@msn.com>

Sent: Friday, October 21, 2022 3:25:36 PM

To: Jay Crawley <Jay.Crawley@us.qbe.com>

Subject: Re: 872448N

Hi Jay,

Thanks for your advise today--it was very stressful having all the decisions at one time. We Have the name of an evaluation firm that my that might be able to come out today. I am waiting for a proposal and will forward it to you as soon as I receive it.

Sent via the Samsung Galaxy Note20 Ultra 5G, an AT&T 5G smartphone

Get [Outlook for Android](#)

From: MICHAEL Cheikin <CHEIKINM@msn.com>

Sent: Thursday, October 20, 2022 5:43:32 PM

To: Jay Crawley <Jay.Crawley@us.qbe.com>

Subject: Re: 872448N

Hi Jay,

Patti at American Leak says they are 3 hrs away. They can't come till next Wed (we can't be there but can let them in) and have no Friday openings till Nov.

I did hear of other companies that might be closer. Is it worth reaching out to them?

Also having problems finding plumber that will work with slab building, or the delay is weeks to months. Trying to schedule in advance but not sure what options there are. Waiting to hear back.

Please advise, thanks.

Michael and Patti Cheikin

From: Jay Crawley <Jay.Crawley@us.qbe.com>

Sent: Thursday, October 20, 2022 4:50 PM

To: MICHAEL Cheikin <CHEIKINM@msn.com>

Subject: FW: 872448N

Mike, see the message from American Leak Detection below. They should have emailed me this early this morning. I did give my approval.

Regards,

Jay Crawley
Claims Professional
Property Claims
QBEIC

Direct: (972) 398-6378 ext:146378

Email: jay.crawley@us.qbe.com

Visit us on the web at www.qbena.com
SUPPLEMENTS TO claimmail@us.qbe.com



From: Patricia Miller <pmiller@americanleakdetection.com>
Sent: Thursday, October 20, 2022 4:32 PM
To: Jay Crawley <jay.crawley@us.qbe.com>
Subject: 872448N

This email was sent from someone outside of QBE. Be cautious opening links and attachments. Use the 'Report Phishing' button if suspicious.

Good afternoon Jay,

Thank you for the assignment, in addition to the detection fee, there is a mileage travel charge and a labor associated with travel charge. Please approve travel fees of \$405.00 for Michael Cheikin. Labor and mileage may be charged if the loss location exceeds 30 miles, one way. In this case, the total mileage is 228 less the base 60 = 168 x .625 = \$105.00. Charges for hourly labor associated with driving to the loss location are calculated as follows: 180 mins/15 min increments = 12 x \$25 per 15 mins= \$300.00. We cannot proceed with contacting your insured to schedule this assignment until we receive approval for the travel charges previously noted. Please reply to this email to approve as soon as possible. Thank you.

Sincerely,

Patricia Miller

Customer Service Representative
American Leak Detection, Inc.
Office: (856) 464-8707
Email: pmiller@americanleakdetection.com



----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this

email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

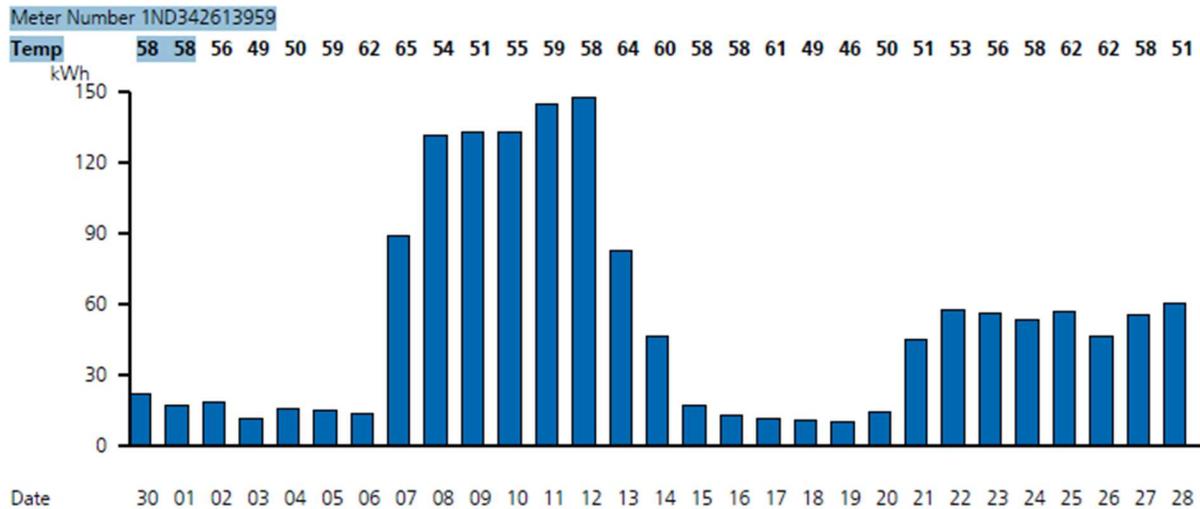
This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

----- IMPORTANT NOTICE : The information in this email is confidential and may also be privileged. If you are not the intended recipient, any use or dissemination of the information and any disclosure or copying of this email is unauthorised and strictly prohibited. If you have received this email in error, please promptly inform us by reply email or telephone. You should also delete this email and destroy any hard copies produced.

This electronic message from QBE North America and any attachment to it is intended exclusively for the individual or entity to which it is addressed. It may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, distribution or use of this electronic message or any attachment is prohibited. If you have received this message in error, please return it to the sender and delete this original from your system.

Document D-2 Electricity Usage Data Analysis

Data was obtained from the Delmarva Power October 2022 from Monthly Billing Statement

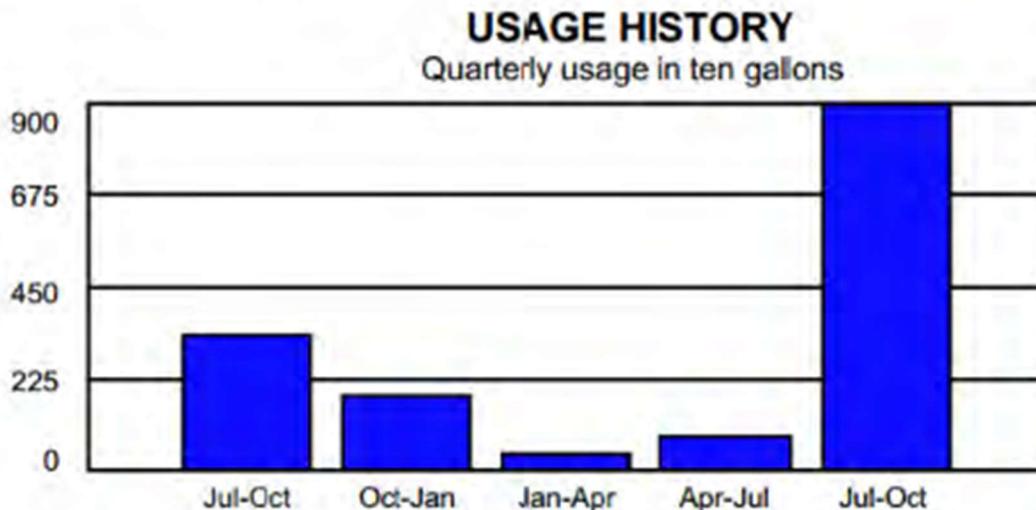
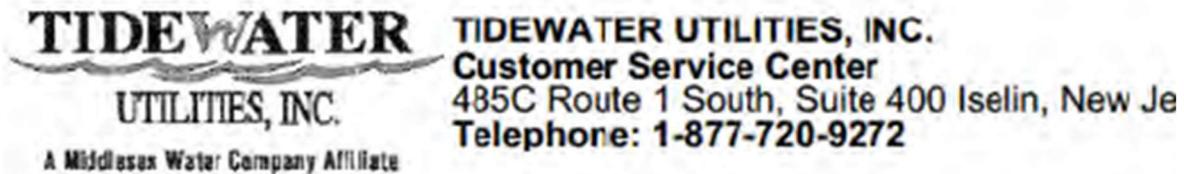


Baseline Electricity Usage	Hot Water turned on beginning 10/7 and shut off 10/13. Tidewater leak testing on 10/14	Baseline Electricity Usage	Drying and HEPA air filters in operation
----------------------------	--	----------------------------	--

Note – An analysis of the approximate maximum peak daily electricity usage for 2021 through September 2022 was 75 KWH (May 2021). Baseline periods (likely periods when the house is unoccupied, and the heating and air-conditioning did not operate much) had peak daily electricity usage in the range of 11 to 20 KWH. This daily electricity usage is consistent with the data just preceding and following the water leak event. The daily electricity usage in the range of 140 KWH cannot be explained by the sum of normal usages, such as, lighting, washing, heating and air-conditioning, refrigeration, and water heating.

D-3 Water Usage Data Analysis

The data was obtained from the Tidewater Utilities, Inc. quarterly billing statement.



Note – Unfortunately, the water usage data is presented on a quarterly basis. The July through October 2022 usage is clearly inconsistent with the expected usage based on previous periods. Fortunately, the electricity daily usage pattern records a similarly low electricity usage except for the peak usage when hot water was leaking over about a seven-day period. This establishes that the extraordinary water usage during the July through October 2022 quarter likely occurred during the leak period.

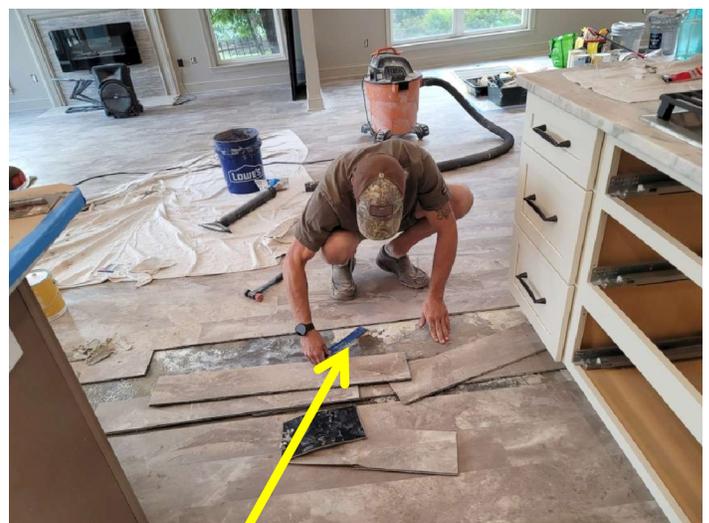
P-1 House Conditions Before the Water Leak

The following photographs document that the house refurbishment project was nearing completion at the time of the water leak.



P-2 The Leak Was Detected on October 13, 2022

Efforts to find the leak source and the extent of damage followed beginning on October 14, 2022. Water was present under the vinyl plank flooring in many places. Note water on the floor.



P-3 Cogent First Visit

Cogent first visited the Property on October 21, 2022, observed areas where leak detection efforts had started and where the restoration was in the initial phase.



P-4a Exterior of the House

There were no indications that a flood had occurred around the house. The ground was sloped to encourage positive drainage away from the house.



P-4a Exterior of the House (Continued)



P-4b Surface Observations of Water Damage and Suspected Mold Growth

Observations made at the Property are typical for a water damage occurrence. Observations were present throughout the house and included, water stains, damaged drywall, suspected mold growth, swollen wood, paint damage and rusty nails, for instance.



P-4b Surface Observations of Water Damage and Mold Growth (Continued)



P-4b Surface Observations of Water Damage and Mold Growth (Continued)

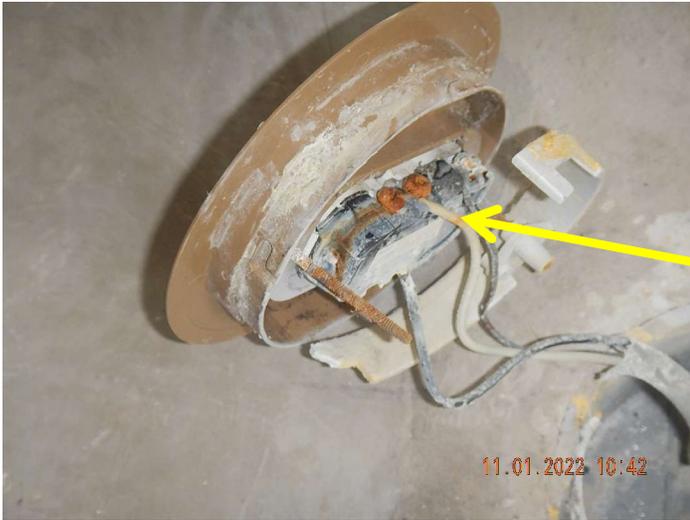


P-4b Surface Observations of Water Damage and Mold Growth (Continued)



P-4c Water Exposure in Slab Electrical Receptacle

Standing water in the slab receptacle boxes was observed by the GC when the water leak was discovered. The new electrical receptacles were found to be corroded indicating direct water exposure.



P-4d Excessive Moisture at Slab-to-Foundation Wall Juncture

Normal moisture concentration of building materials is less than 15%. Moisture concentrations at or above 20% are considered wet.



P-4e Suspected Mold Growth Under the Kitchen Cabinet Above the Leak

Core24 discovered and then cleaned the suspected mold.



P-4f Concealed Areas of Water Exposure

With the drywall removed indications of water exposure to the bottom of the framed walls were apparent.



P-4f Concealed Areas of Water Exposure (Continued)



P-4g Cabinet Damage

Water damage and suspected mold growth was observed under the cabinets. Unfortunately, the wood used to build the cabinets is not water tolerant.



P-4g Cabinet Damage (Continued)



P-5 Leak Source Identification

On October 16, 2022, plumbers from Harry Caswell, Inc., opened the Kitchen floor slab below and nearby the new Kitchen Island to expose the juncture between the original CPVC and new polyethylene water supply piping.



P-5 Leak Source Identification (Continued)

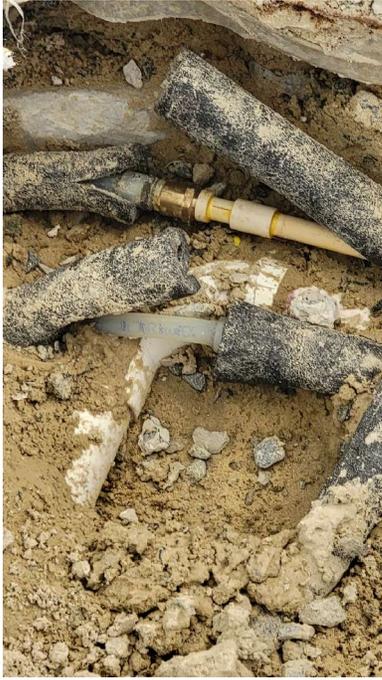
The left photograph shows the transition from the original CPVC (ivory colored pipe) to polyethylene pipe as it was uncovered. The arrow shows the orientation of the split in the adapter and the direction the water sprayed when the hot water was turned on.

The space around the fittings quickly filled with water.



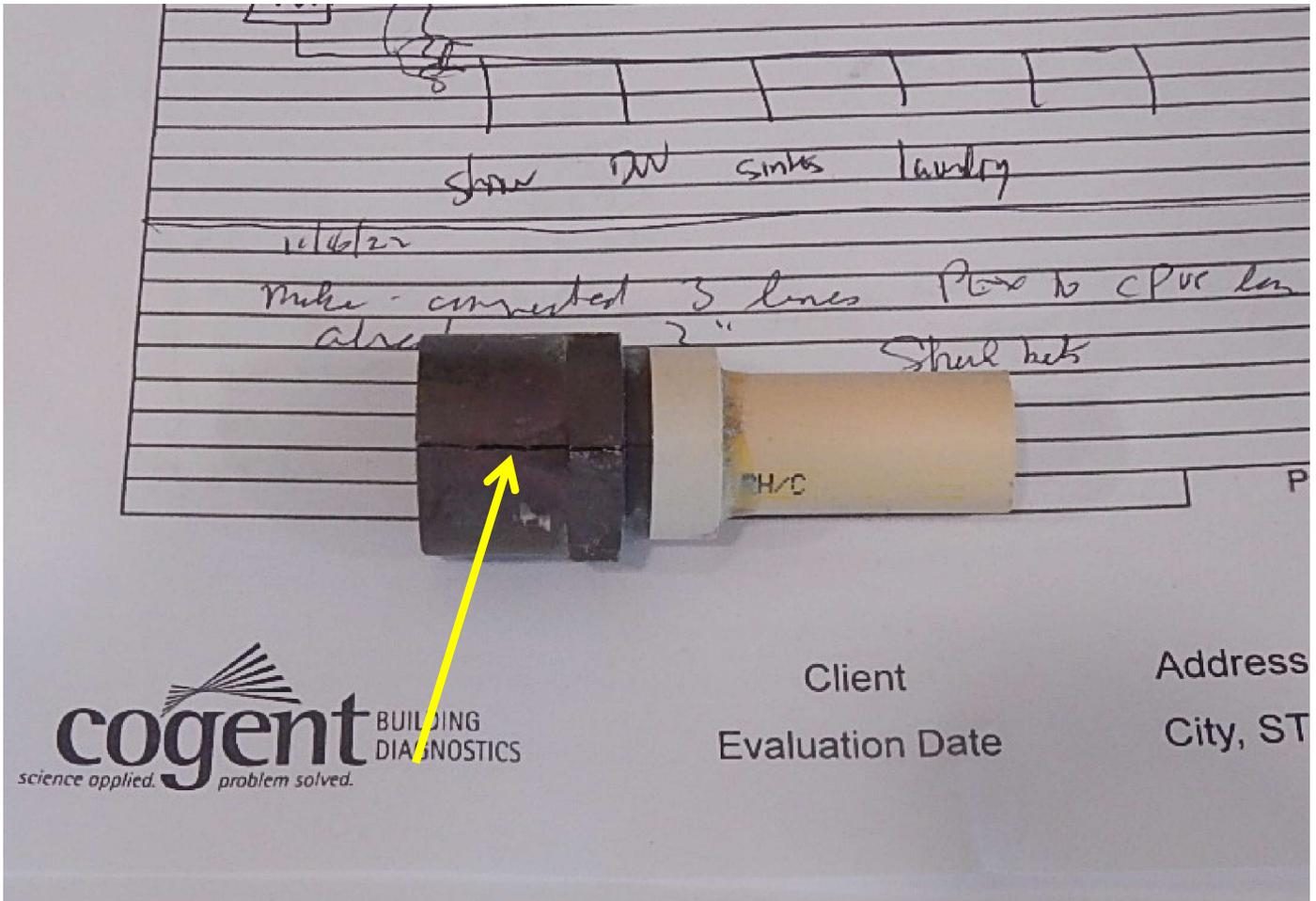
P-5 Leak Source Identification (Continued)

The repaired fittings and the surrounding soil were observed on October 17, 2022, to assure that there were no leaks in this area and that the soil was beginning to dry. The pipe at the bottom of the left photograph is the cold-water supply pipe that was found not to be leaking when the floor was opened.



P-5 Leak Source Identification (Continued)

The hot water flow goes from right to left in this photograph. The fitting that was over-tightened entered the brass adapter from the left.



Client
Evaluation Date

Address
City, ST