

Radon Test Results

Report Date: September 23, 2013
 Client: Norstar Development USA, L.P.
 Site Address: South Seventh Street
 221-253 South Seventh Street
 Ann Arbor, Michigan
 AKT Peerless Project #: 8358e-6-190

Results

AKT Peerless conducted short-term sampling for radon gas at the South Seventh Street Housing complex during the period from August 8 to August 12, 2013. All units in the complex were tested.

An AccuStar Charcoal LS CLS 100i Short Term Radon Test Kit was placed in the lowest livable space of each address. One duplicate Quality Control sample and one Blank were also analyzed.

Table 1 Radon Test Results 221-253 South Seventh Street, Ann Arbor, Michigan				
Address	Dates Sampled	Test Location	Test Duration (Hours)	Test Result (pCi/L)
221 South Seventh Street	8/8/2013 – 8/12/2013	First floor living room on TV stand, 16" from west wall, center, 54" elevation	95.1	1.5
221 South Seventh Street	8/8/2013 – 8/12/2013	Duplicate	95.1	1.8
223 SOUTH SEVENTH STREET	8/8/2013 – 8/12/2013	FIRST FLOOR HALLWAY, SOUTH WALL, 30" FROM NORTH EXTERIOR WALL, 54" ELEVATION	94.8	7.6
231 South Seventh Street	8/8/2013 – 8/12/2013	First floor bedroom, 4' from southeast corner, 30" elevation	95.2	1.2
233 South Seventh Street	8/8/2013 – 8/12/2013	First floor living room, east wall on bookshelf, 6' elevation	95.3	1.4
241 South Seventh Street	8/8/2013 – 8/12/2013	First floor living room on TV stand, 4' from northwest corner	95.4	2.2
243 South Seventh Street	8/8/2013 – 8/12/2013	First floor living room, north wall on collectible stand	95.5	2.9
251 South Seventh Street	8/8/2013 – 8/12/2013	First floor bedroom on cabinet, 2' from north wall, 78" elevation	94.7	3.0
253 South Seventh Street	8/8/2013 – 8/12/2013	First floor kitchen (unit unoccupied), north edge of counter, 2' from east interior wall, 3' elevation	94.8	3.6

EPA Action level = of 4.0 picocuries per liter (pCi/L). Laboratory provided by AccuStar are included in Attachment A.
BOLD CAPS = Result exceeds EPA Action level.



Recommendation

Radon levels in 223 South Seventh Street exceeded the EPA Action level of 4.0 picocuries per liter (pCi/L). Long-term testing is recommended but mitigation based on the initial test results is also an option. A radon mitigation professional should be consulted to determine design and installation criteria. No further actions are required at this time for the remaining addresses in the complex.

Limitations

The information and opinions obtained in this report are for the exclusive use of the Norstar Development USA, L.P. AKT Peerless will not distribute this report without Client's written consent or as required by law or by a Court order. Report contents must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Results indicate conditions present during the sampling period. Indoor radon levels can vary based on season and a variety of other factors.

Submitted by:

AKT Peerless Environmental and Energy Services

A handwritten signature in black ink that reads "James C. Fox". The signature is written in a cursive style.

James C. Fox, RPIH
Sr. Project Manager

Attachment A

Laboratory Analytical Results

NELAC NY 11769
NRPP 101193 AL
NRSB ARL0017

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

Laboratory Report For

Property Tested

AKT Peerless-J. Fox
22725 Orchard Lake Road
Farmington MI 48336

South Seventh
221 South 7th
Proj No. 8358e-6-190
Ann Arbor MI 48103

Log Number	Device Number	Area Tested	Result (pCi/L)
1555657	2572559	First Floor	1.5
1555658	2572560	First Floor Duplicate Q/C	1.8

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

Comment: Environmental Monitoring Systems was emailed a copy of this report. A copy of this report was emailed to foxcj@aktpeerless.com.

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Test Began:	8/8/2013	10:14 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:21 am	Date Analyzed:	8/20/2013
Test Exposure Duration	95.1 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Hayes Report Approved By: Carolyn K. Allen

Carolyn K. Allen President, AccuStar Labs

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.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

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Laboratory Report For

AKT Peerless- J. Fox
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Farmington MI 48336

Property Tested

South Seventh
223 South 7th Street
Proj No. 8358e-6-190
Ann Arbor MI 48103

Log Number	Device Number	Area Tested	Result (pCi/L)
1555643	2591898	First Floor	7.6
1555644	2591899	Field Blank	< 0.4

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.

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Test Began:	8/8/2013	10:27 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:18 am	Date Analyzed:	8/19/2013
Test Exposure Duration	94.8 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Gray Report Approved By: Carolyn K. Allen

Carolyn K. Allen President, AccuStar Labs

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Ann Arbor MI 48103

Log Number	Device Number	Area Tested	Result (pCi/L)
1555647	2572585	First Floor	1.2

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

Comment: AMENDED REPORT for 2572585 on 8/28/2013 to correct the ending date. Environmental Monitoring Systems was emailed a copy of this report. A copy of this report was emailed to foxcj@aktpeerless.com.

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Test Began:	8/8/2013	10:04 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:15 am	Date Analyzed:	8/19/2013
Test Exposure Duration	95.2 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Hayes Report Approved By: Carolyn K. Allen

Carolyn K. Allen President, AccuStar Labs

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Property Tested Project # 8358e-6-190

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Log Number	Device Number	Area Tested	Result (pCi/L)
1555648	2572586	First Floor	1.4

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

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Test Began:	8/8/2013	9:50 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:05 am	Date Analyzed:	8/19/2013
Test Exposure Duration	95.3 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Staj

Report Approved By: Carolyn K. Allen

Carolyn K. Allen President, AccuStar Labs

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Log Number	Device Number	Area Tested	Result (pCi/L)
1554675	2572605	First Floor	2.2

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

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Test Performed By: James Fox

Test Began:	8/8/2013	9:37 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:01 am	Date Analyzed:	8/19/2013
Test Exposure Duration	95.4 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Gray Report Approved By: Carolyn K. Allen

Carolyn K. Allen President, AccuStar Labs

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Log Number	Device Number	Area Tested	Result (pCi/L)
1554676	2572606	First Floor	2.9

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

Comment: Per EPA Protocol, closed house conditions have not been met. This factor could influence your test results. Consider retesting. Environmental Monitoring Systems was emailed a copy of this report. A copy of this report was emailed to foxcj@aktpeerless.com.

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Test Performed By: James Fox

Test Began:	8/8/2013	9:28 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	8:58 am	Date Analyzed:	8/19/2013
Test Exposure Duration	95.5 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Gray Report Approved By: Carolyn K. Allen

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Log Number	Device Number	Area Tested	Result (pCi/L)
1555653	2572645	First Floor	3.0

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

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Test Began:	8/8/2013	10:47 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:28 am	Date Analyzed:	8/19/2013
Test Exposure Duration	94.7 Hours		Date Reported:	8/20/2013

Report Reviewed By: M. Gray Report Approved By: Carolyn K. Allen

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Log Number	Device Number	Area Tested	Result (pCi/L)
1555654	2572646	First Floor	3.6

Radon test results are below the EPA action level of 4 pCi/L. No further action is required at this time. The EPA suggests that you may want to test again in the future to ensure that radon levels remain below the action level. If the property tested uses water from a private well, you may wish to consider testing for radon in water.

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Test Began:	8/8/2013	10:36 am	Date Received:	8/19/2013
Test Ended:	8/12/2013	9:24 am	Date Analyzed:	8/19/2013
Test Exposure Duration	94.8 Hours		Date Reported:	8/20/2013

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