

LIEBAU-LAUN INC 1200 W LIEBAU RD THIENSVILLE, WI 53092 **Home Owner** Well ID/Address VINTAGE ESTATES

Well City

PUMP HOUSE

MEQUON

Sample Location ENTRY POINT

Lab#

381773

Collected By/Date A LIEBAU

4/20/2015

Report Date 27-May-15

Analyte

Result

Units LOD LOQ Dil Dig Date Run Date Mthd Analyst QC Code

Inorganic

Radiochemistry

Gross Alpha

3.9 + -1.9

pci/L

5/27/2015 7110 B EEA

Michael Hante

Radioactivity from the erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation. The EPA Maximum Contaminant Level is 15 pCi/L

(picocuries per liter).

Radium 228

0.08 + -0.35

pci/L

5/27/2015 500-Ra DEEA

Radioactivity from the erosion of natural deposits of certain minerals that are radioactive and may emit forms of radiation. The EPA Maximum Contaminant Level when combined with Radium 226 is 5.0 pCi/L (picocuries per liter).

0.38

LOD Limit of Detection

None Detected = Result was less than the LOD

LOQ Limit of Quantitation

Code

Comment

1

All laboratory QC requirements were met for this sample.

EEA denotes sub contract lab - Certification #999766900

Laboratory Director

Please visit our website at www.cleanwatertesting.com



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VINTAGE ESTATES **PUMP HOUSE MEQUON** Sample Location ENTRY POINT

Lab#

381770 Collected By/Date A LIEBAU

4/20/2015

Report Date 01-May-15

Analyte	Result	Units	LOD	LOQ	Dil	Dig Date	Run Date	Mthd	Analyst	QC Code
Organic VOC's			-							
Benzene	None Detected	l ug/l	0.43	1.36	1		4/29/2015	524.2	SYN	1
Bromobenzene	None Detected	l ug/l	0.48	1.52	1		4/29/2015	524.2	SYN	1
Bromodichloromethane	None Detected	l ug/l	0.48	1.52	1		4/29/2015	524.2	SYN	1
Bromoform	None Detected	l ug/l	0.9	2.85	1		4/29/2015	524.2	SYN	1
Bromomethane	None Detected	l ug/l	2.6	8.1	1		4/29/2015	524.2	SYN	1
Carbon Tetrachloride	None Detected	l ug/l	0.51	1.61	I		4/29/2015	524.2	SYN	Ī
Chlorobenzene	None Detected	l ug/l	0.45	1.44	1		4/29/2015	524.2	SYN	1
Chloroethane	None Detected	l ug/l	0.46	1.47	1		4/29/2015	524.2	SYN	1
Chloroform	None Detected	l ug/l	0.44	1.41	1		4/29/2015	524.2	SYN	1
Chloromethane	None Detected	l ug/l	0.79	2.53	1		4/29/2015	524.2	SYN	1
2-Chlorotoluene	None Detected	d ug/l	0.39	1.26	1		4/29/2015	5 524.2	SYN	1
4-Chlorotoluene	None Detected	d ug/l	0.46	5 1.45	1		4/29/2015	5 524.2	SYN	1
Dibromochloromethane	None Detected	d ug/l	0.0	5 1.92	! 1		4/29/2015	5 524.2	SYN	1,
Dibromomethane	None Detected	d ug/l	0.50	5 1.79) 1		4/29/2015	5 524.2	SYN	1
1,4-Dichlorobenzene	None Detected	d ug/l	0.48	3 1.53	1		4/29/2015	5 524.2	SYN	1
1,3-Dichlorobenzene	None Detecte	d ug/l	0.54	4 1.71	1		4/29/2015	5 524.2	SYN	1
1,2-Dichlorobenzene	None Detecte	d ug/l	0.4	6 1.46	5 1		4/29/201:	5 524.2	SYN	1
Dichlorodifluoromethane	None Detecte	d ug/l	0.9	1 2.89	9 1	l	4/29/201:	5 524.2	2 SYN	1
1,2-Dichloroethane	None Detecte	d ug/l	0.4	8 1.54	4 1		4/29/201	5 524.2	2 SYN	1



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VINTAGE ESTATES PUMP HOUSE MEQUON 381770

Lab#

Collected By/Date A LIEBAU 4/20/2015

Report Date 01-May-15

Analyte	Result	Units	LOD 1	LOQ	Dil	Dig Date	Run Date	Mthd	Analyst	QC Code
1,1-Dichloroethane	None Detected	ug/l	0.98	3.12	1		4/29/2015	524.2	SYN	1
1,1-Dichloroethene	None Detected	ug/l	0.52	1.67	1		4/29/2015	524.2	SYN	1
cis-1,2-Dichloroethene	None Detected	ug/l	0.46	1.48	1		4/29/2015	524.2	SYN	1
trans-1,2-Dichloroethene	None Detected	ug/l	0.49	1.57	1		4/29/2015	524.2	SYN	1
1,2-Dichloropropane	None Detected	l ug/l	0.5	1.59	1		4/29/2015	524.2	SYN	1
2,2-Dichloropropane	None Detected	l ug/l	2.1	6.54	1		4/29/2015	524.2	SYN	7 8
1,3-Dichloropropane	None Detected	l ug/1	0.42	1.32	1		4/29/2015	524.2	SYN	1
trans-1,3-Dichloropropene	None Detected	l ug/l	0.51	1.62	1		4/29/2015	524.2	SYN	1
cis-1,3-Dichloropropene	None Detected	l ug/l	0.44	1.41	1		4/29/2015	524.2	SYN	1
Ethylbenzene	None Detected	l ug/l	0.39	1.23	1		4/29/2015	524.2	SYN	1
Hexachlorobutadiene	None Detected	l ug/l	0.92	2.93	1		4/29/2015	524.2	SYN	1
Isopropylbenzene	None Detected	l ug/l	0.44	1.41	1		4/29/2015	524.2	SYN	1
p-Isopropyltoluene	None Detected	l ug/l	0.49	1.57	1		4/29/2015	524.2	SYN	1
Methylene chloride	None Detected	l ug/l	0.45	1.42	. 1		4/29/2015	524.2	SYN	1
Methyl tert-butyl ether (MTBE	None Detected	d ug/l	1	3.22	. 1		4/29/2015	524.2	SYN	1
Naphthalene	None Detected	d ug/l	0.67	2.14	1		4/29/2015	524.2	SYN	1
Styrene	None Detected	d ug/l	0.4	1.27	7 1		4/29/2015	524.2	SYN	1
1,1,2,2-Tetrachloroethane	None Detected	d ug/l	0.53	1.7	7 1		4/29/2015	5 524.2	SYN	1
1,1,1,2-Tetrachloroethane	None Detected	d ug/l	0.52	1.66	5 1		4/29/2015	5 524.2	SYN	1
Tetrachloroethene	None Detected	d ug/1	0.49	1.55	5 1	l	4/29/2015	5 524.2	SYN	1



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Lab#

381770

Collected By/Date A LIEBAU 4/20/2015

Report Date 01-May-15	1.00				one	cteu Dy/Dz	THE ALILL	710	1/20/2013	
Analyte	Result	Units	LOD	LOQ	Dil	Dig Date	Run Date	Mthd	Analyst	QC Code
Toluene	None Detected	ug/l	0.45	1.43	1		4/29/2015	524.2	SYN	1
1,2,4-Trichlorobenzene	None Detected	l ug/l	0.55	1.77	1		4/29/2015	524.2	SYN	1
1,1-Dichloropropene	None Detected	l ug/l	0.58	1.85	1		4/29/2015	524.2	SYN	1
1,1,1-Trichloroethane	None Detected	l ug/l	0.35	1.12	1		4/29/2015	524.2	SYN	1
1,1,2-Trichloroethane	None Detected	l ug/l	0.55	1.76	1		4/29/2015	524.2	SYN	1
Trichloroethene (TCE)	None Detected	l ug/l	0.48	1.54	1		4/29/2015	524.2	SYN	1
Trichlorofluoromethane	None Detected	l ug/l	0.91	2.88	1		4/29/2015	524.2	SYN	1
1,2,3-Trichloropropane	None Detected	l ug/l	0.99	3.16	1		4/29/2015	524.2	SYN	1
1,2,4-Trimethylbenzene	None Detected	l ug/l	0.52	2 1.67	1		4/29/2015	524.2	SYN	1
1,3,5-Trimethylbenzene	None Detected	l ug/l	0.47	7 1.49	1		4/29/2015	5 524.2	SYN	1
Vinyl Chloride	None Detected	l ug/l	0.2	2 0.64	1		4/29/2015	5 524.2	SYN	1
m&p-Xylene	None Detected	l ug/l	0.85	5 2.69) 1		4/29/2015	5 524.2	SYN	1
o-Xylene	None Detected	l ug/l	0.55	5 1.76	5 1		4/29/2015	5 524.2	SYN	1
LOD Limit of Detection	None Detecte	d = Res	ult was le	ss than t	he LO	OD	LC	Q Limit	of Quantita	tion

Code Comment All laboratory QC requirements were met for this sample. The LCS not within established limits. 7 A QC standard fell outside established limits.

Laboratory Director

SYN denotes sub contract lab - Certification #445037560



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MEQUON

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Lab#

381772

Collected By/Date A LIEBAU 4/20/2015 Report Date 13-May-15 Units LOD LOQ Dil Dig Date Run Date Mthd Analyst QC Code Analyte Result Inorganic General 0.78 4/28/2015 300.0 RKC Fluoride 0.9 (F)...Fluoride is natural in water. Levels around 1.0 mg/L are desirable; levels above 4.0 mg/l may stain teeth. Supplements may or may not be necessary for infants depending on the level contained in your water supply. Nitrate + Nitrite None Detected mg/l 0.1 0.31 1 4/22/2015 4500F KF

(as NO3+NO2)...A small amount of nitrate may be natural; however, elevated levels are an indication of nutrients entering the groundwater due to human activity. These nutrients could be generated from a number of sources including septic saturation, barnyard runoff, or over fertilization. The maximum contaminant level set by the EPA is 10 mg/L (part per million).

Nitrite Nitrogen

None Detected mg/l

0.04 0.11 1

4/21/2015 4500B KF

NITRITE (NO2) A small amount of nitrites may be natural, however, elevated levels are a direct indication of raw sewerage, barnyard runoff, or septic saturation. A level of 1 mg/L (part per million) is considered too high for infants or adults to drink.

Metals

Antimony

None Detected ug/L

1.8 1 0.6

4/29/2015 3113B ER

(as total Sb)...Antimony is a metal found in natural deposits as ores containing other elements. The most widely used antimony compound is antimony trioxide, used as a flame retardant. It is also found in batteries, pigments, and ceramics/glass. The EPA has set a maximum contaminant limit of 6 ug/L (parts per billion) because antimony is a known human carcinogen.

Arsenic, Total

2.6

ug/l

0.6 1.8 1 4/22/2015 3113B ER

1

(as total As) Elevated arsenic levels are believed to cause skin cancer, and blood and nervous system disorders. The EPA and the WI DNR consider levels above 10 ug/L (parts per billion) in drinking water harmful.

Barium

24.1

ug/l

4 12.7 1

4/22/2015 200.7 NMP

(as total Ba) Barium is naturally occurring in groundwater and appears in pockets of elevated levels. High levels of barium have severe toxic effects on the heart, blood vessels and nerves. The EPA has set the maximum contaminant level for barium at 2000 ug/L (parts per billion). Barium is easily removed with a water softener, but will foul the media with time. Both the efficiency of your water softener and the barium levels in your water should be monitored.



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Collected By/Date A LIEBAU 4/20/2015

Report Date 13-May-15

Units LOD LOO Dil Dig Date Run Date Mthd Analyst QC Code Result Analyte None Detected ug/l 4/22/2015 200.7 NMP Beryllium 0.4 1.2

(as total Be) Beryllium occurs in nature as deposits of beryls in granitic rocks. Beryllium is used in metal alloys, x-ray machines, and nuclear reactors. The EPA has set a maximum contaminant limit of 4ug/L (parts per billion) in drinking water due to beryllium's toxicity to humans at low levels.

None Detected ug/l 4/22/2015 200.7 NMP Cadmium 0.5 1.5

(as total Cd) The greatest use of cadmium is primarily for metal plating and coating operations; it is also used in nickel-cadmium and solar batteries and in pigments. Cadmium is extremely toxic and accumulates in the kidneys and liver with prolonged intake at low levels sometimes leading to dysfunction of the kidneys. The EPA primary drinking water standard maximum contaminant limit is 5 ug/L (parts per billion).

None Detected ug/l Chromium 4/22/2015 200.7 NMP 2.3 7.3 1

(as total Cr) Chromium is used in metal alloys such as stainless steel, and its soluble forms are used in wood preservatives. Chromium is considered an essential trace nutrient for animals and humans; however the hexavalent form chromium has been shown to be carcinogenic. For these reasons, the EPA

has set a maximum contaminant limit in drinking water at 100 ug/L (parts per billion) for total chromium. None Detected ug/L Mercury 0.04 0.12 1 4/23/2015 4/24/2015 245.1 NMP 1

Mercury is found throughout the environment as a result of industrial and agricultural activities. Extensive exposure can produce hallucinations, manic-depressive psychosis. Irreversible brain damage may also result from mercury poisoning. The EPA has set the Maximum Contaminant Level (MCL) for Mercury at 15 ug/l (parts per billion).

None Detected ug/l Nickel 8.3 1 4/22/2015 200.7 NMP

(as total Ni)...Nickel is used in metal alloys, magnets, protective coatings, and batteries. Long-term exposure of high levels of nickel has the potential to cause decreased body weight, heart and liver damage, and skin irritation. The EPA had remanded the 100 ug/L MCL of nickel on February 9, 1995. This means that while many water suppliers continue to monitor nickel levels in their water, there is currently no EPA legal limit on the amount of nickel in allowed in drinking water.

None Detected ug/1 Selenium 3.3 1 5/12/2015 3113B ER 1

(as total Se)...Selenium is considered an essential trace nutrient for animals and humans. Above trace levels, ingested selenium may be toxic to humans. For these reasons, the EPA has set a maximum contaminant limit in drinking water at 50 ug/L (parts per billion).



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381772

Collected By/Date A LIEBAU

Michael That

4/20/2015

Report Date 13-May-15

Analyte	Result	Units	LOD	LOQ	Dil	Dig Date	Run Date	Mthd	Analyst	QC Code
	40.5	mg/l	0.19	0.6	1		4/22/2015	200.7	NMP	1

(as total Na)...Sodium is a common element found in ground water and is an essential nutrient for humans. In large concentration it may affect persons with cardiac difficulties. The EPA has set a health advisory limit for sodium in drinking water for 200 mg/L (parts per million). Elevated levels in well water may indicate agricultural or road salt runoff.

Thallium

Sodium

None Detected ug/L

0.7 1 0.2

5/5/2015 200.9 ER

(as total Tl)...Thallium is a metal found in natural deposits as ores containing other elements. The greatest use of thallium is in specialized electronic research equipment. Short-term low level exposure can cause gastrointestinal irritation and nerve damage. Lifetime exposure can damage the liver, kidney and intestinal tissues, and cause hair loss. For these reasons, the EPA has set the maximum contaminant level at 2 ug/L (parts per billion).

LOD Limit of Detection

None Detected = Result was less than the LOD

LOQ Limit of Quantitation

Code

Comment

All laboratory QC requirements were met for this sample.