Tips For First Time Home Buyers

From Basement To Roof…And Everything In Between

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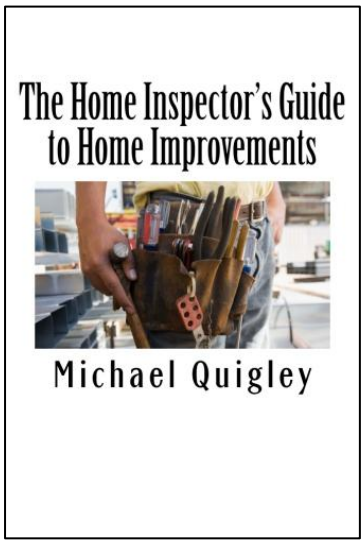


Qualified inspectors at your service:

Michael Quigley, owner and operator of D&M Home Inspection Company, is a retired roofing, remodeling and building contractor with over 40 years experience in the construction trades. He has completed thousands of home inspections in Massachusetts, New Hampshire and Rhode Island and is a gold level certified Home Inspector and certified mold remediation contractor.

What is a home inspection?

A home inspection is essentially a "visual snapshot" of a home's condition as it exists at the time of inspection, and that condition is described in a comprehensive written report. The inspection is **not** a building code compliance report.

Prior to 1975 each municipality had its own building code. The Massachusetts **state** building code has been updated **eight** times since 1975, so the chances are, the Home Inspector will find something to write about in the report.

Why can't I do it myself?

Even the most experienced homeowner lacks the knowledge and expertise of a professional home inspector who has inspected hundreds, perhaps thousands, of homes. An inspector is familiar with the elements of home construction, their proper installation, and maintenance. He or she knows how the home's systems and components are intended to function together, as well as why they fail. Above all, most buyers find it **difficult to remain completely objective and unemotional** about the home they really want, and this may affect their judgment. For accurate information, it is best to obtain an impartial third-party opinion by an expert in the field of home inspection.

How much does a home inspection cost?

The inspection fee for a typical one family house varies geographically, as does the cost of housing. Similarly, within a given area, the inspection fee may vary depending on the size of the house, its age, and possible additional services, such as septic, well, mold, radon and wood boring insects. However, do not let cost be the only factor in deciding whether or not to have a home inspection, or in the selection of your home inspector. The sense of security and knowledge gained from an inspection is well worth the cost, and the lowest-priced inspector is not necessarily a bargain. Use the inspector's qualifications, including experience, training, and professional affiliations as a guide.

Comparison Chart

Home Inspection Company 1	Home Inspection Company 2

Basic Home Inspection (up to 1500 sq.ft.)		Basic Home Inspection (up to 1500 sq.ft.)	
Wood Boring Insect Report		Wood Boring Insect Report	
Radon Test (Double Canister)		Radon Test (Double Canister)	
Well Water		Well water	
Photos		Photos	
Other		Other	

Total Cost For Complete Inspection		Total Cost For Complete Inspection	

What does a home inspection include?

Exterior Inspection:

1. Roofing, siding, gutters and trim
2. Chimney and flashing.
3. Trees and shrubs
4. Electrical service, outside lighting and doorbell and GFCI receptacles
5. Water faucet
6. Porches and decks
7. Basement windows
8. Yard grading
9. Garage and garage doors
10. Dryer vent and exhaust vents
11. Bulkhead entry

Kitchen:

1. Condition of cabinets
2. Condition of floors, walls and ceiling
3. GFCI receptacles installed?
4. Appliance installation, safety devices
5. Sink, faucet, garbage disposal, hose sprayer
6. Dishwasher and drain loop

Bathrooms:

1. Tub, shower, tile
2. Toilet
3. Sink, faucet and drains
4. Ventilation
5. Condition of cabinets
6. Floor, ceiling, walls

7. GFCI receptacles installed?

Interior:

1. Floors, walls, ceilings
2. Electrical outlets, how many, condition
3. Windows, doors and skylights
4. Staircase and hand railings and lighting
5. Closets
6. Fireplace
7. Habitable rooms

Attic:

1. Insulation
2. Ventilation
3. Mold
4. Staircase cover and pull down staircase
5. Air handling equipment and service walkways
6. Bathroom fan exhaust

Basement:

1. Structure, beams, floor joists, columns
2. Foundation walls
3. Flooring, dirt or concrete
4. Sump pump
5. Electrical panel
6. Heating system, A/C and ductwork
7. Water service and plumbing
8. Oil tank
9. Wood boring insects
10. Mold

Additional Services:*

1. Radon in the air
2. Well water
3. Lead paint
4. VA/FHA, Mass housing Insect report NPMA-33

*Additional lab fees may apply

How long does it take to complete a Home Inspection?
When will I get my report?

The time it takes to complete a home inspection depends on the size and condition of the home, but generally will take two to three hours. We use a fully illustrated and easy to read report that is typically available within 24 hrs. Any photo's taken are either embedded in custom reports or are uploaded with a link sent to the client.

What type of home is right for you?
First, create a wish list

Types of Houses		√	Types of Houses		√
1	Colonial		8	Log cabin	
2	Cape		9	Bungalow	
3	Ranch		10	Mobile Home	
4	Gambrel		11	Condo	
5	Contemporary		12	In-Law	
6	Multi-Family		13	Yurt	
7	Saltbox		14		

After you have decided on the type of home you want, add amenities.

Add Amenities		√	Add Amenities		√
1	Back yard		15	Garage (one or two car)	
2	Fenced in yard		16	Home office	
3	Landscaping		17	Playroom	
4	Deck		18	Finished basement	
5	Front porch		19	Outside access to basement	
6	Pool		20	Attic storage	
7	Cul-de-sac		21	Bathrooms; how many, what floor	
8	Closet space		22	Bedrooms; how many, what floor	
9	Kitchen design		23	Fireplace or wood stove	
10	Appliances		24	Old or new windows	
11	Flooring type; hardwood, carpet		25	Storage shed	
12	Skylights		26	1 floor living or multiple floors	

13	Type of siding		27	Gated community	

Add Utilities		√	Add Utilities		√
1	Gas stove or electric stove		7	Overhead utilities or underground	
2	Gas dryer or electric dryer		8	Outlets, older homes may only have a few and may not meet your power needs	
3	Heating system; hot water, hot air, electric, steam		9	Well water or municipal water supply	
4	Fuel source (oil, gas, electric)		10	How much water pressure is there?	
5	Circuit breakers or fuses		11		
6	Septic system or town sewer		12		

Consider Location		√	Consider Location		√
1	Live in the city or the country		9	Schools	
2	Busy street or main rd		10	Church	
3	Access to commuter trains		11	Shopping	
4	Commute to work.		12	Relatives Nearby	
5	Neighborhood; children or elderly		13	Cable service	
6	Playgrounds		14	Cell Phone work in the house	
7	Zip Code		15		
8	Sidewalks		16		

Lead

All About **Deleading** - What You **Need** to Know About **…** - Mass.Gov

www.mass.gov/eohhs/docs/dph/.../**lead**/all-about-**deleading**.pdf

A de-Leaded house is not a lead free house!

For example, after de-leading, lead paint can still be found on porch ceilings and columns, basement windows, interior cabinets, tops of doors, ceilings and basement staircases.

What is Lead?

The Symbol for lead is Pb, the atomic number is 82. Origin; Anglo-Saxon; Symbol from Latin; Plumbum

Lead is a soft malleable and corrosion resistant material. It's been used for years as roofing and chimney flashing, gutter eave tubes, lead weights for fishing tackle and tires and water piping. Its uses have been traced as far back as the;

1. Egyptians (5000 years ago), to make solder and glaze pottery.
2. Chinese, Greeks and Romans (4000 years ago) to make money.
3. Romans (3000 years ago) to make water pipes.
4. Unfortunately for the ancient civilizations, they did not know that lead is a cumulative poison and the decline of the Roman Empire has been blamed, in part, on **lead in the water supply.** Lead was used as a sweetener (like sugar today) and used as storage containers (no Tupperware).
5. 150 years ago, residents of Boston and other large cities were being advised of the dangers of lead in their drinking water.
6. Lead in gasoline banned in **1995.**

Like today, many cities were built far from a water source. In order to provide water to a Roman city, aqueducts were built. Aqueducts were constructed from stone, brick or concrete and the water was fed into lead, ceramic or stone pipes. The Romans called lead "plumbum" and anyone who worked with lead was called a plumbarius, later shortened to the modern word "plumber."

Pedanius Dioscorides was a Roman physician, pharmacologist and botanist of Greek origin and the author of *De Materia Medica* a 5-volume encyclopedia about herbal medicine and related medicinal substances. (a *pharmacopeia*)

Dioscorides noted that *"lead makes the mind give way."*

Why was lead paint used?

White lead is very insoluble in water, making the lead paint highly water-resistant with a durable, washable finish. Lead carbonate can also neutralize the acidic decomposition products of some of the oils that make up the paint, so the coating stays tough, yet flexible and crack-resistant, for longer periods of time.

Why do kids eat lead paint?

Kids eat lead for the same reasons the Romans did, it's sweet tasting. Window sills are about the thickness of a finger and present a great teething surface for young children as do crib rails.

The effects of lead exposure on fetuses and young children can be severe. They include delays in physical and mental development, lower IQ levels, shortened attention spans, and increased behavioral problems. Fetuses, infants, and children are more vulnerable to lead exposure than adults since lead is more easily absorbed into growing bodies, and the tissues of small children are more sensitive to the damaging effects of lead. Children may have higher exposures since they are more likely to get lead dust on their hands and then put their fingers or other lead-contaminated objects into their mouths.

Lead is a cumulative poison that builds up in the body over time and can cause severe long term damage.

History of Lead Use by Katarina Lah

Year	Event
1887	US medical authorities diagnose childhood lead poisoning.
1904	Child lead poisoning linked to lead paint.
1909	France, Belgium and Austria ban white lead interior paint
1914	Pediatric lead-paint poisoning death from eating crib paint is described.
1921	National Lead Company admits lead is a poison.
1922	League of nations bans white-lead interior paint; US declines to adopt.
1943	Report concludes eating lead paint chips causes physical and neurological disorders, behavior, learning and intelligence problems in children.
1971	Lead-based Paint Poisoning Prevention Act passed.
1978	Lead-based house paint banned in US.

The primary source of lead poisoning today, is lead dust.

1. Lead has long been recognized as a harmful environmental pollutant. In late 1991, the Secretary of the Department of Health and Human Services called lead the "number one environmental threat to the health of children in the United States."

2. There are many ways in which humans are exposed to lead: through air, drinking water, food, contaminated soil, deteriorating paint, and dust. Airborne lead enters the body when an individual breathes or swallows lead particles or dust once it has settled. Before it was known how harmful lead could be, it was used in paint, gasoline, water pipes, and many other products.

3. Old lead-based paint is the most significant source of lead exposure in the U.S. today. Harmful exposures to lead can be created when lead-based paint is improperly removed from surfaces by dry scraping, sanding, or open-flame burning.

4. High concentrations of airborne lead particles in homes can also result from lead dust from outdoor sources, including contaminated soil tracked inside, and use of lead in certain indoor activities such as soldering and stained-glass making and water supply lines.

Testing

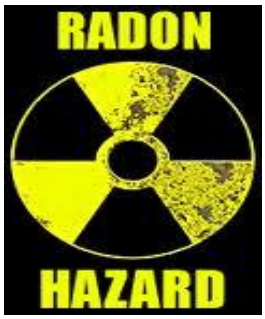
You can check for lead paint with a hand held test kit from any home improvement store. If it turns red, it's lead. Do not use this as a substitute for an x-ray analysis. The test kit will determine the presence of lead, not the level of lead. Unfortunately these test kits are not always 100% accurate. Always consult with a professional if you think you have lead paint.

Soil Contamination

Lead paint chips can also contaminate the soil. You need to think about how old the house is and how many times it may have been scraped and painted. Painters aren't always diligent about collecting and disposing of paint chips properly. This needs to be considered if you plan to build a play area or plant a garden next to the house.

So what can a homebuyer do? Well you have options. For exterior siding you could either remove it or add new siding right over it. For interior trim you can paint (encapsulate) over it or replace the trim. For windows, you can have the lead stripped off or just replace the windows.

Radon



What is Radon?

Radon is an odorless, colorless, radioactive gas. Radon has been found in homes all over the world. It comes from the natural breakdown of uranium found in the soil and moves up through the ground finding its way through cracks and holes in the foundation of the home.

How dangerous is Radon?

According to the Environmental Protection Agency, Radon is estimated to cause about 21,000 lung cancer deaths per year. (EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003)).

How do I test for Radon?

There are two general ways to test for radon. The first is the short term test and the second is the long term test.

The **short term test** is usually done in two to four days using a liquid scintillation detector that contains activated charcoal and a silica desiccant to remove moisture and make the test more accurate. This is the test that is typically performed during a real estate transaction. You would normally place two of these test kits in the area to be tested, and set them about 4" apart. Make sure you follow the instructions, but basically it's as simple as unscrewing the caps and leaving the vials open.

Some other types of devices for testing are "charcoal canisters", "alpha track", "electret ion chamber", and "continuous monitors."

The second way is the **long-term test** that remains in your home for more than 90 days. "Alpha track" and "electret" detectors are commonly used for this type of testing. A long-term test will give you a reading that is more likely to tell you your home's year-round average radon level than a short-term test.

What if there is Radon in my home?

The average indoor radon level is estimated to be about **1.3 pCi/L,** and about 0.4 pCi/L of radon is normally found in the outside air.

The EPA has set a national action level of 4 pCi/L (picocuries of radon per liter of air) for indoor air. If your home has a confirmed radon level of 4 pCi/L or above in a living area, you should install a radon mitigation system. It is recommended that a certified or state licensed radon mitigation contractor install the system.

Sample Radon Report

Radon Lab

Professional Radon Laboratory Services Since 1984

Radon in Air

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report For

Happy Homeowner

Property Tested

My New House

Log Number	Device Number	Area Tested	Result (pCi/L)
1563211	2591157	Basement	8.3
1563212	2591158	Basement	7.7

Radon test results are above the EPA action level of 4 pCi/L. The EPA recommends that action be taken to reduce radon levels if the result is 4 pCi/L or higher in a livable area. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

Comment: D M Home Inspection was emailed a copy of this report. A copy of this report was emailed to Homebuyer

Distributed By: D M Home Inspection

Test Began:	9/5/2013	10:00 am	Date Received:	9/9/2013
Test Ended:	9/7/2013	2:37 pm	Date Analyzed:	9/10/2013
Test Exposure Duration	52.6	Hours	Date Reported:	9/10/2013

Report Reviewed By:

Report Approved By:

Disclaimer:

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

How do I remove Radon from my home?

There are several proven methods to reduce radon in your home, but the one primarily used is a vent pipe system and fan, which pulls radon from beneath the house and vents it to the outside. This system, known as a soil suction radon reduction system does not require major changes to your home.

This is a radon exhaust fan located at the exterior of the house.

This is a radon exhaust fan located in an attic.

Sealing foundation cracks and other openings makes this kind of system more effective and cost-efficient. Similar systems can also be installed in houses with crawl spaces. Radon contractors can use other methods that may also work in your home. The right system depends on the design of your home and other factors.

Mercury

What is Mercury?

The Symbol for Mercury is Hg, the atomic number is 80. Named after the planet "*Mercury*" (the origin of the symbol Hg is the Latin word "*hydrargyrum*" meaning "*liquid silver*".) Mercury is a heavy, silvery-white metal that is liquid at ordinary temperatures.

Elemental Mercury (Hg0):

Compact florescent light bulbs (CFL's) and other fluorescent light bulbs contain a small amount of elemental mercury **(about 4 or 5 milligrams)** sealed within the glass tubing. By comparison, there are about **4 grams** of elemental mercury in an old thermostat. Exposure comes from **breathing** in the vapors of products containing elemental mercury. Print out the EPA fact sheet on cleaning up mercury if you break a bulb. **Mercury was used in house paint until 1991.**

Methyl Mercury (MeHg):

Methyl mercury is a pollutant found in rivers and lakes and is a potent neurotoxicant. The main source of pollution is from industrial wastes settling into rivers and lake bottoms. Exposure comes from **eating** fish and shellfish that contain methylmercury.

Symptoms of mercury poisoning can include sensory impairment (vision, hearing and speech), disturbed sensation and a lack of coordination. The type and degree of symptoms exhibited depend upon the individual toxin, the dose, and the method and duration of exposure.

NOTE: Women of childbearing age should limit the amount of canned tuna they eat to about one can per week (six ounces.) A woman who weighs less than 135 pounds should eat less than one can of tuna per week.

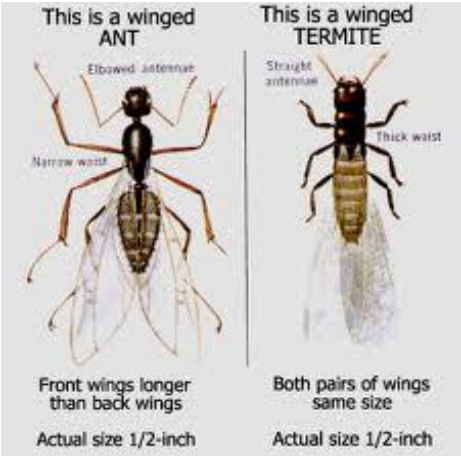
Children under six should eat less than one half a can of tuna (three ounces) per week. Specific weekly limits for children under six range from one ounce for a twenty pound child, to three ounces for a child weighing about sixty pounds.

"Mad as a hatter"

In 18th and 19th century England, mercuric nitrate was used to treat the fur used in the production of felt hats. Workers in these hat factories were exposed to daily trace elements of mercury. Over time some of these workers developed dementia caused by mercury poisoning. This came to be known as mad hatter syndrome. Anyone who acted crazy was considered to be "mad as a hatter."

Older style thermostats contain vials of mercury, about four grams. These along with CFL's must be disposed of as hazardous waste. Don't forget to dispose of those old thermometers (about 500 milligrams) and bottles of mercurochrome that are lying around the house.

Wood Destroying Insects (Form NPMA-33)



Termites

Termites (Latin for "worm wood") are from the worm family and are whitish soft-bodied ant-like social insects that feed on wood. When you step on them they squish. Termites are not very tough and have to protect themselves from predators. They do this by building tunnels. The tunnels look like wet sand that you squeezed through your hand.

Carpenter Ants

Carpenter ants are not termites. Carpenter ants come from the bee family and when you step on them they "crunch." Carpenter ants make their homes in wood by carving out extensive tunnels. They are large, about ¼ "to 1" in length. Like termites and mold they prefer damp environments like rotted out tree stumps and leaky houses.

Powder Post Beetles

Powder Post beetle is a term used to describe several species of small (1/8-3/4 inches long), wood boring insects which reduce wood to a fine, flour like powder. Damage is done by the larvae as they create narrow, meandering tunnels in wood as they feed. Infestations are discovered after noticing small, round holes in the wood surface. These are exit holes where adult beetles have chewed out the wood after completing their development. Newly-emerged adults mate and lay eggs on or below the surface of bare unfinished wood. The eggs hatch into tiny larvae which bore into the wood, emerging as adults 1-5 years later, usually during April-July. Homeowners are more likely to see damage than the beetles themselves, because the adults are short lived and are active mainly at night.

Wood Boring Bees (carpenter bees)

Carpenter bees resemble bumblebees in both size and appearance, but are not social insects. They construct their nests in trees or in frame buildings. Most of the top of the abdomen of carpenter bees is without hair and is shiny black in color. By contrast, the abdomen of bumblebees is fully clothed with hair, many of them yellow in color. If you see a number of large bees hovering near the eaves of the house or drilling in wood, you probably have carpenter bees.

Wood Destroying Insect Inspection Report

Notice: Please read important consumer information on **page 2.**

Section I. General Information Inspection Company, Address & Phone

Company's Business Lic. No.

Date of Inspection

Address of Property Inspected

Inspector's Name, Signature & Certification, Registration, or Lic. #

Structure(s) Inspected

Section II. Inspection Findings This report is indicative of the condition of the above identified structure(s) on the date of inspection and is not to be construed as a guarantee or warranty against latent, concealed, or future infestations or defects. **Based on a careful visual inspection of the readily accessible areas of the structure(s) inspected:**

☐ A. **No Visible** evidence of wood destroying insects was observed.

☐ B. **Visible** evidence of wood destroying insects was observed as follows:

☐ 1. Live insects (description & location): _____

☐ 2. Dead insects, insect parts, frass, shelter tubes, exit holes, or staining (description and location): _____

☐ 3. **Visible** damage from wood destroying insects was noted as follows (description and location): _____

NOTE: This is not a structural damage report. **If box B above is checked, it should be understood that some degree of damage, including hidden damage, may be present.** If any questions arise regarding damage indicated by this report, it is recommended that the buyer or any interested parties contact a qualified structural professional to determine the extent of damage and the need for repairs.

Yes ☐ No ☐ It appears that the structure(s) or a portion thereof may have been previously treated. Visible evidence of possible previous treatment: _____

The inspecting company can give no assurances with regard to work done by other companies. The company that performed the treatment should be contacted for information on treatment and any warranty or service agreement which may be in place.

Section III. Recommendations

☐ No treatment recommended: (Explain if Box B in Section II is checked) _____

☐ Recommend treatment for the control of: _____

Section IV. Obstructions and Inaccessible Areas

The following areas of the structure(s) inspected were obstructed or inaccessible:

☐ Basement _____
☐ Crawlspace _____
☐ Main Level _____
☐ Attic _____
☐ Garage _____
☐ Exterior _____
☐ Porch _____
☐ Addition _____
☐ Other _____

The inspector may write out obstructions or use the following optional key:

1. Fixed ceiling	13. Only visual access
2. Suspended ceiling	14. Cluttered condition
3. Fixed wall covering	15. Standing water
4. Floor covering	16. Dense vegetation
5. Insulation	17. Exterior siding
6. Cabinets or shelving	18. Window well covers
7. Stored items	19. Woodpile
8. Furnishings	20. Snow
9. Appliances	21. Unsafe conditions
10. No access or entry	22. Rigid foam board
11. Limited access	23. Synthetic stucco
12. No access beneath	24. Duct work, plumbing, and/or wiring

Section V. Additional Comments and Attachments (these are an integral part of the report) _____

Attachments _____

Signature of Seller(s) or Owner(s) if refinancing. Seller acknowledges that all information regarding W.D.I. infestation, damage, repair, and treatment history has been disclosed to the buyer.

X

Signature of Buyer. The undersigned hereby acknowledges receipt of a copy of both page 1 and page 2 of this report and understands the information reported.

X

Important Consumer Information Regarding the Scope and Limitations of the Inspection

Please read this entire page as it is part of this report. This report is not a guarantee or warranty as to the absence of wood destroying insects nor is it a structural integrity report. The inspector's training and experience do not qualify the inspector in damage evaluation or any other building construction technology and/or repair.

1. **About the Inspection:** A visual inspection was conducted in the readily accessible areas of the structure(s) indicated (see Page 1) including attics and crawlspaces which permitted entry during the inspection. The inspection included probing and/or sounding of unobstructed and accessible areas to determine the presence or absence of visual evidence of wood destroying insects. The WDI inspection firm is not responsible to repair any damage or treat any infestation at the structure(s) inspected, except as may be provided by separate contract. Also, wood destroying insect infestation and/or damage may exist in concealed or inaccessible areas. The inspection firm cannot guarantee that any wood destroying insect infestation and/or damage disclosed by this inspection represents all of the wood destroying insect infestation and/or damage which may exist as of the date of the inspection. ***For purposes of this inspection, wood destroying insects include: termites, carpenter ants, carpenter bees, and reinfesting wood boring beetles. This inspection does not include mold, mildew or noninsect wood destroying organisms.*** **This report shall be considered invalid for purposes of securing a mortgage and/or settlement of property transfer if not used within (90) days from the date of inspection. This shall not be construed as a 90-day warranty. There is no warranty, express or implied, related to this report unless disclosed as required by state regulations or a written warranty or service agreement is attached.**

2. **Treatment Recommendation Guidelines Regarding Subterranean Termites:** FHA and VA require treatment when any active infestation of subterranean termites is found. If signs of subterranean termites - but no activity - are found in a structure that shows no evidence of having been treated for subterranean termites in the past, then a treatment should be recommended. A treatment may also be recommended for a previously treated structure showing evidence of subterranean termites - but no activity - if there is no documentation of a liquid treatment by a licensed pest control company within the previous five years unless the structure is presently under warranty or covered by a service agreement with a licensed pest control company.

3. **Obstructions and Inaccessible Areas:** No inspection was made in areas which required the breaking apart or into, dismantling, removal of any object, including but not limited to: moldings, floor coverings, wall coverings, siding, fixed ceilings, insulation, furniture, appliances, and/or personal possessions; nor were areas inspected which were obstructed or inaccessible for physical access on the date of inspection. Your inspector may write out inaccessible areas or use the key in Section IV. Crawl spaces, attics, and/or other areas may be deemed inaccessible if the opening to the area is not large enough to provide physical access for the inspector or if a ladder was required for access. Crawl spaces (or portions thereof) may also be deemed inaccessible if there is less than 24 inches of clearance from the bottom of the floor joists to the surface below. If any area which has been reported as inaccessible is made accessible, the inspection company may be contacted for another inspection. An additional fee may apply.

4. **Consumer Maintenance Advisory Regarding Integrated Pest Management for Prevention of Wood Destroying Insects.** Any structure can be attacked by wood destroying insects. Homeowners should be aware of and try to eliminate conditions which promote insect infestation in and around their structure(s). Factors which may lead to wood destroying insect infestation include: earth to wood contact, foam insulation at foundation in contact with soil, faulty grade, improper drainage, firewood against structure(s), insufficient ventilation, moisture, wood debris in crawlspace, wood mulch or ground cover in contact with the structure, tree branches touching structure(s), landscape timbers and wood decay. Should these or other conditions exist, corrective measures should be taken in order to reduce the chances of infestation of wood destroying insects and the need for treatment.

5. **Neither the inspecting company nor the inspector has had, presently has, or contemplates having any interest in the property inspected.**

MOLD

What is mold?

Molds are part of the fungal kingdom, which also includes mushrooms, wood rots, and yeasts. Fungal growth usually begins with a fertile fungal spore on a damp, digestible surface. The spore absorbs moisture, then secretes it back out as a liquid solution loaded with digestive enzyme. These enzymes transform the surrounding environment into a meal. The nutrients are then absorbed back into the spore, which begins to grow by extending feeding tubes called hyphae. Filamentous fungi like molds and rots build a network of these feeding tubes called a mycelium. The mycelium will continue to expand as long as food and water are available. Once the colony is mature it can produce spores. Fungal spores are usually produced in fantastic numbers. A thriving mold colony can be covered with millions of spores per square inch.

NOTE: Remember, It's not a mold problem, it's a water problem. If there is mold growth in your home, you must clean up the mold and fix the water problem. If you clean up the mold, but do not fix the water problem, the mold will grow back.

Leaking Window Flashing	Leaking Water Heater	Condensation

Well Water

A well pump is a broad term for any pump that is used to pull water up from a well. Water well pumps are not intended for continuous use. They are, however, able to provide continuous pressure by moving the well water to a storage tank, which contains an air bladder that regulates the air pressure within the tank; as water is pumped in, the bladder is compressed, increasing the air pressure. It is the air pressure that moves the water through the plumbing. If you have a well, you should have the water tested for **potability, radon and chemicals**. You will also need to know the **age and the depth of the well.**

Sample Well Water Report

Water Lab

LabNumber:

Use this number with all correspondence

Client:

D&M Home Inspections Michael Quigley

PO Box 312

Harvard, MA 01451

ReportDate: 9/27/2013

Certificate of Analysis

Happy Homebuyer

Parameter	Method		Result	MCL	MRL	Date of Analysis	Analyst
- Kitchen Sink							
Sampled: 9/23/2013 11:25:00 AM by M. Quigley							
E. coli, /100ml	ENZ. SUB. SM9223		Absent	Absent	Absent	9/23/2013 2:45:00 PM	M-MA1118
Total Coliform Bacteria, /100ml	ENZ. SUB. SM9223	#	Present	Absent	Absent	9/23/2013 2:45:00 PM	M-MA1118
Arsenic, Total, MG/L	SM 3113B		ND	0.01	0.001	9/24/2013	M-MA1118
Calcium, MG/L	EPA 200.7		1.3	Not Spec	1	9/27/2013	M-MA1118
Copper, MG/L	EPA 200.7		ND	1.3	0.01	9/27/2013	M-MA1118
Iron, MG/L	EPA 200.7		ND	0.3	0.01	9/27/2013	M-MA1118
Lead, MG/L	SM 3113B		0.001	0.015	0.001	9/24/2013	M-MA1118
Magnesium, MG/L	EPA 200.7		ND	Not Spec	1	9/27/2013	M-MA1118
Manganese, MG/L	EPA 200.7		0.009	0.05	0.005	9/27/2013	M-MA1118
Potassium, MG/L	EPA 200.7		1.4	Not Spec	1	9/27/2013	M-MA1118
Sodium, MG/L	EPA 200.7		1.5	See Note	1	9/27/2013	M-MA1118
Alkalinity, MG/L	SM 2320B		2	Not Spec	1	9/23/2013	M-MA1118
Ammonia, MG/L	SM 4500-NH3-D		ND	Not Spec	0.1	9/23/2013	M-MA1118
Chloride, MG/L	EPA 300.0		ND	250	1	9/24/2013	M-MA1118
Chlorine, Free Residual, MG/L	SM 4500-CL-G		ND	Not Spec	0.02	9/23/2013	M-MA1118
Color Apparent, CU	SM 2120B		0	15	1	9/23/2013	M-MA1118
Conductivity, UMHOS/CM	SM 2510B		26	Not Spec	1	9/23/2013	M-MA1118
Fluoride, MG/L	EPA 300.0		ND	4	0.1	9/24/2013	M-MA1118
Hardness, Total, MG/L	SM 2340B		3	Not Spec	2	9/27/2013	M-MA1118
Nitrate as N, MG/L	EPA 300.0		ND	10	0.05	9/24/2013	M-MA1118
Nitrite as N, MG/L	EPA 300.0		ND	1	0.01	9/24/2013	M-MA1118
Odor, TON	SM 2150B		0	3	0	9/23/2013	RPM
pH, PH AT 25C	SM 4500-H-B	#	5	6.5 - 8.5	NA	9/23/2013	M-MA1118
Sediment, pos/neg	----------		NEG	------	NEG	9/23/2013	RPM
Sulfate, MG/L	EPA 300.0		3.8	250	1	9/24/2013	M-MA1118
Turbidity, NTU	EPA 180.1		0.18	Not Spec	0.1	9/23/2013	M-MA1118
Radon, PCI/L	EPA 913.0		1790	2000	100	9/24/2013	M-NH003

MCL=Maximum Contaminant Level (EPA Limit), MRL = Minimum Reporting Level
Sodium Guidelines- Mass 20, EPA 250, # = Result Exceeds Limit or Guideline
ND = None Detected (<MRL), * = Background Bacteria Noted

Massachusetts Certified Laboratory

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Parameter Descriptions

Total Coliform Bacteria - Indicator organism used to assess sanitary quality of water. Result must be 0 or Absent.

Alkalinity - Acid-neutralizing capability of water. EPA Max= NOT SPECIFIED

Ammonia – A gas that is an indication of organic waste. EPA Max= NOT SPECIFIED

Arsenic - Naturally occurring heavy metal found in some well waters. EPA Max= 0.01 mg/L

Calcium - Naturally occurring mineral which is the primary component of hardness. Used in some road salts. EPA Max= NO LIMIT

Chloride - A component of salt. High concentrations may taste salty and may cause corrosion of metals. EPA Max= 250 mg/L

Chlorine – A disinfectant that may affect taste and/or odor. EPA Max= NOT SPECIFIED

Color – Color is considered an aesthetic problem and can be used to confirm problems such as high iron and/or manganese. EPA Max= 15

Conductivity - The ability of water to carry an electrical current. Directly proportional to amount of total dissolved solids. EPA Max= NOT SPECIFIED

Copper - Present in most home plumbing systems. Blue/green stains in sinks and tubs is a prime indicator of copper corrosion, usually the result of low pH. EPA Max- 1.3 mg/L

Hardness - Soft 0-60 mg/L; Moderate 61-120 mg/L; Hard 121-180 mg/L; Very hard >181 mg/L. To convert mg/L to grains per gallon, divide by 17.1. EPA Max= NO LIMIT

Iron - Naturally occurring element in well waters. May cause brown stains, discolored water, and bad taste. EPA Max= 0.3 mg/L

Lead - Found in some plumbing fixtures, and older homes that may have used lead solder. EPA Max= 0.015mg/L

Magnesium – Naturally occurring mineral that contributes to total hardness. EPA Max= NO LIMIT

Manganese - Naturally occurring element in well waters. May cause stains, bad taste and odor. EPA Max= 0.05 mg/L

Nitrate - May originate from failed septic systems, agricultural run-off, organic decay, and excessive use of lawn fertilizers. EPA Max= 10 mg/L

Nitrite – An intermediate form of nitrogen that is part of the naturally occurring Nitrogen Cycle. EPA Max= 1.0 mg/L

Odor – The intensity of odor is reported as a threshold odor number, with zero indicating that no odor is present. EPA Max= 3

pH - Acid/Base determination. Neutral is 7.0; Acidic is <7.0, Basic is >7.0.

Potassium – An abundant element generally found in water. EPA Max= NOT SPECIFIED

Sediment – A visual determination of the presence or absence of sediment in water. POSITIVE/NEGATIVE

Sodium - Found in most waters; component of salt. High levels may indicate road salt intrusion. Massachusetts guideline is 20 mg/L, EPA limit is 250 mg/L. See note.

Sulfate – Widely distributed in nature and usually found in ground water.

Turbidity – The clarity or cloudiness of water.

MCL - Maximum Contaminant Level also considered the allowable limit. Results are compared to the MCL.

MRL - Minimum Reporting Level (the lowest we can report). **ND** (none detected) means less than the MRL.

Any results that exceed the MCL, if one applies, will be flagged with a # sign.

Note: The guideline of 20 mg/L for Sodium when exceeded does not require treatment of the water to reduce the levels to prevent adverse health effects on public health. Rather, the guideline represents a level of sodium in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled.

For further information please visit these web sites:

http://www.mass.gov/dep/water/drinking/privatew.htm (information on private well water)
http://www.mass.gov/dep/water/drinking/sodguide.pdf (information regarding sodium guideline)
http://water.epa.gov/drink/index.cfm (EPA office of Groundwater and Drinking Water)

To the Best of Your Knowledge as the Seller and/or Seller's Representative:

(a) Does the dwelling have a history of seepage, dampness, and/or water penetration into the Basement and/or Under Floor Crawl Space? If so please explain.

(b) Has a sump pump ever been installed or used in the Basement/Under Floor Crawl Space?

(c) Do you use any type of dehumidification in any part of the dwelling?

(d) Are you aware of any mold and/or air quality issues in the dwelling?

(e) Is the dwelling on a private sewage system?

1. If the waste system is private, has a Title V inspection been completed, and is the completed Title V Report available for review?

2. Has the dwelling ever been inspected and/or treated for insect infestation?

a. If so, when?

b. What were the chemicals used?

(f) Has the dwelling ever been tested for radon gas and/or lead paint?

1. If so when?

2. What were the results?

(g) Has the dwelling ever been inspected by an Inspector?

1. If so, when?

2. Were any problems noted?

3. Is a copy of the inspection Report available?

(h) Are the Seller/ Seller's Representative aware of any structural, mechanical, electrical or other material defects that may exist on the property?

(i) Has there ever been a fire in the dwelling?

1. If so, when?

2. What areas were involved?

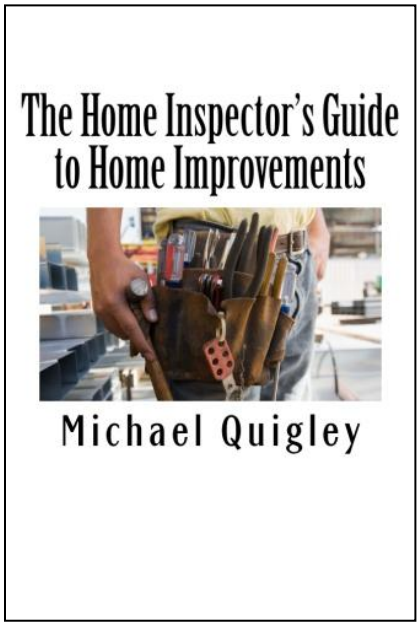
3. What chemical cleaners, if any, were used for cleanup?

(j) Has there ever been a hazardous waste spill on the property?

(k) Is there is an underground storage tank on the property?

The Home Inspector's Guide to Home Improvements

Author: Michael Quigley



Home buyers will eventually become home sellers. In the process they may attempt "home improvements." If mistakes are made in the improvement process, a Home Inspector will probably comment on it in the inspection report. In an effort to save you time and money, I have written a book about some of the most commonly reported on items found during a home inspection.

This book is written in sections to help everyone involved in a real estate transaction get the most value of out a home sale.

Section one offers tips for home sellers, including suggestions on "staging" your house for a home inspection.

Section two includes tips for real estate agents on helping your sellers avoid costly concessions (and therefore avoiding a lowered sales commission) by encouraging your clients to "fix it before they list it."

Section three helps investors understand that the days of flipping a property for a quick profit may be over.

The next fourteen chapters of the book detail a home inspection **(including 600+ photographs.)** At the end of each chapter is a review of the items that were discussed and the repairs or concessions that should be made or asked for prior to closing.

Also included are sections and information on wood boring insects, hazardous waste and chemicals commonly found in homes, hazardous building materials and gasses such as asbestos, lead, mercury, methane and radon as well as mold and how these things can impact your home.

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