# USATHAMA 

U.S. Army Toxic and Hazardous Materials Agency

10 Radon Monitoring in Army

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## notice

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## Acknowledgment

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Argonne National Laboratory also wishes to acknowledge the cooperation of the occupants of the residential housing units monitored under this program.

# Radon Monitoring in Army Stand-alone Housing Units <br> Final Report 

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Commander, U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland 21010-5401

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19. ABSTRACT (Continue on reverse if necessary and identify by block number)

A'rgonne National Laboratory has completed screening measurements of indoor radon concentrations at 51 Army stand-alone housing areas located throughout the continental United States. The measurements were done in accord with the existing Army Radon Program. Quality assurance aspects of the project included the use of controls, spiked samples, and field replicates, as indicated by the Army Radon Program.

- In all, 1,117 alpha track detectors, manufactured by Tech/Ops Landauer of Glenwood, IL, were deployed in September 1989 in a total of 892 residential structures. The monitoring period was a nominal 90 days. A total of 818 detectors have been returned. Returned detectors, as well as controls and spikes, were analyzed by Tech/Ops Landauer.
$\therefore$ A total of 55 housing structures exhibited radon concentrations equal to or greater than $4.0 \mathrm{pCi/L}$ (picocuries per liter), the level identified by the Army Radon Program above which follow-up measurements or mitigative actions are required. Housing units exceeding 4.0 pCin were in the following locations: Ansonia, Shelton, and Westport, Connecticut; Addison and Worth, Illinois; Burlington and Randolph, Massachusetts; Watertown, Nè̀ York; Dorseyville, Elizabeth, Elrama, and Hermine, Pennsylvania; Newport News, Virginia; and Sun Prairie, Wisconsind

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# Radon Monitoring in Army Stand-alone Housing Units 

Summary

Argonne National Laboratory (ANL) has completed screening measurements of indoor radon concentrations at 51 Army stand-alone housing properties located throughout the continental United States. Each of these housing properties has been identified for closure under the Defense Authorization Amendments and Base Closure and Realignment Act, Public Law 100-526.

Argonne conducted screening measurements in accordance with established Army policy regarding indoor radon monitoring and mitigation. Alpha track detectors (ATDs) were used for the measurements, which lasted a nominal 90 days. In all, 892 structures were monitored. These structures included single-story, single-family houses; single and multistory multiplexes; and multistory apartment buildings. Each individual family unit received at least one detector. In all, 1,117 detectors were deployed in September 1989. Of this total, 892 detectors have been returned, while 299 remain outstanding. Quality control included the deployment of 70 replicate pairs and the use of 50 detectors as controls and 50 as known standards or spikes. Spikes were developed by exposing the detectors to known radon concentrations at ANL's facilities. All analyses of placed, control, and spiked detectors were performed by Tech/Ops Landauer, Glenwood, Illinois, the manufacturer of the detectors. As an additional measure of quality control, 30 detectors were forwarded to the U.S. Environmental Protection Agency radiation laboratory in Denver for independent spiking.

In all, 55 housing units, located at 14 of the 51 monitored properties, displayed indoor radon concentrations equal to or greater than $4.0 \mathrm{pCi} / \mathrm{L}$, the lowest action level identified in the Army Radon Program. An additional 56 units displayed radon concentrations between 3.2 and $4.0 \mathrm{pCi} / \mathrm{L}$.

Those units at which radon concentrations exceeded $4.0 \mathrm{pCi} / \mathrm{L}$ were in the following locations: Ansonia, Shelton, and Westport, Connecticut; Addison and Worth, Illinois; Burlington and Randolph, Massachusetts; Watertown, New York; Dorseyville,

Elizabeth, Elrama, and Herminie, Pennsylvania; Newport News, Virginia; and Sun Prairie, Wisconsin.

## 1 Introduction

In October 1988, Congress passed the Defense Authorization Amendments and Base Closure and Realignment Act, Public Law 100-526. This legislation provided the framework for making decisions regarding closures and realignments of military bases. In December 1988, the Defense Secretary's ad hoc Commission on Base Realignments and Closure issued its final report nominating candidate installations for closure or realignment. The Commission's recommendations, subsequently approved by Congress, affect 111 Army installations, of which 86 are to be closed. Among the installations marked for closure are 53 stand-alone military housing areas located throughout the continental United States. ${ }^{1}$

Legislative directives require that all base closures and realignments be performed in accord with applicable provisions of the National Environmental Policy Act (NEPA). As a result, NEPA documentation is being prepared for all housing properties scheduled for closure. The Base Closure Division of the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) is responsible for addressing all environmental issues associated with the affected properties, including indoor radon concentrations. Argonne National Laboratory (ANL) has previously completed enhanced preliminary assessments on all Army housing units scheduled for closure. However, because of the particular scheduling requirements of a reliable program for monitoring indoor radon concentrations, that aspect of the property assessments has been conducted on a schedule independent of other environmental assessment activities.

This document is a report of the screening measurements of average indoor radon concentrations conducted by ANL at Army stand-alone housing properties scheduled for closure. In some instances, the term "screening measurement" implies a three-day measurement with a charcoal detector. However, when used in the context of this report, "screening measurement" reflects the protocols defined in the Army Radon Program and refers to a nominal 90 -day measurement with an alpha track detector. Additional discussions of the Army Radon Program are found in Section 3.

In all, 53 Army housing properties are scheduled for closure. However, two of the properties scheduled for closure have been removed from consideration under this study. At one of those properties, Clementon Army Housing, Clementon, New Jersey, the houses
are in dis- pair, with broken windows or missing doors, precluding accurate measurement of indoor radon concentrations. Houses at the second property, Wherry Army Housing, St. Louis, Missouri, have only recently been screened for radon by Army personnel. The results of those screening measurements are being made available to USATHAMA, thus making additional radon screening under the Base Closure Program unnecessary at this time.

### 1.1 Authority

The USATHAMA has engaged Argonne to support the Base Closure Program by assessing the environmental quality of the installations proposed for closure. Argonne has completed enhanced preliminary assessments of the properties. These assessments were conducted under the authority of the Defense Department's Installation Restoration Program (IRP); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Public Law 91-510, also known as Superfund; the Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law 99-499; and the Defense Authorization Amendments and Base Closure and Realignment Act of 1988, Public Law 100-526. The complete list of properties for which enhanced preliminary assessment reports have been published is found in Appendix A. The reader is referred to these individual reports for additional information on the subject properties.

Authority for the study of indoor radon concentrations is also established by the Base Closure and Realignment Act of 1988. This legislation specifies that all base closures and realignments be performed in accord with applicable provisions of the NEPA. The USATHAMA has interpreted this directive to mean that all activities or conditions associated with the property that have resulted or could result in adverse impacts to environmental quality or human health must be addressed. Included in such a broad category of consideration are indoor radon concentrations, which may represent increased health risks to occupants of the houses. Finally, irrespective of the Base Closure Program, indoor radon monitoring is required by existing Army policy as outlined in the Army Radon Program.

### 1.2 Study Objectives and the Army Radon Program

In performing assessments at Army housing unit properties scheduled for closure, USATHAMA will identify and characterize all significant environmental conditions that exist at the properties to ensure that appropriate steps are taken to mitigate or remediate any identified adverse impacts to human health or the environment. The enhanced preliminary assessments of these Army housing properties have identified and characterized all areas requiring additional environmental evaluation and identified conditions that should be further investigated or remediated. The additional investigations are being conducted as a separate task.

The objective of this study is to implement the initial radon screening measurement directive contained in the policy memorandum of April 25, 1988, concerning radon measurement and mitigation in Army-owned or -leased structures. The Army Radon Program ${ }^{2}$ comprises a Radon Measurement Strategy and a Radon Mitigation Plan, which together meet the guidelines on radon measurement and mitigation issued by the United States Environmental Protection Agency (U.S. EPA). ${ }^{3-6}$

The purpose of the Army Radon Program, as outlined originally in the policy memorandum DOD Radon Assessment and Mitigation Policy, ${ }^{7}$ is to identify structures both within and outside of the continental United States that are owned or leased by the Army (including Civil Works) and have indoor radon levels greater than 4 picocuries ( 4 x $10^{-12}$ curies) per liter ( $\mathrm{pCi} / \mathrm{L}$ ) of air. Structures having levels greater than $4 \mathrm{pCi} / \mathrm{L}$ will be modified so that radon levels are reduced to no more than $4 \mathrm{pCi} / \mathrm{L}$. The Army Corps of Engineers (Civil Works) will adapt this program to its operations.

The Army Radon Program established three priority categories for the radon monitoring effort. Of highest priority are structures used as day-care centers, schools, hospitals, and residential areas. Of secondary priority are structures that are occupied on a 24 -hour basis. All remaining permanent structures fall into the third priority category.

This ANL radon monitoring study has been designed to implement the first of three steps in the Army's radon measurement strategy, as outlined below:

- Each building will be screened initially for 90 days by using an alpha track detector located in the lowest accessible level or the basement. Initial screening will be performed when buildings are closed (during heating or cooling seasons) in order to obtain maximum radon concentrations.
- Buildings with an initial measurement exceeding $20 \mathrm{pCi} / \mathrm{L}$ will not be scheduled for long-term measurement, but the problem will be mitigated according to the schedule established in the Radon Mitigation Plan.
- Buildings having an initial measurement between 4 and $20 \mathrm{pCi} / \mathrm{L}$ will undergo long-term measurement for a period of 12 months. Two detectors will be used, one in the basement (when the structure contains a basement) and one in the lowest living area.

Actions taken under the Army Radon Mitigation Plan are based upon the highest radon concentration observed in the screening measurements. Anticipated mitigative actions are the following:

- Radon concentrations greater than $200 \mathrm{pCi} / \mathrm{L}$ will require immediate mitigative actions that may include building ventilation and/or sealing of cracks and other potential points of radon gas entry. If those actions do not reduce radon concentrations within one month, activities occurring within that structure will be relocated.
- Radon concentrations between 20 and $200 \mathrm{pCi} / \mathrm{L}$ will require that mitigative actions be implemented within six months.
- Radon concentrations between 8 and $20 \mathrm{pCi} / \mathrm{L}$ will require mitigative actions within $1-4 \mathrm{yr}$, depending on the levels measured.
- Radon concentrations between 4 and $8 \mathrm{pCi} / \mathrm{L}$ will require mitigative actions within 5 yr of the measurement.
- All buildings within which radon mitigative actions have been completed will be measured again for radon to assure the success of the actions.

These action levels are equivalent to action levels proposed by the U.S. EPA. It is important to note that action levels defined by both the Army and the U.S. EPA are based upon an annual average radon concentration. Furthermore, a monitoring period lasting less than one full year may introduce some intrinsic error to the estimate of annual average radon concentration. These errors are due primarily to seasonal variations in radon seepage from soils and, to a lesser extent, to the fact that the extent of natural ventilation of structures varies widely with season. Depending upon the time of year over which a shortterm measurement is taken, this error may be either positive (representing a worst case condition) or negative.

The U.S. EPA has noted that 90 -day measurements taken during a heating season in colder climates (or during a cooling season in warmer climates) may produce radon results that can be as much as two to four times the annual average. ${ }^{3.5}$ Studies completed in 1989 showed that summer radon concentrations account for approximately $40 \%$ of the annual average and that winter concentrations can be as high as 1.7 times the annual average. ${ }^{8}$ This difference is thought to represent not only seasonal variations in rates of radon diffusion from the earth, but also the unintended result of efforts toward energyefficient house construction.

Despite these empirically observed seasonal variations, a measurement period lasting at least 90 days and occurring largely within a heating or cooling season is nevertheless believed to provide a reliable result that can be considered to be a worst case condition. Therefore, when the results obtained under such monitoring conditions are below levels of concern ( $<4 \mathrm{pCi} / \mathrm{L}$ ), year-long follow-up measurements become unnecessary, and no further mitigative actions are needed. Taking these factors into consideration, the Army's policy requires that year-long radon follow-up measurements will be conducted in structures where screening measurement results between 4 and $20 \mathrm{pCi} / \mathrm{L}$ have been obtained. Only structures having one-year measurements greater than $4 \mathrm{pCi} / /$ will undergo mitigation.

In addition to follow-up measurements, the mitigative actions suggested in the Army plan generally involve sealing cracks and breaks in the foundations of the structures, thereby reducing or eliminating the routes by which radon gas can enter the structure. Mitigation may also involve providing some sort of mechanical or natural ventilation to the structure (weather permitting) to reduce indoor radon concentrations by dilution of indoor air volumes with outdoor air.

## 2 General Information

Concern over health risks from radon exposure has existed for over 30 years. Radon, its radioactive decay products, and its radioactive progenitors have all been extensively studied. The mechanisms of their generation and fate and the health risks resulting from exposure to these materials have been extensively documented in the scientific literature. The discussion that follows is not intended to provide a complete treatise on radon or the consequences of exposures to radon or its radioactive daughters. Instead, only a brief overview of fundamental issues surrounding radon is presented in order to establish a background from which the specific objectives and parameters of a radon monitoring study can be understood.

### 2.1 Sources and Properties of Radon

Radon is a colorless, odorless, tasteless gas. It is chemically inert and naturally occurring, resulting from the radioactive decay of uranium and thorium present in soils and rock. Because radon is both chemically inert and a gas under normal conditions of temperature and pressure, it moves freely once it is formed, diffusing through very small interstitial spaces in rocks and soils, dissolving in groundwater, and ultimately dispersing into the ambient air or into enclosed structures whose foundations are in contact with the earth's surface.

Uranium-238 ( ${ }^{238} \mathrm{U}$ ) and thorium-232 ( 232 Th ), both common, naturally occurring elements, together provide a constant source of radon gas. Radioactive decay is the process by which the nucleus of an unstable element undergoes spontaneous transformation through the release of particles and/or electromagnetic radiation (energy). The resulting element, called the radioactive daughter or progeny, may itself be unstable and undergo spontaneous transformations upon formation. The rate at which an unstable nucleus decays (its radioactivity) is measured in curies ( Ci ), with one curie equal to 37 billion disintegrations per second. Since the amount of radiation emitted is directly proportional to the amount of the radioactive element present, radiation levels are directly correlated to concentrations. The radioactive decay schemes for ${ }^{238} \mathrm{U}$ and ${ }^{232} \mathrm{Th}$ are displayed in Figs. 2.1 and 2.2, respectively.


FIGURE 2.1 Radioactive Decay Scheme for Uranium-238 (Adapted from Reference 9)


FIGURE 2.2 Radioactive Decay Scheme for Thorium-232 (Adapted from Reference 9)

Also shown in Figs. 2.1 and 2.2 are the half-lives of the elements in the decay schemes. The half-life, defined as the time required for one-half of the radioactive nuclei present to undergo radioactive decay, is of particular importance in determining the magnitude of risks from exposures to radon and its radioactive daughters. Uranium and thorium decay to two different isotopes of radon, ${ }^{222} \mathrm{Rn}$ and ${ }^{220} \mathrm{Rn}$. (Elemental isotopes are atoms that differ only in atomic mass, because different numbers of neutrons are in the nuclei.) Radon-222, a progeny of ${ }^{238} \mathrm{U}$ decay, is the isotope about which concern is greatest. This concern derives primarily because the half-life of ${ }^{222} \mathrm{Rn}, 3.8$ days, is sufficiently long to allow significant quantities of ${ }^{222} \mathrm{Rn}$ to diffuse from the earth into buildings where it can be inhaled. By comparison, the half-life of ${ }^{220} \mathrm{Rn}$ is only 55.6 seconds. Except for its markedly reduced potential for reaching and accumulating in indoor air spaces, ${ }^{220} \mathrm{Rn}$ presents health risks equivalent to ${ }^{222} \mathrm{Rn}$. For simplicity, further discussions of radon will make no distinction of isotopes.

Radon is itself radioactive and undergoes spontaneous decay through the release of alpha and gamma radiation. However, in contrast to radon, the radioactive daughters thus formed (see Figs. 2.1 and 2.2) exhibit some chemical reactivity. Most will be adsorbed electrostatically onto interior building surfaces and furniture. Some, however, will attach to dust particles and remain airborne for long periods of time, thus increasing inhalation potential. The total health risk, therefore, is the result not only of radon presence, but also of the presence of respirable radon daughter products.

Relative to some other forms of radiation such as gamma or X-ray, alpha radiation produces minimal biological damage from external exposures. Internal exposures to alpha radiation, however, have been shown to produce significantly greater damage to tissues. The internal exposures to alpha radiation resulting from inhalation of radioactive radon daughters (adsorbed onto airborne dust particles) constitute the major health risks. Inhalation of gaseous radon represents an additional health risk.

### 2.2 General Considerations for Indoor Radon Measurements

Screening measurements of indoor radon concentrations should approximate the highest radon concentrations to which a building's occupants will be exposed. To ensure
that this fundamental objective is met, a screening measurement study generally has the following characieristics:

- Measurements should be taken in the lowest level of the building that is likely to be occupied for extended periods of time. In some instances, basement radon concentrations can be as much as four times those at higher levels in the structure. Therefore, all basements except those with earthen floors or walls are considered by the Army to be the lowest living area (even if they are not currently being used in that way) and should be monitored. Where basements do not meet the definition of lowest living area, the next lowest occupied level should be used.
- Ideally, measurements should be made under "closed-house" conditions. To establish a true closed-house condition is virtually impossible in a practical sense, unless the building is unoccupied during the measurement period. A close approximation to closed-house conditions results when the measurement is conducted during periods when artificial air conditioning (heating or cooling) is expected to be operative and natural ventilation of the structure is minimal (i.e., doors and windows are likely to be kept shut, and internal-external air exchange systems such as attic fans are inoperative). Air conditioning systems (both heating and cooling) that recirculate internal air can be operated, however, without detracting from closed-house conditions.
- Depending on the instrumentation used, measurement periods can vary from one day to one year. Although past studies have established both diurnal and annual variations in radon diffusion rates, most instrumentation has been calibrated so that its use over its recommended time period results in a reliable screening level that can serve as a basis for decisions regarding appropriate or necessary mitigative actions.
- In addition to being in the lowest living area, the monitor should be placed away from drafts, ventilation ducts, windows, fireplaces, or other areas where artificial convection currents and/or high humidity are present (e.g., in kitchens and bathrooms). In addition, monitoring
instruments should not be placed on or near floors or outside walls where convection air currents are strongest.


### 2.3 Selection of Radon Monitoring Instrumentation

A number of different instruments are currently available for radon screening measurements. The U.S. EPA has developed guidelines for the following seven radon measurement devices:

- Continuous radon monitor (CRM)
- Alpha track detector (ATD)
- Electret ion chamber (EIC)
- Charcoal canister
- Charcoal liquid scintillation device (CLS)
- Evacuated scintillation cell
- Pump/collapsable bag device
- Grab sampling

The reader is referred to U.S. EPA's Interim Protocols For Screening and FollowUp Radon and Radon Decay Product Measurements ${ }^{5}$ for information on the exact operating mechanisms of each of these instruments and a comparison of their strengths and weaknesses. In general, all of the above instruments are designed to determine radon concentrations by measuring radiations resulting from the radioactive decay of radon and/or its daughter products. Most devices collect radon in a sensitive volume and then measure the radiation from that radon and also from its daughters produced within the sensitive volume. The CRM, ATD, EID, and scintillation cell devices respond to alpha radiation from ${ }^{222} \mathrm{Rn},{ }^{218} \mathrm{Po}$, and ${ }^{214} \mathrm{Po}$ or from ${ }^{220} \mathrm{Rn},{ }^{216} \mathrm{Po}$, and ${ }^{212} \mathrm{Po}$. However, none of the instruments can differentiate the sources of alpha radiation impinging on its detectors. Thus, these instruments can, in theory, measure alpha radiation from any alpha source. In practice, however, only those radioactive species with sufficient mobility and half-lives to reach the instrument's detector will be measured. The alpha radiation measured, therefore, derives primarily from the ${ }^{222} \mathrm{Rn}$ decay chain, and the majority of the total alpha radiation
derives from decays of the daughter products that are formed in situ (i.e., on or near the instrument's detector) or that are carried to the detector adsorbed on airborne dust particles.

The charcoal canister and the CLS devices respond to beta and/or gamma radiation from the isotopes of Pb and Bi in the decay chains. The ambient radon is adsorbed on the charcoal, and the daughters produced in situ are subsequently measured. In order to discriminate between radon and daughter products that have already been formed and are present in ambient air, most instruments precede the radiation detection device with a particulate filter that is intended to eliminate the contributions from these airborne radioactive particulates.

The U.S. EPA has not specifically endorsed any particular type of radon measurement device. Instead, it has developed protocols for the use of each of the above instruments. In so doing, the U.S. EPA has indicated that any of these instruments is capable of providing reliable screening measurement results if it is used in accord with the applicable protocol. The U.S. EPA acknowledges, however, that the uncertainties of results will vary between instruments.

The selection of any of the above devices for screening measurements depends not only on such factors as the instrument's accuracy and precision and the reproducibility of results, but also on such practical parameters as cost; availability; ease of use; duration of sample collection; interferences; and the speed, accuracy, and cost of analysis.

Aside from the above instruments, other types of monitors take a fundamentally different approach in determining radon co::centrations. Chief among these instruments is the radon progeny integrated sampling unit (RPISU). This is an active, rather than passive, monitor. It actively collects known volumes of indoor air and does not rely on natural air convection in equilibrium conditions to deliver radon molecules to the sampling detector. The RPISU is also unique because it measures radiation only from the radioactive daughters of radon collected on a filter. This gives the instrument inherently greater accuracy of measurement. The widespread use of such an instrument, however, is not practical because of its high cost and also because its proper use requires a skilled operator. The RPISU is, however, an attractive option for follow-up measurements not only because of its accuracy, but also because a representative sample can be gathered in as little as 100 hr of continuous operation. Furthermore, over such a short time period, establishing
and maintaining closed-house conditions is not overly burdensome for the structure's occupants.

Continuous radon monitors and continuous working-level monitors can also be used for screening or follow-up measurements. Continuous working-level monitors offer a particular advantage in that, with the appropriate detector, the monitor can measure all or some of the radon daughters adsorbed onto airborne, respirable dust particles. As with the RPISU, however, cost argues against widespread use of these monitors. However, drawing indoor air continuously and actively into the sampling detector allows shortening of the period necessary for representative sampling, making these monitors suited for follow-up measurements done, preferably, under closed-house conditions. In addition, measurements can be made in time intervals as small as 1 hr and stored for later processing, thus allowing variations in radon and radon daughter concentrations with time to be precisely determined.

## 3 Study Design and Sampling and Analysis Protocols

### 3.1 General Characteristics of the Monitoring Program

As noted earlier, this monitoring program is intended to satisfy the requirements of screening measurement strategies in the Army Radon Monitoring Program. Therefore, the following fundamental parameters of this monitoring program were established at the onset:

- Alpha track detectors (ATDs) will be used. Since ATDs have been used extensively in other Army radon monitoring efforts, the results from this study can be compared directly with those other results. Such comparisons are essential to support priority decisions in implementing mitigative actions throughout the Army's properties.
- Alpha track detectors will be purchased from Tech/Ops Landauer, Inc., the vendor supplying detectors for other Army radon monitoring activities. Using detectors from the same supplier and assuming some regularity in production eliminates concerns about differing detector sensitivity and responsiveness and makes results from this study directly comparable to results obtained in other Army radon monitoring efforts.
- Detectors will be placed in the lowest inhabitable level of each structure (i.e., basements, if those areas contain or could contain finished living spaces).
- Each individual housing structure (a first-priority structure as defined in the Army Radon Monitoring Program) will receive a detector.
- For multiunit structures, each individual unit will receive a detector.
- The monitoring will be continuous for a minimum of 90 days.
- To the extent that the schedule for base closures allows, monitoring will extend over a period when closed-house conditions can be expected to exist, preferably during the winter months.
- Controls, "spikes," and field replicate samples will be used for quality control.
- The results and further actions recommended will be compatible with the action levels and directives contained in the Army Radon Program.

Additional program parameters and logistic decisions were selected by ANL in collaboration with USATHAMA and representatives from the United States Army Environmental Hygiene Agency (USAEHA). These program decisions and logistic arrangements are discussed in the following sections.

### 3.2 Quality Control Procedures

Quality control activities include the use of controls, field replicates, and known standards ("spikes"). In general, known standards are useful in determining the accuracy of detector analyses, controls provide insight into possible extraneous sources of alpha radiation encountered by the detector during storage or transport to the analytical laboratory, and field replicates provide some measure of the precision of both the detector's responsiveness and the analytical service. Additional actions were taken to ensure the randomness of monitor distribution. Each of these activities is discussed more completely below.

## Controls

An additional 50 monitors were randomly selected to serve as controls. These monitors were removed from their foil envelopes and immediately sealed. At least five such controls were randomly included in each batch of monitors shipped for analysis. (See Table 3.1 for characteristics of batches of detectors sent to Tech/Ops Landauer for analyses.) Fictitious dates were added to the control detectors to make them indistinguishable from placed detectors.

TABLE 3.1 Characteristics of Detector Batches Delivered for Analysis

| Batch <br> No. | Detectors <br> Sent | Deivery <br> Date | No. of <br> Controls | No. of <br> Spikes | Analytical <br> Process Nos. |
| :---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| 1 | 414 | $01 / 26 / 90$ | 15 | 15 | A06675, A06685 |
| 2 | 347 | $01 / 30 / 90$ | 15 | 15 | A06712, A06719 |
| 3 | 89 | $02 / 21 / 90$ | 5 | 5 | A06967 |
| 4 | 49 | $03 / 08 / 90$ | 5 | 6 | A07161, A07182 |
| 5 | 38 | $03 / 21 / 90$ | 5 | 5 |  |

Field Replicates

Standard random number tables were used by field personnel to select locations where field replicates would be deployed. Each field team was assigned a single-digit number. When that number matched the last digit of the next random number in the table, the current location was given a second monitor, which was placed immediately beside the first monitor. This method of selection guaranteed that field replicates would be placed in at least $10 \%$ of the housing units sampled.

## Known Standards (Spikes)

Fifty monitors were selected at random from the initial inventory to serve as known standards or spikes. A description of the procedures used to develop these spikes appears in Section 3.6.

As an additional quality control check, 30 unopened detectors ( $3 \%$ of the total number sampled) were selected randomly from the initial detector inventory and delivered to Vail Research and Technology Corporation, Alexandria, Virginia, the quality control contractor for Army radon monitoring activities. These detectors were then forwarded to the U.S. EPA's Radiation Laboratory for independent spiking. These 30 detectors were spiked to different levels of exposure by varying the time spent in the radon chamber. Irrespective of duration, however, the U.S. EPA spiking was done in a manner identical to the methodology described in Section 3.6. After spiking, the detectors and their calculated exposures were returned to ANL for random incorporation with placed detectors and
delivery to Tech/Ops Landauer for analyses. At the time of this report's publication, analytical results for these 30 detectors were not yet available.

## Randomness

Steps were taken to ensure randomness throughout the monitoring program. Before deployment, the initial inventory of monitors was mixed so that a numerical sequence of detectors or a correlation between detector numbers and properties could not be established. Detectors selected to serve as controls or spikes were also selected randomly from the total inventory before deployment. The ANL field teams further mixed all monitors assigned to them before deployment. Random number tables were used by the field teams to select units receiving field replicate detectors. Returned detectors were batched before delivery for analyses. Each batch contained representative monitors from each property surveyed. (Later batches submitted, where all or most of the detectors from a given property had already been submitted, did not necessarily represent the complete array of properties.) In addition, each batch contained at least five spiked detectors and at least five controls. Fictitious start and end dates were added for the spikes and controls to make them indistinguishable from other detectors.

### 3.3 Detector Deployment

Four two-person teams of ANL investigators deployed detectors in each house being monitored. Deployment occurred during the period September 5-15, 1989. Prior to detector deployment, USATHAMA distributed a radon fact sheet and sample information letter to all affected Directorates of Engineering and Housing (DEH) offices. (DEH offices are responsible for general maintenance of stand-alone housing areas located within their geographic areas of control.) The DEH offices were asked to distribute the fact sheet and information letter to all individuals occupying houses scheduled for monitoring. Additional copies of the fact sheet were distributed to house occupants by ANL investigators upon request. A copy of the informational materials distributed by USATHAMA is found in Appendix B.

The following protocols were established for radon detector deployment:

- Whenever possible, DEH personnel accompanied ANL investigators during initial detector deployment. The DEH presence was essential for access to unoccupied houses.
- A field data sheet was completed for each detector deployed. Appendix C contains a copy of that field data sheet.
- Along with the detector, ANL investigators left a stamped, selfaddressed ANL mailing envelope, a gold foil seal with which to seal the detector at the end of the monitoring period, and printed instructions for returning the detector to ANL. A copy of the instruction sheet for returning detectors is included in Appendix D.
- Ideally, ANL investigators personally contacted house occupants, explained the program as necessary, deployed the detector, and left supporting materials for the detector's eventual return to ANL. However, when the occupants were not at home or the house was unoccupied, the following modifications to this procedure were established. At the ANL investigator's discretion, after the third unsuccessful attempt to find the house occupant at home, the investigator may have chosen to leave a detector and other related materials with a neighbor who had agreed to deliver the detector to the house occupant upon his/her return. Alternatively, the detector and materials would have been left with representatives of the appropriate DEH for later deployment. These alternatives were followed for unoccupied houses in instances where DEH personnel did not accompany ANL personnel during initial deployment. When DEH personnel were present, they provided access to vacant houses so that ANL investigators could deploy the detectors.

A number of different house styles are represented in the 51 properties monitored. "Capehart" or "MCA" houses are found at 47 of the 51 properties. In most instances, those properties are composed exclusively of Capehart or MCA houses, although at some properties both Capehart and MCA are found. Capehart and MCA houses are very similar
in design and size. Both are one-story wood frame construction atop a poured concrete slab. Both contain approximately $1300-1600 \mathrm{ft}^{2}$ of finished living space. In these houses, detectors were preferably placed on dressers in master bedrooms. Alternatively, some detectors were placed in living rooms. When a house was unoccupied, the detector was placed on a kitchen counter to keep it off the foundation. (Since the kitchen was not in use, placement of the detector in this room was acceptable.) Field replicate samples were placed beside each other.

The remaining four properties contain multiplexes or apartment buildings. Multiplex houses are of two-story, wood frame construction. Those at one property have brick veneers. Although some of these structures have basements, none of the basements contain finished living space. In these houses, detectors were placed preferably on dressers in bedrooms located on the ground floor. No detectors were placed in the upper levels of the multilevel structures. Except for field replicates, each individual unit received only one detector. One property, Manhattan Beach Army Housing, Brooklyn, New York, contained full masonry (brick) apartment buildings. As with the multiplex structures, each individual unit received one detector, placed in ground floor bedrooms or living rooms. Again, except for field replicate samples, each unit received only one detector. No detectors were placed in upper levels of the apartment buildings. Field replicate detectors were always placed side by side.

The columns for remarks found in the tables in Appendixes E and F provide information on the style of house and placement of each detector.

### 3.4 Detector Recovery

As indicated above, the monitoring program originally provided for the individual house occupant to seal the detector at the end of the 90 -day monitoring period, add the ending date to the detector label, and return the detector to ANL in the stamped, selfaddressed envelope provided. For unoccupied houses, appropriate DEH officials agreed to retrieve the detectors and forward them to ANL. In the majority of instances, this
procedure was followed. However, when detectors did not return within the anticipated period, ANL used one or more of the following methods for retrieving the detectors:

- Direct contact with the house occupant
- Contact with the housing property's senior occupant, soliciting his/her assistance in reminding house occupants to return delinquent detectors
- Contact with the respective DEH office, soliciting its assistance in retrieving delinquent detectors, especially those deployed in unoccupied houses
- Providing a list of outstanding detectors to the ANL subcontractor currently performing environmental testing and investigations at the housing properties, soliciting his/her assistance in reminding occupants with delinquent detectors to return them to ANL

Despite ANL's efforts to retrieve delinquent detectors and the assistance provided by USATHAMA, a number are still outstanding as this report is written. Detectors deployed by ANL but not returned for analysis are identified as "not returned [NR]." Detectors left with DEH personnel for deployment in unoccupied houses but not returned for analysis are identified as "no data [ND]." Although a number of detectors are still outstanding, this report is being issued as a final report. Efforts to retrieve outstanding detectors are continuing. When the outstanding detectors are finally received and analyzed, tabulated data will be revised and delivered to USATHAMA as addenda to this report. Allowing detectors to continue operating beyond the nominal 90 -day monitoring period will not invalidate data. If anything, data will exhibit a more accurate approximation of the annualized radon concentration. However, these data are needed as soon as possible to allow any necessary mitigation actions at those locations to proceed on a schedule compatible with the overall base closure schedule.

### 3.5 Circumstantial Monitoring Information

Appendix E provides information regarding the circumstances under which each detector was exposed. Information is arranged alphabetically by state, then again
alphabetically by property name within each state. For each detector deployed, the following information is displayed: house address, unit number (the same as the house address for single-family structures), the occupant (at the start of the monitoring period), the start and end dates of the monitoring period (as read from the detector label), the date the detector was received back at ANL after the monitoring period ended, and the date the detector was sent for analysis. In addition, a column for remarks displays unusual or abnormal circumstances associated with each detector and additional, more specific information on the type of structure and placement within each house. Abnormal circumstances noted among remarks include detectors received without start or end dates or without the foil seal properly affixed. Section 4.6 provides additional information about development of circumstantial data and assumptions applied to the data base.

### 3.6 Calibration of Spiked Sample Detectors

Fifty detectors were randomly selected from the initial detector inventory to serve as spiked samples. These detectors were subjected to a known radon concentration for an exact period of time, thus allowing the calculation of total radon exposure. Fictitious dates were applied to these detectors, and some of them were randomly intermixed with each batch of detectors delivered to the analytical laboratory for analysis. Analytical results (and their standard deviations) for the spiked detectors are tabulated in Section 4.

The specific procedure by which the spiked detectors were generated is outlined in the steps below:

- A standard glove box, made of molded plastic and with an internal volume of $8.10 \mathrm{ft}^{3}$, was converted for use as a steady-state radon chamber. Supporting equipment is shown schematically in Fig. 3.1.
- Room air is drawn through a diaphragm-and-piston air pump (K.N.F. Neuberger, Inc., Princeton, New Jersey) with a rated maximum flow rate of $50 \mathrm{~L} / \mathrm{min}$.
- Room air is then pumped through a calcium sulfate drying tube to remove excess moisture.


FIGURE 3.1 Schematic Diagram of Argonne's Radon Spiking Chamber

- Dried room air is passed through a standard radon source (Model RN1025, Pylon Electronic Development Co., Ltd., Ottawa, Ontario, Canada). Radon-222 produced by decay of ${ }^{226} \mathrm{Ra}$ enclosed in the radon source was entrained in the air stream being delivered to the glove box.
- A small pump located inside the glove box (Model Whisper 400, Second Nature Co., Fort Lee, New Jersey) operating at $0.8 \mathrm{~L} / \mathrm{min}$, circulates the radon-enriched air inside the glove box and delivers an equilibrated air stream to a standard scintillation counter (a Lucas cell). After passing through the Lucas cell, the air stream is returned to the glove box to maintain a steady-state radon concentration. To maintain steady-state pressures within the glove box, the box is vented to the atmosphere through a charcoal filter.
- The glass and quartz Lucas cell contains a thin film of zinc sulfide. The input to the cell is equipped with a $0.8-\mu \mathrm{m}$ micropore filter that removes any solid radon daughters from the air stream. Alpha
radiation from radon decay impinges upon the zinc sulfide. The resulting scintillation is measured by a photomultiplier tube that converts scintillation light pulses to current pulses by means of a photo cathode. ${ }^{10}$
- Current pulses are amplified and delivered to a single-channel analyzer, where they are converted to pulses of fixed height and width.
- A data acquisition and control interface module (Model STA-U, MetraByte Corporation, Taunton, Massachusetts) converts the fixed current pulse into digital data, which are then delivered to a Hewlett Packard Vectra CS computer. Data are stored as a pulse rate proportional to radon concentration. The pulses are stored and accumulated at $60-\mathrm{min}$ intervals, resulting in computation of hourly count rates over the entire period of exposure, 96 hr .
- Random grab samples were taken during the four-day exposure to check the radon concentration. A calibration factor was established by using methodologies established by Rundo et al. ${ }^{11}$ The calibration factor is determined by dividing the average flow in counts per minute (cpm) by the radon concentration ( $\mathrm{pCi} / \mathrm{L}$ ). The calibration factor for this system was calculated at $0.62 \pm 0.01 \mathrm{cpm} / \mathrm{pCi} / \mathrm{L}$.
- By applying the calibration factor, the average radon concentration within the glove box over the four-day exposure period was calculated at $257.64 \pm 23.70 \mathrm{pCi} / \mathrm{L}$, resulting in a four-day calculated exposure of $1030.56 \pm 94.81(\mathrm{pCi} / \mathrm{L})$ days.
- Air flows were adjusted to maintain a slight positive pressure within the glove box. After an 8 -hr equilibration period, 50 detectors were introduced and placed in a tight cluster on the floor of the glove box, well away from corners or walls. Exposures continued at steady-state conditions for 96 hr (11:25 a.m. on 12/11/89 through 11:25 a.m. on 12/15/89).
- After exposures, the 50 detectors were allowed to remain unsealed in the room air to allow reequilibration with room conditions, and then gold foil seals were applied. Fictitious dates were added to the labels to make these detectors indistinguishable from other detectors.


### 3.7 Quality Control Aspects of Detector Analyses

The anaiytical laboratory responsible for analyses of the radon detectors used in this study has established its own analytical procedures and quality control protocols for alpha track detector production, calibration, and analysis. The quality control protocols applicable to detector analysis are contained in Chapter V of the procedures manual developed by Tech/Ops Landauer. ${ }^{12}$ The important analytical quality controls practiced by Tech/Ops Landauer are summarized below:

- Primary calibrations of radon monitoring systems are checked at least three times per year, with instruments whose calibrations can be related to the National Institute of Standards and Technology. Primary calibrations will be changed only when two consecutive checks reveal a shift of more than $15 \%$ at the $95 \%$ confidence level or one check reveals a shift of $25 \%$ at the $95 \%$ confidence level.
- Samples of alpha track detectors from each manufacturing batch are subjected to secondary calibration.
- Ancillary electronic equipment and temperature gauges are checked monthly.
- All detectors revealing radon concentrations greater than $20 \mathrm{pCi} / \mathrm{L}$ are reevaluated prior to the reporting of results. These reevaluations are performed by a different analyst using a different analytical machine.
- Keevaluations are performed on a random $10 \%$ of the detectors in each analytical processing group. Agreement of two evaluations results when both readings are within the range predicted by the Poisson distributon plus $5 \%$ at the $95 \%$ confidence level.


### 3.8 Special Case: Patrick Henry Army Housing, Newport News, Virginia

It was discovered at the time of initial detector deployment that the houses at the Patrick Henry Army Housing property had already been monitored for radon. That monitoring effort was undertaken by DEH personnel from Fort Eustis under Army directives completely independent of the Base Closure Program. It was decided, nevertheless, to deploy ANL detectors as initially planned. Arrangements were made for Fort Eustis personnel to assist in the recovery of the monitors if necessary.

It was later learned that Fort Eustis personnel recovered five detectors placed by ANL. Instead of being returned to ANL, however, those detectors were submitted to Tech/Ops Landauer for analyses along with detectors placed by Fort Eustis personnel at other locations. Reported results for both Fort Eustis and the five ANL detectors were later forwarded to ANL by Fort Eustis personnel. The ANL field data sheets left with ANL detectors were completed by Fort Eustis personnel and also forwarded to ANL. These materials appear in Appendix G. [Note: only the one data sheet (\#10) containing results for ANL detectors is included.]

Conversations with the Fort Eustis personnel responsible for the radon monitoring revealed that the ANL detectors retrieved accidentally from Patrick Henry housing received appropriate treatment and handling and that nothing that had occurred would have invalidated the analytical results for those detectors. Therefore, results for the five detectors retrieved by Fort Eustis personnel have been incorporated into the data base without amendment. However, standard deviations for these detectors are not reported.

## 4 Results and Discussion

### 4.1 Reported Results

Detectors returned to ANL were delivered in five batches to Tech/Ops Landauer for analyses. Controls and spikes were added to each batch. The composition of these batches and the corresponding processing batch numbers assigned by Tech/Ops Landauer are listed in Table 3.1. Whenever possible, each batch contained no more than one-third of all detectors from a given property and represented the full array of properties being studied.

Analytical results as reported by Tech/Ops Landauer appear in Appendix H. The standard deviations reported are associated with the measured exposures and represent errors in counting tracks made on the detector surface by alpha radiation.

### 4.2 Results for Controls and Spikes

All of the original 50 detectors spiked by ANL have been analyzed. The analytical results for spikes have been identified in the Tech/Ops Landauer reports and are tabulated separately in Table 4.1. All 50 detectors originally reserved as controls have been analyzed. In all cases, the measured exposure was at the detection limit of an integrated exposure level of $30(\mathrm{pCi} / \mathrm{L})$ days.

### 4.3 Results for Placed Detectors

Radon concentrations for the single-family houses and for the units or apartments are tabulated in Appendix F. These tables are arranged alphabetically by state and, within each state, alphabetically by property and additionally by street address. Thus, the order of entries for each property is identical with the display of circumstantial information for that property found in Appendix E. The columns containing remarks for each property in Appendix E are identical with the remarks columns for those properties in Appendix F . Summary information reported in the Appendix F tables is property specific.

TABLE 4.1 Analytical Values for Spiked Radon Detectors [Calculated Exposure: $1030.56 \pm 94.8 i$ ( $\mathrm{pCi} / \mathrm{L}$ ) days (at two sigma error)] ${ }^{\text {a }}$

| Detector No. | Measured Exposure | Standard <br> Deviation (\%) | Tectiops Analytical Process No. | Detector No. | Measured Exposure | Standard Deviation (\%) | Tectiops Analytical Process No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1642289 | 1040.7 | 4.1 | A06719 | 1645905 | 953.4 | 4.3 | A07161 |
| 1642291 | 1044.7 | 4.1 | A07161 | 1645907 | 1041.3 | 4.3 | A06967 |
| 1642293 | 1005.0 | 4.3 | A06967 | 1645909 | 863.7 | 4.5 | A06719 |
| 1642294 | 1102.0 | 4.0 | A06712 | 1645912 | 1120.6 | 4.0 | A06967 |
| 1642296 | 1051.2 | 4.1 | A06685 | 1645913 | 1074.0 | 4.0 | A06712 |
| 1642297 | 1060.0 | 4.0 | A06712 | 1645914 | 1000.9 | 4.2 | A07161 |
| 1642303 | 1034.8 | 4.2 | A06967 | 1645915 | 1054.7 | 4.0 | A06712 |
| 1642306 | 1014.4 | 4.1 | A06719 | 1645916 | 1079.2 | 4.0 | A06685 |
| 1642310 | 1116.0 | 3.9 | A06685 | 1645917 | 1007.4 | 4.1 | A06712 |
| 1643414 | 1119.5 | 3.9 | A06685 | 1645921 | 1058.2 | 4.0 | A06685 |
| 1643415 | 1061.7 | 4.0 | A06719 | 1645924 | 945.7 | 4.3 | A07358 |
| 1643416 | 1079.6 | 4.1 | A06675 | 1645927 | 946.0 | 4.3 | A07161 |
| 1643425 | 984.6 | 4.2 | A06712 | 1646026 | 1023.2 | 4.1 | A06712 |
| 1643426 | 1023.3 | 4.1 | A07358 | 1646027 | 1090.7 | 4.1 | A06675 |
| 1643427 | 1074.0 | 4.0 | A06719 | 1646028 | 1038.9 | 4.1 | A06685 |
| 1643430 | 1121.3 | 3.9 | A06685 | 1646029 | 1063.5 | 4.0 | A06712 |
| 1643432 | 1109.4 | 4.1 | A06967 | 1646033 | 873.4 | 4.5 | A07358 |
| 1643434 | 1100.3 | 4.1 | A06685 | 1646034 | 991.6 | 4.2 | A06719 |
| 1643442 | 1005.6 | 4.1 | A06685 | 1646039 | 1051.6 | 4.2 | A06675 |
| 1643449 | 1016.1 | 4.2 | A07358 | 1646040 | 1070.5 | 4.0 | A06685 |
| 1644096 | 1096.8 | 4.0 | A06719 | 1646041 | 954.7 | 4.3 | A07358 |
| 1645421 | 1035.4 | 4.1 | A06712 | 1648283 | 997.2 | 4.2 | A07161 |
| 1645433 | 1079.2 | 4.0 | A06719 |  |  |  |  |
| 1645436 | 1095.0 | 4.0 | A06685 |  |  |  |  |
| 1645437 | 1024.9 | 4.1 | A06685 |  |  |  |  |
| 1645897 | 1003.9 | 4.1 | A06712 |  |  |  |  |
| 1645901 | 1028.4 | 4.1 | A06712 |  |  |  |  |
| 1645903 | 1044.2 | 4.1 | A06719 |  |  |  |  |

${ }^{\text {a Summary: }}$
Average of Tech/Ops Landauer analyses: $1040.0 \pm 114.6$ ( $\mathrm{pCi} / \mathrm{L}$ ) days (at two sigma error)
Maximum measured value: 1121.3 ( $\mathrm{pCl} / \mathrm{L}$ ) days
Minimum measured value: 863.7 ( $\mathrm{pCl} / \mathrm{L}$ ) days

The results obtained for each structure or unit are graphically displayed in Appendix I. Property site plans are arranged in alphabetic order by state, then by property name. For each house or unit, the seven-digit serial number for the detector is displayed. The number appearing in brackets behind the serial number is the radon concentration expressed in $\mathrm{pCi} / \mathrm{L}$.

### 4.4 Assumptions and Irregularities

- When the detectors were not initially deployed by ANL field teams but were placed by the house occupant or a DEH representative, start dates were sometimes missing from the detector labels. Start dates indicated on the field data sheets completed by the house occupants or DEH personnel and returned with the detectors were inserted into the data base. In cases where a start date was not included in the data sheet or data sheets were not returned, a start date was added that coincided with the start dates for other monitors at the property. In all such cases, a comment was added to the remarks column to indicate that the sampling duration was estimated. In addition, detectors deployed by the house occupant or a DEH representative were identified in the remarks field.
- When a detector was returned to ANL without an end date indicated on the label, an end date was inserted that corresponded to the received date minus three days (the assumed first-class mail delivery time). All such cases were marked with a comment in the remarks field to indicate that the sampling duration was estimated.
- A number of detectors were returned without the seal properly affixed. In most instances, however, the detector was returned in its original foil pouch. A seal was aiffixed when the detector was again in ANL's possession. These detectors are identified by a comment in the remarks field.
- Eighteen "orphan" detectors remain. These are detectors for which some unreconciled discrepancy in supporting documentation prevents
assignment to a specific housing unit. These detectors were nonetheless analyzed. The results are given in Table 4.2. Except in one instance, none of these detectors shows a radon concentration above the action level of $4 \mathrm{pCi} / \mathrm{L}$.
- Because some house occupants moved, a number of detectors were returned before the nominal 90 -day monitoring period was completed. Although results from monitoring periods less than 90 days may not be representative of annual averages, the results are nevertheless valid representations of radon concentrations during the monitoring period.

TABLE 4.2 Results for Orphan Detectors

| Detector No. | Exposure <br> [ $(\mathrm{PC} \mathrm{C} / \mathrm{L})$ days] | Concentration (pCiL) | Standard Deviation (\%) |
| :---: | :---: | :---: | :---: |
| 1436022 | 122.1 | NDR ${ }^{\text {a }}$ | $N R^{\text {b }}$ |
| 1436062 | 120.3 | NDR | NR |
| 1436070 | 90.5 | NDR | NR |
| 1642326 | 111.8 | 1.1 | 11.7 |
| 1643679 | 276.6 | 3.0 | 7.7 |
| 1644322 | 183.7 | NDR | 9.4 |
| 1645789 | 187.2 | NDR | 9.3 |
| 1645803 | 267.8 | 1.9 | 7.9 |
| 1646460 | 30.0 | 0.7 | NR |
| 1648244 | 522.4 | 3.5 | 5.9 |
| 1646448 | 179.6 | 2.0 | 9.8 |
| 1645791 | 583.9 | 6.3 | 5.6 |
| 1642321 | 97.6 | 1.7 | 12.8 |
| 1645812 | 116.2 | NDR | 11.9 |
| 1643692 | 62.2 | 0.7 | 15.4 |
| 1645796 | 118.1 | 1.2 | 11.8 |
| 1647551 | 97.6 | 1.1 | 12.8 |
| 1643431 | 131.1 | 1.1 | 11.3 |

aNDR, no dates reported; concentration cannot be determined.
bNR, not reported.

The results for these detectors are listed in the appropriate location in Appendix F. These detectors are identified by a comment in the remarks column.

### 4.5 Data Interpretation

The precision and accuracy of the radon exposures and concentrations determined by the alpha track detectors depend upon several parameters that are not fully under the control of the investigators. The precision of the radon determination by any detector is affected by the track density, defined as tracks per unit area under observation. The precisions of the individual results have been estimated by Tech/Ops Landauer and are included as the standard deviations in Appendix F. On the other hand, the overall accuracy of radon determination is affected by the additional parameters listed below.

- Uncertainty in calibration parameter

This uncertainty refers to the error in determining the number of tracks recorded for known exposures. Results for the spiked samples submitted by ANL along with the unknowns indicate that the error is about 5\% for detectors exposed to 1000 ( $\mathrm{pCi} / \mathrm{L}$ ) days. The calibration parameter used by Tech/Ops Landauer is assumed to be known with an accuracy of $10 \%$ or better (at two sigma).

## - Unknown starting dates

Some detectors were received with unknown starting dates. In all instances where ANL staff deployed the detectors, the starting date is known. However, some detectors were deployed by the house occupant or DEH personnel, and the starting dates were sometimes not recorded. In most of these cases, the starting date could be estimated with an uncertainty of about 1-2 days. For detectors exposed for a nominal 90 -day monitoring period, this estimate would introduce an uncertainty of about $2 \%$ in the resulting calculated radon concentrations.

- Estimated ending dates

Some detectors were received with no end date recorded. In all these cases, it was assumed that the occupants were diligent in mailing the detectors soon after they were sealed. The time between mailing and receipt was assumed to be three days (nominal time for first-class mail as quoted by the postmaster at Lemont, Illinois). Thus, ending dates were assigned relative to the date on which the detector was received back at Argonne. Again, in a nominal 90 -day monitoring period, an uncertainty of about $2-3 \%$ may be assumed for results derived under these circumstances.

## - Detectors returned without seals

The mailing envelopes (manila with plastic bubble liners) are assumed to have provided the necessary protection against additional extraneous alpha radiation exposure to the detectors during transit. The error from this source could be estimated by assuming that any additional exposure occurred during the three days between mailing and receipt. Thus, the error is about $3 \%$ for a 90 -day exposure.

## - Variations in replicate pairs

Seventy pairs of detectors were used as duplicates to estimate the reproducibility of the detector responses. The replicate detectors were placed side by side in the housing units and thus were assumed to have been exposed to the same concentration of radon. Thus, any variation observed may be taken as a true indicator of the reproducibility of the measurement. The results for the duplicate detectors are shown in Appendix J. A number of the 70 pairs of field replicates were not returned, and in some instances the detectors in the pair were exposed for different durations. Aside from these situations, 56 pairs are believed to have received the same integrated exposures.

The error in the individual measurements of a pair of detectors is calculated as the percent deviation from the mean. The average of the deviations for all pairs is $10.5 \%$. The deviation ranges from a minimum of zero to a maximum of $45.6 \%$, with 37 of the 56 replicate pairs (66\%) showing less than $10.5 \%$ variation from their respective
mean exposures and 49 of the 56 replicate pairs ( $88 \%$ ) displaying variations from their respective mean exposures of less than $21 \%$. Taken at face value, the average of the mean deviation is $21.4 \%$ (at the two sigma level, i.e., $95 \%$ confidence), with an equally large uncertainty in determining this number.

In summary, of all the sources of error noted above, the variation between observed and calculated exposures for the spiked detectors represents the greatest source of uncertainty. By comparison, errors introduced as a result of starting and ending date approximations will have negligible effects on results at exposure levels of $4 \mathrm{pCi} / \mathrm{L}$ and monitoring periods of at least 90 days.

### 4.6 Unreturned Detectors

At the time of this report's production, 299 of the original 1117 detectors ( $26 \%$ ) are yet to be returned. Detector status for each property is displayed in Table 4.3.

Efforts are continuing to retrieve all of the detectors that were deployed, but some detectors will probably never be returned. (In fact, ANL has already contacted a number of house occupants who have indicated that they have lost their detectors.) It is therefore appropriate to develop a strategy for dealing with missing data.

The most straightforward response to missing data is to resample those houses (or units) for which no data are available. Except for the different time of year and possibly differences in seasonal radon concentrations, the original sampling conditions can generally be duplicated, so that the results obtained in the new sampling effort will be immediately comparable to results obtained earlier in nearby houses.

As an alternative to the above strategy, some sort of selection criteria may be followed to monitor only those houses that are likely to yield radon concentrations near or above the action limits. In several instances, other data available from that property may provide the necessary basis to waive repeated sampling, because the expected results are

TABLE 4.3 Overall Detector Status

| Property | No. Placed | No. Returned | No. Outstanding | Percent Retumed |
| :---: | :---: | :---: | :---: | :---: |
| Ansonia, Conn. | 17 | 15 | 2 | 88 |
| East Windsor, Conn. | 17 | 14 | 3 | 82 |
| Fairfield, Conn. | 30 | 26 | 4 | 87 |
| Manchester, Conn. | 33 | 31 | 2 | 94 |
| Middletown, Conn. | 17 | 17 | 0 | 100 |
| Milford, Conn. | 18 | 17 | 1 | 94 |
| New Britain, Conn. | 17 | 15 | 2 | 88 |
| Orange, Conn. | 24 | 20 | 4 | 83 |
| Plainville, Conn. | 36 | 18 | 18 | 50 |
| Portland, Conn. | 16 | 16 | 0 | 100 |
| Shelton, Conn. | 17 | 16 | 1 | 94 |
| Westport, Conn. | 17 | 14 | 2 | 82 |
| Addison, III. | 13 | 11 | 2 | 85 |
| Worth, III. | 13 | 11 | 2 | 85 |
| Croom, Md. | 13 | 9 | 4 | 69 |
| Bedford, Mass. | 19 | 16 | 3 | 84 |
| Beverly, Mass. | 17 | 9 | 8 | 53 |
| Burlington, Mass. | 13 | 5 | 8 | 38 |
| Hull, Mass. | 8 | 5 | 3 | 63 |
| Nahant, Mass. | 13 | 6 | 7 | 46 |
| Randolph, Mass. | 18 | 12 | 5 | 71 |
| Swansea, Mass. | 16 | 5 | 11 | 31 |
| Topstield, Mass. | 16 | 12 | 4 | 75 |
| Wakefield, Mass. | 12 | 10 | 2 | 83 |
| Franklin Lakes, N.J. | 26 | 14 | 12 | 54 |
| Holmdel, N.J. | 13 | 11 | 2 | 85 |
| Livingston, N.J. | 35 | 22 | 13 | 63 |
| Old Bridge, N.J. | 13 | 8 | 5 | 62 |
| Dry Hill, N.Y. | 28 | 21 | 7 | 75 |
| Manhattan Beach, N.Y. | 76 | 31 | 45 | 41 |
| Rocky Point, N.Y. | 17 | 10 | 7 | 59 |
| Spring Valley, N.Y. | 13 | 9 | 4 | 69 |
| Tappan, N.Y. | 39 | 25 | 14 | 64 |
| Coraopolis 71C, Penn. | 5 | 2 | 3 | 40 |
| Coraopolis 71L, Penn. | 8 | 7 | 1 | 88 |
| Dorseyville, Penn. | 16 | 11 | 5 | 69 |
| Elizabeth, Penn. | 12 | 7 | 5 | 58 |
| Elrama, Penn. | 16 | 13 | 3 | 81 |
| Finleyville, Penn. | 12 | 10 | 2 | 83 |
| Herminie, Penn. | 17 | 15 | 2 | 88 |

TABLE 4.3 (Cont'd)

| Property | No. <br> Placed | No. <br> Returned | No. <br> Outstanding | Percent <br> Returned |
| :--- | ---: | ---: | ---: | ---: |
| Irwin, Penn. | 17 | 10 | 7 | 59 |
| Monroeville, Penn. | 12 | 11 | 1 | 92 |
| Rural Ridge, Penn. | 12 | 8 | 4 | 67 |
| Davisville, R.I. | 63 | 42 | 21 | 67 |
| Slatersville, R.I. | 19 | 17 | 2 | 89 |
| Manassas, Va. | 10 | 4 | 6 | 40 |
| Patrick Henry, Va. | 15 | 6 | 9 | 40 |
| Woodbridge, Va. | 11 | 8 | 3 | 73 |
| Midway, Wash. | 34 | 25 | 9 | 74 |
| Youngs Lake, Wash. | 31 | 26 | 5 | 84 |
| Sun Prairie, Wisc. | 118 | 115 | 3 | 97 |

likely to be well below the action limits. For example, it may be appropriate to waive resampling houses when all of the following conditions are satisfied:

- Missing data represent no more than $25 \%$ of the total number of inhabited structures at that property.
- The available data for that property are within a narrow range of radon concentration values (no single value varies by more than $25 \%$ from the mean value for that property).
- None of the available radon values for that property is above $80 \%$ of the action level of $4.0 \mathrm{pCi} / \mathrm{L}$ (i.e., above $3.2 \mathrm{pCi} / \mathrm{L}$ ).

When all of the above conditions are met, the missing data would probably have yielded radon concentrations well below the action level. Therefore, those locations need not be monitored again.

## 5 Conclusions

The salient features of this radon monitoring program are summarized in Table 5.1. In all, 61 detectors placed in 55 locations (six replicate pairs) exhibited significant radon concentrations ( $\geq 4 \mathrm{pCi} / \mathrm{L}$ ). Those specific detectors, their measured radon concentrations, and the detector locations are listed in Table 5.2. This table is arranged alphabetically by state and city or township.

Army policy regarding radon requires that locations where screening measurements are at or above $4.0 \mathrm{pCi} / \mathrm{L}$ receive follow-up measurements. Fifty-five locations are affected by this requirement.

TABLE 5.1 Summary Information
Total number of structures monitored ..... 892
Total number of detectors placed ..... 1117
Number of detectors returned ..... 818
Number of detectors outstanding or lost ..... 299
Total number of replicate pairs ..... 70
Total number of controls ..... 50
Total number of spikes by ANL (50) and EPA (30) ..... 80
Number of locations with radon concentrations $\geq 4.0 \mathrm{pCi} / \mathrm{L}$ ..... 55
Number of locations with radon concentrations $\geq 3.6 \mathrm{pCi} / \mathrm{L}$ but $<4.0 \mathrm{pCi} / \mathrm{L}$ (> $90 \%$ of the action level) ..... 22
Number of locations with radon concentrations $\geq 3.2 \mathrm{pCi} / \mathrm{L}$ but $<4.0 \mathrm{pCi} / \mathrm{L}$ (>80\% of the action level) ..... 54

TABLE 5.2 Structures with Radon Concentrations $\geq 4.0 \mathrm{pCi} / \mathrm{L}$

| Property | Address (Unit) | Detector No. | Conc. (pCiL) |
| :---: | :---: | :---: | :---: |
| Ansonia, Conn. | 9 Hughes Cir. (9) (Replicate) | 1648257 | 8.6 |
| Ansonia, Conn. | 9 Hughes Cir. (9) (Replicate) | 1648251 | 16.3 |
| Ansonia, Conn. | 11 Hughes Cir. (11) | 1648242 | 10.8 |
| Ansonia, Conn. | 14 Hughes Cir. (14) | 1648277 | 4.1 |
| Ansonia, Conn. | 15 Hughes Cir. (15) | 1648252 | 6.7 |
| Shelton, Conn. | 8 Palmetto Cir. | 1646468 | 5.0 |
| Shelton, Conn. | 9 Palmetto Cir. | 1646465 | 5.9 |
| Westport, Conn. | 8 Wassell Ln. (8) | 1646472 | 7.8 |
| Westport, Conn. | 10 Wassell Ln. (10) | 1646462 | 4.8 |
| Westport, Conn. | 11 Wassell Ln. (11) (Relicate) | 1648481 | 5.6 |
| Westport, Conn. | 11 Wassell Ln. (11) (Replicate) | 1644204 | 4.8 |
| Westport, Conn. | 15 Wassell Ln. (15) | 1646483 | 8.0 |
| Westport, Conn. | 17 Wassell Ln. (17) | 1646463 | 5.3 |
| Westport, Conn. | 18 Wassell Ln. (18) | 1646464 | 4.4 |
| Westport, Conn. | 20 Wassell Ln. (20) | 1646489 | 10.6 |
| Addison, III. | 403 Natoma (403) (Replicate) | 1644027 | 4.8 |
| Addison, III. | 403 Natoma (403) (Replicate) | 1644003 | 5.2 |
| Addison, III. | 413 Army Trail Rd. | 1645092 | 4.9 |
| Addison, III. | 419 Army Trail Rd. (419) | 1643997 | 5.7 |
| Worth, III. | MCA \#6 (6) | 1647022 | 5.8 |
| Burlington, Mass. | 117 S. Bedford (117) | 1641184 | 4.1 |
| Randolph, Mass. | 6 Army St. (6) | 1643099 | 7.7 |
| Watertown, N.Y. | 240 Coughlin Dr. (240) | 1643439 | 4.2 |
| Dorseyville, Penn. | S23Q Myers Ln. (23) | 1436000 | 4.0 |
| Elizabeth, Penn. | S84Q Route 4 (84) | 1643086 | 12.3 |
| Elrama, Penn. | S850 Route 4 (85) | 1643214 | 20.2 |
| Elrama, Penn. | S86Q Route 4 (86) | 1643200 | 11.4 |
| Herminie, Penn. | S58Q Mars Hill Rd. (58) | 1643208 | 4.1 |
| Herminie, Penn. | S60Q Mars Hill Rd. (60) | 1643196 | 9.8 |
| Herminie, Penn. | S64Q Mars Hill Rd. (64) | 1643224 | 18.0 |
| Herminie, Penn. | S66Q Mars Hill Rd. (66) | 1643213 | 4.3 |
| Newport News, Va. | Unit \#9 (9) | 1647557 | 5.4 |
| Sun Prairie, Wisc. | 99 Ent Dr. (12210 | 1643134 | 5.8 |
| Sun Prairie, Wisc. | 101 Ent Dr. (1216) | 1641509 | 4.0 |
| Sun Prairie, Wisc. | 102 Ent Dr. (1202) | 1647586 | 6.4 |
| Sun Prairie, Wisc. | 104 Ent Dr. (1114) | 1643123 | 4.1 |
| Sun Prairie, Wisc. | 147 Fairchild (1001) | 1647011 | 4.8 |

TABLE 5.2 (Cont'd)

| Property | Address (Unit) | Detector No. | Conc. ( $\mathrm{pCl} / \mathrm{L}$ ) |
| :---: | :---: | :---: | :---: |
| Sun Prairie, Wisc. | 150 Fairchild (1101) | 1647006 | 5.9 |
| Sun Prairie, Wisc. | 143 Harmon Cir. (1101) | 1643109 | 4.8 |
| Sun Praine, Wisc. | 87 N. Andrews Dr. (1102) | 1643117 | 6.0 |
| Sun Prairie, Wisc. | 88 N. Andrews Dr. (1014) | 1646980 | 5.2 |
| Sun Prairie, Wisc. | 121 Schumann (1018) | 1644026 | 4.3 |
| Sun Prairie, Wisc. | 123 Schumann (1002) | 1643998 | 4.0 |
| Sun Prairie, Wisc. | 126 Schumann (910) | 1647017 | 4.7 |
| Sun Prairie, Wisc. | 127 Schumann (902) (Replicate) | 1646986 | 4.8 |
| Sun Prairie, Wisc. | 127 Schumann (902) (Replicate) | 1647016 | 4.3 |
| Sun Prairie, Wisc. | 154 Stull (1018) | 1647013 | 4.3 |
| Sun Prairie, Wisc. | 159 Stull (1017) | 1647001 | 17.4 |
| Sun Prairie, Wisc. | 161 Stull (1001) | 1647012 | 4.9 |
| Sun Prairie, Wisc. | 87 W. Andrews Dr. (1106) | 1646993 | 12.4 |
| Sun Prairie, Wisc. | 106 W. Andrews Dr. (1009) (Replicate) | 1643107 | 5.4 |
| Sun Prairie, Wisc. | 106 W. Andrews Dr. (1001) (Replicate) | 1643108 | 4.2 |
| Sun Prairie, Wisc. | 107 W. Andrews Dr. (1025) | 1647028 | 4.4 |
| Sun Prairie, Wisc. | 109 W. Andrews Dr. (1057) | 1643135 | 5.0 |
| Sun Prairie, Wisc. | 113 W. Andrews Dr. (1205) (Replicate) | 1643995 | 6.6 |
| Sun Praine, Wisc. | 113 W. Andrews Dr. (1205) (Replicate) | 1644025 | 5.8 |
| Sun Praine, Wisc. | 113 W. Andrews Dr. (12010) | 1643115 | 9.5 |
| Sun Prairie, Wisc. | 115 W. Andrews Dr. (1214) | 1644029 | 9.2 |
| Sun Prairie, Wisc. | 118 W. Andrews Dr. (1118) | 1643112 | 4.0 |
| Sun Praine, Wisc. | 119 W. Andrews Dr. (1110) | 1643105 | 4.1 |
| Sun Prairie, Wisc. | 94 Vandenberg (1102) | 1647582 | 4.0 |
| Sun Prairie, Wisc. | 94 Vandenberg (1106) | 1643118 | 4.2 |

## References

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Appendix A

Enhanced Preliminary Assessment Reports Published under the Army Base Closure Program

## Appendix A:

## Enhanced Preliminary Assessment Reports Published under the Army Base Closure Program

| Property Name, Address | Publication Date | USATHAMA Report No. |
| :---: | :---: | :---: |
| Ansonia Army Housing, Ansonia, Conn. | October 1989 | CETHA-BC-CR-89018 |
| East Windsor Army Housing, East Windsor, Conn. | October 1989 | CETHA-BC-CR-89020 |
| Fairfield Army Housing, Fairfield, Conn. | October 1989 | CETHA-BC-CR-89022 |
| Manchester Army Housing, Manchester, Conn. | October 1989 | CETHA-BC-CR-89011 |
| Middletown Army Housing, Middletown, Conn. | October 1989 | CETHA-BC-CR-89024 |
| Milford Army Housing, Milford, Conn. | October 1989 | CETHA-BC-CR-89016 |
| New Britain Army Housing, New Britain, Conn. | October 1989 | CETHA-BC-CR-89014 |
| Orange Army Housing, Orange, Conn. | October 1989 | CETHA-BC-CR-89013 |
| Plainville Army Housing, Plainville, Conn. | October 1989 | CETHA-BC-CR-89015 |
| Portland Army Housing, Portland, Conn. | October 1989 | CETHA-BC-CR-89025 |
| Shetton Army Housing, Shelton, Conn. | October 1989 | CETHA-BC-CR-89023 |
| Westport Army Housing, Westport, Conn. | October 1989 | CETHA-BC-CR-89019 |
| Addison Army Housing, Addison, III. | October 1989 | CETHA-BC-CR-89041 |
| Worth Army Housing, Worth, III. | October 1989 | CETHA-BC-CR-89042 |
| Croom Army Housing, Croom, Md. | October 1989 | CETHA-BC-CR-89284 |
| Bedford Army Housing, Bedford, Mass. | September 1989 | CETHA-BC-CR-89264 |
| Beverly Army Housing, Beverly, Mass. | September 1989 | CETHA-BC-CR-89259 |
| Burlington Army Housing, Burlington, Mass. | September 1989 | CETHA-BC-CR-89256 |
| Hull Army Housing, Hull, Mass. | September 1989 | CETHA-BC-CR-89261 |
| Nahant Army Housing, Nahant, Mass. | September 1989 | CETHA-BC-CR-89263 |
| Randolph Army Housing, Randolph, Mass. | September 1989 | CETHA-BC-CR-89258 |
| Swansea Army Housing, Swansea, Mass. | September 1989 | CETHA-BC. CR-89257 |
| Topsfield Army Housing, Topsfield, Mass. | September 1989 | CETHA-BC-CR-89260 |


| Property Name, Address | Publication Date | USATHAMA Report No. |
| :---: | :---: | :---: |
| Wakefield Army Housing, Wakefield, Mass. | September 1989 | CETHA-BC-CR-89252 |
| Wherry Army Housing, St. Louis, Mo. | November 1989 | CETHA-BC-CR-89040 |
| Clementon Army Housing, Clementon, N.J. | November 1989 | CETHA-BC-CR-89028 |
| Franklin Lakes Army Housing, Franklin Lakes, N.J. | November 1989 | CETHA-BC-CR-89030 |
| Holmdel Army Housing, Holmdel, N.J. | November 1989 | CETHA-BC-CR-89027 |
| Livingston Army Housing, East Hanover Twp., N.J. | November 1989 | CETHA-BC-CR-89031 |
| Old Bridge Army Housing, Old Bridge, N.J. | November 1989 | CETHA-BC-CR-89029 |
| Dry Hill Army Housing, Watertown, N.Y. | November 1989 | CETHA-BC-CR-89035 |
| Manhattan Beach Army Housing, Brooklyn, N.Y. | November 1989 | CETHA-BC-CR-89037 |
| Rocky Point Army Housing, Rocky Point, N.Y. | November 1989 | CETHA-BC-CR-89036 |
| Spring Valley Army Housing, Ramapo, N.Y. | November 1989 | CETHA-BC-CR-89033 |
| Tappan Army Housing, Tappan, N.Y. | November 1989 | CETHA-BC-CR-89032 |
| Coraopolis 71C Army Housing, Robinson Twp., Pa. | October 1989 | CETHA-BC-CR-89003 |
| Coraopolis 71L Army Housing, Moon Twp., Pa. | October 1989 | CETHA-BC-CR-89009 |
| Dorseyville Army Housing, Dorseyville, Pa. | October 1989 | CETHA-BC-CR-89002 |
| Elizabeth, Army Housing, Elizabeth, Pa. | October 1989 | CETHA-BC-CR-89010 |
| Elrama Army Housing, Elrama, Pa. \} | October 1989 | CETHA-BC-CR-89012 |
| Finleyville Army Housing, Finleyville, Pa. | October 1989 | CETHA-BC-CR-89005 |
| Herminie Army Housing, Herminie, Pa. | October 1989 | CETHA-BC-CR-89007 |
| Irwin Army Housing, IImin, Pa. | October 1989 | CETHA-BC-CR-89004 |
| Monroeville Army Housing, Monroeville, Pa. | October 1989 | CETHA-BC-CR-89008 |
| Rural Ridge Army Housing, Rural Ridge, Pa. | October 1989 | CETHA-BC-CR-89001 |
| Davisville Army Housing, North Kingston, R.I. | October 1989 | CETHA-BC-CR-89281 |
| Slatersville Army Housing, North Smithfield, R.I. | October 1989 | CETHA-BC-CR-89282 |
| Manassas Army Housing, Manassas, Va. | October 1989 | CETHA-BC-CR-89286 |
| Patrick Henry Army Housing, Newport News, Va. | October 1989 | CETHA-BC-CR-89287 |


| Property Name, Address | Publication Date | USATHAMA <br> Report No. |
| :--- | :--- | :--- |
| Woodbridge Army Housing, Woodbridge, Va. | October 1989 | CETHA-BC-CR-89285 |
| Midway Army Housing, Kent, Wash. | November 1989 | CETHA-BC-CR-89034 |
| Youngs Lake Army Housing, Renton, Wash. | November 1989 | CETHA-BC-CR-89039 |
| Sun Prairie Army Housing, Sun Prairie, Wisc. | November 1989 | CETHA-BC-CR-89043 |

## Appendix B

## Preliminary Notice Materials

 for the Radon Study
## DEPARTMENT OF THE ARMY

US ARMY TOXIC and hazardous materials agency
aberdeen proving ground. maryland 21010-5401


10 AUG 1989
CETHA-BC-B (50-6C)

## MEMORANDUM FOR SEE DISTRIBUTIION

SUEJECT: Radon Sampling

1. Part of the mission of this Agency, to conduct envirommental surveys at all 53 stand-alone housing areas, is the performance of radon sampling for each housing unit. We plan to deploy a 90 -day sampler at each unit camencing in mid-Septsuber. Refresentatives ficm Argonne National Laboratory will be deploying these units, and will need access to each residence.
2. Request that you sumit the name and telephone number of a Point of Contact for the housing area (s) under your jurisdiction to this office NUT 30 Aug 89. This person will need to act as liaison with the Argonne personnel to ensure access to each unit during their visit, in order that all samplers may be properly deployed.
3. In addition, a draft letter and Radon Fact Sheet are enclosed for your use in notifying the housing residents of the upcaming sampling. Request that this office be copy furnished on the letter which is sent to the residents.
4. Results from this sampling phase should be available during 20FY89, and will be provided for your dissemination to the housing residents at that time.
5. In the event that the 90 -day sampling is not definitive, an additional sampler will be deployed, where necessary, to extend the total sanpling period to a year.
6. POC for this Acency is Mr. Joseph A. Ricci, (301) 671-3461/3261.

FOR THE CCMMRNDEP:

2 Encls

> Culurton P Lurivi
> SALVATORE P. TORRISI Chief, Base Closure Division

DISTRIBUTION:
Cdr, Fort Devens, ATIN: AFMD-DEE-P (Mr. Bob Winter), Fort Devens, MA 01433-5100
Cdr, U.S. Anmy Training Center \& Fort Dix, ATIN: ATZD-EKP, Fort Dix, NJ 08640-5075
Cdr, I Corps and Fort Lewis, AITN: AFZH-DEP-R (Mr. Lee Burnett), Fort Lewis, WA 98433-5000
(CONT)

CETHA-BC (50-6C)
SUBJECT: Radon Sampling

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Cdr, U.S. Anmy Engineer Center and Fort Belvoir, ATIN: ANFB-DEH-EN (Mr. Patrick Mciothlin), Fort Belvoir, VA 22060-5000
Cdr, Fort Sheridan, ATIN: AFKE-ZO-TTF (Mr. Dick Hanson), Fort Sheridan, II 60037-5000

CF (w/encls):
Car, AMC, ATIN: AMCYP-O (Mr. Bcb Jameson), 5001 Eisenhower Ave., Alexandria, VA 22333-0001
Cdr, FORSCOM, AITN: FCOJ-BC (MS. Enna Roulier), Fort McPherson, GA 38330-6000
Cdr, TRADOC, ATIN: ATCS-R (MAJ Richard Byron), Fort Manroe, VA 23651-6000
Cdr, MDW, ATTN: ANRM-MRB (Ms. Peg Wigle), Fort Lesley J. MCNair, WASE DC 20319-5000

Colonel and Mrs. John Doe
1234 Patton Drive Offoase Housing, US

Dear Colonel and Mrs. Doe:
The Department of Anmy has requested the evaluation of radon gas levels in offbase housing units. This is similar to the evaluations onbase, that you may have heard about. Information on radon and why it is a matter of concern is enclosed.

In order to measure, a small detector will be placed in your home and left there for three months. The detector is a mall canister no greater than a few inches in height or diameter; it requires no electricity and makes no sourd. The radon sensitive portion of the detector consists of a plastic material.

Argonne National Laboratory, a large federally funded research institution in the Micivest has been asked to carry out this project. You will be contacted by Argonne personnel in the near future who will answer your questions and place a radon detector in your home and discuss the arrangements for the return of the detector to Argonne by mail.

In the great majority of cases, radon gas is of no practical concern to the occupants of a home. For the small percentage of cases where action must be taken to reduce the radon level, the Department of Army will notify you of the need and the steps that will be taken.

Please give the people from Angonne your time and attention.

Fact Sheet on Radon
What is radon? Radon-222 is an inert radioactive gas which occurs in nature. You cannot see it, smell it, or taste it.

Radon comes from the natural breakdown (radioacrive decay) of uranium and can be found in high concentrations in soils and rocks containing uranium, granite, shale, phosphate, pitchblende, and phosphates.

In outdoor air, radon is diluted to such low concentrations that it is usually nothing to worry about. However, once inside an enclosed space (such as a home or office) radon can accumulate. Indoor levels depend both on a building's construction and the concentration of radon in the underlying soil.

What is the health hazard from radon? By itse!f, radon gas is inert, that is, it is chemically unreactive. The health hazard from radon gas comes from its radioactive transformation or decay into radioactive by-products or radon daughters. As radon decays, its by-products attach themselves to dust particles in the air. As you breathe, the radon decay products can become trapped in your lungs. As these decay products break down further, they reiease smail bursts of energy which can damage lung tissue and lead to increased risk of developing lang cancer. Your risk of developing lung cancer from exposure to radon depends upon the concentration of radon and the length of time you are exposed. Exposure to a slightly elevated radon level for a long time may present a greater risk of developing lung cancer than exposure to a significantly elevated level for a short time. In general, your risk increases as the level of radon and the length of exposure increase. Not everyone exposed to elevated levels of radon will develop lung cancer, and the time between exposure and the onset of the disease may be many years.

How does radon get into a home? Since radon is a gas it can move through small spaces in the soil and rock an which a house is built. Radon can seep into a home through dirt floors, c:acks in concrete floors and walls, floor drains, sumps, joints, and tiny cracks or pores in hollow-block walls. Radon also can enter water within private wells and be released into a home when the water is used. The dilemma is that, right now, no one knows which houses have a radon problem and which do not.

How is radon detected? Since you cannot see or smell radon, special detectors are needed. The two most popular are the charcoal canister and the alpha track detector. Both of these devices are exposed to the air in your home, normally on the lowest liveable level, for a specified period of time, in our case a few days (charcoal canister) or 3 months (alpha track detector) and analyzed in a laboratory to provide an estimate of the radon level in the home.

## Appendix C

Radon Field Data Sheet

ARGONNE NATIONAL LABORATORY
U. S. Army Base Closure Radon Program

Field Data Sheet

Housing data:

Housing area $\qquad$
Street address $\qquad$
City, State $\qquad$
$\qquad$

Supporting Post $\qquad$
Unit No. $\qquad$
Occupancy date $\qquad$
Departure date $\qquad$ (if known)

Occupants
Phone \#
(AC) $\qquad$ - $\qquad$
Detector data:
Serial \# $\qquad$ Location $\qquad$
Date opened $\qquad$
$\qquad$
Date due $\qquad$
$\qquad$
Time opened $\qquad$
$\qquad$

Duplicate detector
Yes $\qquad$ No $\qquad$
If yes, serial \# $\qquad$

Person opening detector $\qquad$
Person completing form $\qquad$
Return mailer left with $\qquad$
Argonne team members $\qquad$

Additional notes: $\qquad$

## Appendix D

## Radon Detector Return Instructions

## ARGONNE NATIONAL LABORATORY

U. S. Army Base Closure Radon Program

## Detector Return Instructions

Materials needed:

| Rad-trak detectors | Scotch tape |
| :--- | :--- |
| Foil envelope | Round foil seal |
| Return mailer |  |

1. Remove round foil seal and foil envelope from return mailer.
2. Remove backing from round foil seal and place seal over holes on detector.
3. Write date on detector label in "ending date" space provided.
4. Place sealed detector in foil envelope, fold edge over and tape shut.
5. Place foil envelope with detector in return mailer, seal, and mail.
6. Do same for duplicate detector, if any. If any problems or questions, contact DEH. If DEH cannot resolve the problem, they will contact Argonne.
7. If foil envelope and/or round foil seal cannot be found, wrap detector in aluminum foil, and place in return mailer.

Return mailing address:

Argonne National Laboratory<br>Army Radon Project<br>P. O. Box 176<br>Westmont, IL 60559

## Appendix E

Circumstantial Data for All Monitored Properties
Ansonla Army Housing Area
Ansonla, Connecticut 06401
Indoor Radon Monitoring Conditions

| Detector No. | Addreis | Unit No. | Ocoupants | Telephone No. (203) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | End Dase | Received Das | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648230 | 01 Ford St. | 01 | PO Milmoe | 736-9688 | 09/10/89 | 12/11/89 | 12/18/89 | 92 | BKP |
| 0 | 02 Hughes Cir. | 02 | PO Flourney |  |  |  |  |  | [ND] |
| 1648274 | 03 Hughes Cir. | 03 | CPO + Mrs. Bargado | 736-0805 | 09/07/89 | 12/09/89 | 12/12/89 | 93 | D JKP |
| 0 | 04 Hughes Cir. | 04 | CPT Mutchko |  |  |  |  |  | [ND] |
| 1648245 | 05 Hughes Cir. | 05 | PO + Mrs. Hill | 736-0361 | 09/06/89 | 02/09/90 | 02/12/90 | 156 | DJKP |
| 1648270 | 06 Hughes Cir. | 06 | SSGT. Russo | 735-0797 | 09/07/89 | 12/07/89 | 12/18/89 | 91 | K P |
| 1648260 | 07 Hughes Cir. | 07 | CPO + Mrs. Knight | 732-4222 | 09/28/89 | 02/20/90 | 02/23/90 | 145 | BKP |
| 1648267 | 08 Hughes Cir. | 08 | CAPT + Mrs. Johnson | 735-7037 | 09/08/89 | 12/08/89 | 12/18/89 | 91 | BEKP |
| 1648257 | 09 Hughes Cir. | 09 | PO Knorr | 734-1747 | 09/07/89 | 12/14/89 | 01/12/90 | 24 | ACDEJKP |
| 1648251 | 09 Hughes Cir. | 09 | PO Knort | 734-1747 | 09/07/89 | 12/14/89 | 01/12/90 | 124 | ACDEJKP |
| 1648246 | 10 Hughes Cir. | 10 | CPT Lukens | 736-2039 | 09/07/89 | 02/09/90 | 02/12/90 | 55 | DHJKP |
| 1648242 | 11 Hughes Cir. | 11 | MSGT Flowers | 734-8993 | 09/12/89 | 12/09/89 | 12/18/89 | 88 | BLP |
| 1648272 | 12 Hughes Cir. | 12 | SSC + Mrs. Dunlap | 732-5549 | 09/07/89 | 12/24/89 | 12/27/89 | 108 | DJKP |
| 1648247 | 13 Hughes Cir. | 13 | HM2/E5 Clark | 732-5644 | 09/07/89 | 12/31/89 | 01/02/90 | 115 | DJKP |
| 1648277 | 14 Hughes Cir. | 14 | PO Gillespie | 736-6013 | 09/07/89 | 12/07/89 | 12/12/89 | 91 | CJKP |
| 1648252 | 15 Hughes Cir. | 15 | SSG Ronney | 735-5723 | 09/08/89 | 12/07/89 | 12/12/89 | 90 | BKP |
| 1648273 | 16 Hughes Cir. | 16 | PO Sticklos | 735-8787 | 09/07/89 | 12/15/89 | 12/18/89 | 99 | CDJKP |

[^0]H Exposure < 90 days
J Exact duration of exposure
$K$ Detector in bedroom
L Detector in living room
$N$ Detector location unknown
East Windsor Army Housing Area Indoor Radon Monitoring Conditions

| Datactor No. | Address | Unit No. | Ocoupants | Telephone No. (203) | Start <br> Date | End Date | Reccived Dale | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646457 | 27 Phelps Rd. | 01 | SGT Beleis | 292-1823 | 09/10/89 | 12/24/89 | 12/27/89 | 105 | DJKP |
| 1646442 | 29 Phelps Rd. | 14 | SG Wagner | 623-3019 | 09/10/89 | 12/14/89 | 12/18/89 | 95 | ADEJKP |
| 1645763 | 29 Phelps Rd. | 14 | SG Wagner | 623-3019 | 09/10/89 | 12/14/89 | 12/18/89 | 95 | ADJKPU |
| 1645769 | 31 Phelps Rd. | 15 | GYSGT James P. Walsh | 627-9214 | 09/10/89 | 12/15/89 | 12/18/89 | 96 | DJKP |
| 1646436 | 33 Phelps Rd. | 16 | PO Jett | 627-6924 | 09/10/89 | 12/15/89 | 12/18/89 | 96 | DJKP |
| 1644237 | 02 South Rd. | 02 | PO Dawson | 623-0296 | 09/10/89 | 12/31/89 | 01/08/90 | 112 | BNP |
| 1645768 | 03 South Rd. | 03 | SFC Clodpetter | 623-9227 | 09/10/89 | 01/05/90 | 01/08/90 | 117 | DEJKP |
| 1645762 | 04 South Rd. | 04 | PO Hunt | 627-8618 | 09/10/89 | 12/13/89 | 12/18/89 | 94 | CJKP |
| O | 05 South Rd. | 05 | SSG Kasko |  |  |  |  |  | [ND] |
| 1644235 | 06 South Rd. | 06 | PO Eckes | 623-4370 | 09/10/89 |  |  |  | K P [NR] |
| 1644249 | 07 South Rd. | 07 | SSG Ferguson | 654-1727 | 09/10/89 | 01/12/90 | 01/15/90 | 124 | DEJKP |
| 1644234 | 08 South Rd. | 08 | PO Janowiak | 623-7052 | 09/12/89 | 12/26/89 | 01/02/90 | 105 | BKP |
| 1645766 | 09 South Rd. | 09 | SSG Witkowski | 623-0218 | 09/10/89 | 12/10/89 | 12/18/89 | 91 | $K P$ |
| 1644248 | 10 South Rd. | 10 | CPL Thompson |  | 09/10/89 |  |  |  | $K P(N R]$ |
| 1645767 | 11 South Rd. | 11 | PO-1 Oivo | 692-1360 | 09/10/89 | 02/22/90 | 03/02/90 | 165 | KP |
| 1644233 | 12 South Rd. | 12 | GYSGT Hando | 623-0215 | 09/10/89 | 02/05/90 | 02/13/90 | 148 | EKP |
| 1644246 | 13 South Rd. | 13 | CAPT Powell | 292-6176 | 09/11/89 | 02/16/90 | 02/19/90 | 158 | DEJNPU |

aKey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH C Starting date unknown E Detector received with no seal F No data sheet


Exact duration of exposure
Detector in bedroom
M Detector in living roo
N Detector location unknown
Fairfield Army Housing Area
Fairfield，Connecticut 06430
Indoor Radon Monltoring Conditions

| Detector No． | Address | Unit No． | Occupants | Telephone No．（203） | Start Data | End Date | Preceived Date | Duration （days） | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648239 | 016 Jarvis Ct． | 16 | PO＋Mrs．Bell | 255－5518 | 09／07／89 | 12／24／89 | 12／27／89 | 108 | DJKP |
| 1646478 | 025 Janvis Ct． | 25 | PO＋Mrs．Luan | 467－1622 | 09／06／89 | 01／07／90 | 01／12／90 | 123 | KP |
| 1644216 | 028 Jarvis Ct． | 28 | MSG＋Mrs．Gommel | 255－9435 | 09／06／89 | 12／07／89 | 12／12／89 | 92 | KP |
| 1644212 | 037 Jarvis Ct． | 37 | SSG＋Mrs．Thomas | 254－7750 | 09／06／89 | 12／07＇89 | 12／12／89 | 92 | CKP |
| 1646493 | 042 Janvis Ct． | 42 | CPO＋Mrs．Menday | 255－3791 | 09／06／89 | 12／06／89 | 12／12／89 | 91 | KP |
| 1648269 | 051 Jarvis Ct． | 51 | SSG＋Mrs．Larkins | 254－8250 | 09／06／89 | 02／05／90 | 02／12／90 | 152 | KP |
| 0 | 058 Jarvis Ct． | 58 | PO＋Mrs．Gallaher |  |  |  |  |  | ［ND］ |
| 1644202 | 065 Jarvis Ct． | 65 | PO＋Mrs．Schoettner | 255－6384 | 09／06／89 |  |  |  | KP［NR］ |
| 1644205 | 070 Janvis Ct． | 70 | SSG Hass | 372－0042 | 09／06／89 | 02／16／90 | 02／23／90 | 163 | KP |
| 1646487 | 077 Jarvis Ct． | 77 | ISG＋Mrs．McAvoy | 255－5890 | 09／06／89 | 02／02／90 | 02／05／90 | 149 | DJKP |
| 1648254 | 084 Jarvis Ct． | 84 | SGT＋Mrs．Pomerantz | 255－0747 | 09／07／89 | 12／07／89 | 01／02／90 | 91 | EKP |
| 1644206 | 089 Jarvis Ct． | 89 | PO＋Mrs．Polin | 259－7831 | 09／06／89 | 12／05／89 | 12／08／89 | 90 | DJKP |
| 1648235 | 100 Jarvis Ct． | 100 |  |  | 09／07／89 | 02／21／90 | 03／07／90 | 167 | EKP |
| 1644201 | 111 Jarvis Ct． | 111 | CPO＋Mrs．Woosiey | 255－4986 | 09／06／89 | 02／05／90 | 02／12／90 | 152 | AKP |
| 1644208 | 111 Jarvis Ct． | 111 | CPO＋Mrs．Woosely | 255－4986 | 09／06／89 | 02／05／90 | 02／12／90 | 152 | AKP |
| 1648234 | 320 Quincy St． | 320 | PO＋Mrs．Parent | 255－3460 | 09／06／89 | 01／03／90 | 01／08／90 | 119 | BKP |
| 1648262 | 321 Quincy St． | 321 | SSGT＋Mrs．Armstrong | 254－7628 | 09／06／89 | 02／24／90 | 02／27／90 | 171 | BCDJKP |
| 1648258 | 336 Quincy St． | 336 | SSG＋Mrs．Judson | 259－1683 | 09／06／89 | 12／09／89 | 12／12／89 | 94 | BDEJKP |
| 1644214 | 350 Quincy St． | 350 | MCPO＋Mrs．Thomas | 259－3986 | 09／06／89 | 12／16／89 | 12／19／89 | 101 | KP |
| 1646475 | 362 Quincy St． | 362 | SSG＋Mrs．Simmons | 254－8313 | 09／06／89 | 12／14／89 | 12／18／89 | 99 | AKP |
| 1646494 | 362 Quincy St． | 362 | SSG＋Mrs．Simmons | 254－8313 | 09／06／89 | 12／14／89 | 12／18／89 | 99 | AKP |
| 1648237 | 376 Quincy St． | 376 |  |  | 10／01／89 | 02／19／90 | 02／27／90 | 141 | BCJNP |
| 1648268 | 377 Quincy St． | 377 | SGT＋Mrs．Brown | 254－2812 | 09／07／89 |  |  |  | PK［NR］ |
| 1648275 | 385 Quincy St． | 385 | WO＋Mrs．McEride |  | 09／28／89 | 02／17／90 | 02／23／90 | 143 | BCJNP |

aKey to Remarks：
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
C Starting date unknown E Detector received with no seal
F No data sheet


G Unoccupied house
Fairfield Army Housing Area (Cont'd)
Indoor Radon Monitoring Conditions

| Detector No. | Adtress | Unit No. | Oocupants | Tetephone No. (203) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Data } \end{aligned}$ | Reccived Dale | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644203 | 394 Ouincy St. | 394 | CAPT + Mrs. Coleman | 254-7470 | 09/06/89 | 02/20/90 | 02/23/90 | 167 | DJKP |
| 1646495 | 397 Quincy St. | 397 | TSG + Mrs. Edwards | 259-1497 | 09/06/89 | 12/15/89 | 12/19/89 | 100 |  |
| 1648264 | 409 Quincy St. | 409 | De Para | 254-2317 | 09/06/89 | 02/26/90 | 03/06/90 | 173 | BCKP |
| 1648253 | 412 Quincy St. | 412 | CWO + Mrs. Verville | 255-6195 | 09/07/89 | 01/05/90 | 01/08/90 | 120 | DJKP |
| 1644211 1644209 | 673 Reef Rd. 703 Reef Rd. | $673$ | SSG Brown MSGT Andrews | $\begin{aligned} & 254-0875 \\ & 255-5725 \end{aligned}$ | 09/06/89 09/06/89 | 12/09/89 | 12/12/89 | 94 | DEJKP BNP[NR] |


Manchester Army Housing Area
Indoor Radon Monitoring Conditions

| Detector No. | Address | Unit No. | Ocoupants | Tetephone No. (203) | Sart Date | End Date | Recerived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16.46453 | 002 Nike Cir. | 002 | CPO Busch | 649-7221 | 09/10/89 | 12/21/89 | 12/27/89 | 102 | KP |
| 16.16428 | 007 Nike Cir. | 007 | SSGT Menard | 646-4771 | 09/10/89 | 12/05/89 | 12/08/89 | 90 | DJKP |
| 1646427 | 008 Nike Cir. | 008 | CPO Anderson | 645-6723 | 09/10/89 | 12/12/89 | 12/18/89 | 93 | K P |
| 16.16429 | 011 Nike Cir. | 011 | SSGT Grant | 645-6105 | 09/10/89 | 02/06/90 | 02/12/90 | 149 | KP |
| 16.16456 | 017 Nike Cir. | 017 | TSGT Campbell | 645-1639 | 09/11/89 | 12/31/89 | 01/02/90 | 111 | BCDEJNP |
| 16.16450 | 018 Nike Cir. | 018 | PO Smith | 643-7002 | 09/10/89 | 12/16/89 | 12/19/89 | 97 | KP |
| 16.16449 | 019 Nike Cir. | 019 | SGT Martin | 649-6266 | 09/10/89 | 12/24/89 | 12/27/89 | 105 | DEJKP |
| 16.16461 | 027 Nike Cir. | 027 | TSGT Gilcreast | 646-9647 | 09/10/89 | 12/31/89 | 01/02/90 | 112 | DEJKP |
| 1646454 | 029 Nike Cir. | 029 | SGT Russell | 643-5739 | 09/10/89 | 12/15/89 | 12/18/89 | 96 | DJKP |
| 1646459 | 034 Nike Cir. | 034 | TSGT Rollend | 643-9577 | 09/10/89 | 01/10/90 | 01/18/90 | 122 | K P |
| 1645765 | 037 Nike Cir. | 037 | CPO Sepine | 645-8947 | 09/10/89 | 12/10/89 | 12/18/89 | 91 | BKP |
| 1645759 | 041 Nike Cir. | 041 | WO Mohr | 645-0710 | 09/10/89 | 12/24/89 | 12/27/89 | 105 | DJKPU |
| 1646425 | 046 Nike Cir. | 046 | MAJ + Mrs. Russell | 646-1635 | 09/10/89 | 12/10/89 | 12/18/89 | 91 | KP |
| 1644245 | 049 Nike Cir. | 049 | SGM Lewis | 643-7551 | 09/10/89 | 12/13/89 | 12/18/89 | 94 | BEKP |
| 1646452 | 052 Nike Cir. | 052 | SFC Quinn | 647-0792 | 09/10/89 | 02/02/90 | 02/05/90 | 145 | DJKP |
| 1646430 | 055 Nike Cir. | 055 | LT Johnson | 647-1349 | 09/10/89 | 02/19/90 | 02/27/90 | 162 | KP |
| 1645760 | 060 Nike Cir. | 060 | CPO Heideman | 647-0348 | 09/10/89 |  |  |  | B KP (NR] |
| 1646443 | 061 Nike Cir. | 061 | SSGT Ness | 646-1134 | 09/10/89 | 12/15/89 | 12/18/89 | 96 | DJKP |
| 1646439 | 066 Nike Cir. | 066 | PO McCormick | 645-8249 | 09/10/89 | 01/05/90 | 01/08/90 | 117 | DEJNP |
| 1644242 | 069 Nike Cir. | 069 | SSG Wilson | 645-4364 | 09/10/89 |  |  |  | B K P [NR] |
| 1646444 | 074 Nike Cir. | 074 | POO'Brien | 647-7793 | 09/10/89 | 12/10/89 | 12/18/89 | 91 | KP |
| 1646458 | 075 Nike Cir. | 075 | SSGT Rhodes | 643-5160 | 09/10/89 | 12/05/89 | 12/08/89 | 86 | DEJKP |
| 1646426 | 079 Nike Cir. | 079 | PO Raymond | 643-8731 | 09/10/89 | 12/09/89 | 12/12/89 | 90 | EKP |
| 1646432 | 083 Nike Cir. | 083 | CPO Lemelin | 645-0038 | 09/10/89 | 02/11/90 | 02/14/90 | 154 | DEJKP |

[^1]
Manchester Army Housing Area (Cont'd)
Manchester, Connecilcut 06040
Indoor Padon Monltoring Condition

| Detactor <br> No. | Address |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

A Duplicato detec
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown C Starting date unknown
D Ending date unknown E Delector received with no seal
F No data sheet
G Unoccupied house E Delector received with no seal
F No data sheet
G Unoccupied house


| Detectior No. | Actiress | Unit No. | Ocoupants | Telephone No. (203) | Sart Date | End Date | Recoived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641543 | 32 Military Rd. | 32 | POManning | 344-1137 | 09/11/89 | 12/16/89 | 01/02/90 | 96 | K P |
| 1644238 | 42 Military Rd. | 42 | PO Encell |  | 09/12/89 | 01/16/90 | 01/19/90 | 126 | BDJNP |
| 1644226 | 49 Military Rd. | 49 | SCPO Bechtel | 347-7997 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KPU |
| 1641517 | 50 Military Rd. | 50 | CPO McNeil | 344-1591 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DJKP |
| 1645761 | 57 Military Rd. | 57 | GYSGT Lesh | 638-3807 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KP |
| 1644232 | 58 Military Rd. | 58 | MSG Chapman | 346-3363 | 09/11/89 | 12/19/89 | 12/27/89 | 99 | KPU |
| 1644229 | 67 Military Rd. | 67 | SGT Rangel | 643-3817 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DJKP |
| 1644252 | 68 Military Rd. | 68 | PO McKenzie | 346-0556 | 09/11/89 | 11/15/89 | 11/20/89 | 65 | HKPU |
| 1644251 | 73 Military Rd. | 73 | SSG Lugardo | 347-6833 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | $K P$ |
| 1644230 | 74 Military Rd. | 74 | GYSGT Agront | 347-1929 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | $K P$ |
| 1641519 | 83 Military Rd. | 83 | Smallwood | 344-1638 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DJKP |
| 1644225 | 84 Military Rd. | 84 | CPO Nielsen | 344-9278 | 09/11/89 | 01/18/90 | 01/22/90 | 129 | KP |
| $1641537$ | 89 Military Rd. | 89 | SRG Clark |  | 09/12/89 | 12/11/89 | 12/18/89 | 90 | BCJNP |
| 1644228 | 90 Military Rd. | 90 | PO Romeo | 347-7631 | 09/11/89 | 02/06/90 | 02/12/90 | 148 | $K P$ |
| 1645758 | 97 Military Rd. | 97 | CPO Aitkins | 647-5578 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | AKPU |
| 1644254 | 97 Military Rd. | 97 | CPO Aitkins | 647-5578 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | AKP |
| 1641518 | 98 Military Rd. | 98 | SFC Brunson | 346-8907 | 09/11/89 | 12/21/89 | 12/27/89 | 101 | EKP |


MCA home Duplex (one-story) home Apartment building Below detection limit
 $P$
$Q$
$R$
$S$
$T$
$U$
UD
NR

$$
\begin{array}{ll}
\text { [ND] } & \text { No dara } \\
\text { [Not returneo }
\end{array}
$$


Mllford Army Housing Area
Indoor Radon Monltoring Conditions

| Datector <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

akey to Remarks:

Now Britain Army Housing Area
Indoor Radon Monltoring Conditions

| Detrector No. | Address | Unit No. | Ocoupants | Telephone No. (203) | Start <br> Date | End <br> Date | Received Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641516 | 006 Green St. | 06 | SSG Steiz | 223-6996 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | KP |
| 1641512 | 014 Green St. | 14 | PO Fisher | 229-9356 | 09/12/89 | 12/31/89 | 01/02/90 | 110 | DJKP |
| 1641539 | 005 Haisey St. | 05 | PO Biggs | 827-1975 | 09/12/89 | 12/15/89 | 12/18/89 | 94 | DJKP |
| 1644227 | 017 Halsey St. | 17 |  |  | 09/13/89 | 12/12/89 | 01/02/90 | 90 | BENP |
| 1641511 | 031 Halsey St. | 31 | PO Alvarez | 223-7338 | 09/12/89 | 12/24/89 | 12/27/89 | 103 | DJKP |
| 1641510 | 011 Kulper St. | 11 | SSGT Beurgoin | 224-3624 | 09/12/89 | 12/18/89 | 12/27/89 | 97 | KP |
| 1641546 | 012 Kulper St. | 12 | PO Guilford | 224-8567 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | KP |
| 1641534 | 019 Kulper St. | 19 | SGT Manzella | 229-5604 | 09/12/89 | 01/15/90 | 01/18/90 | 125 | DEJKP |
| 1641521 | 020 Kulper St. | 20 | SSG Johnson | 224-2185 | 09/12/89 | 01/16/90 | 01/19/90 | 126 | DJKP |
| 1641549 | 027 Kulper Rd. | 27 | SSG Tolliner | 224-8072 | 09/12/89 | 01/16/90 | 01/19/90 | 126 | DEJKP [ND] |
| 1641535 | 035 Kulper Rd. | 35 | SGT Sliker | 223-9213 | 09/15/89 | 01/01/90 | 01/02/90 | 108 | BCDJKP |
| 1641540 | 298 Rocky Hill Ave. | 298 | SSG Gee | 223-5391 | 09/12/89 | 02/11/90 | 02/14/90 | 152 | AEJKP |
| 1641523 | 298 Rocky Hill Ave. | 298 | SSG Gee | 223-5391 | 09/12/89 | 02/11/90 | 02/14/90 | 152 | AEJKP |
| 1641520 | 306 Rocky Hill Ave. | 306 | SGT David | 826-1219 | 09/12/89 |  |  |  | $K P[N R]$ |
| 1641538 | 312 Rrocky Hill Ave. | 312 | POGensel | 225-9987 | 09/12/89 | 01/01/90 | 01/03/90 | 111 | DEJKP |
| 1646482 | 320 Rocky Hill Ave. | 320 | SGT Hughes | 225-5141 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | K P |

## aKey to Remarks:


Orange Army Housing Area
suoljpuos Buןsoyuow uopey soopul

| Detuctor No. | Adtress | Unit No. | Occupants | Telaphone No. (203) | Start Date | End Date | Received Dato | Duration (days) | Pomarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 343 Smith Farm Rd. |  |  |  |  |  |  |  | [ND] |
| 1648284 | 348 Smith Farm Rd. |  | Aganon | 799-8967 | 09/08/89 | 12/11/89 | 12/18/89 | 94 | AKP |
| 1646447 | 348 Smith Farm Rd. |  | Aganon | 799-8967 | 09/08/89 | 12/11/89 | 12/18/89 | 94 | AKP |
| 1646445 | 349 Smith Farm Rd. |  | SGT Johnson | 799-8710 | 09/08/89 | 12/14/89 | 12/18/89 | 97 | KP |
| 1646440 | 350 Smith Farm Rd. |  | SSGT Stanton | 795-1569 | 09/08/89 | 02/04/90 | 02/12/90 | 149 | K P |
| 1648281 | 351 Smith Farm Rd. |  | PO Brown | 799-1401 | 09/08/89 | 12/11/89 | 12/18/89 | 94 | K P |
| 1646441 | 354 Smith Farm Rd. |  |  |  | 10/11/89 | 01/11/90 | 01/19/90 | 92 | BENP |
| 1648282 | 355 Smith Farm Rd. |  | PIO Morrison | 799-9874 | 09/08/89 | 10/23/89 |  | 45 | AHKP |
| 1646480 | 355 Smith Farm Rd. |  | P1O Morrison | 799-9874 | 09/08/89 | 12/06/89 | 12/12/89 | 89 | AKP |
| 1646446 | 359 Smith Farm Rd. |  | PO Barbee | 799-9232 | 09/08/89 |  |  |  | KP [NP] |
| 1648278 | 363 Smith Farm Rd. |  | POClark | 799-9817 | 09/08/89 | 12/05/89 | 12/08/89 | 88 | DJKP |
| 1648285 | 342 Sybil St. |  | SSG Foley | 799-3897 | 09/08/89 | 02/06/90 | 02/12/90 | 151 | KP |
| 1642288 | 345 Sybil St. |  | None-House closed |  | 09/08/89 | 01/19/90 | 02/27/90 | 133 | GMP |
| 1646469 | 349 Sybil St. |  | SSG Beudredu | 799-8702 | 09/08/89 | 12/08/89 | 12/18/89 | 91 | KP |
| 1648279 | 350 Sybil St. |  | SSG Lewis | 795-5350 | 09/08/89 |  |  |  | AKP [NR] |
| 1648280 | 350 Sybil St. |  | SSG Lewis | 795-5350 | 09/08/89 |  |  |  | AKP [NA] |
| 1648286 | 351 Sybil St. |  | PO Graham | 799-9220 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | DJKP |
| 1642300 | 353 Sybil St. |  | PO Patterson | 799-8905 | 09/08/84 | 12/08/89 | 12/12/89 | 91 | KP |
| 1646422 | 354 Sybil St. |  | SSG Madison | 799-8570 | 09/08/8 | 12/08/89 | 12/27/89 | 91 | AKP |
| 1646423 | 354 Sybil St. |  | SSG Madison | 799-8570 | 09/08/89 | 12/08/89 | 12/27/89 | 91 | AKP |
| 1646421 | 355 Sybil St. |  | LT Schriber | 799-9116 | 09/08/89 | 12/05/89 | 12/08/89 | 90 | DEJKP |
| 1646438 | 358 Sybil St. |  | SGT Woodward | 799-6307 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | DJKP |
| 1648287 | 359 Sybil St. |  | PO Rivers | 799-1783 | 09/08/89 | 12/24/89 | 12/27/89 | 107 | DEJKP |
| 1642286 | 362 Sybil St. |  | SFC Loeppler | 799-1497 | 09/08/89 | 01/12/90 | 01/15/90 | 126 | DJKP |


akey to Remarks:

[^2]Plainville Army Housing Area
Indoor Radon Monitoring Conditlons

| $\begin{aligned} & \text { Desector } \\ & \text { No. } \end{aligned}$ | Adtross | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Ocoupants | Tetephone No．（203） | $\begin{aligned} & \text { Sert } \\ & \text { Date } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recaived Date | Duration （days） | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643451 | 01 Cassidy Dr． | 01 | SSG Kohnell | 747－4599 | 09／12／89 | 12／15／89 | 12／18／89 | 94 | EJKP |
| 1643438 | 02 Cassidy Dr． | 02 | SSG Home | 747－0858 | 09／12／89 |  |  |  | AKP［ NR ］ |
| 1643456 | 02 Cassidy Dr． | 02 | SSG Home | 747－0858 | 09／12／89 |  |  |  | AKP（NR） |
| 1641527 | 03 Cassidy Dr． | 03 | SSG Shaw | 747－9444 | 09／12／89 | 12／15／89 | 12／18／89 | 94 | DEJKP |
| 0 | 04 Cassidy Dr． | 04 | SSG Morrison |  |  |  |  |  |  |
| 1643454 | 05 Cassidy Dr． | 05 | PO Ewing | 793－9961 | 09／12／89 |  |  |  | KP［ NR ］ |
| 1643455 | 06 Cassidy Dr． | 06 | SGT Cramer | 793－9377 | 09／12／89 | 12／15／89 | 12／18／89 | 94 |  |
| 1641552 | 07 Cassidy Dr． | 07 | CAPT Larkin | 747－1643 | 09／12／89 |  |  |  | $K P[N A]$ |
| 1643423 | 08 Cassidy Dr． | 08 | SSG Robinson | 793－6817 | 09／12／89 |  |  |  | KMP［ NR ］ |
| 1641550 | 09 Cassidy Dr． | 09 | SFC Cannamela | 747－6953 | 09／12／89 | 12／31／89 | 01／02／90 | 110 | DJKP |
| 1641533 | 10 Cassidy Dr． | 10 | SGT Hand | 747－3785 | 09／12／89 | 12／13／89 | 12／18／89 | 92 |  |
| － | 11 Cassidy rr ． | 11 | SSG Berkley |  |  | 12ィ3／89 | 1218／89 |  | [ND] |
| 1641525 | 12 Cassidy Dr． | 12 | POBrick | 747－2041 | 09／12／89 | 12／13／89 | 12／18／89 | 92 |  |
| 1641526 | 12 Cassidy Dr． | 12 | POBrick | 747－2041 | 09／12／89 | 12／13／89 | 12／18／89 | 92 | AKP |
| 1641560 | 13 Cassidy Dr． | 13 | MSGT Owens | 747－1099 | 09／12／89 | 12／11／89 | 12／18／89 | 90 | EKP |
| 1641553 | 14 Cassidy Dr． | 14 | SSG Widener | 793－3031 | 09／12／89 |  |  |  | KP［ NR ］ |
| 1641514 | 15 Cassidy Dr． | 15 | SSGT Tibbett | 793－9022 | 09／12／89 | 12／11／89 | 12／14／89 | 90 | DJKP |
| 1641515 | 16 Cassidy Dr． | 16 | PO Zanetell | 747－3299 | 09／12／89 |  |  |  | KP（NR） |
| 1641536 | 17 Cassidy Dr． | 17 | Wright | 747－8328 | 09／12／89 |  |  |  |  |
| 1641522 | 17 Cassidy Dr． | 17 | Wright | 747－8328 | 09／12／89 |  |  |  | AKP［NR］ |
| 1641547 | 18 Cassidy Dr． | 18 | SGT Haire | 747－5590 | 09／12／89 |  |  |  |  |
| 1641555 | 19 Cassidy Dr． | 19 | SGT Vesey | 793－9235 | 09／12／89 |  |  |  | K P［NR］ |
| 1641559 | 20 Cassidy Dr． | 20 | GY Chelstowski | 747－0355 | 09／12／89 | 12／15／89 | 12／18／89 | 94 | DEJKP |
| 0 | 21 Cassidy Dr． | 21 | PO Runyan |  |  |  |  |  | ［ND］ |



[^3]Plainvilla Army Housing Area (Cont'd)
Indoor Radon Monltoring Conditions

| Detactur No. | Adtress | Unit No. | Oocupants | Tetephone No. (203) | $\begin{aligned} & \text { Start } \\ & \text { Deta } \end{aligned}$ | End Date | Recrived Date | Duration (days) | Premarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641551 | 22 Cassidy Dr | 22 | SSGT Nelson | 747-0155 | 09/12/39 |  |  |  | KP[ NR$]$ |
| 1641532 | 23 Cassidy Dr. | 23 |  | 747-2797 | 09/12/89 | 12/11/89 | 12/14/89 | 90 | DJKPU |
| 1641544 | 24 Cassidy Dr | 24 | PO Hipkins | 793-2076 | 09/12/89 | 12/15/89 | 12/18/89 | 94 | KP |
| 0 | 25 Cassidy Dr. | 25 | SSGT Semanskj |  |  |  |  |  | [ND] |
| 1641557 | 26 Cassidy Dr. | 26 | SGT Weathers | 793-2657 | 09/12/89 | 03/03/90 | 03/07/90 | 172 | EKP |
| 0 | 27 Cassidy Dr. | 27 | SGT Clark |  |  |  |  |  | [ND] |
| 1641558 | 28 Cassidy Dr. | 28 | GYSGT Wurdinger | 747-1799 | 09/12/89 | 12/12/89 | 12/19/89 | 91 | KP |
| 0 | 29 Cassidy Dr. | 29 | MSGT Hann |  |  |  |  |  | [ND] |
| 1641556 | 30 Cassidy Dr. | 30 | PO Broussard | 793-9981 | 09/12/89 | 12/15/89 | 12/18/89 | 94 | DJKP |
| 1641529 | 31 Cassidy Dr. | 31 | SGT Wiliams | 793-9455 | 09/12/89 | 12/14/89 | 12/18/89 | 93 | KP |
| 1641545 | 32 Cassidy Dr. | 32 | Webb | 747-2131 | 09/12/89 | 12/15/89 | 12/18/89 | 94 | ADEJKP |
| 1641513 | 32 Cassidy Dr. | 32 | Webb | 747-2131 | 09/12/89 | 12/15/89 | 12/18/89 | 94 | ADEJKP |

aKey to Remarks:
A Duplicase detectors Starting date unknown

Detector received with no seal
No data sheet
Unoccupied house


## 

Portland Army Housing Area
Portland, Connectlcut 06480 Indoor Radon Monitoring Conditions

| Detector No. | Address | Unit No. | Ocoupants | Telephone No. (203) | Start <br> Date | $\begin{aligned} & \text { End } \\ & \text { Dats } \end{aligned}$ | Proceived Dare | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644250 | 01 Thompson Hill Rd. | 01 | PO Morrow | 342-3748 | 09/11/89 | 12/10/89 | 12/18/89 | 90 | K P |
| 1645757 | 02 Thompson Hill Rd. | 02 | PO Okon | 342-4276 | 09/11/89 | 12/14/89 | 12/22/89 | 94 | K P |
| 1644218 | 03 Thompson Hill Rd. | 03 | PO Stage | 342-0232 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KP |
| 1644222 | 04 Thompson Hill Rd. | 04 | SSG Warner | 342-2366 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | AKP |
| 1644224 | 04 Thompson Hill Rd. | 04 | SSG Warner | 342-2366 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | AKP |
| 1644219 | 05 Thompson Hill Rd. | 05 | PO Ensminger | 342-2876 | 09/11/89 | 12/14/89 | 12/18/89 | 94 | KP |
| 1644241 | 06 Thompson Hill Rd. | 06 | CPO Donicz | 342-1083 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KP |
| 1644255 | 07 Thompson Hill Rd. | 07 | PO Tilden | 342-3106 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KP |
| 1644221 | 08 Thompson Hilk Rd. | 08 | SSGT Simmons | 342-1707 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | $K P$ |
| 1644223 | 09 Thompson Hill Rd. | 09 | PO Gardner | 342-3676 | 09/11/89 | 12/12/89 | 12/18/89 | 92 | K P |
| 1645764 | 10 Thompson Hill Rd. | 10 | SSG Simmons | 342-0729 | 09/11/89 | 01/13/90 | 01/16/90 | 124 | DJKP |
| 1644220 | 11 Thompson Hill Rd. | 11 | PO Creighton | 342-0373 | 09/11/89 | 12/24/89 | 12/27/89 | 104 | CDJKP |
| 1644231 | 13 Thompson Hill Rd. | 13 | PO Kehrer | 342-1771 | 09/11/89 | 12/10/89 | 12/18/89 | 90 | K P |
| 1644236 | 14 Thompson Hill Rd. | 14 | PO Shiner |  | 09/28/89 |  |  |  | ECDJNP[NR] |
| 1644240 | 15 Thompson Hill Rd. | 15 | PO Gallaugher |  | 09/28/89 | 12/11/89 | 12/18/89 | 74 | BCHJNP |
| 1644247 | 16 Thompson Hill Rd. | 16 | PO Brinson | 342-4348 | 09/11/89 | 12/31/89 | 01/02/90 | 111 | DEJKP |

## aKey to Remarks

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector feceived with no seal
F No data sheet
G Unoccupied house

Shelton Army Housing Area
Indoor Radon Monltoring Conditions

| Detector No. | Address | Unit No. | Ocoupants | Telephone No. (203) | Start <br> Date | End Date | Received Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648232 | 01 Palmetto Cir. | 01 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1646466 | 02 Palmetto Cir. | 02 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648238 | 03 Paimetto Cir. | 03 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648236 | 04 Palmetto Cir. | 04 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648241 | 05 Palmetto Cir. | 05 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648261 | 06 Palmetto Cir. | 06 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648240 | 07 Palmetto Cir. | 07 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1646468 | 08 Palmetto Cir. | 08 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1646465 | 09 Palmetto Cir. | 09 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1648256 | 10 Palmetto Cir. | 10 | None-Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| $\begin{array}{r} 1642315 \\ 0 \end{array}$ | 11 Palmetto Cir. 12 Palmetto Cir. | $\begin{aligned} & 11 \\ & 12 \end{aligned}$ | None--Site closed None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | $\begin{aligned} & \text { GMP } \\ & \text { [ND] } \end{aligned}$ |
| 1642309 | 13 Palmetto Cir. | 13 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1646471 | 14 Palmetto Cir. | 14 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | AGMP |
| 1648231 | 14 Palmetto Cir. | 14 | None--site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | AGMP |
| 1642301 | 15 Palmetto Cir. | 15 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |
| 1646045 | 16 Palmetto Cir. | 16 | None--Site closed |  | 09/08/89 | 03/13/90 | 03/16/90 | 192 | GMP |

aKey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
Detector received with no seal
F No data sheet

Westport Army Housing Area
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Denactor } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | Ocoupents | Telephone No. (203) | $\begin{aligned} & \text { Sant } \\ & \text { Detre } \end{aligned}$ | End <br> Date | Recoived Date | Duration <br> (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644207 | 01 Wassell Lane | 01 | SSG Viola Redic | 454-3164 | 09/05/89 | 03/03/90 | 03/12/90 | 179 | K P |
| 1644213 | 03 Wassell Lane | 03 | SSGT Robert Nosal | 227-6005 | 09/05/89 | 01/12/90 | 01/15/90 | 129 | DJKP |
| 1646484 | 05 Wassell Lane | 05 | SFC Femando Quiles | 222-7892 | 09/05/89 | 03/16/90 | 03/27/90 |  | D JKP (NR) |
| 1646490 | 06 Wassell Lane | 06 | PO Keith Bell | 454-4032 | 09/05/89 | 12/16/89 | 12/19/89 | 102 | DEJKP |
| 1646486 | 07 Wassell Lane | 07 | AT2 Piccola N Pina | 454-1935 | 09/05/89 |  |  |  | $K P$ [NP] |
| 1646472 | 08 Wassell Lane | 08 | MSG Steven Israed | 222-2230 | 09/05/89 | 02/07/90 | 02/14/90 | 155 | EMP |
| 1646474 | 09 Wassell Lane | 09 | PO Lutes | 454-0563 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | KP |
| 1646462 | 10 Wassell Lane | 10 | TSGT R. Denauh | 454-2782 | 09/05/89 | 12/05/89 | 12/12/89 | 91 | BNP |
| 1646481 | 11 Wassell Lane | 11 | SFC Paul Dobrinsky | 454-4506 | 09/05/89 | 12/17/89 | 12/22/89 | 103 | AKP |
| 1644204 | 11 Wassell Lane | 11 | SFC Paul Dobrinsky | 454-4506 | 09/05/89 | 12/17/89 | 12/27/89 | 103 | AKP |
| 1646473 | 12 Wassell Lane | 12 | SSG Patrick + <br> Mis. Neary | 221-0555 | 09/05/89 |  |  |  | MP [NR] |
| 1646483 | 15 Wassell Lane | 15 | SGT William Mendez | 454-8743 | 09/05/89 | 12/15/89 | 12/18/89 | 101 | BCDEJNP |
| 1646476 | 16 Wassell Lane | 16 | GYSGT Gregory L. Flick | 454-2167 | 09/05/89 | 12/05/89 | 12/27/89 | 91 | KP |
| 1646463 | 17 Wassell Lane | 17 | $\begin{aligned} & \text { LCDR }+ \\ & \text { Mrs. Paul B. Webb } \end{aligned}$ | 226-8744 | 09/05/89 | 12/10/89 | 12/18/89 | 96 | K P |
| 1646464 | 18 Wassell Lane | 18 | CORPMAN Philbin | 454-4879 | 09/05/89 | 02/07/90 | 02/12/90 | 155 | LP |
| 1644217 | 19 Wassell Lane | 19 | MSGT George Johnson | 454-0109 | 09/05/89 | 12/15/89 | 12/18/89 | 101 | DEJKP |
| 1646489 | 20 Wassell Lane | 20 | SSG + Mrs. Cherico | 222-1718 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | DJKP |


Addison Army Housing Area
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Denector } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | Occupants | Telephone No. (708) | $\begin{aligned} & \text { Sart } \\ & \text { Dats } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Dato } \end{aligned}$ | Pecoived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643999 | 403 Army Trail Rd. | 403 | Hall | 543-0999 | 09/07/89 |  |  |  | $K P(N R]$ |
| 1645088 | 409 Army Trail Rd. | 409 | Mr. Odekirk | 543-6265 | 09/07/89 | 12/05/89 | 12/08/89 | 89 | DJKP |
| 1645092 | 413 Army Trail Rd. | 413 | Melendez German | 543-3497 | 09/07/89 | 03/08/90 | 03/13/90 | 182 | KP |
| 1643997 | 419 Army Trail Rd. | 419 | W. Decortevon | 543-5438 | 09/07/89 | 12/07/89 | 12/12/89 | 91 | BNP |
| 1644027 | 403 Natoma | 403 | Benning | 543-3404 | 09/07/89 | 01/08/90 | 01/10/90 | 123 | AKP |
| 1644003 | 403 Natoma | 403 | Benning | 543-3404 | 09/07/89 | 01/08/90 | 01/10/90 | 123 | AKP |
| 1644024 | 404 Natoma | 404 | Rosenbaum |  | 09/07/89 | 03/08/90 | 03/13/90 | 182 | KP |
| 1645086 | 410 Natoma | 410 | Sutton | 628-8332 | 09/07/89 | 12/07/89 | 12/08/89 | 91 | KP |
| 1645087 | 411 Natoma | 411 | Sheila West | 832-9672 | 09/07/89 | 03/08/90 | 03/16/90 | 182 | KP |
| 1644002 | 414 Natoma | 414 | Henderson |  | 09/07/89 | 12/07/89 | 12/12/89 | 91 | KP |
|  | 415 Natoma | 415 |  |  |  |  |  |  | [ND] |
| 1643991 | 420 Natoma | 420 | Roy | 628-1397 | 09/07/89 | 03/12/90 | 03/15/90 | 186 | DEJKP |
| 1643994 | 423 Natoma | 423 | Jackie Carrington | 543-3930 | 09/07/89 | 03/10/90 | 03/13/90 | 184 | K P |

akey to Pemarks:

N Detector location unknown


Worth Army Housing Area
Worth, Illinols 60463
Indoor Radon Monltoring Conditions

| Detactor <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


Croom Army Housing Units
Indoor Radon Monitorling Conditions

| $\begin{aligned} & \text { Destactor } \\ & \text { No. } \end{aligned}$ | Adtress | Unin No. | Ocoupants | Tetaphone No. (301) | $\begin{aligned} & \text { Sert } \\ & \text { Dation } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recoived Datio | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643678 | 15470 Mt. Calvert Rd. | 09A | David | 952-0678 | 09/11/89 | 01/09/90 | 01/23/90 | 120 | LT |
| 1643993 | 15472 Mt. Calvert Rd. | 09B | Carl Ingram, Jr. | 954-0547 | 09/12/89 | 01/27/90 | 02/27/90 | 137 | MT |
| 1643676 | 15474 Mt. Calvert Rd. | 09C | Neal | 627-4807 | 09/12/89 | 01/27/90 | 02/27/90 | 137 | K T |
| 1643077 | 15476 Mt. Calvert Rd. | 090 | Kolly Williams | 627-1996 | 09/11/89 |  |  |  | AKT[ NR ] |
| 1643685 | 15476 Mt. Calvert Rd. | 090 | Kolly Williams | 627-1996 | 09/11/89 |  |  |  | AKT[ NR$]$ |
| 1643686 | 15478 Mt. Calvert Rd. | O9E | Kimpson | 627-7416 | 09/12/89 | 02/01/90 | 02/27/90 | 142 | MT |
| 0 | 15484 Mt. Calvert Rd. | 12A |  |  |  |  |  |  | [ ND ] |
| 0 | 15486 Mt. Calvert Rd. | 12B |  |  |  |  |  |  | [ND] |
| 1643687 | 15488 Mt. Calvert Rod. | 12C | Deborah Isaac | 627-0530 | 09/12/89 | 01/27/90 | 02/27/90 | 137 | BNT |
| 1643688 | 15492 Mt. Calvert Rd. | 04A | Bebergel | 627-1178 | 09/11/89 | 01/19/90 | 01/23/90 | 130 | BNT |
| 1647549 | 15494 Mt Calvert Rd. | 04B | Baysden | 627-8349 | 09/12/89 | 02/11/90 | 02/27/90 | 152 | BNT |
| 1643680 | 15496 Mt. Calvert Rd. | 04C | Wells | 952-1251 | 09/11/89 | 01/19/90 | 01/24/90 | 130 | BNT |
| 1647553 | 15498 Mt. Calvert Rd. | 04D | Daniel Speller | 627-9734 | 09/11/89 | 01/19/90 | 01/25/90 | 130 | BNT |

${ }^{2}$ Key to Remarks:

Bedford Army Housing Area
Bedford Massachusetta 01730 suopapuos Bupaifuow uopey soopul

| Denector No. | Address | Unit No. | Ocoupants | Telephone No. (617) | Start Dato | End Dato | Pecaived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641159 | 01 Lewis Rd. | 01 | Mark Hertel |  | 09/08/89 | 10/02/89 | 10/05/89 | 24 | BHKP |
| 1641189 | 02 Lewis Rd. | 02 | Pat Boyd | 275-1578 | 09/07/89 | 12/07/89 | 12/12/89 | 91 | BKP |
| 1641166 | 03 Lewis Rd. | 03 | Theodus Sanders | 271-0652 | 09/10/89 |  |  |  | BKP [NR] |
| 1641197 | 04 Lewis Rd. | 04 | Melanie Sewell | 275-0519 | 09/07/89 |  |  |  | $K P[N R]$ |
| 1641196 | 05 Lewis Rd. | 05 | Nancy Graham | 275-1744 | 09/07/89 | 12/24/89 | 12/27/89 | 108 | ADJKP |
| 1641170 | 05 Lewis Rd. | 05 | Nancy Guaham | 275-1744 | 09/07/89 | 12/24/89 | 12/27/89 | 108 | ADJKP |
| 1645785 | 06 Lewis Rd. | 06 | Thomas + Lisa Scruton | 275-2752 | 09/07/89 | 12/11/89 | 12/13/89 | 95 | KP |
| 1641187 | 01 Mickelson Pd. | 1 | Daniel Randolph |  | 09/11/89 | 12/10/89 | 12/18/89 | 90 | BKP |
| 1641160 | 02 Mickelson Pd. | 2 | David Coffey | 275-4687 | 09/11/89 | 12/10/89 | 12/18/89 | 90 | $8 K P$ |
| 1641161 | 03 Mickelson Rd. | 3 |  | 275-5745 | 09/10/89 |  |  |  | $\mathbf{B K P}[\mathrm{NR}]$ |
| 1645784 | 04 Mickelson Rd. | 4 | Cart Girson | 375-5221 | 09/07/89 | 12/15/89 | 12/18/89 | 99 | CDJKP |
| 1641171 | 05 Mickelson Rd. | 5 |  |  | 09/07/89 | 12/07/89 | 12/19/89 | 91 | BNP |
| 1641176 | 06 Mickelson Rd. | 6 | S. Allord |  | 09/07/89 | 12/07/89 | 12/12/89 | 91 | BCJNP |
| 1641193 | 33 Pine Hill Pd. | 33 | Val Buckly | 275-7041 | 09/11/89 | 02/11/90 | 02/15/90 | 153 | NP |
| 1641172 | 35 Pine Hill Rd. | 35 | Nancy + Robert Harkins | 275-4471 | 09/07/89 | 12/07/89 | 01/02/90 | 91 | AKP |
| 1641175 | 35 Pine Hill Rd. | 35 | Nancy + Robert Harkins | 275-4471 | 09/07/89 | 12/07/89 | 01/02/90 | 91 | AKP |
| 1641168 | 37 Pine Hill Rd. | 37 | Tina Sexton | 275-9026 | 09/07/89 | 12/31/89 | 01/02/90 | 115 | ACDJKP |
| 1641179 | 37 Pine Hill Rd. | 37 | Tina Sexton | 275-9026 | 09/07/89 | 12/31/89 | 01/02/90 | 115 | ACDEJKP |
| 1641180 | 39 Pine Hill Rd. | 39 | Myra + Steven Wilkins | 275-5419 | 09/07/89 | 02/24/90 | 02/27/90 | 170 | DEJKP |




H Exposure < 90 days
J Exact duration of expos unknown; concentration estimated
$K$ Detector in bedroom
$L$ Detector in living room
$\mathbf{N}$ Detector location unknown
Beverly Army Housing Area
Indoor Radon Monltoring Conditions

| Dotector No. | Address | Unin No. | Occupants | Telephone No. (508) | Siart Date | End <br> Date | Recoived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 40 Laurel St. | 40 |  |  |  |  |  |  | [ ND ] |
| 0 | 41 Laurel St. | 41 |  |  |  |  |  |  | [ND] |
| 1645807 | 42 Laurel St. | 42 | William Simons | 921-0219 | 09/06/89 | 12/21/89 | 01/02/90 | 106 | KP |
| 0 | 43 Laurel St. | 43 |  |  |  |  |  |  | [ND] |
| 0 | 44 Laurel St. | 44 |  |  |  |  |  |  | [ND] |
| 1645817 | 45 Laurel St. | 45 | Tony + |  |  |  |  |  |  |
|  |  |  | Tammy Anderson | 921-1228 | 09/06/89 | 02/05/90 | 02/08/90 | 152 | KP |
| 0 | 46 Laurel St. | 46 |  |  |  |  |  |  | [ ND ] |
| 1645793 | 47 Laurel St. | 47 | Roger Koble | 922-9202 | 09/08/89 | 12/09/89 | 12/12'89 | 92 | BCDEJKP |
| 1645773 | 48 Laurel St. | 48 | Hice Beverty | 927-5400 | 09/06/89 | 12/09/89 | 12/12/89 | 94 | D JKP |
| 0 | 49 Laurel St. | 49 |  |  |  |  |  |  | [ND] |
| 1645808 | 50 Laurel St. | 50 | Linda Davis (Jerry) | 927-8240 | 09/06/89 | 10/04/89 | 10/09/89 | 28 | EHKP |
| 1642311 | 51 Laurel St. | 51 | Martin McCall | 927-2086 | 09/06/89 | 03/07/90 | 03/13/90 | 182 | KP |
| 0 | 52 Laurel St. | 52 |  |  |  |  |  |  | [ND] |
| 0 | 53 Laurel St. | 53 |  |  |  |  |  |  | [ND] |
| 1645810 | 54 Laured St. | 54 | Cathy Greenteaf | 922-3076 | 09/06/89 | 12/15/89 | 12/18/89 | 100 | ADJKP |
| 1645809 | 54 Laurel St. | 54 | Cathy Greenleaf | 922-3076 | 09/06/89 | 12/15/89 | 12/18/89 | 100 | ADJKP |
| 1645800 | 55 Laurel St. | 55 |  |  | 09/07/89 | 01/15/90 | 01/18/90 | 130 | BCDEJKP |

akey to Remarks:

Burlington Army Housing Area Indoor Radon Monitoring Conditions

| Burlington Army Housing Area Burlington, Massachusetts 01803 Indoor Radon Monltoring Conditions |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Destector No. | Address | Unit No. | Occupants | Telephone No. (617) | $\begin{aligned} & \text { Sart } \\ & \text { Dato } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Peccived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
|  | 113 South Bodford | 113 |  |  |  |  |  |  | [ND] |
| 1641198 | 115 South Bedford | 115 | Shirley Bell | 272-6182 |  | $01 / 19 / 90$ | $01 / 22 / 90$ | 134 | CDJKQ |
| 1641184 | 117 South Bedford | 117 | SGT Barry W. Sill | 273-1734 | 09/07/89 | $12 / 20 / 89$ | $01 / 02 / 90$ | 104 | KQ |
| 1641181 | 119 South Bedford | 119 | John Wescott | 272-2863 | 09/07/89 |  |  |  | AKO[NR] |
| $1641201$ | 119 South Bedford | 119 | John Wescott | 272-2863 | 09/07/89 |  |  |  | AKO[NR] |
| $1641167$ | 121 South Bedford | 121 | Linda Michael | 273-4323 | 09/07/89 | 01/14/90 | 01/17/90 | 129 | CDJKQ |
| $\begin{array}{r} 1641163 \\ 0 \end{array}$ | 123 South Bedford 125 South Bedford | $\begin{aligned} & 123 \\ & 125 \end{aligned}$ | Jody + Raland Hart | 273-4663 | 09/07/89 | 01/14/90 | $01 / 17 / 90$ | 129 | $\begin{aligned} & \text { DEJKO } \\ & \text { [ND] } \end{aligned}$ |
| 0 0 | 127 South Bedford <br> 129 South Bodiord | 127 129 |  |  |  |  |  |  | $\begin{aligned} & \text { [ND] } \\ & \text { (ND] } \end{aligned}$ |
| $\begin{array}{r} 1641192 \\ 0 \end{array}$ | 131 South Bedford 133 South Bedford | $\begin{aligned} & 131 \\ & 133 \end{aligned}$ | Brigtitte Dietter | 229-1155 | 09/07/89 | 12/31/89 | 01/02/90 | 115 | CDJKQ [ND] |
| 0 | 135 South Bedford | 135 |  |  |  |  |  |  | [ND] |

aKey to Remarks:
A Duplicale detectors
C Starting date unknown
E Detector received with no seal
G Unoccupied house

Hull Army Housing Area
Hull, Massachusetts 02045
Indoor Radon Monitoring Conditions

| Detactor <br> No. | Adtress |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



| Datector No. | Address | Unit No. | Occupants | Tetephone No. (617) | Sart Data | End Date | Received Dale | Duraitin (day:.) | Promarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 294 Caste Rd. | 294 |  |  |  |  |  |  | [ND] |
| 1645782 | 296 Caste Rd. | 296 | Barbara Hannon | 593-6461 | 09/06/89 |  |  |  | K O (NR] |
| 1645772 | 298 Castle Rd. | 298 | Renee Flesher | 593-3257 | 09/06/89 | 12/16/89 | 12/19/8! | 101 | DEJKO |
| 1645783 | 300 Castle Rd. | 300 | FARA Francisco Soto | 592-5223 | 09/06/89 |  |  |  | K ${ }^{\text {[ }}$ (NR] |
| 1645805 | 114 Gardiner Rd. | 114 | James Freeman | 549-0772 | 09/06/89 | 12/09/89 | 12/12/89 | 94 | CDJKQ |
| 1645781 | 116 Gardiner Rd. | 116 | Christine Fraser | 5:2-1592 | 09/05/89 | 12/09/89 | 12/12/89 | 94 | ADJKQ |
| 1645780 | 116 Gardiner Rd. | 116 | Christine Fraser | 5-2-1592 | 09/06/89 | 12/09/89 | 12/12/89 | 94 | ADJKQ |
| 1645804 | 001 Goddard Dr. | 1 | Ada King | 593-8451 | 09/06/89 | 12/24/89 | 12/27/89 | 109 | CDEJKQ |
| $\begin{array}{r} 0 \\ 1645774 \end{array}$ | 002 Goddard Dr. | 2 3 | Tong Russo | 539-4157 | 09/06/89 | 12/11/89 | 12/18/89 | 96 | [ND] EKO |
| 1645 | 004 Goddard Dr. | 4 | Tong Ausso | 539-4157 | 09/06/89 | 12/11/89 | 12/18/89 | 96 | [ND] |
| 0 | 005 Goddard Dr. | 5 |  |  |  |  |  |  | [ND] |
| 1645812 | 006 Goddard Dr. | 6 |  |  | 09/06/89 |  |  |  | K O [NR] |

aKey to Remarks:

[^4] C Starting date unknown E Detector received with no seal F Unoccupied h
Randolph Army Housing Area
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Denector } \\ & \text { No. } \end{aligned}$ | Adtress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Ocoupants | Telephone No. (617) | $\begin{gathered} \text { Start } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Datso } \end{aligned}$ | Received <br> Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645822 | 01 Army St. | 01 | Richard Bethoney | 986-5415 | 09/07/89 | 12/19/89 | 12/22/89 | 103 | CDJKP |
| 1641190 | 02 Army St. | 02 | Hector Castellano | 986-8734 | 09/07/89 |  |  |  | AKP [ NR ] |
| 1641162 | 02 Army St. | 02 | Hector Castellano | 986-8734 | 09/07/89 | 01/23/90 | 01/26/90 | 138 | AKP |
| 1641191 | 03 Army St. | 03 | Victor + Kelly Herrera | 961-5038 | 09/07/89 | 12/09/89 | 12/12/89 | 93 | DJKP |
| 0 | 04 Army St. | 04 |  |  |  |  |  |  | [ ND$]$ |
| 1641195 | 05 Army St. | 05 | Jose Barbosa | 963-5307 | 09/07/89 | 01/08/90 | 02/19/90 | 123 | EKP |
| 1643099 | 06 Army St. | 06 | William Janey | 986-0125 | 09/07/89 | 12/09/89 | 12/12/89 | 93 | DEJKP |
| 0 | 07 Army St. | 07 |  |  |  |  |  |  | [ND] |
| 1641173 | 08 Army St. | 08 | Sharon + |  |  |  |  |  |  |
|  |  |  | Peler Hiemstra | 986-0138 | 09/07/89 | 12/08/89 | 12/12/89 | 92 | DJKP |
| 0 | 09 Army St. | 09 |  |  |  |  |  |  | [ND] |
| 1645778 | 10 Army St. | 10 | Fred + Robin Campbell | 961-4216 | 09/07/89 | 12/15/89 | 12/18/89 | 99 | DJKP |
| 1641183 | 11 Army St. | 11 | Thomas White | 963-8002 | 09/07/89 | 02/07/90 | 02/14/90 | 153 | KP |
| 1645770 | 12 Army St. | 12 | Angela D. Carter | 963-5945 | 09/07/89 | 12/15/89 | 12/18/89 | 99 | CDEJKP |
| 1641158 | 13 Army St. | 13 | Mr.+ Mrs. Lodge | 963-5204 | 09/07/89 | 12/15/89 | 12/18/89 | 99 | DEJKP |
| 0 | 14 Army St. | 14 |  |  |  |  |  |  | [ND] |
| 1643094 | 15 Army St. | 15 |  | 961-4741 | 09/08/89 | 12/07/89 | 01/02/90 | 90 | BENP |
| 1641177 | 16 Army St. | 16 | Travis Welden | 963-8938 | 09/07/89 | 03/10/90 | 03/13/90 | 184 | CJKP |

akey to Remarks:

| P | Capehart home |
| ---: | :--- |
| Q | MCA home |
| R | Duplex (one-story) home |
| S | Duplex (multistory) home |
| T | Apartment building |
| U | Below detection limit |
| [ND] | No data |
| [NR] | Not returned |

Swansea Army Houslng Area Indoor Radon Monitoring Conditions

| $\begin{aligned} & \text { Detectior } \\ & \text { No. } \end{aligned}$ | Address | $\begin{aligned} & \text { Unin } \\ & \text { No. } \end{aligned}$ | Oocupants | Telephone No. (508) | $\begin{aligned} & \text { Seart } \\ & \text { Dats } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | fecerived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} 1644330 \\ 0 \end{array}$ | 01 Missile Loop 02 Missile Loop | 01 02 | Chyd Troxell | 675-8607 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | CDJKP <br> [ND] |
| 1644331 | 03 Missile Loop | 03 | Cynthia Shaglor (Grant) | 677-9805 | 09/08/89 | 03/10/90 | 03/13/90 | 183 | KP |
| 1644327 | 04 Missile Loop | 04 | Mayra Fuentes | 673-1996 | 09/08/89 | 12/09/89 | 12/12/89 | 92 | CDEJKP |
| 0 | 05 Missile Loop | 05 |  |  |  |  |  |  | [ND] |
| 1643095 | 06 Missile Loop | 06 |  |  | 09/08/89 | 12/31/89 | 01/02/90 | 114 | CDJKP |
| $\begin{array}{r} 1643090 \\ 0 \end{array}$ | 07 Missile Loop 08 Missile Loop | 07 08 | Mark + Kathy Moriarty | 678-2598 | 09/08/89 |  |  |  | $K P[N R]$ [ND] |
| 1643078 | 09 Missile Loop | 09 | Linda White | 677-1808 | 09/08/89 |  |  |  | KP [ NR ] |
| 0 | 10 Missile Loop | 10 |  |  |  |  |  |  | [ND] |
| 1644333 | 11 Missile Loop | 11 | Debbie Cassidy |  | 09/08/89 | 12/15/89 | 12/18/89 | 98 | DJKP |
| 0 | 12 Missile Loop | 12 |  |  |  |  |  |  | [ND] |
| 0 | 13 Missile Loop | 13 |  |  |  |  |  |  | [ND] |
| 0 | 14 Missile Loop | 14 |  |  |  |  |  |  | [ND] |
| 0 | 15 Missile Loop | 15 |  |  |  |  |  |  | [ND] |
| 0 | 16 Missile Loop | 16 |  |  |  |  |  |  | [ND] |



Topsiteld Army Housing Area Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Detactor } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | Ocoupants | Telephone No. (508) | $\begin{gathered} \text { Seart } \\ \text { Damat } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Peceived Dato | Duation (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645786 | 01 Nike Village | 01 | Mararita Hemadez | 887-8827 | 09/06/89 | 12/06/89 | 12/12/89 | 91 | K P |
| 1645813 | 02 Nike Village | 02 | Bob Colpits | 887-8106 | 09/06/89 | 12/10/89 | 12/13/89 | 95 | DEJKP |
| 1645816 | 03 Nike Village | 03 | Deborah Wheeler | 887-2582 | 09/06/89 | 01/02/90 | 01/05/90 | 118 | DJKP |
| 1645795 | 04 Nike Village | 04 | Donald Perkins | 887-5068 | 09/06/89 |  |  |  | K P [ NR ] |
| 1645794 | 05 Nike Village | 05 | James Drestling | 887-2649 | 09/06/89 | 12/10/89 | 12/13/89 | 95 | DJKP |
| 1645792 | 06 Nike Village | 06 | John M. Christopher | 887-6302 | 09/06/89 | 01/31/90 | 02/05/90 | 147 |  |
| 0 | 07 Nike Village | 07 |  |  |  |  |  |  | [ ND$]$ |
| 1645790 | 08 Nike Village | 08 | David Hoover | 887-3401 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | BEKP |
| 1645815 | 09 Nike Village | 09 | Julie Bushell | 887-9022 | 09/11/89 | 01/05/90 | 01/08/90 | 116 | BDJKP |
| 1645802 | 10 Nike Village | 10 | Debra Buffinton | 887-3218 | 09/06/89 |  |  |  | KP [NR] |
| 1645801 | 11 Nike Village | 11 | Carol Fortin | 887-9873 | 09/06/89 | 12/15/89 | 12/18/89 | 100 | DJKP |
| 1645820 | 12 Nike Village | 12 | Marla Keeton | 887-3523 | 09/06/89 | 12/05/89 | 12/08/89 | 90 | DJKP |
| 1645788 | 13 Nike Village | 13 | Henry Hoan | 887-9376 | 09/09/89 | 12/09/89 | 12/18/89 | 91 | BKP |
| 1645814 | 14 Nike Village | 14 | Luanne SeyKora | 887-6546 | 09/09/89 | 02/06/90 | 02/12/90 | 150 | BNP |
| 1645787 | 15 Nike Village | 15 | Gary R Wallis | $887-9435$ | 09/06/89 | 02/05/90 | 02/08/90 | 152 | DEJKP |
| 0 | 16 Nike Village | 16 |  |  |  |  |  |  | [ND] |

akey to Rernarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house

akey to Remarks:
Wakefield Army Housing Area
Wakefield, Massachusetts 01880
Indoor Radon Monltoring Conditions

| Datector No. | Address | Unit No. | Ocoupants | Tetephone No. (617) | $\begin{aligned} & \text { Stert } \\ & \text { Date } \end{aligned}$ | End <br> Dats | Peccived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 091 Hopkins | 091 | Paul Anderson | 942-0412 | 09/10/89 |  |  |  | KQ [NP] |
| $1644320$ | 099 Hopkins | 099 | Ted Achorn |  | 09/10/89 | 01/12/90 | 01/15/90 | 124 | DEJKQ |
| 1644326 | 107 Hopkins | 107 | P. Morisseau | 942-1671 | 09/10/89 | 12/30/89 | 01/05/90 | 111 | BCJNQ |
| 1643085 | 002 Torrance | 02 | Carl Grover | 944-5709 | 09/10/89 | 12/10/89 | 12/13/89 | 91 | KO |
| 1643070 | 006 Torrance | 06 | Robert Gunther | 944-1889 | 09/10/89 | 12/10/89 | 12/13/89 | 91 | KO |
| 1643079 | 007 Torrance | 07 | Joe Hernandez | 944-9670 | 09/10/89 | 12/17/89 | 12/22/89 | 98 | KO |
| 1643092 | 010 Torrance | 10 | David Holliger | 944-7617 | 09/10/89 | 12/10/89 | 12/18/89 | 91 | KO |
| 1643089 | 011 Torrance | 11 | SFC Pivera \& Family | 942-2143 | 09/13/89 | 12/31/89 | 01/03/90 | 109 | KO |
| $1643081{ }^{0}$ | 012 Torrance | 12 |  |  |  |  |  |  | (ND) |
| 1643081 | 015 Torrance | 15 | Rick Young | 942-0417 | 09/10/89 | 12/15/89 | 12/18/89 | 96 | DJKO |
| 1642332 | 016 Torrance | 16 | Donna Pendergrass | 942-0089 | 09/10/89 | 12/31/89 | 01/02/90 | 112 | DJKO |
| 1644337 | 020 Torrance | 20 |  |  | 09/10/89 | 12/1:/89 | 12/18/89 | 96 | BDJNQ |

aKey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
Frankiln Lakes Army Housing Area Frankin Lakes, New Jersey

| Detector <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Duplicate detectors | H Exposure < 90 days | P | Capehart home |
| :---: | :---: | :---: | :---: |
| Detector placed by occupant of DEH | J Exact duration of exposure | 0 | MCA home |
| Starting date unknown | unknown; concentration estimated | $R$ | Duplex (one-story) home |
| Ending date unknown | $K$ Detector in bedroom | S | Duplex (multistory) home |
| Detector received with no seal | L Detector in living room | T | Apantment building |
| No data sheet | M Detector in kitchen | U | Below detection limit |
| Unoccupiec house | N Detector location unknown | [ NO ] | No data |

Holmdel Army Housing Area
Holmdel, New Jersey 07733
Hoimdel, New Jersey 07733
Indoor Radon Monltoring Conditions

| Detector No. | Address | Unit No. | Ocoupants | Telephone No. (201) | $\begin{gathered} \text { Sart } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Reccived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645885 | 201 Telegraph Rd. | 201 | Mr. + Mrs. Fortune | 264-2367 | 09/11/89 | 12/12/89 | 12/18/89 | 92 | LP |
| 1643641 | 202 Telegraph Rd. | 202 | Mr.+ Mrs. Cruz-Roman | 739-0544 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | LP |
| 1643238 | 203 Telegraph Rd. | 203 | Mr.+ Mrs. Glenn Davis | 264-5560 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DJLP |
| 1647467 | 204 Telegraph Rd. | 204 | Mr.+ Mrs. D'Angelo | 264-2943 | 09/11/89 | 12/17/89 | 12/27/89 | 97 | LP |
| 1643662 | 205 Telegraph Rd. | 205 | Mr. James Hayes |  |  |  |  |  | NP[NR] |
| 1643240 | 206 Telegraph Rd. | 206 | Mr.+ Mrs. Marzella | 264-9183 | 09/11/89 | 12/19/89 | 12/27/89 | 99 | AKP |
| 1643244 | 206 Telegraph Rd. | 206 | Mr.+Mrs. Marzella | 264-9183 | 09/11/89 | 12/19/89 | 12/27/89 | 99 | AKP |
| 1643640 | 207 Telegraph Rd. | 207 | Mr.+ Mrs. Weber | 264-2358 | 09/11/89 | 12/01/89 | 12/04/89 | 81 | LP |
| 1645884 | 208 Telegraph Rd. | 208 | Unoccupied |  |  |  |  |  | BGNP[NR] |
| 1643242 | 209 Telograph Rd. | 209 | Mr.+ Mrs. Witts | 739-4397 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DEJLP |
| 1643247 | 210 Telegraph Rd. | 210 | Mr.+ Mrs. Flemm | 739-6864 | 09/11/89 | 02/16/90 | 02/23/90 | 158 | LP |
| 1643241 | 211 Telegraph Rd. | 211 | Mr. Mrs. <br> Munoz-Mereno | 739-3489 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | LP |
| 1643649 | 212 Telegraph Rd. | 212 | Mr. + Mrs. Adams | 888.0239 | 09/11/89 | 12/15/89 | 03/16/90 |  | LP |

aKey to Remarks:

[^5]East Hanover Twp., New Jersey 07936

| Cetector No. | Address | Unit No. | Occupants | Telephone No. (201) | $\begin{aligned} & \text { Start } \\ & \text { Dato } \end{aligned}$ | End <br> Das | Received Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643670 | 201 Hornung Ct. | 01 | Joanne Lindahl |  |  |  |  |  | BNP [NP] |
| 1643243 | 202 Hornung Ct. | 02 | Mr.+ Mrs. Smith | 428-9487 | 09/12/89 | 12/05/89 | 12:22/89 | 84 | HLP |
| 1645434 | 203 Hornung Ct. | 03 | Mr.+ Mrs. Phillips | 503-0705 | 09/12/89 | 12/19/89 | 12/27/89 | 98 | LP |
| 1645439 | 204 Hornung Ct. | 04 | Mr.+ Mrs. Crews | 884-0567 | 09/12/89 | 02/06/90 | 02/09/90 | 147 | DELP |
| 1643663 | 205 Hornung Ct . | 05 | Mr.+ Mrs. Urtiaga | 515-3540 | 09/12/89 |  |  |  | LP (NR) |
| 1643675 | 206 Hornung Ct. | 06 | Mrs. Annette Nash | 386-9178 | 09/12/89 | 12/13/89 | 12/18/89 | 92 | LP |
| 1645427 | 207 Hornung Ct. | 07 | Mr.+ Mrs. Lowis | 503-0741 | 09/12/89 | 12/19/89 | 12/27/89 | 98 | LP |
| 1645925 | 208 Hornung Ct. | 08 | Mr.+ Mrs. Mosely | 887-4613 | 09/12/89 | 12/19/89 | 12/27/89 | 98 | LP |
| 1645900 | 209 Hornung Ct . | 09 | Mr.+ Mrs. Rodriguez | 386-9656 | 09/12/89 |  |  |  | LP [NR] |
| 1643661 | 210 Hornung Ct . | 10 | Lyle Daniels |  |  |  |  |  | B N P [NR] |
| 1645898 | 211 Hornung Ct. | 11 | Mr.+ Mrs. Timothy Grix | 887-9370 | 09/12/89 |  |  |  | LP [NR] |
| 1645926 | 212 Hornung Ct . | 12 | Mr.+ Mrs. Gutiertez | 684-8890 | 09/12/69 |  |  |  | $L P(N A]$ |
| 1645908 | 213 Hornung Ct . | 13 | Aaron Hall |  |  |  |  |  | $B N P[N R]$ |
| 1645423 | 214 Hornung Ct. | 14 | Mr.+ Mrs. Jordan | 503-1493 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | LP |
| 1645426 | 215 Hornung Ct . | 15 | Mr.+ Mrs. Kenific | 503-0241 | 09/12/89 | 12/12/89 | 12/27/89 | 91 | KP |
| 1643245 | 216 Hornung Ct. | 16 | Unoccupied |  |  |  |  |  | GNP [NR] |
| 1643246 | 217 Hornung Ct . | 17 | Edward Porter |  |  |  |  |  | BNP [NR] |
| 1643674 | 218 Hornung Ct . | 18 | Mr.+ Mrs. Diaz | 884-0390 | 09/12/89 | 02/06/90 | 02/12/90 | 147 | ALP |
| 1643660 | 218 Hornung Ct . | 18 | Mr.+ Mrs. Diaz | 884-0390 | 09/12/89 | 02/06/90 | 02/12/90 | 147 | ALP |
| 1645902 | 219 Hornung Ct. | 19 | Edward Quigley |  |  |  |  |  | BNP[NR] |
| 1645923 | 220 Hornung Ct . | 20 | Mr.+ Mrs. Smith, Jr. | 428-1078 | 09/12/89 | 12/19/89 | 12/27/89 | 98 | LP |
| 1645432 | 221 Hornung Ct. | 21 | Mr.+Mrs. Burton | 515-0846 | 09/12/89 |  |  |  | ALP [NR] |
| 1645920 | 221 Hornung Ct. | 21 | Mr.+ Mrs. Burton | 515-0846 | 09/12/89 | 12/22/89 | 12/27/89 | 101 | AELP |
| 1645922 | 222 Hornung Ct . | 22 | Mr. + Mrs. J. Latour | 503-0904 | 09/12/89 | 01/13/90 | 01/16/90 | 123 | ADJLP |

## akey to Remarks:

A Duplicate detectors C Starting date unknown

D Ending date unknown Detector receiv

G Unoccupied house

Capehart home MCA home
Duplex (one-story) home
Duplex (multistory) home Duplex (multistory) hom Below delection limit No data
Not returne
Llvingston Army Housing Area (Conl'd)
Indoor Radon Monitoring Condilions

| Donector No. | Adtress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Ocapants | Telephone No. (201) | $\underset{\text { Dasto }}{\text { Start }}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Hoceived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645911 | 222 Hornung Ct . | 22 | Mr.+ Mrs. J. Labur | 503-0904 | 09/12/89 | 01/12/90 | 01115/90 | 122 | ADJLP |
| 1645919 | 223 Hornung Ct . | 23 | Mr. Mrs. McCain | 884-1530 | 09/12/89 | 12/31/89 | 01/02/90 | 110 | DJMP |
| 1645431 | 224 Hornung Ct . | 24 | Mr. + Mrs. Chas. Jandik | 884-1584 | 09/12/89 | 12/26/89 | 01102/90 | 105 |  |
| 1645428 | 225 Hornung Ct . | 25 | Mr. + Mrs. Ronald Silas | 887-6478 | 09/12/89 |  |  |  | LP [ NR ] |
| 1645928 | 226 Hornung Ct. | 26 | Mr.+ Mrs. L.C. Lane | 884 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | CD |
| 1645430 | 227 Hornung Ct . | 27 | Mr. Mrs . Grunert | 503-1363 | 09/12/89 | 12/22/89 | 12/27/89 | 101 |  |
| 1645910 | 228 Hornung Cl . | 28 | Unoccupied |  |  |  |  |  | BGNP(NR) |
| 1643669 | 229 Hornung Ct . | 29 | Charles Shores |  | 09/13/89 | 01/25/90 | 01/29/90 | 134 | BENP |
| 1647473 | 230 Hornung Ct . | 30 | Mr. Mrs. Fitzpatick | 386-1338 | 09/12/89 | 12/15/89 |  | 94 | DEJ |
| 1645918 | 231 Hornung Ct . | 31 | Mr.+ Mrs. Podaski | 428-5193 | 09/12/89 | 12/13/89 | 12/22/89 | 92 |  |
| 1645422 | 232 Hornung Ct . | 32 | Mr. + Mrs. Walter Hill | 515-0133 | 09/12/89 | 12/16/89 | 12/27/89 | 95 | LP |


Old Bridge Army Housing Area
Old Brldge, New Jersey 08857
ndoor Radon Monitoring Conditions

| Detectior No. | Adtress | Unit No. | Ocoupants | Telephone No. (201) | $\begin{gathered} \text { Sart } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recoived Date | Duraion (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643237 | 201 Jake Brown Rd. | 201 | Mr.+ Mrs. Talbert | 679-1780 | 09/11/89 | 01/14/90 | 02/27/90 | 125 | ENP |
| 1645424 | 202 Jake Brown Rd. | 202 | Unoccupied |  |  |  |  |  | B GNP [NR] |
| 1645906 | 203 Jake Brown Rd. | 203 | Mr.+ Mrs. Jerry Haris | 679-7747 | 09/13/89 | 12/17/89 | 12/27/89 | 95 |  |
| 1645904 | 204 Jake Brown Rd. | 204 | Mrs. Ella Siowart | 679-1748 | 09/13/89 | 12/24/89 | 12/27/89 | 102 | DEJKP |
| 1643638 | 205 Jake Brown Rd. | 205 | Mrs. Lillie Batte | 679-6166 | 09/11/89 |  |  |  | ALP ${ }^{\text {(NR }}$ ] |
| 1643656 | 205 Jake Brown Rd. | 205 | Mrs. Lillie Barte | 679-6166 | 09/11/89 |  |  |  | ALP $\left.{ }^{\text {dR }}\right]$ |
| 1645929 | 206 Jake Brown Rd. | 206 | Mrs. Caeserine Brown | 679-9127 | 09/13/89 |  |  |  | NP [NR] |
| 1643639 | 207 Jake Brown Rd. | 207 | Mr.+ Mrs. Kennell | 679-7264 | 09/11/89 | 01/12/90 | 01/15/90 | 123 | DJLP |
| 1645429 | 208 Jake Brown Rd. | 208 | Mr. + Mrs. Scarnat | 679-6039 | 09/13/89 |  |  |  | LP (NR) |
| 1643239 | 209 Jake Brown Rd. | 209 | Mr. + Mrs. Munkacsy | 679-4153 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | DJKP |
| 1643236 | 210 Jake Brown Rd. | 210 | Mr.+ Mrs. Johnson | 679-8515 | 09/11/89 | 12/11/89 | 12/18/89 | 91 | KP |
| 1643655 | 211 Jake Brown Rd. | 211 | Mr.+ Mrs. Tatro | 679-9490 | 09/11/89 | 12/16/89 | 12/19/89 | 96 | DJLP |
| 1645438 | 212 Jake Brown Rd. | 212 | Mr.+ Mrs. Houde | 679-0283 | 09/13/89 | 03/04/90 | 03/07/90 | 172 | DJLP |

aKey to Remarks:

Dry Hill Army Housing Area
Indoor Radon Monltoring Conditions

| Detactor No | Adtress | Unit No. | Ouapant | Telephone No. (315) | $\begin{aligned} & \text { Seart } \\ & \text { Dala } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recceived Date | $\begin{aligned} & \text { Duration } \\ & \text { (days) } \end{aligned}$ | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641567 | 239 Coughlan Dr. | 239 | E3 Scott |  | 09/14/89 | 10/23/89 | 10/25/89 | 39 | AHKP |
| 1643443 | 239 Coughlan Dr. | 239 | E3 Scott |  | 09/14/89 | 10/23/89 | 10/25/89 | 39 | AHKP |
| 1643439 | 240 Coughlan Dr. | 240 | E7 Couch | 788-6063 | 09/14/89 | 12/14/89 | 12/18/89 | 91 |  |
| 1641530 | 241 Coughlan Dr. | 241 | E8 Merryman | 782-0724 | 09/14/89 | 12/30/89 | 01/05/90 | 107 | K $P$ |
| 1643452 | 235 Delavan Ave. | 235 | E5 Brown | 782-2090 | 09/14/89 | 01/12/90 | 01/15/90 | 120 | DEJKP |
| 1643450 | 236 Delavan Ave. | 236 | SGT Peala | 785-1020 | 09/14/89 | 12/24/89 | 01/05/90 | 101 |  |
| 0 | 237 Delavan Ave. | 237 |  |  |  |  |  |  | [ND] |
| 1641564 | 238 Delavan Ave. | 238 | E5 McGill | 785-1915 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | K P |
| 1643413 | 242 Delavan Ave. | 242 | E5 Patton | 782-4583 | 09/14/89 | 12/31/89 | 01/02/90 | 108 | DEJKP |
| 1641542 | 243 Delavan Ave. | 243 | MSG Yates | 788-3739 | 09/14/89 | 02/05/90 | 02/09/90 | 144 |  |
| 1641561 | 232 Rathburn Dr. | 232 | E5 Davis | 785-9404 | 09/14/89 |  |  |  | KP [ NR ] |
| 1643444 | 233 Rathburn Dr. | 233 | E6 Rowley | 782-1907 | 09/14/89 | 12/21/89 | 12/27/89 | 98 | EKP |
| 1641528 | 234 Rathburn Dr. | 234 | SGT Morrison | 782-4964 | 09/14/89 |  |  |  | K P [ NR ] |
| 1641554 | 255 Rathbum Dr. | 255 | SGJ Ramsey | 788-2322 | 09/14/89 | 11/17/89 | 11/20/89 | 64 | DHJKP |
| 0 | 257 Rathbum Dr. | 257 |  |  |  |  |  |  | [ND] |
| 1641524 | 258 Rathburn Dr. | 258 | SP4 Fogarty |  | 09/14/89 | 12/25/89 | 12/27/89 | 102 | DJKP |
| 1641563 | 244 Reardon Ave. | 244 | E4 Cummings | 785-1091 | 09/14/89 |  |  |  | KP [NR] |
| 0 | 245 Reardon Ave. | 245 |  |  |  |  |  |  |  |
| 1643445 | 246 Reardon Ave. | 246 | SSG Everts | 788-0328 | 09/14/89 | 12/14/89 | 01/02/90 | 91 |  |
| 0 | 247 Reardon Ave. | 247 |  |  |  |  |  |  | [ND] |
| 1641565 | 248 Reardon Ave. | 248 | E8 Burt | 788-9774 | 09/14/89 | 12/19/89 | 12/22/89 | 96 | EKP |
| 1643420 | 249 Reardon Ave. | 249 | E5 Moris | 782-2172 | 09/14/89 | 12/15/89 | 12/19/89 | 92 | KP |
| 1641562 | 250 Reardon Ave. | 250 | E6 Sipla | 782-6873 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | KP |
| 1643422 | 251 Reardon Ave. | 251 | SP4 Jenks | 785-9427 | 09/14/89 | 12/12/89 | 12/18/89 | 89 | KPU |

## aKey to Remarks:

A Duplicate detectors
B Detector placed by oc
B Detector placed by occupant of DEH
C Starting date unknown Ending date unknown E Detector received with no seal

G Unoccupied house


B Detector placed by occupant of DEH

Capehart home
MCA home
MCA home
Duplex (one-story) home Duplex (multistory) home
 No data
Not returned
d


Dry Hill Army Housing Area (Cont'd)
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Detactor } \\ & \text { No. } \end{aligned}$ | Address | Unit No. | Ocoupents | Telephone No. (315) | $\underset{\text { Data }}{\text { Sart }}$ | $\begin{aligned} & \text { End } \\ & \text { Datie } \end{aligned}$ | Reccived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643419 | 252 Reardon Ave. | 252 | A5 Ramirez | 785-01 14 | 09/14/89 | 12/20/89 | 01/05/90 | 97 | $K P$ |
| 1643424 | 253 Reardon Ave. | 253 | SFC Mullins | 785-9510 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | KPU |
| 1643421 | 254 Reardon Ave. | 254 | ES Conner | 788-5025 | 09/14/89 | 12/15/89 | 12/20/89 | 92 | KP |
| 1643446 | 256 Reardon Ave. | 256 | E8 Singleton |  | 09/14/89 | 01/04/90 | 01/08/90 | 112 | KP |

aKey to Remarks:


Duplex (one-story) home
Apartment building
Below detection limit
pousmien ion
Manhattan Beach Army Housing Area
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Detactor } \\ & \text { No. } \end{aligned}$ | Actross | Unit No. | Ocoupants | Telephone No. (718) | $\begin{aligned} & \text { Start } \\ & \text { Date } \end{aligned}$ | End Date | Recaved Dale | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645462 | 115A Quentin St. | 115A | Mr.+ Mrs. Moran |  | 09/07/89 | 01/16/90 | 01/22/90 | 131 | BNS |
| 1643183 | 115B Quentin St. | $115 B$ | Mr. + Mrs. Negron | 769-4527 | 09/06/89 |  |  |  | LS [NR] |
| 1645459 | 116A Quentin St. | 116A | Mr. + Mrs. A Sosa | 891-0446 | 09/06/89 | 12/05/89 | 12/08/90 | 90 | DLSU |
| 1648220 | 116B Quentin St. | 116 B |  |  |  |  |  |  | B N S [NR] |
| 1645482 | 119A Quentin St. | 119 A | Sanchez |  |  |  |  |  | BNS[NR] |
| 1645443 | 119B Quentin St. | 119 B | Mr. + Mrs. Williams |  | 09/06/89 | 12/05/89 | 12/08/89 | 90 | CDJLSU |
| 1648172 | 120A Quentin St. | 120A | Mr.+ Mrs. Luxon | 648-2523 | 09/06/89 | 12/06/89 | 12/12/89 | 91 | LS |
| 1645475 | 1208 Quentin St. | 120B | Mr.+ Mrs. Williams | 743-6327 | 09/06/89 | 12/13/89 | 12/19/89 | 98 | LSU |
| 1648225 | 121A Quentin St. | 121A | Mr.+ Mrs. Quinones | 648-7462 | 09/06/89 |  |  |  |  |
| 1645476 | 121B Quentin St. | 121B | Gleicher | 891-8611 | 10/16/89 |  |  |  | BNS [NR] |
| 1648217 | 122A Quentin St. | 122A | Unoccupied |  | 09/06/89 |  |  |  | GLS [NR] |
| 0 | 1228 Quentin St. | 122B | Mr.+Mrs. Navratil |  |  |  |  |  | [ND] |
| 1645464 | 125A Quentin St. | 125A | Mr.+ Mrs. Bembernek | 743-9262 |  |  |  |  |  |
| 1645473 | 125B Quentin St. | 125B | Mr.+ Mrs. McLaughlin | 646-7040 | 09/06/89 | 12/09/89 | 12/12/89 | 94 | DEJLS |
| 1648219 | 126A Quentin St. | 126A | Unoccupied |  | 09/06/89 |  |  |  | GLS (NR) |
| 1648145 | 126B Quentin St. | 1268 | Mr.+ Mrs. Lounder | 743-7442 | 09/06/89 |  |  |  | LS [NR] |
| 1648213 | 129A Quentin St. | 129 A | Mr.+ Mrs. Harris | $646-8219$ | 09/06/89 |  |  |  |  |
| 1645471 | 1298 Quentin St. | 129B | Mr.+ Mrs. Adams | $646-4381$ | 09/06/89 | 12/09/89 | 12/12/89 | 94 | KS |
| 1645452 | 130A Quentin St. | 130A | Velazquez |  |  |  |  |  | BNS[NR] |
| 1648166 | 130B Quentin St. | 130B | Mr. + Mrs. Matos | 648-8591 | 09/06 3 | 12/05/89 | 12/08/89 | 90 | DJLSU |
| 1645472 | 131A Quentin St. | 131 A | Unoccupied |  | $\text { 09/C } 6 \rightarrow$ |  |  |  |  |
| 1645461 | 131B Quentin St. | $\begin{aligned} & 1318 \\ & 1324 \end{aligned}$ | Mr.+ Mrs. Herrera Mr. + Mrs. Steyer | 646-3111 | 09/心. 9 | 12/06/89 | 01/02/90 | 91 | [ND] |
| 0 1645450 | 132A Quentin St. 132B Quentin St. | $\begin{aligned} & 1324 \\ & 1328 \end{aligned}$ | Mr.+ Mrs. Steyer Lee |  |  |  |  |  | BNS [NR] |

## akey to Remarks

A Duplicate detectors
B Detector placed by occupant of DEH B Detector placed by occ C Ending date unknown E Detector received with no seal

G Unoccupied house


Manhattan Beach Army Housing Area (Cont'd)
Indoor Radon Monitoring Conditions

| Detector No. | Address | Unit No. | Occupants | Telephone No. (718) | Start <br> Date | End Date | Received Date | Duration (days) | Plemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :648158 | 157 Quentin St. | 157 | Mr. + Mrs. Senquiz | 646-7615 | 09/06/89 |  |  |  | LS [NR] |
| 1645483 | 158 Quentin St. | 158 | MAJ Manibuson |  | 09/07/89 | 12/18/89 | 01/08/90 | 102 | DJNSU |
| 1645485 | 162A Quentin St. | 162A | Roberson |  |  |  |  |  | A BNS [NA] |
| 1645449 | 162A Quentin St. | 162A | Roberson |  |  |  |  |  | A B NS[NR] |
| 1648153 | 162B Quentin St. | 162B | Mr.+ Mrs. Rivera | 769-6019 | 09/06/89 | 12/06/89 | 12/12/89 | 91 | LS |
| 1648146 | 164A Quentin St. | 164A | Robles |  |  |  |  |  | B NS [NR] |
| 1645458 | 1648 Quentin St. | 164B | Mr.+ Mrs. Gates | 646-8424 | 09/06/89 | 01/02/90 | 01/05/90 | 118 | DEJLS |
| 1648159 | 166A Quentin St. | 166A | Mr.+ Mrs. Gaddy | 769-4201 | 09/06/89 | 02/07/90 | 02/19/90 | 154 | KSU |
| 1648226 | 166B Quentin St. | 166B | Mr.+Mrs. Smart | 646-5322 | 09/06/89 |  |  |  | LS [NR] |
| 1648174 | 170A Quentin St. | 170A | Hernandez |  |  |  |  |  | BNS[NR] |
| 1648165 | 170B Quentin St. | 17CB | Mr.+ Mrs. Droney | 945-5134 | 09/06/89 | 12/04/89 | 12/07/89 | 89 | DJLS |
| 1648223 | 173A Quentin St. | 173A | Unoccupied |  | 09/06/89 |  |  |  | G LS [NR] |
| 1645478 | 173B Quentin St. | 173B | Mr.+Mrs. Sargeant | 934-6080 | 09/06/89 |  |  |  | LS [NR] |
| 1645448 | 174A Quentin St. | 174A | Unoccupied |  | 09/06/89 |  |  |  | GLS [NP] |
| 1645447 | 174B Quentin St. | 174 B | Mr.+ Mrs. Guadalupe | 646-1787 | 09/06/89 | 12/05/89 | 12/08/89 | 90 | DLS |
| 1648152 | 175A Quentin St. | 175A | Unoccupied |  | 09/06/89 |  |  |  | A GLS [NA] |
| 1648160 | 175A Quentin St. | 175A | Unoccupied |  | 09/06/89 |  |  |  | A G LS [NR] |
| 1648161 | 175B Quentin St. | 175B | Mr.+Mrs. Halvorsen | 934-0991 | 09/06/89 | 12/06/89 | 12/08/89 | 91 | LS |
| 1648154 | 176A Quentin St. | 176A | Unoccupied |  | 09/06/89 |  |  |  | GLS [NR] |
| 1645451 | 176B Quentin St. | 1768 | Unoccupied |  | 09/06/89 |  |  |  | GLS (NR] |
| 1643181 | 177A Quentin St. | 177A | Roach/ |  |  |  |  |  |  |
| 1648173 | 177B Quentin St. | 177B | Brown |  | 10/29/89 | 02/19/90 | 02/26/90 | 113 | BNS |
| 1648170 | 178A Quentin St. | 178A | Mr.+ Mrs. Stankiewicz | 743-0807 | 09/06/89 | 12/28/89 | 01/25/90 | 113 | LSU |
| 1645463 | 178B Quentin St. | 178B | Kintchen |  |  |  |  |  | BNS [NR] |
| 1648163 | 181A Quentin St. | 181A | Mr.+Mrs. Valentin | 891-6530 | 09/06/89 | 12/09/89 | 12/12/89 | 94 | DJLSU |
| 1648224 | 181B Quentin St. | 181B | Vasquez |  |  |  |  |  | B N S [NR] |
| 1648137 | 182A Quentin St. | 182A | Mr.+ Mrs. Gonzalez | 891-1051 | 09/06/89 | 02/06/90 | 02/12/90 | 153 | LSU |
| 1648157 | 182B Quentin St. | 182 B | Unoccupied |  | 09/06/89 |  |  |  | G LS [NR] |

[^6]akey to Remarks:
Rocky Point Army Housing Area
Rocky Polnt, Now York 11786
Indoor Radon Monitorling Condilions

| Defisctor No. | Address | Unit No. | Oocupants | Telephone No. (516) | Start | End Dato | Peceived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645453 | 01 Defense Hill Rd. | 01 | Mr.+ Mrs. Shultz | 929-3941 | 09/07/89 |  |  |  | L. P [NR] |
| 1645474 | 02 Detense Hill Rd. | 02 | Mr.+ Mrs. Esposito | 929-4498 | 09/07/89 | 12/06/89 | 12/12/89 | 90 | LP |
| 1645487 | 03 Defense Hill Rd. | 03 | Unoccupied |  | 09/07/89 |  |  |  | GKP [ NR$]$ |
| 1645468 | 04 Defense Hill Rd. | 04 | Mr.+ Mrs. Zingery | 929-6373 | 09/07/89 | 12/07/89 | 12/12/89 | 91 | LP |
| 1643184 | 05 Defense Hill Rd. | 05 | Mr.+ Mrs. Perry | 929-3668 | 09/07/89 | 12/10/89 | 12/18/89 | 94 | ALP |
| 1645465 | 05 Defense Hill Rd. | 05 | Mr.+ Mrs. Perry | 929-3668 | 09/07/89 | 12/10/89 | 12/18/89 | 94 | ALP |
| 1645481 | 06 Defense Hill Rd. | 06 | Mr.+ Mrs. Adams | 929-4569 | 09/07/89 | 12/09/89 | 12/12/89 | 93 | DJLP |
| 1645454 | 07 Defense Hill Rd. | 07 | Mr. + Mrs. O' Brien | 929-6980 | 09/07/89 |  |  |  | LP [NR] |
| 1645469 | 08 Defense Hill Rd. | 08 | Mr. + Mrs. Chatman | 929-6537 | 09/07/89 | 12/18/89 | 12/27/89 | 102 | KP |
| 1645480 | 09 Defense Hill Rd. | 09 | Mr.+ Mrs. Bowyer | 929-5826 | 09/07/89 |  |  |  | $L P[N R]$ |
| 1645456 | 10 Defense Hill Rd. | 10 | Mr. + Mrs. Johnson | 929-4970 | 09/07/89 |  |  |  | $L P(N R]$ |
| 1648148 | 11 Defense Hill Rd. | 11 | Mr.+ Mrs. Pierce | 929-5472 | 09/07/89 | 12/18/89 | 12/22/89 | 102 | LP |
| 1645467 | 12 Defense Hill Rd. | 12 | Mr.+ Mrs. Oropez | 929-5820 | 09/07/89 | 02/07/90 | 02/14/90 | 153 | LP |
| 1648144 | 13 Defense Hill Rd. | 13 | Mr.+ Mrs. Rickoff | 929-3659 |  |  |  |  | B N P [NR] |
| 1645479 | 14 Defense Hill Rd. | 14 | Mr. + Mrs. Radlein | 929-5697 | 09/07/89 | 12/08/89 | 12/12/89 | 92 | KP |
| 1645441 | 15 Defense Hill Rd. | 15 | Mr.+ Mrs. Bottone | 929-5812 |  |  |  |  | B N P [NR] |
| 1645466 | 16 Deiense Hill Rd. | 16 | Mr.+ Mrs. Delgado | 929-6154 | 09/07/89 | 12/08/89 | 12/22/89 | 92 | LP |



## akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
Ending date unknown
Detector received with no seal
No data sheet
G Unoccupied house
Spring Valley Army Housing Area
indoor Radon Monitoring Conditions

| Detrector No． | Address | Unit No． | Occupants | Tetephone No．（914） | $\begin{aligned} & \text { Start } \\ & \text { Datier } \end{aligned}$ | End Date | Received Date | Duration （days） | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645889 | 201 Grandview Ave． | 201 | Unoccupied |  | 09／08／89 | 02／10／90 | 02／14／90 | 155 | GKP |
| 1645886 | 202 Grandview Ave． | 202 | Isaacs |  |  |  |  |  | E N P［NR］ |
| 1645873 | 203 Grandview Ave． | 203 | Mr．＋Mrs．Harvey | 354－2460 | 09／08／89 | 12／24／89 | 12／27／89 | 107 | DJKP |
| 1645888 | 204 Grandview Ave． | 204 | Mr．＋Mrs．Wilsey | 354－8034 | 09／08／89 |  |  |  | K P［NR］ |
| 1647465 | 205 Grandview Ave． | 205 | Mr．＋Mrs．Stukes | 354－1159 | 09／09／89 |  |  |  | $A L P(N P]$ |
| 1647469 | 205 Grandviow Ave． | 205 | Mr．＋Mrs．Stukes | 354－1159 | 09／09／89 | 12／16／89 | 12／27／89 | 98 | ALP |
| 1647466 | 206 Grandviow Ave． | 206 | Mr．＋Mrs．Venzor | 354－5195 | 09／09／89 | 12／10／89 | 12／18／89 | 92 | LP |
| 1645890 | 207 Grandviow Ave． | 207 | Mr．＋Mrs．Kushner | 362－3157 | 09／09／89 | 01／09／90 | 01／12／90 | 122 | DJLP |
| 1645872 | 208 Grandview Ave． | 208 | Mr．＋Mrs．Shook | 362－1899 | 09／08／89 | 02／08／90 | 02／19／90 | 153 | LP |
| 1647470 | 209 Grandviow Avo． | 209 | Mr．＋Mrs．Morales |  | 09／09／89 | 01／03／90 | 01／17／90 | 116 | BNPU |
| 1645870 | 210 Grandview Ave． | 210 | Mr．＋Mrs．Garay | 362－1848 | 09／08／89 | 02／09／90 | 02／23／90 | 154 | NP |
| 1647475 | 211 Grandview Ave． | 211 | Mr．+ Mrs．Uson |  |  |  |  |  | B N P［NR］ |
| 1645863 | 212 Grandview Ave． | 212 | Mr．＋Mrs．Perez | 354－9851 | 09／09／89 | 02／08／90 | 02／19／90 | 152 | LP |

aKey to Remarks：
A Duplicate detectors
B Delector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet

Capehart home
MCA home
Muplex（one－story）home
Duplex（one－story）home
Duplex（multistory）home
Apartment building
Apartment building
Below detection limit


ロのヘットコ


G Unoccupied house
Tappan Army Housing Area
Indoor Rujon Monitoring Conditions

| $\begin{aligned} & \text { Defoctor } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | Ocoupents | Telephone No. (914) | $\begin{gathered} \text { Sart } \\ \text { Data } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Dals } \end{aligned}$ | Frecerived Date | Duration (days) | Permarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645887 | 423 Bogart Place | 423 | Unoccupied |  | 09/08/89 |  |  |  | GKP[ NR$]$ |
| 1645477 | 424 Bogart Place | 424 | Mr.+ Mrs. Ralph |  | 09/08/89 |  |  |  | LP(NR) |
| 1645865 | 425 Bogart Place | 425 | Mr. + Mrs. Sienko | 359-4958 | 09/08/89 | 12/08/89 | 12/27/89 | 91 |  |
| 1645878 | 426 Bogart Place | 426 | Mr. + Mrs. Cronin | 365-3325 | 09/08/89 |  |  |  | LP [ NR ] |
| 1645861 | 427 Bogart Place | 427 | Mr.+ Mrs. Shoemaker | 328-0092 | 09/08/89 | 12108/89 | 01/02/90 | 91 | LP |
| 1645883 | 179 Greenbush Rd. | 429 | Mr. + Mrs. Poberts | 365-2748 | 09/08/89 | 02/16/90 | 02/19/90 | 161 | DJLP |
| 1645866 | 185 Greenbush Rd. | 430 | Mr. + Mrs. Brown, Jr. | 359-5274 | 09/08/89 | 12/11/89 | 12/18/89 | 94 | LP |
| 1645892 | 211 Greenbush Rd. | 428 | Stewart |  | 10/16/89 | 02/09/90 | 02/19/90 | 116 | BNP |
| 0 | 401 Lafayette St. | 401 | Unoccupied |  |  |  |  |  | (ND) |
| 1647476 | 402 Lafayette St. | 402 | Mr.+ Mrs. Bates | 365-3172 | 09/08/89 | 01/02/90 | 01/05/90 | 116 | DJLP |
| 1647472 | 403 Lafayette St. | 403 | Mr.+ Mrs. Gonzales | 365-2116 | 09/08/89 | 02/11/90 | 02/14/90 | 156 |  |
| 1645880 | 404 Lafayette St. | 404 | Mr.+ Mrs. Dobson | 359-2788 | 09/08/89 | 02/16/90 | 02/19/90 | 161 | DEJLP |
| 1645874 | 405 Lafayette St. | 405 | Mann |  |  |  |  |  | KP[NR] |
| 1645881 | 406 Lafayette St. | 406 | Mr.+ Mrs. Edge | 777-2637 | 09/08/89 |  |  |  | LP [NR] |
| 1645894 | 407 Lafayette St. | 407 | Mr.+ Mrs. Gilbert | 359-6113 | 09/08/89 |  |  |  | NP[ NR ] |
| 1645857 | 408 Lafayette St. | 408 | Mr.+ Mrs. Jarvis | 365-2898 | 09/08/89 | 12/10/89 | 12/18/89 | 93 |  |
| 1645896 | 409 Lafayatte St. | 409 | Walker |  |  |  |  |  | BNP [ NR ] |
| 1645877 | 410 Lafayette St. | 410 | Mr. + Mrs. Butler | 359-9475 | 09/08/89 | 12/08/89 | 12/12/89 | 91 |  |
| 1645457 | 411 Lafayette St. | 411 | Stella |  |  |  |  |  | BNP[ NR ] |
| 1645875 | 412 Lafayette St. | 412 | Mr.+ Mrs. Parker | 359-3364 | 09/08/89 | 12/18/89 | 12/27/89 | 101 | DJLP |
| 1645871 | 413 Lafayette St. | 413 | Unoccupied |  | 09/08/89 | 01/07/90 | 01/10/90 | 121 | ADGJKP |
| 1648143 | 413 Lafayette St. | 413 | Unoccupied |  | 09/08/89 | 01/07/90 | 01/10/90 | 121 | ADGJKP |
| 1648141 | 414 Lafayette St. | 414 | Abraham |  |  |  |  |  | BNP[NR] |
| 1648142 | 415 Lafayette St. | 415 | Unoccupied |  | 09/08/89 |  |  |  | GKP[ NR ] |

aKey to Remarks:

Tappan Army Housing Area (Cont'd)
Indaor Radon Monitoring Condilions

| Devector No. | Actress | Unit No. | Ocoupants | Tetephone No. (914) | Seart Date | End Date | Received Date | Duraion (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645858 | 416 Lafayette St. | 416 | Mr.+ Mrs. Bari | 365-7921 | 09/09/89 | 12/08/89 | 02/27/90 | 90 | LP |
| 1647474 | 417 Lafayette St. | 417 | Mr.+ Mrs. Jeffers | 365-0388 | 09/08/89 | 10/17/89 | 10/20/89 | 39 | HLP |
| 1645882 | 431 Lafayette St. | 431 | Mr.+ Mrs. Weeden | 359-8118 | 09/08/89 | 12/12/89 | 12/19/89 | 95 | LP |
| 1645893 | 432 Lafayette St. | 432 | Mr.+ Mrs. Giannetti | 359-8272 | 09/08/89 | 12/08/89 | 12/18/89 | 91 | AKP |
| 1645860 | 432 Lafayette St. | 432 | Mr. + Mrs. Gianetti | 359-8272 | 09/08/89 | 12/08/89 | 12/18/89 | 91 | AKP |
| 1645876 | 433 Lafayette St. | 433 | Mrs. Delia Segarra | 365-1191 | 09/08/89 | 12/24/89 | 12/27/89 | 107 | DEJLP |
| 1645879 | 434 Lafayette St. | 434 | Mr.+ Mrs. Gangemi | 365-0645 | 09/08/89 | 12/09/89 | 12/12/89 | 92 | DEJLP |
| 1645867 | 435 Lalayette St. | 435 | Mr.+ Mrs. Cossel | 365-2166 | 09/08/89 | 12/16/89 | 12/27/89 | 99 | $L P$ |
| 1648169 | 436 Lafayette St. | 436 | Mr.+ Mrs. Conde | 359-6939 | 09/08/89 | 12/12/89 | 12/18/89 | 95 | ALP |
| 1648175 | 436 Lafayette St. | 436 | Mr.+ Mrs. Conde | 359-6939 | 09/08/89 | 12/12/89 | 12/18/89 | 95 | ALP |
| 1645869 | 215 Westem Highway | 421 | Mr.+ Mrs. Horn | 365-0443 | 09/08/89 |  |  |  | $L P[N A]$ |
| 1645859 | 221 Western Highway | 420 | Mr.+ Mrs. Keane | 365-1687 | 09/08/89 | 02/09/90 | 02/14/90 | 154 | LP |
| 1645868 | 418 Western Highway | 418 | Peters |  |  |  |  |  |  |
| 1645895 | 419 Western Highway | 419 | Unoccupied |  | 09/08/89 |  |  |  | GKP [NR] |
| 1645891 | 422 Westem Highway | 422 | Walker |  | 10/02/89 | 02/19/90 | 02/27/90 | 140 | BNP |

> akey to Pemarks:

Coraopolis 71C Army Housing Area indoor Radon Monitoring Conditions

| Detector No. | Address | Unit No. | Oocupants | Telephone No. (412) | $\begin{aligned} & \text { Start } \\ & \text { Dety } \end{aligned}$ | End Date | Received Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436095 | S1180 Ewings Mill Rd. | 118 | Rosalina Rodriguez | 264-1666 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | DJKP |
| 1436038 | S1190 Ewings Mill Rd. | 119 | Tammy Vankirk | 264-7858 | 09/13/89 |  |  |  | KP [NR] |
| 1436033 | S1200 Ewings Mill Rd. | 120 | Linda Bittay | 264-5741 | 09/13/89 | 12/18/89 | 12/27/89 | 96 | $K P$ |
| 1436195 | S1210 Ewings Mill Rd. | 121 | Sandy Parrish | 262-3421 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | DJKP |
| 1436093 | S1220 Ewings Mill Rd. | 122 | JoAnn Hudson | 262-9416 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | DJKP |
| 1436058 | S1230 Ewings Mill Rd. | 123 | Paula Frazior | 262-2172 | 09/14/89 | 01/01/90 | 01/03/90 | 109 | CDJKP |
| 1436037 | S124Q Ewings Mill Rd. | 124 | Laurie Nichols | 264-6209 | 09/13/89 | 12/24/89 | 12/27/89 | 102 | ADJKP |
| 1436001 | S1240 Ewings Mill Rd. | 124 | Laurie Nichols | 264-6209 | 09/13/89 | 12/24/89 | 12/27/89 | 102 | ADJKP |


Coraopolis 71L Army Housing Area
Indoor Radon Monitoring Conditions

| Detactor No. | Address | Unit No. | Oocupants | Telephone No. (412) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Datto } \end{aligned}$ | Peceived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436197 | S1130 Ewings Mill Rd. | 113 | Gloria Mcintosh |  | 09/13/89 |  |  |  | BNP[NR] |
| 1436075 | S1140 Ewings Mill Rd. | 114 | Sandy Martin | 262-5965 | 09/13/89 | 01/24/90 | 01/26/90 | 133 | BKP |
| 1436203 | S1150 Ewings Mill Rd. | 115 | Pat Lovelace | 262-2849 | 09/13/89 | 12/14/89 | 12/27/89 | 92 |  |
| 1436078 | S1160 Ewings Mill Rd. | 116 | Jean Horton | 264-0876 | 09/13/89 |  |  |  | K P [NR] |
| 1436016 | S1170 Ewings Mill Rd. | 117 | Troy Senift | 262-3940 | 09/13/89 |  |  |  | KP [NR] |

aKey to Remarks:
A Duplicate detectors
B Delector placed by occupant of DEH Starting date unknown Exact duration of exposure
unknown; concentration estimated
K Detector in bedroom
N Detector location unknown
$\begin{array}{ll}\text { [ND] } & \text { No data } \\ \text { [NR] } & \text { Not returned }\end{array}$
Dorseyville Army Housing Area Indoor Radon Monitoring Conditions

| Detector <br> No. | Adtress |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

aKey to Remarks:
A Duplicate detectors Detector placed by occu Ending date unknown No data sheet

G Unoccupied house
Elizabeth Army Housing Area
Indoor Radon Monitoring Conditions:

|  | Elizabeth Army Housing Area Ellzabeth, Pennsyivania 15037 Indoor Radon Monltoring Conditions |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Derector No. | Adtress | Unit No. | Occupants | Telephone No. (412) | Start Data | End Date | Peceived Date | Duration (days) | Promarks ${ }^{\text {a }}$ |
| 1643222 | S730 Route *4 | 73 | Lamy Howland | 384-9321 | 09/12/89 | 12/19/89 | 12/22/89 | 98 | KO |
| $1643210$ | S74Q Route *4 S750 Route \%4 | 74 75 | Lorra Hess | 384-2483 | 09/12/89 | 01/02/90 | 01/05/90 | 112 | $B C D J L P$ |
| 1643189 | S760 Route *4 | 76 | Maria P. Sisk | 384-4693 | 09/12/89 | 12/12/89 | 01/12/90 | 91 | KP |
| 1643188 | 5770 Route 4 | 77 | Mr.+ Mrs. Laduke | 384-8104 | 09/12/89 | 12/13/89 | 12/18/89 | 92 |  |
| 1643232 | S780 Route ${ }^{\text {\% }}$ | 78 | Linda Hemandez | 384-2999 | 09/12/89 |  |  |  | K P [NA] |
| 0 | S790 Route \#4 | 79 |  |  |  |  |  |  | [ND] |
| 0 | S800 Route ${ }^{\text {\% }}$ | 80 |  |  |  |  |  |  |  |
| 1643199 | S810 Route ${ }^{\text {\% }}$ | 81 | Frank Heasley |  | 09/12/89 | 12/12/89 | 12/18/89 | 91 | EKP |
| 1643211 | S820 Route \#4 | 82 | SGT Joseph Davis | 384-0747 | 09/12/89 | 12/14/89 | 12/18/89 | 93 | BLP |
| 1643212 | S830 Route \#4 | 83 | PO Jefferey Edens | 384-2824 | 09/12/89 |  |  |  | $B N P[N R]$ |
| 1643086 | S840 Route *4 | 84 |  |  | 09/13/8 | 12/24/89 | 12/27/89 | 102 | DJKP |

aKey to Remarks:
A Duplicate detectors Starting date unknown

Detector received with no seal
No data sheet
G No dala sheel house

M Detector in kitchen

$$
\mathrm{N} \text { Detector location unknown }
$$

Elrama Army Housing Area
Indoor Radon Monltoring Conditions

| Detactor <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

aKey to Remarks:
A Duplicate detectors Starting date unknown Ending date unknown No data sheet

G Unoccupied house

Finleyville Army Housing Area
Finleyville, Pennsyivania 15332 Indoor Radon Monltoring Conditions

| Detactor <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


Herminle Army Housing Area
Indoor Radon Monitoring Conditions

| Detactor No. | Address | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Ocoupants | Telephone No. (412) | $\begin{aligned} & \text { Seart } \\ & \text { Dats } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Datop } \end{aligned}$ | Preceived Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436032 | S57Q Mars Hill Rd. | 57 | Lori Dietr | 446-1560 | 09/12/89 | 02/05/90 | 02/09/90 | 146 | KP |
| 1643208 | S580 Mars Hill Rd. | 58 | Bridget Folkes | 446-1548 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | AEKP |
| 1644339 | S590 Mars Hill Pd. | 58 | Bridget Folkes | 446-1548 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | AKP |
| 1644338 | S590 Mars Hill Rd. | 59 | Robin Baxter | 446-1521 | 09/12/89 | 02/27/90 | 03/02/90 | 168 | DJKP |
| 1643196 | S600 Mars Hill Rd. | 60 | R. Brown | 466-1742 | 09/12/89 | 01/05/90 | 01/08/90 | 115 | DEJKP |
| 1643191 | S610 Mars Hill Pd. | 61 | Marie Letman | 446-1292 | 09/12/89 | 12/16/89 | 12/27/89 | 95 |  |
| 0 | S62Q Mars Hill Rd. | 62 |  |  |  |  |  |  | [ND] |
| 1643205 | S630 Mars Hill Rd. | 63 | Fred Brown |  | 09/12/89 | 02/23/90 | 03/02/90 | 164 | BNP |
| 1643224 | S640 Mars Hill Rd. | 64 | Linda Smith | 446-0930 | 09/12/89 | 12/12/89 | 12/18/89 | 91 | K P |
| 1643206 | S650 Mars Hill Rd. | 65 | Cook |  | 09/12/89 | 12/13/89 | 12/22/89 | 92 | BKP |
| 1643213 | S660 Mars Hill Pd. | 66 | Daniol Borawski | 446-0609 | 09/12/89 | 12/10/89 | 12/18/89, | 89 | BLP |
| 1643192 | S670 Mars Hill Rd. | 67 | Keith Swackhammer | 446-1416 | 09/12/89 | 12/27/89 | 01/02/90 | 106 | K P |
| 1643225 | S680 Mars Hill Rd. | 68 | Michel White | 446-0981 | 09/12/89 | 12/13/89 | 12/18/89 | 92 | KP |
| 1643234 | S690 Mars Hill Rd. | 69 | James Moses | 446-1628 | 09/12/89 | 02/05/90 | 02/12/90 | 146 | KP |
| 0 | S700 Mars Hill Rd. | 70 |  |  |  |  |  |  | [ND] |
| 1643186 | 5710 Mars Hill Rd. | 71 | Laurie Miller | 446-1004 | 09/12/89 | 01/14/90 | 02/05/90 | 124 | K P |
| 1643218 | S720 Mars Hill Rd. | 72 |  |  | 09/12/89 | 01/03/90 | 01/08/90 | 113 | BNP |


Irwin Army Housing Aroa
Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Desector } \\ & \text { No. } \end{aligned}$ | Adtress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Ocoupants | Telephone No. (412) | $\begin{aligned} & \text { Sart } \\ & \text { Dats } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recrived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436083 | S410 Rd. 11 | 41 | Teri Hardaway | 744-3699 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | BDJKP |
| 1436069 | S420 Rd. 11 | 42 | Rhonda Custis | 744-0024 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKP |
| 1643193 | S420 Rd. 11 | 42 | Rhonda Custis | 744-0024 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKP |
| 1436013 | S430 Rd. 11 | 43 | Rodney Burch | 744-0025 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | ВKP |
| 1436030 | S44Q Rd. 11 | 44 | Dottie Emerson | 744-7472 | 09/13/89 |  |  |  | K P [ NR ] |
| 1436054 | S45Q Rd. 11 | 45 | Moreland |  | 09/13/89 | 11/17/89 | 11/20/89 | 65 | BHKP |
| 1643217 | S460 Rd. 11 | 46 | Lloyd |  | 09/13/89 |  |  |  | KP [NR] |
| 1436011 | S470 Rd. 11 | 47 | SFC Robert Feck |  | 09/18/89 | 12/30/89 | 01/02/90 | 103 | BDJKP |
| 1436034 | S48G Rd. 11 | 48 | Marty Kipp | 744-4759 | 09/13/89 |  |  |  | K P [ NA ] |
| 0 | S490 Rd. 11 | 49 |  |  |  |  |  |  |  |
| 1436050 | S500 Rd. 11 | 50 | Michele Burns | 744-9875 | 09/13/89 | 01/19/90 | 01/22/90 | 128 | DJKP |
| 1436066 | S51Q Rd. 11 | 51 | Laurie Swope | 744-3448 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | BDEJKP |
| 1436082 | S520 Rd. 11 | 52 | Lisa Smith | 744-3853 | 09/13/89 |  |  |  | KP [ NR ] |
| 1436194 | S530 Rd. 11 | 53 | Carton Thorne | 744-9854 | 09/13/89 | 11/17/89 | 11/20/89 | 65 | BDEHJKP |
| 1436009 | S54Q Rd. 11 | 54 | Evalyn Pearl | 744-9840 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | DJLP |
| 0 | S550 Rd. 11 | 55 |  |  |  |  |  |  | [ND] |
| 0 | S56Q Rd. 11 | 56 |  |  |  |  |  |  | [ND] |

F No data sheet


Capehart home
Muplex (one-story) home
Duple
000
■のト Apartment building

Not returned
줄
Monroevilie Army Housing Ares
Indoor Radon Monitoring Conditions

| Destector No. | Address | Unit No. | Oocupents | Telephone No. (412) | Sart | End Date | Received Date | Duration (days) | Remaks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436202 | S290 Rd. 2 | 29 | Olga Nives | 325-4492 | 09/13/89 | 12/13/89 | 12/18/89 | 91 |  |
| 1436056 | S300 Rd. 2 | 30 |  |  | 09/13/89 | 11/21/89 | 11/2A/89 | 69 | BHKP |
| $1436048$ | S310 Rd. 2 | 31 | Chris Rolands | $733-3016$ |  |  |  |  | BKP [NP] |
| 1436029 | S32O Rd. 2 | 32 | Debbie Fackenstein | $325-1734$ | 09/13/89 | 12/15/89 | 12/ió/89 | 93 | DJKP |
| 1436018 | S330 Rd. 2 | 33 | Keith Parnell | 325-3733 | 09/13/89 | 01/02/90 | 01/05/90 | 111 | DJKP |
| 1436006 | S340 Rd. 2 | 34 | Brenda Miller | 327-4185 | 09/13/89 | 12/13/89 | 12/27/89 | 91 | BKP |
| 1436201 | S350 Rd. 2 | 35 | Over |  | 09/13/89 | 12/12/89 | 12/18/89 | 90 | BKP |
| 1436092 | S360 Rd. 2 | 36 | Pat Thomas | 325-3482 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | BEKP |
| 1436071 | S370 Rd. 2 | 37 | Judy McNeil | 327-6701 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | BKP |
| 1436199 | S380 Rd. 2 | 38 | Claudette Ayala | 327-9360 | 09/13/89 | 12/12/89 | 12/27/89 | 90 | BKP |
| 1436043 | S390 Rd. 2 | 39 | Nikita Jott | 325-3158 | 09/13/89 | 12/13/89 | 01/10/90 | 91 | BKP |
| 1436064 | S400 Rd. 2 | 40 | George Dewitt | 327-8277 | 09/13/89 | 12/26/89 | 01/02/90 | 104 | BKP |



|  |  | Rural Ridge Army Housing Area Rural Ridge, Pennaylvania 15024 Indoor Radon Monltoring Conditiona |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Desector } \\ & \text { No. } \end{aligned}$ | Adtress | Uni No. | Occupant | Telaphone No. (412) | $\begin{gathered} \text { Stant } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recerived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| 1436196 | S010 Crawtord Run Rd. | 01 | Emma Jatib | 265-2904 | 09/13/89 | 12/13/89 | 12/27/89 | 91 | 8 KP |
| 1436012 | S020 Crawford Run Rd. | 02 | Cheryl Carlin | 265-1643 | 09/13/89 | 11/08/89 | 11/13/89 | 56 | BHKP |
| 1436026 | S030 Crawtord Run Rd. | 03 | Susan Silmore | 265-2958 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | BKP |
| 0 | S040 Crawford Run Rd. | 04 |  |  |  |  |  |  | [ND] |
| 0 | S050 Crawford Run Rd. | 05 |  |  |  |  |  |  | [ ND ] |
| 1436041 | S060 Crawtord Run Rd. | 06 | Mr. + Mrs. Haskins | 265-1074 | 09/13/89 | 12/14/89 | 12/22/89 | 92 |  |
| 1436010 | S070 Crawlord Run Rd. | 07 | Carol Ray | 265-3625 | 09/13/89 |  |  |  | KP [NR] |
| 1436003 | S080 Crawford Run Rd. | 08 | Dale Snyder | 265-1570 | 09/13/89 | 02/19/90 | 02/22/90 | 159 | DJKP |
| 1436027 | S090 Crawtord Run Rd. | 09 | Loma Bodley | 265-3453 | 09/13/89 | 02/24/90 | 02/27/90 | 164 | DEJKP |
| 1436005 | S100 Crawtord Run Rd. | 10 | Majorie Kuzma | 265-3364 | 09/13/89 |  |  |  | KP [ NA ] |
| 1436068 | Sl10 Crawtord Run Rd. | 11 | Mr.+ Mrs. Wakel | 265-2321 | 09/13/89 | 12/12/89 | 12/18/89 | 90 | K P |
| 1436020 | S120 Crawtord Run Rd. | 12 | Mr.+ Mrs.Clinton | 265-3008 | 09/13/89 | 02/07/90 | 03/13/90 | 147 | K P |


Indoor Radon Monltoring Conditions

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adtress | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Ocoupent | Tetephone No. (401) | $\begin{aligned} & \text { Start } \\ & \text { Dale } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Dave } \end{aligned}$ | Proceived Dare | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647492 | 01 Navy | 01 | Cathy Pirro | 295-7561 | 09/09/89 | 01/29/90 | 02/08/90 | 142 | ENS |
| 1647491 | 02 Navy | 02 |  |  |  |  |  |  | BNS [NR] |
| 1642341 | 03 Navy | 03 |  |  |  |  |  |  | BNS [NR] |
| 1647489 | 04 Navy | 04 |  |  |  |  |  |  | BNS[NR] |
| 1643075 | 05 Navy | 05 | George Moody | 294-2038 | 09/10/89 | 12/17/89 | 12/22/89 |  | BENS |
| 1642327 | 06 Navy | 06 | Chartes Barrett | 295-2946 | 09/09/89 | 12/03/89 | 12/06/89 | 85 | DJNS |
| 1642336 | 07 Navy | 7 | Cheryl Walbridge | 294-1397 | 09/09/89 | 12/15/89 | 12/18/89 | 97 | DEJNS |
| 1642328 | 08 Navy | 08 | Mary Schathouser | 294-1322 | 09/09/89 | 01/19/90 | 01/22/90 | 132 | NS |
| 0 | 09 Navy | c9 |  |  |  |  |  |  | [ND] |
| 1647478 | 10 Navy | 10 | Ronald Bream |  | 09/09/89 | 12/09/89 | 12/12/89 | 91 | NS |
| 1642342 | 11 Navy | 11 | Zerppora | 294-6978 | 09/09/89 |  |  |  | LS [NR] |
| 1642348 | 12 Navy | 12 | Craig Witt | 294-6238 | 09/09/89 | 02/09/90 | 02/19/90 | 153 | ENS |
| 0 | 13 Navy | 13 |  |  |  |  |  |  | [ ND$]$ |
| 1642312 | 14 Navy | 14 | Arthur W. LeBeau | 294-6304 | 09/09/89 |  |  |  | NS [NR] |
| 0 | 15 Navy | 15 |  |  |  |  |  |  | [ND] |
| 1647483 | 16 Navy | 16 | William Jackson | 295-5342 | 09/09/89 | 01/05/90 | 01/08/90 | 118 | DJNS |
| 1642340 | 17 Navy | 17 | Margaret Curry | 295-2896 | 09/09/89 | 12/15/89 | 12118/89 | 97 | DEJLS |
| 1647481 | 18 Navy | 18 | Gale Howhett | 294-3566 | 09/09/89 | 12/13/89 | 12/18/89 | 95 | NS |
| 1642344 | 19 Navy | 19 | Mr.+ Mrs. Miller |  | 09/09/89 |  |  |  | BLS [NR] |
| 1642345 | 20 Navy | 20 | Jones | 295-8412 | 09/09/89 | 01/29/90 | 02/05/90 | 142 | EMS |
| 1642346 | 22 Navy | 22 | Yung Hee Moore | 294-2396 | 09/09/89 | 12/15/89 | 12/18/89 | 97 | DJNS |
| 1642339 | 23 Navy | 23 | Mr.+Mrs. Cutright | 295-8665 | 09/09/89 | 12/12/89 | 12/18/89 | 94 | MS |
| 1642320 | 24 Navy | 24 | Terry Tegre | 295-5039 | 09/09/89 |  |  |  | NS[NR] |
| 1642338 | 25 Navy | 25 | Jeft Krug | 295-7872 | 09/09/89 | 12/28/89 | 01/08/90 | 110 | EMS |

## ${ }^{\text {a }}$ Key to Remarks:



N Detector location unknown



H3O jo juednsoo kq peoed ropejed $\mathbf{g}$ C Starting date unknown

Detector received with no seal
F No data sheet
Davisville Army Housing Area（Cont＇d）
Indoor Radon Monitoring Conditions

| Datector No． | Addross | Unit No． | Ocoupants | Telephone No．（401） | $\begin{aligned} & \text { Sert } \\ & \text { Date } \end{aligned}$ | End Dato | Received Dale | Duration （days） | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647485 | 27 Navy | 27 | John Kiefer | 295－2214 | 09／09／89 | 12／07／89 | 12／12／89 | 89 | MS |
| 1642343 | 31 Navy | 31 | Franklin Walsh | 295－5798 | 09／09／89 | 02／22／90 | 02／27／90 | 166 | LS |
| 1642337 | 33 Navy | 33 | Dennis Olson | 295－5069 | 09／09／89 |  |  |  | MS［NR］ |
| 1643080 | 35 Navy | 35 | Charles Downey |  | 09／09／89 | 12／30／89 | 01／22／90 | 112 | BENS |
| 1642318 | 36 Navy | 36 | Rory Wint | 294－4425 | 09／09／89 | 01／19／90 | 01／22／90 | 132 | DJNS |
| 1643074 | 37 Navy | 37 | Kathy Caudle | 294－6727 | 09／09／89 | 12／14／89 | 12／18／89 | 96 | MS |
| 1642319 | 38 Navy | 38 | Leslie Bakker | 295－2962 | 09／09／89 | 12／15／89 | 12／18／89 | 97 | DJNS |
| 1642334 | 39 Navy | 39 | Wm．Powell | 294－2172 | 09／09／89 | 01／12／90 | 01／15／90 | 125 | DJMS |
| 0 | 40 Navy | 40 |  |  |  |  |  |  | ［ND］ |
| 1642325 | 41 Navy | 41 | Pam LaVale | 295－7761 | 09／09／89 | 12／08／89 | 12／12／89 | 90 | MS |
| 1647484 | 42 Navy | 42 | Anthony Hansen | 295－5636 | 09／09／89 | 12／10／89 | 12／18／89 | 92 | LS |
| 1647480 | 43 Navy | 43 | Virginia McCloud | 294－9883 | 09／09／89 | 03／13／90 | 03／16／90 |  | LS |
| $\begin{array}{r} 1647482 \\ 0 \end{array}$ | 44 Navy 45 Navy | 44 45 | Denise Turner | 294－1121 | 09／09／89 | 12／09／89 | 12／13／89 | 91 | NS <br> ［ND］ |
| 1647477 | 46 Navy | 46 | Bergy Maydoney | 294－3753 | 09／09／89 | 02／16／90 | 02／19／90 | 160 | DJNS |
| 1643073 | 47 Navy | 47 | Alan Bravelle | 294－3436 | 09／09／89 | 12／15／89 | 12／18／89 | 97 | DJKS |
| 0 | 48 Navy | 48 |  |  |  |  |  |  | ［ND］ |
| 1642349 | 49 Navy | 49 | Sylvia Rodriguez | 295－5147 | 09／09／89 | 12／13／89 | 12／18／89 | 95 | MS |
| 1642331 | 50 Navy | 50 | Anthony Darby | 295－5826 | 09／09／89 | 12／09／89 | 12／18／89 | 91 | ANS |
| 1642333 | 50 Navy | 50 | Anthony Darby | 295－5826 | 09／09／89 | 12／09／89 | 12／18／89 | 91 | ANS |
| 1642351 | 51 Navy | 51 | Deidra Lawrence | 294－1639 | 09／09／89 | 01／07／90 | 01／15／90 | 120 | MS |
| 1642322 | 52 Navy | 52 | Elzira Rajotte | 294－6461 | 09／09／89 | 12／10／89 | 12／18／89 | 92 | NS |
| 1641199 | 53 Navy | 53 | Carmen Mejiah | 294－1499 | 09／09／89 | 12／31／89 | 01／05／90 | 113 | MS |
| 1647490 | 54 Navy | 54 | Lenny Sipple | 295－7049 | 09／09／89 |  |  |  | NS［NR］ |

akey to Remarks：
A Duplicate detectors
B
Detector placed by occupant of DEH
C
Starting date unknown
D Ending date unknown
E
Fetector received with no seal
G

Davisville Army Housing Area (Conrd
Indoor Radon Monitoring Conditions

| $\begin{gathered} \text { Detector } \\ \mathrm{No} \end{gathered}$ | Adtress | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Ocoupants | Telephone <br> No. (401) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Proceived Dale | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 55 Navy | 55 |  |  |  |  |  |  | [ND] |
| 1647479 | 56 Navy | 56 | Lois Duris | 295-7212 | 09/09/89 | 12/15/89 | 12/18/89 | 97 | DJNS |
| 1644319 | 57 Navy | 57 | Michael Schuck | 294-1623 | 09/09/89 | 12/10/89 | 12113/89 | 92 |  |
| 1642329 | 58 Navy | 58 | Dan Vineski | 295-1655 | 09/09/89 | 12/15/89 | 12/18/89 | 97 | DEJNS |
| 1647488 | 59 Navy | 59 | Christine Wiese | 294-2591 | 09/09/89 | 02/02/90 | 02/05/90 | 146 | DJLS |
| 1642330 | 60 Navy | 60 | J. Gerald Alfed | 294-6489 | 09/09/89 | 12/10/89 | 12/13/89 | 92 | DJNS |
| 0 | 61 Navy | 61 |  |  |  |  |  |  | [ND] |
| 1641200 | 62 Navy | 62 | Yronne Baetz | 294-1439 | 09/09/89 | 12/09/89 | 12/13/89 | 91 | NS |
| 0 | 63 Navy | 63 |  |  |  |  |  |  | [ND] |
| 1643069 | 64 Navy | 64 | Karen Donnie | 294-1352 | 09/09/89 | 12/31/89 | 01/02/90 | 113 | DEJNS |
| 1642335 | 65 Navy | 65 | Beth Pendergast | 294-6919 | 09/09/89 | 11/21/89 | 11/24/89 | 73 | HLS |
| 0 | 66 Navy | 66 |  |  |  |  |  |  | [ND] |
| 1647486 | 67 Navy | 67 | Joseph Kielbasa | 295-7706 | 09/16/89 | 12/16/89 | 12/22/89 | 91 | BMS |

> aKey to Remarks:

A Duplicate detectors C Starting date unknown

E Detector received with no seal
F No data sheet
Siatersville Army Housing Area
North Smithfield, Rhode Island 02895

| Detector No. | Address | Unit No. | Occupants | Telephone No. (401) | Sart Daty | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Reccived Dare | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645798 | 1001 Pound Hill Rd. | 01 | Drue Michaud | 769-4336 | 09/09/89 | 12/09/89 | 12/12/89 | 92 | DEJKP |
| 1642324 | 1002 Pound Hill Rd. | 02 | Deborah Dunn | 765-4246 | 09/09/89 | 01/07/90 | 01/17/90 | 121 | KP |
| 0 | 1003 Pound Hill Rd. | 03 |  |  |  |  |  |  | [ND] |
| 1643083 | 1004 Pound Hill Rd. | 04 | Sonja Filaronski |  | 09/08/89 | 21/05/90 | 01/08/90 | 119 | DJKP |
| 1643088 | 1005 Pound Hill Rd. | 05 | Hans Hart | 765-7953 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | DJKP |
| 1643098 | 1006 Pound Hill Rd. | 06 | Allan Jacobson | 769-4291 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | ADJKP |
| 1643097 | 1006 Pound Hill Rd. | 06 | Allan Jacobson | 169-4291 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | ADJKP |
| 1643084 | 1007 Pound Hill Rd. | 07 | Robert Henschel | 762-3766 | 09/08/89 | 12/08/89 | 12/13/89 | 91 | AKP |
| 1643077 | 1007 Pound Hill Rd. | 07 | Robert Henschel | 762-3766 | 09/08/89 | 12/08/89 | 12/13/89 | 91 | AKP |
| 1643071 | 1008 Pound Hill Rd. | 08 | G. Jean Henderson | 762-1965 | 09/08/89 | 12/15/89 | 12/18/89 | 98 | DJKP |
| 1644329 | 1009 Pound Hill Rd. | 09 | Stephen Haurahan | 766-5821 | 09/11/89 | 12/15/89 | 12/18/89 | 95 | BDEJNP |
| 1643087 | 1010 Pound Hill Rd. | 10 | Suzanne Morrit |  | 09/08/89 | 12/24/89 | 12/27/89 | 107 | DJKP |
| 1643082 | 1011 Pound Hill Rd. | 11 | Daniel Kubala | 766-4719 | 09/08/89 |  |  |  | $K \mathrm{P}$ [NP] |
| 1643096 | 1012 Pound Hill Rd. | 12 | Roger Richards | 767-2627 | 09/08/89 | 12/08/89 | 12/13/89 | 91 | EKP |
| 1645777 | 1013 Pound Hill Rd. | 13 | Virginia Roberts | 762-3191 | 09/08/89 | 12/09/89 | 12/12/89 | 92 | ADJKP |
| 1641185 | 1013 Pound Hill Rd. | 13 | Virginia Roberts | 762-3191 | 09/08/89 | 12/09/89 | 12/12/89 | 92 | ADJKP |
| 1462326 | 1014 Pound Hill Rd. | 14 | Paul Gareau | 762-0983 | 09/08/89 | 12/16/89 | 12/19/89 | 99 | NP |
| 1643100 | 1015 Pound Hill Rd. | 15 | Anthony M. Mota | 765-4859 | 09/21/89 | 12/31/89 | 01/05/90 | 101 | B NP |
| 1643076 | 1016 Pound Hill Rd. | 16 | Dariene Effler | 765-7253 | 09/08/89 | 12/09/89 | 12/12/89 | 92 | DJKP |

akey to Remarks:
A Duplicate detectors
$B$ Detector placed by occupant of DEH C Starting date unknown

E Detector received with no seal
No data sheet
G Unoccupied house
Manassas Army Housing Area
Indoor Radon Monitoring Conditions

| Detector <br> No. | Address |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

aKey to Remarks:

Patrick Henry Army Housing Area Indoor Radon Monltoring Conditions

| Detactor <br> No. | Adtress |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

akey to Remarks:
A Duplicate detectors
8 Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
Woodbrldge Army Housing Ares
Woodbridge Virglnis 22191
Woodbrldge, Virginis 22191
Indoor Radon Monltoring Conditions

| Woodbrldge Army Housing Area Woodbridge, Virginia 22191 Indoor Radon Monltoring Conditions |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Detector No. | Adtress | Unit No. | Occupants | Telephone No. (703) | $\begin{aligned} & \text { Srart } \\ & \text { Dats } \end{aligned}$ | End Deto | Received Dale | Duration (days) | Remanks ${ }^{\text {a }}$ |
| 1647566 | 14000 Dawson Beach Rd. |  | Long | 494-0258 | 09/11/89 | 01/28/90 | 02/03/90 | 139 | AKT |
| 1643690 | 14000 Dawson Beach Rd. |  | Long | 494-0258 | 09/12/89 | 01/28/90 | 02/03/90 | 138 | AKT |
| 1647563 | 14002 Dawson Beach Rd. |  | Croskey | 497-0102 | 09/11/89 |  |  |  | LT[NR] |
| 1647559 | 14004 Dawson Beach Rd. |  | Herbert | 494-0154 | 09/12/89 | 01/28/90 | 02/03/90 | 138 | LT |
| 1643682 | 14006 Dawson Beach Rd. |  | Moffett | 490-8215 | 09/12/89 | 02/26/90 | 03/07/90 | 167 | ELT |
| 1647547 | 14008 Dawson Beach Rd. |  | A. L. Coll | 490-8865 | 09/12/89 | 01/28/90 | 02/03/90 | 138 | K T |
| 1647544 | 14010 Dawson Beach Rd. |  | Wiggins | 491-2976 | 09/11/89 | 12/07/89 | 12/12/89 | 87 |  |
| 1647570 | 14011 Dawson Beach Rd. |  | Mathew Renkin | 590-8004 | 10/07/89 |  |  |  | K R [NR] |
|  | 14012 Dawson Beach Rd. 14013 Dawson Beach Rd |  | Dale Marion <br> Florinda Curty | 664-3876 $491-8471$ | $\begin{aligned} & 10 / 07 / 89 \\ & 10 / 07 / 89 \end{aligned}$ | $\begin{aligned} & 01 / 02 / 90 \\ & 01 / 26 / 90 \end{aligned}$ | $01 / 08 / 90$ $01 / 29 / 90$ | $\begin{array}{r} 87 \\ 111 \end{array}$ |  |
| $\begin{array}{r} 1644095 \\ 0 \end{array}$ | 14013 Dawson Beach Rd. 14014 Dawson Beach Rd. |  | Florinda Curry | 491-8471 | 10/07/89 | 01/26/90 | 01/29/90 | 111 | $\begin{aligned} & \text { DEJKR } \\ & \text { [ND] } \end{aligned}$ |

akey to Remarks:


A Duplicate detectors
B Detector placed by occupant of DEH C Starting date unknown Detector received with no seal

F No data sheet
Midway Army Housing Area
Indoor Radon Monitoring Condilions

| Datector No． | Adtress | Unit No． | Ocoupants | Telephone No．（206） | Sart <br> Date | End Date | Received Date | Duration （days） | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645136 | m－01 Avenue 8 | m－1 | Alian Magnis | 878－3751 | 09／05／89 |  |  |  | $K P(N R]$ |
| 1645110 | m－02 Avenue B | m－2 | Howard Reese | 878－1813 | 09／05／89 | 12／05／89 | 12／18／89 | 91 |  |
| 1645112 | m－03 Avenue B | m－3 | Randy Duff | 870－1171 | 09／05／89 | 12／10／89 | 12／18／89 | 96 | KP |
| 1645135 | m－04 Avenue B | m－4 | Pio Samson | 824－7243 | 09／05／89 | 12／05／89 | 12／08／89 | 91 | K P |
| 1645126 | m－05 Avenue B | m－5 | Kenneth Perry | 870－1538 | 09／05／89 | 12／09／89 | 12／12／89 | 95 | ADEJKP |
| 1645139 | m－05 Avenue B | m－5 | Kenneth Perry | 870－1538 | 09／05／89 | 12／09／89 | 12／12／89 | 95 | ADEJKP |
| 1645109 | m－06 Avenue B | m－6 | St．Jacques | 824－5795 | 09／05／89 |  |  |  | $K P[N R]$ |
| 1644012 | m－07 Avenue B | m－7 | Brian Money | 878－5306 | 09／05／89 | 12／04／89 | 12／08／89 | 90 | KP |
| 1645119 | m－08 S．240th | m－8 | Gingres | 824－1443 | 09／05／89 | 12／13／89 | 12／18／89 | 99 | KP |
| 1644016 | m－09 S．240th | m－9 | Larry Mitchell | 878－0299 | 09／05／89 | 12／07／89 | 12／12／89 | 93 | AEKP |
| 1644015 | m－09 S．240th | m－9 | Lary Mitchell | 878－0299 | 09／05／89 | 12／07／89 | 12／12／89 | 93 | AEKP |
| 1645085 | m－10 Avenue B | m－10 | Mary White | 878－2696 | 09／15／89 | 12／15／89 | 12／27／89 | 91 | K P |
| 1645125 | m－11 Avenue B | m－11 | Smith |  | 09／05／89 |  |  |  | $K P$［ NA$]$ |
| 1645116 | m－12 Avenue B | m－12 | Alinea | 876－2292 | 09／05／89 | 12／05／89 | 01／02／90 | 91 | KP |
| 1645129 | m－13 Avenue B | m－13 | Greber | 824－3051 | 09／05／89 |  |  |  | $K P(N R)$ |
| 1645143 | m－14 Avenue B | m－14 | Michael Ellis | 878－3046 | 09／05／89 | 12／06／89 | 12／12／89 | 92 | KP |
| 1645141 | m－15 Avenue $\mathbf{B}$ | m－15 | William MoGee | 878－7639 | 09／05／89 |  |  |  | $K P(N A]$ |
| 1645104 | m－16 Avenue B | m－16 | Mr．Winfree | 878－7639 | 09／05／89 | 12／10／89 | 12／18／89 | 96 | KP |
| 1645107 | m－17 Avenue B | m－17 | Samuel Powell | 824－0740 | 09／05／89 | 12／05／89 | 12／08／89 | 91 | DEJKP |
| 1644008 | m－18 Avenue B | m－18 | Michelle McSwain | 878－1482 | 09／14／89 | 12／14／89 | 12／18／89 | 91 | KP |
| 1645123 | m－19 Avenue B | m－19 | Jack Iglesias | 878－1919 | 09／05／89 | 12／13／89 | 12／27／89 | 99 | KP |
| 1645142 | $\mathrm{m}-20$ Avenue B | m－20 | Keith Morris | 870－1414 | 09／05／89 | 12／05／89 | 12／08／89 | 91 | $K P$ |
| 1644030 | m－21 Avenue B | m－21 | Kendell Cornwell | 878－9215 | 09／05／89 |  |  |  | KP |
| 1645101 | m－22 Avenue B | m－22 | Edward Salazar | 824－2775 | 09／05／89 | 02／07／90 | 02／19／90 | 155 | KP |

${ }^{\text {aKey }}$ to Remarks：

A Duplicate detectors
B Detector placed by occupant of DEH
B Detector placed by occupant of DEH Starting date unknown
Ending date unknown Detector received with no seal
No data sheet
G Unoccupied house No data
Not retur
ローロルトコ

## H Exposure＜ 90 days <br> J Exact duration of exposure <br> $K$ Detector in bedroom <br> N Detector location unknown

Capehart home
MCA home
MCA home Duplex（multistory）home
Apartment building
Below detection limit
Not returned
Midway Army Housing Area (Cont'd)
Indoor Radon Monitoring Conditions

| Deractor No. | Address | Unit No. | Ocoupants | Telephone. No. (206) | $\begin{aligned} & \text { Start } \\ & \text { Dateo } \end{aligned}$ | End Dale | Peceived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644013 | m-23 Avenue 8 | m-23 | Wiliams | 878-2813 | 09/05/89 |  |  |  | $K P(N R]$ |
| 1644009 | m-24 Jeffrey Rd. | m-24 | Walker | 828-0699 | 09/14/89 | 12/24/89 | 12/27/89 | 101 | DEJNP |
| 1645118 | m-25 Jeftrey Rd. | m-25 | Auguster Montgomery | 878-3552 | 09/05/89 |  |  |  | $K P[N R]$ |
| 1645124 | m-26 Jeffrey Rd. | m-26 | Strong | 878-5253 | 09/05/89 | 12/09/89 | 12/12/89 | 95 | DJKP |
| 1645108 | m-27 Jeffrey Rd. | m-27 | Mr. + Mrs. Wilson | 878-7864 | 09/05/89 |  |  |  | KP [NR] |
| 1645114 | m-28 Jaftrey Rd. | m-28 | Brad Bayer | 878-9453 | 09/05/89 | 01/01/90 | 01/04/90 | 118 | KP |
| 1645137 | m-29 Jeftre Rd. | m-29 | William Watkins | 878-8126 | 09/05/89 | 12/15/89 | 12/19/89 | 101 | K P |
| 1645113 | m-30 Jaftrey Rd. | m-30 | Douglas Shaffer | 870-1427 | 09/05/89 | 12/06/89 | 12/12/89 | 92 | $K P$ |
| $\begin{aligned} & 1645138 \\ & 1645115 \end{aligned}$ | m-31 Jeftrey Rd. m-32 Jaffrey Rd. | $m-31$ $m-32$ | Mr.+ Mrs. Nordahl Mr.+ Mrs. Spindier | $824-5775$ $878-3499$ | $09 / 05 / 89$ $09 / 05 / 89$ | $\begin{aligned} & 12 / 09 / 89 \\ & 12 / 07 / 89 \end{aligned}$ | $\begin{aligned} & 12 / 12 / 89 \\ & 12 / 12 / 89 \end{aligned}$ | 95 93 | $\begin{aligned} & \text { DJKP } \\ & \text { KP } \end{aligned}$ |


aKey to Remarks:
Youngs Lake Army Housing Area Indoor Radon Monltoring Conditions

| Detector No. | Address | Unit No. | Occupants | Telephone No. (206) | $\begin{aligned} & \text { Start } \\ & \text { Date } \end{aligned}$ | End <br> Dato | Received Date | Duration (days) | Pernarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645105 | L-01 | L-1 | Elliot | 226-0112 | 09/05/89 | 12/09/89 | 12/18/89 | 95 | KQU |
| 1645106 | L-02 | L-2 | William Milier | 235-6974 | 09/05/89 | 12/08/89 | 12/12/89 | 94 | EKQ |
| 1645099 | L. 03 | L-3 | Simmons | 277-5930 | 09/05/89 | 12/31/89 | 01/05/90 | 117 | KQ |
| 1645097 | L-04 | L-4 | Patterson | 235-7044 | 09/05/89 | 12/14/89 | 12/19/89 | 100 | KO |
| 1645098 | L-05 | L-5 | Peters | 277-6786 | 09/05/89 | 12/06/89 | 12/12/89 | 92 | KQ |
| 1645131 | L-06 | L-6 | Mary Watson | 226-4199 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | DJKQ |
| 1645096 | L-07 | L-7 | Robert Adams | 228-1611 | 09/05/89 | 12/10/89 | 12/18/89 | 96 | KO |
| 1645089 | L-08 | L-8 | Walter L. Alan |  | 09/14/89 |  |  |  | K O (NR] |
| 1645094 | L-09 | L-9 | John Dobay | 235-6636 | 09/05/89 | 01/14/90 | 01/19/90 | 131 | EKP |
| 1645095 | L-10 | L-10 | Smith | 235-9177 | 09/05/89 | 01/02/90 | 01/08/90 | 119 | KPU |
| 1645117 | L-11 | L-11 | Sharon Fretscher | 228-8166 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | KPU |
| 1645093 | L-12 | L-12 | Teresita | 226-1368 | 09/05/89 | 12/13/89 | 12/18/89 | 99 | EKP U |
| 1645132 | L-13 | L-13 | Leeper | 228-2282 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | KP |
| 1644010 | L-14 | L-14 | Olympia MacFinna | 271-4865 | 09/14/89 | 12/21/89 | 12/27/89 | 98 | KP |
| 1645128 | L-15 | L-15 | Berglin | 271-8547 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | KP U |
| 1645127 | L-16 | L-16 | Silva | 277-0266 | 09/05/89 | 11/28/89 | 12/04/89 | 84 | HKQ |
| 1645102 | L-17 | L-17 | Harrison | 226-8121 | 09/05/89 | 12/05/89 | 01/22/90 | 91 | KO |
| 1644017 | L-18 | L-18 | Parker | 271-3813 | 09/14/89 |  |  |  | K O [NR] |
| 1644019 | L-19 | L-19 | Hammond | 265-0882 | 09/14/89 |  |  |  | KQ [NR]F |
| 1645133 | L-20 | L-20 | Christian | 271-1455 | 09/05/89 |  |  |  | AKO (NR) |
| 1645103 | L-20 | L-20 | Christian | 271-1455 | 09/05/89 |  |  |  | A KO[NR] |
| 1645122 | L-21 | L-21 | Scott | 277-6536 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | KQ |
| 1644011 | L-22 | L-22 | Trail | 235-4620 | 09/06/89 | 12/03/89 | 12/08/89 | 88 | AKO |
| 1644014 | L-22 | L-22 | Trail | 235-4620 | 09/06/89 | 12/03/89 | 12/08/89 | 88 | AKQU |



Ending date unknown


| Deractor No. | Address | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Occupants | Telephone No. (206) | Start Date | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recoived Date | Duration (days) | Pemerks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645140 | L-23 | L-23 | Marlene Clark | 235-9949 | 09/05/89 | 12/03/89 | 12/08/89 | 89 | KO |
| 1644031 | L-24 | L-24 | Peterson | 235-8719 | 09/06/89 | 12/05/89 | 12/08/89 | 90 | DJKO |
| 1645121 | L-25 | L-25 | Clemons | 255-1449 | 09/05/89 | 01/06/90 | 01/12/90 | 123 | AKO |
| 1645100 | L-25 | L-25 | Clemons | 255-1449 | 09/05/89 | 01/06/90 | 01/12/90 | 123 | AKO |
| 1645130 | L-26 | L-26 | David Steen | 277-1714 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | DJKQ |
| 1645134 | L-27 | L-27 | Dean Warden | 271-9191 | 09/05/89 | 12/05/89 | 12/08/89 | 91 | DJKO |
| 1645120 | L-28 | L-28 | Simpkins | 228-1580 | 09/05/89 | 01/07/90 | 01/12/90 | 124 | ELP |

A Duplicate detectors
B Detactor placed by occupant of DEH
B Detactor placed by occupant of DEH
C Starting date unknown
Ending date unknown
Detector received with no seal
No data sheet
O4 peidnosoun 5
jeoys EiEp ON
Youngs Lake Army Housing Area (Cont'd)
Indoor Radon Monltoring Condlilons
Sun Prairio Army Housing Area Indoor Radon Monitoring Conditions

| Detector No. | Address | Unit No. | Ocoupants | Telephone No. (608) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | End Date | Received Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641504 | 086 Andrews Dr. | 1114 | Anastasi | 837-0084 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1643996 | 117 Androws Dr. | 1122 |  | 837-4683 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1644023 | 119 Andrews Dr. | 1106 | Janczewski | 837-2951 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1647587 | 095 Ent Dr. | 1105 | Gritfin | 257-8635 | 09/15/89 | 12/14/89 | 12/18/89 | 90 | KR |
| 1644107 | 095 Ent Dr. | 1109 | Bernier | 825-6165 | 09/15/89 | 12/13/89 | 12/18/89 | 89 |  |
| 1644106 | 096 Ent Dr. | 1113 | Mellum | 825-6356 | 09/15/89 |  |  |  | K R [NA] |
| 1647585 | 096 Ent Dr. | 1117 | Gritfis | 837-0487 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKR |
| 1643122 | 096 Ent Dr. | 1117 | Grifis | 837-0487 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKR |
| 1647584 | 097 Ent Dr. | 1201 | Heath | 837-4949 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | $K$ R |
| 1646992 | 097 Ent Dr. | 1205 | Hansen | 837-4021 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | K R |
| 1646999 | 098 Ent Dr. | 1209 | Klein | 837-9734 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | K R |
| 1647009 | 098 Ent Dr. | 1213 | Hoke | 837-6514 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1644113 | 099 Ent Dr. | 1217 | Hoover | 837-3147 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1643134 | 099 Ent Dr. | 1221 | Kenneth Gorr | 837-4652 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1646979 | 100 Ent Dr. | 1220 | Young | 837-0036 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1643121 | 100 Ent Dr. | 1224 | Schoenberg | 837-0528 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKR |
| 1644108 | 100 Ent Dr. | 1224 | Schoenberg | 837-0528 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKR |
| 1647588 | 101 Ent Dr. | 1212 | Comeau | 837-0468 | 09/15/89 | 12/18/89 | 12/22/89 | 94 | KR |
| 1641509 | 101 Ent Dr. | 1216 | Jerry Grimshaw | 837-3667 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1647586 | 102 Ent Dr. | 1202 | Clay | 837-2960 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | K R |
| 1647033 | 102 Ent Dr. | 1208 | Brown | 825-6180 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | $K R$ |
| 1646996 | 103 Ent Dr. | 1118 | Brousseau | 825-6346 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | K R |
| 1647004 | 103 Ent Dr. | 1122 | Greenwell | 837-1011 | 09/13/89 | 12/15/89 | 12/18/89 | 93 | KR |
| 1646997 | 104 Ent Dr. | 1110 | Charles Lund | 837-0233 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |

[^7]apehart home
Muplex (one-story) home Duplex (multistory) home Apartment building
No data 00

N Detector location unknown
\[

$$
\begin{aligned}
& \text { Detector in bedroom } \\
& \text { Detector in living room }
\end{aligned}
$$
\]

unknown; concentration estimated
H Exposure < 90 days
unknown; concentration estit
$K$ Detector in bedroom
$L$ Detector in living room
$M$ Detector in kitchen
Sun Prairie Army Housing Area (Cont'd)
Sun Prairle, Wlaconsin 53590
Indoor Radon Monltoring Condition

| Derector No | Adtress | Unit No. | Ocoupant | Telephone No. (608) | $\begin{aligned} & \text { Sart } \\ & \text { Date } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Datad } \end{aligned}$ | Preceived Date | Ouration (dyys) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643123 | 104 Ent Dr. | 1114 | Ball | 837-3149 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1641505 | 105 Ent Dr. | 1102 | Christiansen | 837-7111 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | EKR |
| 1647007 | 105 Ent Dr. | 1106 | Johnson | 825-6423 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKR |
| 1647011 | 147 Fairchild | 1001 | Hopkins | 837-0716 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | AKR |
| 1643130 | 147 Fairchild | 1001 | Hopkins | 837-0716 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | AKR |
| 1647021 | 148 Fairchild | 1009 | McNutt | 825-6474 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKP |
| 1647023 | 149 Fairchild | 1017 | Ahn | 837-3489 | 09/14/89 | 12/13/89 | 12/18/89 | 90 |  |
| 1647006 | 150 Fairchild | 1101 | Garbis | 837-9379 | 09/14/89 | 10/17/89 | 10/20/89 | 33 | DHJKP |
| 1646988 | 151 Fairchild | 1109 | Mitkos | 837-0365 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1646994 | 138 Harmon Circla | 1134 | Sweat | 825-2896 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1644022 | 139 Harmon Circle | 1126 | Meeusen | 837-8289 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1643988 | 140 Harmon Circle | 1118 | Wilhelm | 837-4407 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KP |
| 1647032 | 141 Hammon Circle | 1110 | Brant | 837-8714 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1643990 | 142 Harmon Circla | 1102 | Paulson | 837-8163 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1643109 | 143 Harmon Cirde | 1101 | Garrison | 837-3330 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKP |
| 1647015 | 144 Hamon Circle | 1109 | Riley | 837-0852 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | K P |
| 1647010 | 145 Harmon Circle | 1117 | Kusenburger | 837-2130 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1645091 | 146 Harmon Circlo | 1129 | Mark Grandstaff | 825-4270 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KP |
| 1646984 | 086 N. Andrews Dr. | 1110 | Peasley | $837-0719$ | 09/15/89 | 12/12/89 | 12/18/89 | 88 | K R |
| 1643117 | 087 N. Andrews Dr. | 1102 | Dirden | 837-1961 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1646993 | 087 N. Andrews Dr. | 1106 | Tackett | 825-6365 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1647581 | 088 N. Andrews Dr. | 1010 | Chapel | 241-7262 | 09/15/89 |  |  |  | K R [NR] |
| 1646980 | 088 N. Andrews Dr. | 1014 | Mounsey | 825-6442 | 09/15/89 | 12/15/89 | 12/18/89 | 91 |  |
| 1643116 | 089 N. Andrews Dr. | 1002 | Butters | 837-4698 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |



| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Actress | Unit No. | Ocoupants | Telephone No. (608) | Stert Dats | End Date | Peceived Date | Duration (days) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643124 | 089 N. Andrews Dr. | 1006 | Cartwright | 837-1004 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1643989 | 120 Schumann | 1026 | John Baker | 825-2874 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KP |
| 1644026 | 121 Schumann | 1018 | Zupan | 837-5290 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | $K P$ |
| 1646990 | 122 Schumann | 1010 | Hengel | 837-4488 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | $K P$ |
| 1643998 | 123 Schumann | 1002 | Davison | 837-9074 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KP |
| 1647020 | 124 Schumann | 0926 | Bell | 825-6481 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKP |
| 1641501 | 125 Schumann | 0918 | Holder | 837-5647 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647017 | 126 Schumann | 0910 | Lee | 825-2836 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1646986 | 127 Schumann | 0902 | Runas | 837-5410 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | AKP |
| 1647016 | 127 Schumann | 0902 | Runaas | 837-5410 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | AKP |
| 1647018 | 128 Schumann | 0830 | Kirkerewicz | 837-2439 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1643131 | 129 Schumann | 0822 | No resident |  | 09/14/89 | 12/13/89 | 12/18/89 | 90 | GKP |
| 1647024 | 130 Schumann | 0814 | Greer | 837-0294 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | $K P$ |
| 1647005 | 131 Schumann | 0806 | Jack Amaral | 837-2098 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647029 | 152 Stull | 1110 | Benusa | 837-7682 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647014 | 153 Stull | 1102 | Brown | 837-1074 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | KP |
| 1647013 | 154 Stull | 1018 | LeDuff | 837-1992 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647560 | 155 Stull | 1010 | Neecham | 837-3914 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647003 | 156 Stull | 1002 |  |  | 09/09/89 | 12/13/89 | 12/18/89 | 95 | NR |
| 1647002 | 157 Stull | 1002 | Kuhn | 837-5284 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KP |
| 1647026 | 158 Stull | 1101 | Hight | 837-6092 | 09/14/89 |  |  |  | $K P$ [NP] |
| 1647001 | 159 Stull | 1017 | no resident |  | 09/13/89 | 12/18/89 | 12/22/89 | 96 | GKR |
| 1647025 | 160 Stull | 1009 | Wiliam Cork | 837-4145 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKP |
| 1647012 | 161 Stull | 1001 | Butrick | 825-6429 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | K P |

aKey to Remarks

[^8]

Capehart home
MCA home

Duplex (one-story) home Duplex (multistory) home Apartment building $\begin{array}{ll}\text { [ND] } & \text { No data } \\ {[N R]} & \text { Not returned }\end{array}$
Sun Prairle Army Housing Area (Cont'd)
Indoor Radon Monltoring Conditions

| Derbector No. | Addross | Unit No. | Ocoupants | Telephore No. (608) | $\begin{aligned} & \text { Start } \\ & \text { Dato } \end{aligned}$ | $\begin{aligned} & \text { End } \\ & \text { Date } \end{aligned}$ | Recaved Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646977 | 090 Vandenburg | 1220 | George | 837-2372 | 09/15/89 | 12/15/89 | 12/18/89 | 91 | DJKR |
| 1643132 | 090 Vandenburg | 1224 | Wood | 837-6491 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1647008 | 091 Vandenburg | 1210 | Webb | 837-6861 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1647035 | 091 Vandenburg | 1216 | Wynn | 837-5254 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1641503 | 092 Vandenburg | 1202 | Ross | $837-7921$ | 09/13/89 | 12/13/89 | 01/15/90 | 91 | KR |
| 1646998 | 092 Vandenburg | 1206 | Clay | 837-4899 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKR |
| 1646995 | 092 Vandenburg | 1206 | Clay | 837-4899 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKR |
| 1643127 | 093 Vandenburg | 1110 | Sibley | 837-1010 | 09/15/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643125 | 093 Vandenburg | 1114 | Trakel | 837-2718 | 09/15/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1647582 | 094 Vandenburg | 1102 | Zagrzebski | 837-3796 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | K R |
| 1643118 | 094 Vandenburg | 1106 | Meddings | 825-6123 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1643108 | 106 W. Andrews Dr. | 1001 | Young | 837-0233 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | kR |
| 1643107 | 106 W. Andrews Dr. | 1009 | Bench | 837-4731 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1646989 | 107 W. Andraws Dr. | 1017 | McCann | 825-2863 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | KR |
| 1647028 | 107 W. Andrews Dr. | 1025 | Anthony Broadbent | 837-2471 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | K R |
| 1647548 | 108 W. Andrews Dr. | 1033 | Garoutte | 825-6108 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | K R |
| 1643104 | 108 W. Andrews Dr. | 1041 | Wilkins | 837-2776 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643103 | 109 W. Andrews Dr. | 1049 | Guy | 837-0289 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643135 | 109 W. Andrews Dr. | 1057 | Newhauser | 837-5976 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1647000 | 110 W. Andrews Dr. | 1105 | McClatchey | $837-4912$ | 09/14/89 | 12/15/89 | 12/18/89 | 92 | $K R$ |
| 1646987 | 110 W. Andrews Dr. | 1109 | Punzel | 837-4080 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | AKR |
| 1643128 | 110 W. Andrews Dr. | 1109 | Punzel | 837-4080 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | AKR |
| 1644001 | 111 W. Andrews Dr. | 1113 | Los Laras | 837-9590 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | KR |
| 1643129 | 111 W. Andrews Dr. | 1117 | Jones | 837-0224 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | K R |

> akey to Remarks:

[^9]Sun Prairie Army Housing Area (Cont'd)
Sun Prairie, Wisconsin 53590
Indoor Radon Monitoring Condition

| Detactor No. | Adtress | Unit No. | Oocupants | Telephone No. (608) | Sart <br> Date | End Date | Received Date | Duration (days) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643113 | 112 W. Andrews Dr. | 1121 | No resident |  | 09/14/89 | 12/13/89 | 12/18/89 | 90 | GLR |
| 1646985 | 112 W. Andrews Dr. | 1125 | Clark | 241-8368 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1643115 | 113 W. Andrews Dr. | 1201 | Scrivner | 837-7314 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643995 | 113 W. Andrews Dr. | 1205 | Kelly Shattuck | 837-9658 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKR |
| 1644025 | 113 W. Andrews Dr. | 1205 | Kelly Shattuck | 837-9658 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | AKR |
| 1643120 | 114 W. Andrews Dr. | 1209 | Schick | 825-6006 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | KR |
| 1646983 | 114 W. Andrews Dr. | 1213 | Mills | 837-6556 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643114 | 115 W. Andrews Dr. | 1210 | Thrasher | 837-2016 | 09/14/89 | 12/01/89 | 12/04/89 | 78 | DHJKR |
| 1644029 | 115 W. Andrews Dr. | 1214 | Dexter | 837-9445 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | K ${ }^{\text {R }}$ |
| 1643111 | 116 W. Andrews Dr. | 1202 | Aubenstein | 837-9612 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKR |
| 1643110 | 116 W. Andrews Dr. | 1202 | Aubenstein | 837-9612 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | AKA |
| 1646978 | 116 W. Andrews Dr. | 1206 | Stowell | 837-9103 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | K $\boldsymbol{R}$ |
| 1643102 | 117 W. Andrews Dr. | 1126 | Chase | 837-9127 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | K R |
| 1646991 | 118 W. Andrews Dr. | 1114 | Dotson | 837-3875 | 09/15/89 | 12/13/89 | 12/18/89 | 89 | KR |
| 1643112 | 118 W. Andrews Dr. | 1118 | No resident |  | 09/15/89 | 12/13/89 | 12/18/89 | 89 | GKR |
| 1643105 | 119 W. Andrews Dr. | 1110 | Allegra | 837-0993 | 09/14/89 | 12/13/89 | 12/18/89 | 90 | KR |
| 1643106 | 132 W. Andrews Dr. | 1042 | Snyder | 837-2984 | 09/14/89 | 12/14/89 | 12/18/89 | 91 | $K P$ |
| 1647034 | 133 W. Andrews Dr. | 1034 | Edey | 837-2526 | 09/13/89 | 12/13/89 | 12/18/89 | 91 | NP |
| 1643126 | 134 W. Andrews Dr. | 1026 | Kelly | 837-1074 | 09/14/89 | 12/15/89 | 12/18/89 | 92 | DJKP |
| 1647565 | 135 W. Andrews Dr. | 1018 |  |  | 09/13/89 | 12/13/89 | 12/18/89 | 91 | NP |
| $\begin{aligned} & 1643133 \\ & 1644006 \end{aligned}$ | 136 W. Andrews Dr. 137 W. Andrews Dr. | $\begin{aligned} & 1010 \\ & 1002 \end{aligned}$ | Batterman Joel Schwankl | $837-1989$ $837-0412$ | $09 / 14 / 89$ $09 / 13 / 89$ | $12 / 13 / 89$ $12 / 12 / 89$ | $12 / 18 / 89$ $12 / 18 / 89$ | 90 90 | $K P$ $K P$ |

aKey to Remarks:

[^10]

## Appendix $F$

## Property-Specific Monitoring Results

Ansonla Army Housing Area
Ansonla, Connecticut 06401
Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors retumed: 15
Number of detectors installed: 17
Number of replicate pairs: 1
Highest reported result: 16.3
Lowest reported result: 1.0
Number of outstanding detectors: 2

| Detector No. | Adcress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Exposure } \\ & {[(\mathrm{pCiLL}) \text { days }]} \end{aligned}$ | Conc. $\text { ( } \mathrm{pCiL} \text { ) }$ | Stancard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648230 | 01 Ford St. | 01 | 306.3 | 3.3 | 7.6 | BKP |
| 0 | 02 Hughes Cir. | 02 |  |  |  | [ND] |
| 1648274 | 03 Hughes Cir. | 03 | 96.1 | 1.0 | 12.5 | DJKP |
| 0 | 04 Hughes Cir. | 04 |  |  |  | [ND] |
| 1648245 | 05 Hughes Cir. | 05 | 168.4 | 1.1 | 10.1 | DJKP |
| 1648270 | 06 Hughes Cir. | 06 | 189.0 | 2.1 | 9.2 |  |
| 1648260 | 07 Hughes Cir. | 07 | 346.7 | 2.4 | 7.0 | BKP |
| 1648267 | 08 Hughes Cir. | 08 | 246.8 | 2.7 | 8.2 | BEKP |
| 1648257 | 09 Hughes Cir. | 09 | 1064.7 | 8.6 | 4.2 | ACDEJKP |
| 1648251 | 09 Hughes Cir. | 09 | 2016.6 | 16.3 | 4.0 | ACDEJKP |
| 1648246 | 10 Hughes Cir. | 10 | 503.8 | 3.3 | 6.0 | DHJKP |
| 1648242 | 11 Hughes Cir. | 11 | 949.6 | 10.8 | 4.3 | BLP |
| 1648272 | 12 Hughes Cir. | 12 | 390.5 | 3.6 | 6.6 | DJKP |
| 1648247 | 13 Hughes Cir. | 13 | 188.9 | 1.6 | 9.5 | DJKP |
| 1648277 | 14 Hughes Cir. | 14 | 371.2 | 4.1 | 6.7 | CJKP |
| 1648252 | 15 Hughes Cir. | 15 | 599.0 | 6.7 | 5.3 | BKP |
| 1648273 | 16 Hughes Cir. | 16 | 301.1 | 3.0 | 7.4 | CDJKP |

## aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| Detector in bedroom |  |


| L | Detector in living room |
| :--- | :--- |
| M | Detector in kitchen |
| N | Detector location unknown |
| P | Capehart home |
| Q | MCA home |
| A | Duplex (one-story) home |
| S | Duplex (multistory) home |
| T | Apartment uilding |
| U | Below detection limit |
| ND] | No data |
| NR] | Not returned |

East Windsor Army Housing Area East Windsor, Connecticut 06088 Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors retumed: 14
Number of detectors installed: 17
Number of replicate pairs: 1
Highest reported result: 0.6
Lowest reported result: 0.2

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Address | Unit No. | Exposure [(pCil) days] | Conc. (pCil) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646457 | 27 Phelps Rd. | 01 | 36.5 | 0.3 | 18.3 | DJKP |
| 1646442 | 29 Phelps Rd. | 14 | 38.2 | 0.4 | 18.0 | ADEJKP |
| 1645763 | 29 Phelps Rd. | 14 | 30.0 | 0.3 |  | ADJKPU |
| 1645769 | 31 Phelps Rd. | 15 | 40.0 | 0.4 | 17.7 | DJKP |
| 1646436 | 33 Phelps Rd. | 16 | 34.7 | 0.4 | 18.6 | DJKP |
| 1644237 | 02 South Rd. | 02 | 69.8 | 0.6 | 14.3 | BNP |
| 1645768 | 03 South Rd. | 03 | 64.5 | 0.6 | 14.7 | DEJKP |
| 1645762 | 04 South Rd. | 04 | 55.8 | 0.6 | 15.6 | CJKP |
| 0 | 05 South Rd. | 05 |  |  |  | [ ND ] |
| 1644235 | 06 South Rd. | 06 |  |  |  | KP[NR] |
| 1644249 | 07 South Rd. | 07 | 43.5 | 0.4 | 17.1 | DEJKP |
| 1644234 | 08 South Rd. | 08 | 38.2 | 0.4 | 18.0 | BKP |
| 1645766 | 09 South Rd. | 09 | 41.7 | 0.5 | 17.4 | KP |
| 1644248 | 10 South Rd. | 10 |  |  |  | KP [ NR ] |
| 1645767 | 11 South Rd. | 11 | 39.7 | 0.2 | 16.2 | KP |
| 1644233 | 12 South Rd. | 12 | 62.2 | 0.4 | 15.4 | EKP |
| 1644246 | 13 South Rd. | 13 | 30.0 | 0.2 |  | DEJNPU |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| K | Detector in bedroom |


| L | Detector in living room |
| :--- | :--- |
| M | Detector in kitchen |
| N | Detector location unknown |
| P | Capehart home |
| Q | MCA home |
| R | Duplex (one-story) home |
| S | Duplex (multisiory) home |
| T | Apartment building |
| U | Betow detection limit |
| [ND] | No dasa |
| [NR] | Nor returned |

Fairfield Army Housing Area Falrfield, Connecticut 06430 Indoor Radon Concentrations

Summary:
Number of residental structures: $28 \quad$ Number of detectors retumed: 26
Number of detectors instaled: 30 Number of outstanding detactors: 4
Number of replicate pairs: 2
Highest reported result: 2.3
Lowest reported result: 0.7

| $\begin{aligned} & \text { Detoctor } \\ & \text { No. } \end{aligned}$ | Adaress | Unit No. | Exposure [(pCiL) days] | Conc. ( pCi ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648239 | 016 Jarvis Cl. | 16 | 243.3 | 2.3 | 8.2 | DJKP |
| 1646478 | 025 Jarvis Ct . | 25 | 246.6 | 2.0 | 8.4 | KP |
| 1644216 | 028 Jarvis Ct. | 28 | 159.1 | 1.7 | 10.3 | KP |
| 1644212 | 037 Jarvis Ct. | 37 | 180.2 | 2.0 | 9.4 | CKP |
| 1646493 | 042 Jarvis Ct. | 42 | 148.6 | 1.6 | 10.3 | KP |
| 1648269 | 051 Jarvis Ct. | 51 | 248.5 | 1.6 | 8.4 | KP |
| 0 | 058 Jarvis Ct. | 58 |  |  |  | [ND] |
| 1644202 | 065 Jarvis Ct . | 65 |  |  |  | KP [ $\left.{ }^{\text {PR }}\right]$ |
| 1644205 | 070 Jarvis Ct. | 70 | 227.9 | 1.4 | 8.4 | KP |
| 1646487 | 077 Janis Ct. | 77 | 343.5 | 2.3 | 7.2 | DJKP |
| 1648254 | 084 Jarvis Ct. | 84 | 131.1 | 1.4 | 11.3 | EKP |
| 1644206 | 089 Jarvis Ct . | 89 | 94.3 | 1.0 | 12.6 | DJKP |
| 1648235 | 100 Jarvis Ct | 100 | 363.2 | 2.2 | 6.8 | EKP |
| 1644201 | 111 Jarvis Ct . | 111 | 231.7 | 1.5 | 8.7 | AKP |
| 1644208 | 111 Jarvis Ct . | 111 | 198.2 | 1.3 | 9.3 | AKP |
| 1648234 | 320 Quincy St. | 320 | 187.2 | 2.3 | 9.3 | BKP |
| 1648262 | 321 Quincy St. | 321 | 112.8 | 0.7 | 11.3 | BCOJKP |
| 1648258 | 336 Quincy St. | 336 | 110.6 | 1.2 | 12.1 | BDEJKP |
| 1644214 | 350 Quincy St. | 350 | 208.2 | 2.2 | 8.8 | KP |
| 1646475 | 362 Quincy St. | 362 | 152.2 | 1.5 | 10.2 | AKP |
| 1646494 | 362 Quincy St. | 362 | 152.2 | 1.5 | 10.2 | AKP |
| 1648237 | 376 Quincy St. | 376 | 162.2 | 1.2 | 9.8 | BCJNP |
| 1648268 | 377 Quincy St. | 377 |  |  |  | KP [NP] |
| 1648275 | 385 Cuincy St. | 385 | 253.5 | 1.8 | 8.0 | BCJNP |
| 1644203 | 394 Quincy St. | 394 | 118.3 | 0.7 | 11.1 | DJKP |
| 1646495 | 397 Quincy St. | 397 | 148.6 | 1.5 | 10.3 | $K P$ |
| 1648264 | 409 Ouincy St. | 409 | 313.8 | 1.8 | 7.3 | BCKP |
| 1648253 | 412 Ouincy St. | 412 | 139.9 | 1.2 | 10.6 | DJKP |
| $\begin{aligned} & 1644211 \\ & 1644209 \end{aligned}$ | 673 Reef Rd. 703 Reef Rd. | $\begin{aligned} & 673 \\ & 703 \end{aligned}$ | 93.9 | 1.0 | 13.0 | DEJKP BNP[NR] |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H Exposure < 90 |  |
| Jays |  |
| Jact duration of exposure |  |
| K | Unknown; concentration estimated |
| K | Detector in bedroom |


| L | Detector in living room |
| :--- | :--- |
| M | Detector in kitchen |
| N | Detector location unknown |
| P | Capehart home |
| Q | MCA home |
| R | Duplex (One-story) home |
| S | Duplex (multistory) home |
| T | Apatment buiding |
| U | Below detaction limit |
| [ND] | No date |
| [NR] | Not returned |

> Manchester Army Housing Area Manchester, Connecticut 06040 Indoor Radon Concentrations

Summary:
Number of residental structures: $32 \quad$ Number of detectors returned: 31
Number of detectors installed: 33 Number of outstanding detactors: 2
Number of replicate pairs: 1
Highest reported result: 0.8
Lowest reported result: 0.3

| Detector No. | Address | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Exposure [(pCil) days] | Conc. ( PCiL ) | Stencard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646453 | 002 Nike Cir. | 002 | 64.5 | 0.6 | 14.7 | K P |
| 1646428 | 007 Nike Cir. | 007 | 65.9 | 0.6 | 15.1 | DJKP |
| 1646427 | 008 Nike Cir. | 008 | 59.3 | 0.6 | 15.2 |  |
| 1646429 | 011 Nike Cir. | 011 | 82.7 | 0.6 | 13.7 | KP |
| 1646456 | 017 Nike Cir. | 017 | 89.1 | 0.8 | 12.9 | BCDEJNP |
| 1646450 | 018 Nike Cir. | 018 | 48.8 | 0.5 | 16.4 | KP |
| 1646449 | 019 Nike Cir. | 019 | 80.8 | 0.8 | 13.9 | DEJKP |
| 1646461 | 027 Nike Cir. | 027 | 48.8 | 0.4 | 16.4 | DEJKP |
| 1646454 | 029 Nike Cir. | 029 | 64.0 | 0.7 | 15.2 | DJKP |
| 1646459 | 034 Nike Cir. | 034 | 41.7 | 0.3 | 17.4 |  |
| 1645765 | 037 Nike Cir. | 037 | 43.5 | 0.5 | 17.7 | BKP |
| 1645759 | 041 Nike Cir. | 041 | 30.0 | 0.3 |  | DJKPU |
| 1646425 | 046 Nike Cir. | 046 | 45.3 | 0.5 | 16.9 |  |
| 1644245 | 049 Nike Cir. | 049 | 45.3 | 0.5 | 16.9 | BEKP |
| 1646452 | 052 Nike Cir. | 052 | 51.0 | 0.4 | 16.7 | DJKP |
| 1646430 | 055 Nike Cir. | 055 | 61.7 | 0.4 | 14.1 |  |
| 1645760 | 060 Nike Cir. | 060 |  |  |  | BKP ${ }^{\text {PR }}$ ] |
| 1646443 | 061 Nike Cir. | 061 | 45.4 | 0.5 | 17.4 | DJKP |
| 1646439 | 066 Nike Cir. | 066 | 57.5 | 0.5 | 15.4 | DEJNP |
| 1644242 | 069 Nike Cir. | 069 |  |  |  | BKP [ $\mathrm{NR}^{\text {] }}$ |
| 1646444 | 074 Nike Cir. | 074 | 43.0 | 0.5 | 17.7 | $K P$ |
| 1646458 | 075 Nike Cir. | 075 | 55.8 | 0.6 | 15.6 | DEJKP |
| 1646426 | 079 Nike Cir. | 079 | 55.8 | 0.6 | 15.6 | EKP |
| 1646432 | 083 Nike Cir. | 083 | 56.6 | 0.4 | 16.0 | DEJKP |
| 1646431 | 087 Nike Cir. | 087 | 5.2 | 0.6 | 14.3 | DJKP |
| 1646433 | 088 Nike Cir. | 088 | 30.0 | 0.3 |  | KPU |
| 1646434 | 089 Nike Cir. | 089 | 43.5 | 0.4 | 17.7 | ADEJKP |
| 1646451 | 089 Nike Cir. | 089 | 61.0 | 0.5 | 15.1 | ADEJKP |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detactor received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Expocure < 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| Detector in bedroom |  |

[^11]Manchester Army Housing Area (Cont'd) Manchester, Connecticut 06040 Indoor Radon Concentrations

| Detector No. | Adcress | Unit No. | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviaition (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644243 | 093 Nike Cir. | 093 | 49.1 | 0.5 | 16.9 | BKP |
| 1646424 | 099 Nike Cir. | 099 | 95.7 | 0.6 | 12.9 | KP |
| 1646437 | 102 Nike Cir. | 102 | 30.6 | 0.3 | 17.4 | K P |
| 1644244 | 112 Nike Cir. | 112 | 71.5 | 0.8 | 14.1 | BKP |
| 1646435 | 118 Nike Cir. | 118 | 112.8 | 0.6 | 11.3 | DJKP |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector reccived with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | unknown; concentration estimated |
| Detector in bedroom |  |

[^12]G Unoccupied house
$j$ Exact duration of exposure
unknown; concentration estimated
$K$ Detector in bedroom

Middletown Army Housing Area Middletown, Connecticut 06457 Indoor Radon Concentrations

## Summary

Number of residental siructures: $16 \quad$ Number of detectors rebumed: 17
Number of detactors installed: 17
Number of outstanding detectors: 0
Number of replicate pairs: 1
Highest reported result: 1.1
Lowest reported result: 0.3

| Detector No. | Adcress | Unis No. | Exposure [( $\mathrm{p} \mathrm{Ci} /$ ) days] | Conc. ( pCi ) | Stancard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641543 | 32 Military Rd. | 32 | 103.2 | 1.1 | 12.5 | KP |
| 1644238 | 42 Military Rd. | 42 | 55.8 | 0.4 | 15.6 | BDJNP |
| 1644226 | 49 Military Rd. | 49 | 30.5 | 0.3 | 20.0 | KPU |
| 1641517 | 50 Military Rd. | 50 | 86.4 | 0.9 | 13.5 | DJKP |
| 1645761 | 57 Military Rd. | 57 | 55.8 | 0.6 | 15.6 | KP |
| 1644232 | 58 Military Rd. | 58 | 30.0 | 0.3 | - | KPU |
| 1644229 | 67 Military Rd. | 67 | 45.3 | 0.5 | 16.9 | DJKP |
| 1644252 | 68 Military Pd. | 68 | 30.0 | 0.5 |  | HKPU |
| 1644251 | 73 Military Rd. | 73 | 31.2 | 0.3 | 19.2 | KP |
| 1644230 | 74 Military Pd. | 74 | 56.6 | 0.6 | 16.0 | KP |
| 1641519 | 83 Military Rd. | 83 | 43.5 | 0.5 | 17.7 | DJKP |
| 1644225 | 84 Military Rd. | 84 | 34.7 | 0.3 | 18.6 | KP |
| 1641537 | 89 Military Rd. | 89 | 54.7 | 0.6 | 16.2 | BCJNP |
| 1644228 | 90 Militay Pd. | 90 | 69.6 | 0.5 | 14.7 |  |
| 1645758 | 97 Military Rd. | 97 | 30.0 | 0.3 |  | AKPU |
| 1644254 | 97 Militay Rd. | 97 | 43.5 | 0.5 | 17.1 | AKP |
| 1641518 | 98 Military Rd. | 98 | 47.0 | 0.5 | 16.7 | EKP |

aKey to Remarks:

> Duplicate detectors
> Detector placed by occupant of DEH
> C Starting date unknown
> D Ending date unknown
> E Detector received with no seal
> F No data sheet
> G Unoccupied house
> H Exposure < 90 days
> $J$ Exact duration of exposure unknown; concentration estimated
> $K$ Detector in bedroom

1 Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

Milford Army Housing Area
Milford, Connecticut 06460 Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors returned: 17
Number of delectors installed: 18 Number of outstanding detectors: 1
Number of replicate pairs: 2
Highest reported result: 1.7
Lowest reported result: 0.5

| Detector No. | Adtress | Unit No. | Exposure <br> [(pCil) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648229 | 01 Alpha St. | 01 | 103.1 | 1.1 | 12.1 | K ${ }^{\text {F }}$ |
| 1646485 | 02 Alpha St. | 02 | 92.0 | 0.9 | 13.1 | DJKP |
| 1646477 | 03 Alpha St. | 03 | 90.8 | 0.8 | 12.8 | DEJKP |
| 1648228 | 04 Alpha St. | 04 | 54.0 | 0.5 | 15.8 | DEJKP |
| 1646479 | 05 Alpha St. | 05 |  |  |  | KP [NR] |
| 1644210 | 06 Alpha St. | 06 | 96.1 | 0.8 | 12.5 | ADJKP |
| 1646491 | 06 Alpha St. | 06 | 78.5 | 0.6 | 13.6 | ADJKP |
| 1646488 | 07 Alpha St. | 07 | 94.3 | 1.0 | 12.6 | KP |
| 1648266 | 08 Alpha St. | 08 | 257.8 | 1.7 | 8.2 | DEJKP |
| 1648259 | 09 Alpha St. | 09 | 67.8 | 0.7 | 14.0 | CDJKP |
| 1648243 | 10 Alpha St. | 10 | 45.3 | 0.5 | 16.9 | BCDJNP |
| 1646480 | 11 Alpha St. | 11 |  |  |  |  |
| 1648250 | 12 Alpha St. | 12 | 57.5 | 0.6 | 15.4 | KP |
| 1648227 | 13 Alpha St. | 13 | 134.6 | 1.2 | 10.8 | DJKP |
| 1648249 | 14 Alpha St. | 14 | 57.5 | 0.6 | 5.4 | DJKP |
| 1648276 | 15 Alpha St. | 15 | 83.8 | 0.9 | 13.2 | EKP |
| 1648233 | 16 Alpha St. | 16 | 99.6 | 1.1 | 12.3 | ADJKP |
| 1648265 | 16 Alpha St. | 16 | 108.3 | 1.2 | 11.9 | ADJKP |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exat duration of exposure |  |
| K | Unknown; concentration estimated |
| Detector in becroom |  |

[^13]
## Now Britain Army Housing Area <br> New Britain, Connecticut 06051 <br> Indoar Redon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors returned: 15
Number of delectors instriled: 17
Number of autstanding derectors: 2
Number of replicate pairs: 1
Highest reported result: 2.9
Lowest reported result: 0.5

| Deractor No. | Adaress | Unit No. | Exposure [ (pCiL) days] | Conc. (pCiL) | Standard Deviaiton (\%) | Romarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641516 | 006 Green St. | 06 | 85.6 | 0.9 | 13.1 | K P |
| 1641512 | 014 Green St. | 14 | 80.8 | 0.7 | 13.9 | DJKP |
| 1641539 | 005 Halsey St. | 05 | 68.0 | 0.7 | 14.4 | DJKP |
| 1644227 | 017 Halsey St. | 17 | 257.3 | 2.9 | 8.0 | BENP |
| 1641511 | 031 Halsey St. | 31 | 47.3 | 0.5 | 17.1 | DJKP |
| 1641510 | 011 Kulper St. | 11 | 115.4 | 1.2 | 11.5 | KP |
| 1641546 | 012 Kulper St. | 12 | 71.5 | 0.8 | 14.1 | KP |
| 1641534 | 019 Kulper St. | 19 | 139.9 | 1.1 | 10.6 | DEJKP |
| 1641521 | 020 Kuiper St | 20 | 92.6 | 0.7 | 12.7 | DJKP |
| 1641549 | 027 Kulper Rd. | 27 | 157.4 | 1.2 | 10.1 | DEJKP |
| 0 | 028 Kulper St. | 28 |  |  |  | [ND] |
| 1641535 | 035 Kulper Rd. | 35 | 89.1 | 0.8 | 12.9 | BCDJKP |
| 1641540 | 298 Rocky Hill Ave. | 298 | 207.5 | 1.4 | 9.1 | AEJKP |
| 1641523 | 298 Rocky Hill Ave. | 298 | 188.9 | 1.2 | 9.5 | AEJKP |
| 1641520 | 306 Rocky Hill Ave. | 306 |  |  |  | KP [NR] |
| 1641538 | 312 Rocky Hill Ave. | 312 | 64.0 | 0.6 | 15.2 | DEJKP |
| 1646482 | 320 Rocky Hill Ave. | 320 | 66.3 | 0.7 | 14.6 | K P |

akey to Pemarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
K Detector in bectrom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home MCA home
R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detaction limit
[ND] No data
[NR] Not returned

Orange Army Housing Area
Orange, Connecticut 06477 Indoor Radon Concentrations

Summary:
Number of residental stuctures: $20 \quad$ Number of detectors returned: $\mathbf{2 0}$
Number of detectors installed: $24 \quad$ Number of outstanding detectors: 4
Number of replicate pairs: 4
Highest reported result: 2.2
Lowest reported result: 0.5

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | $\begin{aligned} & \text { Exposure } \\ & {[(P C i L) \text { days] }} \end{aligned}$ | Conc. (pCiL) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 343 Smith Farm Rd. |  |  |  |  | [ND] |
| 1648284 | 348 Smith Farm Rd. |  | 114.3 | 1.2 | 12.0 | $A K P$ |
| 1646447 | 348 Smith Farm Rd. |  | 115.4 | 1.2 | 11.5 | AKP |
| 1646445 | 349 Smith Farm Rd. |  | 108.3 | 1.1 | 11.9 | KP |
| 1646440 | 350 Smith Farm Rd. |  | 153.5 | 1.0 | 10.5 | KP |
| 1648281 | 351 Smith Farm Rd. |  | 99.6 | 1.1 | 12.3 | K P |
| 1646441 | 354 Smith Farm Rd. |  | 166.4 | 1.8 | 9.8 | BENP |
| 1648282 | 355 Smith Farm Rd. |  | 66.3 | 1.5 | 14.6 | AHKP |
| 1646480 | 355 Smith Farm Rd. |  | 103.1 | 1.2 | 12.1 | AKP |
| 1646446 | 359 Smith Farm Rd. |  |  |  |  | KP[ NR ] |
| 1648278 | 363 Smith Farm Rd. |  | 113.6 | 1.3 | 11.6 | DJKP |
| 1648285 | 342 Sybil St. |  | 168.4 | 1.1 | 10.1 | KP |
| 1642288 | 345 Sybil St |  | 226.1 | 1.7 | 8.5 | GMP |
| 1646469 | 349 Sybil St. |  | 80.3 | 0.9 | 13.5 | KP |
| 1648279 | 350 Sybil St. |  |  |  |  | AKP [NR] |
| 1648280 | 350 Sybil St. |  |  |  |  | A K P [ NR ] |
| 1648286 | 351 Sybil St. |  | 52.3 | 0.5 | 16.0 | DJKP |
| 1642300 | 353 Sybil St. |  | 89.1 | 1.0 | 12.9 | KP |
| 1646422 | 354 Sybil St. |  | 200.1 | 2.2 | 9.3 | AKP |
| 1646423 | 354 Sybil St. |  | 199.5 | 2.2 | 9.0 | AKP |
| 1646421 | 355 Sybil St. |  | 157.4 | 1.6 | 10.1 | DEJKP |
| 1646438 | 358 Sybil St. |  | 78.5 | 0.8 | 13.6 | DJKP |
| 1648287 | 359 Sybil St. |  | 85.6 | 0.8 | 13.1 | DEJKP |
| 1642286 | 362 Sybil St. |  | 101.3 | 0.8 | 12.2 | DJKP |

aKey to Remarks

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detoctor received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H Exposure < 90 days |  |
| J | Exact duration of exposure |
| Knknown; concentration estimated |  |
| K | Detector in bedroom |

[^14]Plainvilie Army Housing Area Plalnville, Connecticut 06062 Indoor Radon Concentrations

Summary:
Number of residental structures: 32
Number of detectors returned: 18
Number of detectors installed: 36
Number of replicate pairs: 4
Highest reported result: 1.6
Lowest reported resuit: 0.4

| Detector No. | Adcress | Unit No. | $\begin{aligned} & \text { Exposure } \\ & {[(P C i /) \text { days] }} \end{aligned}$ | Conc. $(p C i L)$ | Standard <br> Deviation (\%) | Rernarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643451 | 01 Cassidy Dr. | 01 | 234.5 | 2.5 | 8.4 | EJKP |
| 1643438 | 02 Cassidy Dr. | 02 |  |  |  | AKP[NR] |
| 1643456 | 02 Cassidy Dr. | 02 |  |  |  | AKP[NR] |
| 1641527 | 03 Cassidy Dr. | 03 | 315.6 | 3.4 | 7.5 | DEJKP |
| 0 | 04 Cassidy Dr. | 04 |  |  |  | [ ND$]$ |
| 1643454 | 05 Cassidy Dr. | 05 |  |  |  | KP [NR] |
| 1643455 | 06 Cassidy Dr. | 06 | 125.9 | 1.3 | 11.1 | DJKP |
| 1641552 | 07 Cassidy Dr. | 07 |  |  |  | KP [NR] |
| 1643423 | 08 Cassidy Dr. | 08 |  |  |  | K M P [ NR ] |
| 1641550 | 09 Cassidy Dr. | 09 | 82.7 | 0.8 | 13.7 | DJKP |
| 1641533 | 10 Cassidy Dr. | 10 | 120.6 | 1.3 | 11.3 | DJKP |
| - | 11 Cassidy Dr. | 11 |  |  |  | [ND] |
| 1641525 | 12 Cassidy Dr. | 12 | 87.3 | 0.9 | 13.0 | AKP |
| 1641526 | 12 Cassidy Dr. | 12 | 40.0 | 0.4 | 17.7 | AKP |
| 1641560 | 13 Cassidy Dr. | 13 | 66.3 | 0.7 | 14.6 | EKP |
| 1641553 | 14 Cassidy Dr. | 14 |  |  |  | KP[ NR ] |
| 1641514 | 15 Cassidy Or. | 15 | 40.0 | 0.4 | 17.7 | DJKP |
| 1641515 | 16 Cassidy Dr. | 16 |  |  |  | KP [NR] |
| 1641536 | 17 Cassidy Dr. | 17 |  |  |  | AKP[ ${ }^{\text {PR }}$ |
| 1641522 | 17 Cassidy Dr. | 17 |  |  |  | AKP[NR] |
| 1641547 | 18 Cassidy Dr. | 18 |  |  |  | KP [NR] |
| 1641555 | 19 Cassidy Dr. | 19 |  |  |  | KP [NR] |
| 1641559 | 20 Cassidy Dr. | 20 | 127.4 | 1.4 | 11.4 | OEJKP |
| 0 | 21 Cassidy Dr. | 21 |  |  |  | [ ND$]$ |
| 1641551 | 22 Cassidy Dr. | 22 |  |  |  | KP [NR] |
| 1641532 | 23 Cassidy Dr. | 23 | 30.0 | 0.3 |  | DJKPU |
| 1641544 | 24 Cassidy Dr. | 24 | 119.9 | 1.3 | 11.7 | KP |
| 0 | 25 Cassidy Dr. | 25 |  |  |  | [ ND ] |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detoctor received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| U | Exposure < 90 |
| Jays |  |
| Exact duration of exposure |  |
| Unknown: concentration estimated |  |
| K | Detector in bedroom |

Plainville Army Housing Area (Cont'd) Plainville, Connecticut 06062 Indoor Radon Concentrations

| Detector No. | Address | Unit No. | Exposure [(pCil) days] | Conc. (pCiL) | Standard Doviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} 1641557 \\ 0 \end{array}$ | 26 Cassidy Dr. <br> 27 Cassidy Dr. | 26 | 227.9 | 1.3 | 8.4 | EKP [ND] |
| 1641558 | 28 Cassidy Dr. | 28 | 90.1 | 1.0 | 13.2 | K P |
| 0 | 29 Cassidy Dr. | 29 |  |  |  | [ ND ] |
| 1641556 | 30 Cassidy Dr. | 30 | 151.6 | 1.6 | 10.5 | DJKP |
| 1641529 | 31 Cassidy Dr | 31 | 139.9 | 1.5 | 10.6 | KP |
| 1641545 | 32 Cassidy Dr. | 32 | 127.4 | 1.4 | 11.4 | ADEJKP |
| 1641513 | 32 Cassidy Dr. | 32 | 113.6 | 1.2 | 11.6 | ADEJKP |

akey to Remarks:
A Duplicate detectors
8 Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

[^15]Portland Army Housing Area
Portland, Connecticut 06480
Indoor Radon Concentrations

Summary:
Number of residental strucures: $15 \quad$ Number of detectors returned: 15
Number of detectors installed: 16
Number of replicate pairs: 1
Highest reported result: 1.5
Lowest reported result: 0.4
Number of outstanding detectors:

| Detactor No. | Adtress | Unit No. | Exposure [( $p \mathrm{C} / \mathrm{L}$ ) days] | Conc. ( pCO ) | Stanctard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644250 | 01 Thompson Hill Rd. | 01 | 80.8 | 0.9 | 13.9 | K P |
| 1645757 | 02 Thompson Hill Rd. | 02 | 105.0 | 1.1 | 12.4 | KP |
| 1644218 | 03 Thompson Hill Rd. | 03 | 92.0 | 1.0 | 13.1 | KP |
| 1644222 | 04 Thompson Hill Rd. | 04 | 73.3 | 0.8 | 14.0 | AKP |
| 1644224 | 04 Thompson Hill Rd. | 04 | 68.0 | 0.7 | 14.4 | AKP |
| 1644219 | 05 Thompson Hill Rd. | 05 | 69.8 | 0.7 | 14.3 | KP |
| 1644241 | 06 Thompson Hill Rd. | 06 | 80.3 | 0.9 | 13.5 | KP |
| 1644255 | 07 Thompson Hill Rd. | 07 | 32.4 | 0.4 | 19.6 | KP |
| 1644221 | 08 Thompson Hill Rd. | 08 | 69.8 | 0.8 | 14.3 | KP |
| 1644223 | 09 Thompson Hill Rd. | 09 | 134.8 | 1.5 | 11.1 | KP |
| 1645764 | 10 Thompson Hill Rd. | 10 | 73.3 | 0.6 | 14.0 | DJKP |
| 1644220 | 11 Thompson Hill Rd. | 11 | 54.7 | 0.5 | 16.2 | CDJKP |
| 1644231 | 13 Thompson Hill Rd. | 13 | 63.3 | 0.7 | 14.6 | $K P$ |
| 1644236 | 14 Thompson Hitl Rd. | 14 |  |  |  | CDEJNP[NR] |
| 1644240 | 15 Thompson Hill Rd. | 15 | 64.5 | 0.9 | 14.7 | BCHJNP |
| 1644247 | 16 Thompson Hill Rd. | 16 | 80.3 | 0.7 | 13.5 | DEJKP |

aKey to Pemarks:

| A | Duplicate detectors | L | Detector in living room |
| :---: | :---: | :---: | :---: |
| B | Detector placed by occupant of DEH | M | Detector in kitchen |
| C | Starting date unknown | N | Detector location unknown |
| D | Ending date unknown | P | Capehart home |
| E | Detector recrived with no seal | 0 | MCA home |
| F | No data sheet | R | Duplex (one-story) home |
| G | Unoccupied house | S | Duplex (multistory) home |
| H | Exposure < 90 days | $T$ | Apartment building |
| $J$ | Exact duration of exposure | U | Below detection limit |
| K | Unknown; concentration estimated | [NR] | Not returned |

## Shelton Army Housing Area <br> Shelton, Connecticut 06484 <br> Indoor Radon Concentrations

Summary:

| Number of residental structures: 16 | Number of detectors retumed: 16 |
| :--- | :--- |
| Number of detectors installed: 17 | Number of outstanding detectors: 1 |

Number of replinate pairs: 1
Highest reported result: 5.9
Lowest reported result: 1.3

| Detactor No. | Adtress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. $\text { ( } \mathrm{pCiL} \text { ) }$ | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648232 | 01 Palmetto Cir. | 01 | 281.0 | 1.5 | 7.6 | GMP |
| 1646466 | 02 Paimetto Cir. | 02 | 243.0 | 1.3 | 8.1 | GMP |
| 1648238 | 03 Palmetto Cir. | 03 | 580.8 | 3.1 | 5.4 | GMP |
| 1648236 | 04 Palmetto Cir. | 04 | 718.1 | 3.9 | 4.9 | GMP |
| 1648241 | 05 Palmetto Cir. | 05 | 449.0 | 2.4 | 6.1 | GMP |
| 1648261 | 06 Palmetto Cir. | 06 | 586.2 | 3.2 | 5.4 | GMP |
| 1648240 | 07 Palmetto Cir. | 07 | 559.1 | 3.0 | 5.5 | GMP |
| 1646468 | 08 Palmetto Cir. | 08 | 924.0 | 5.0 | 4.4 | GMP |
| 1646465 | 09 Palmetto Cir. | 09 | 1090.2 | 5.9 | 4.0 | GMP |
| 1648256 | 10 Palmetto Cir. | 10 | 700.0 | 3.8 | 5.0 | GMP |
| 1642315 | 11 Palmetto Cir. | 11 | 665.7 | 3.6 | 5.1 | GMP |
| 0 | 12 Palmetto Cir. | 12 |  |  |  | [ND] |
| 1642309 | 13 Palmetto Cir. | 13 | 622.4 | 3.3 | 5.3 | GMP |
| 1646471 | 14 Palmetto Cir. | 14 | 649.4 | 3.5 | 5.2 | AGMP |
| 1648231 | 14 Palmetto Cir. | 14 | 517.6 | 2.8 | 5.7 | AGMP |
| 1642301 | 15 Palmetto Cir. | 15 | 714.5 | 3.8 | 4.9 | GMP |
| 1646045 | 16 Palmetto Cir. | 16 | 449.0 | 2.4 | 6.1 | GMP |

akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

L Detector in living room
M Delector in kitchen
$N$ Detactor location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
$T$ Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

Westport Army Housing Area
Westport, Connectlcut 06880
Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of defactors remmed: 14
Nurnber of detectors installed: 17
Number of outstanding detectors: 3
Number of replicate pairs: 1
Highest reported result: 10.6
Lowest reported result: 1.2

| Detector No. | Address | Unit <br> No. | Exposure [( $\mathrm{p} \mathrm{C} / \mathrm{L}$ ) days] | Conc. (pCiL) | Stanclard Deviaion (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644207 | 01 Wassell Ln. | 01 | 290.1 | 1.6 | 7.6 | KP |
| 1644213 | 03 Wassell Ln. | 03 | 478.1 | 3.7 | 6.0 | DJKP |
| 1646484 | 05 Wassell Ln. | 05 |  |  |  | D J KP [NR] |
| 1646490 | 06 Wassell Ln. | 06 | 364.2 | 3.6 | 6.8 | DEJKP |
| 1646486 | 07 Wassell Ln. | 07 |  |  |  | $K P$ [ NR ] |
| 1646472 | 08 Wassell Ln. | 08 | 1215.6 | 7.8 | 3.9 | EMP |
| 1646474 | 09 Wassall Ln. | 09 | 113.6 | 1.2 | 11.6 | KP |
| 1646462 | 10 Wassell Ln. | 10 | 437.8 | 4.8 | 6.2 | BNP |
| 1646481 | 11 Wassell Ln. | 11 | 576.3 | 5.6 | 5.4 | AKP |
| 1644204 | 11 Wassell Ln. | 11 | 495.6 | 4.8 | 5.9 | AKP |
| 1646473 | 12 Wassall Ln. | 12 |  |  |  | MP [NP] |
| 1646483 | 15 Wassell Ln. | 15 | 812.9 | 8.0 | 4.6 | BCDEJNP |
| 1646476 | 16 Wassell Ln. | 16 | 283.6 | 3.1 | 7.6 | K P |
| 1646463 | 17 Wassell Ln. | 17 | 509.7 | 5.3 | 5.8 | $K P$ |
| 1646464 | 18 Wassell Ln. | 18 | 684.5 | 4.4 | 5.2 | LP |
| 1644217 | 19 Wassell Ln. | 19 | 260.8 | 2.6 | 8.0 | DEJKP |
| 1646489 | 20 Wassell Ln. | 20 | 961.8 | 10.6 | 4.2 | DJKP |

akey to Pemarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
$K$ Detoctor in bectoom

Detactor in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
$S$
$T$

## Addison Army Housing Area <br> Addison, lilinols 60101 <br> Indoor Radon Concentrations

Summary:
Number of residental stuctures: $12 \quad$ Number of detectors returned: 11
Number of detectors installed: 13 Number of outstanding detectors: 2
Number of replicate pairs: 1
Highest reported result: 5.7
Lowest reported result: 0.9

| Detector No. | Address | Unit No. | Exposure [(pCil) days] | Conc. (pCiL) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643999 | 403 Army Trail Pd. | 403 |  |  |  | KP [NR] |
| 1645088 | 409 Army Trail Rd. | 409 | 329.2 | 3.7 | 7.1 | DJKP |
| 1645092 | 413 Army Trail Rd. | 413 | 896.9 | 4.9 | 4.4 | KP |
| 1643997 | 419 Army Trail Rd. | 419 | 514.9 | 5.7 | 5.7 | BNP |
| 1644027 | 403 Natoma | 403 | 593.8 | 4.8 | 5.4 | AKP |
| 1644003 | 403 Natoma | 403 | 635.9 | 5.2 | 5.2 | AKP |
| 1644024 | 404 Natoma | 404 | 701.8 | 3.9 | 5.0 | KP |
| 1645086 | 410 Natoma | 410 | 78.9 | 0.9 | 14.0 | KP |
| 1645087 | 411 Natoma | 411 | 676.5 | 3.7 | 5.1 | $K P$ |
| 1644002 | 414 Natoma | 414 | 280.1 | 3.1 | 7.7 | K P |
| 0 | 415 Natoma | 415 |  |  |  | [ ND$]$ |
| 1643991 | 420 Natoma | 420 | 436.3 | 2.3 | 6.2 | DEJKP |
| 1643994 | 423 Natoma | 423 | 349.6 | 1.9 | 6.9 | KP |

aKey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detactor received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

[^16]Worth Army Housing Area Worth, Illinois 60463 Indoor Radon Concentrations

## Summary:

Number of residental structures: $12 \quad$ Number of detectors returned: 11
Number of detectors installed: 13
Number of replicate pairs: 1
Highest reported result: 5.8
Lowest reported result: 1.1

| Detector No. | Address | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. $(\mathrm{pCiL})$ | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644020 | MCA \#01 | 01 | 208.2 | 2.3 | 8.8 | KP |
| 1647030 | MCA \#02 | 02 | 204.7 | 2.2 | 8.9 | AKP |
| 1647031 | MCA \#02 | 02 | 185.5 | 2.0 | 9.3 | AKP |
| 1644021 | MCA \# 03 | 03 | 337.6 | 2.0 | 7.1 | DJKP |
| 1644004 | MCA 04 | 04 | 341.7 | 3.6 | 7.2 |  |
| 1644005 | MCA ${ }^{105}$ | 05 | 148.6 | 1.5 | 10.3 | DEJKP |
| 1647022 | MCA \#06 | 06 | 883.9 | 5.8 | 4.6 | K P |
| 1647036 | MCA 107 | 07 | 139.9 | 1.1 | 10.6 | DEJKP |
| 1641506 | MCA | 08 | 170.2 | 1.9 | 10.0 | $K$ |
| 1647027 | MCA 109 | 09 | 194.5 | 2.0 | 9.4 | EKP |
| 1644000 | MCA \#10 | 10 |  |  |  | KP [ NR ] |
| 1641508 | MCA \#11 | 11 | 120.6 | 1.3 | 11.3 |  |
| 1641507 | MCA *12 | 12 |  |  |  | K P [NR] |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < so days |
| J Exact duration of exposure |  |
| K unknown; concentration estimated |  |
| K | Detector in bedroom |

K Detector in bedroom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

## Croom Army Housing Area <br> Croom, Maryland 01880 Indoor Radon Concentrations

Summary:
Number of residental structures: 3
Number of detectors returned: 9
Number of detectors installed: 13
Number of replicate pairs: 1
Highest reported result: 4.9
Lowest reported result: 0.9
Number of outstanoing detectors: 4

| Detoctor No. | Address | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643678 | 15470 Mt. Calvert Rd. | 09A | 231.0 | 1.8 | 8.4 | LT |
| 1643993 | 15472 Mt. Calvert Rd. | 09B | 368.6 | 2.7 | 6.8 | MT |
| 1643676 | 15474 Mt. Calvert Rd. | 09C | 227.9 | 1.7 | 8.4 | K T |
| 1643677 | 15476 Mt. Calvert Rd. | 09D |  |  |  | AKT[ NR ] |
| 1643685 | 15476 Mt. Calvert Rd. | 090 |  |  |  | AKT[ NR$]$ |
| 1643686 | 15478 Mt. Calvert Rd. | 09E | 90.9 | 0.6 | 12.3 | MT |
| 0 | 15484 Mt. Calvert Rd. | 12A |  |  |  | [ND] |
| 0 | 15486 Mt. Calvert Rd. | 12 B |  |  |  | [ND] |
| 1643687 | 15488 Mt. Calvert Rd. | 12 C | 668.3 | 4.9 | 5.1 | BNT |
| 1643688 | 15492 Mt. Calvert Rd. | 04A | 215.2 | 1.7 | 8.7 | BNT |
| 1647549 | 15494 Mt. Calvert Rd. | 04B | 78.1 | 0.6 | 15.4 | BNT |
| 1643680 | 15496 Mt. Calvert Rd. | 04C | 110.1 | 0.9 | 11.8 | BNT |
| 1647553 | 15498 Mt. Calvert Rd. | 04D | 125.9 | 1.0 | 11.1 | BNT |

## aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Deltactor placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector receeived with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | unknown; concentration estimated |
| Detector in bedroom |  |

Bedford Army Housing Area
Bedford, Massachusetts 01730
Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors returned: 16
Number of detectors installed: 19
Number of replicate pairs: 3
Highest reported result: 3.6
Lowest reported result: 0.3

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Address | Unit No. | Exposure [(PCM) days] | Conc. ( PCi ) | Stanctard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641159 | 01 Lewis Rd. | 01 | 38.2 | 0.4 | 18.0 | BHKP |
| 1641189 | 02 Lewis Rd. | 02 | 75.0 | 0.8 | 13.9 | BKP |
| 1641166 | 03 Lewis Rd. | 03 |  |  |  | BKP[ NR$]$ |
| 1641197 | 04 Lewis Rd. | 04 |  |  |  | KP [ NR ] |
| 1641196 | 05 Lewis Rd. | 05 | 129.3 | 1.2 | 11.3 | ADJKP |
| 1641170 | 05 Lewis Rd. | 05 | 116.2 | 1.1 | 11.9 | ADJKP |
| 1645785 | 06 Lewis Rd. | 06 | 170.2 | 1.8 | 10.0 | K ${ }^{\text {P }}$ |
| 1641187 | 01 Mickelson Rd. | 1 | 215.2 | 2.4 | 8.7 | BKP |
| 1641160 | 02 Mickelson Rd. | 2 | 208.2 | 2.3 | 8.8 | BKP |
| 1641161 | 03 Mickelson Rd. | 3 |  |  |  | BKP[ NR ] |
| 1645784 | 04 Mickelson Rd. | 4 | 311.6 | 0.3 | 7.3 | CDJKP |
| 1641171 | 05 Mickelson Rd. | 5 | 134.6 | 1.5 | 10.8 | BNP |
| 1641176 | 06 Mickelson Rd. | 6 | 199.5 | 2.2 | 9.0 | BCJNP |
| 1641193 | 33 Pine Hill Rd. | 33 | 211.2 | 1.4 | 9.1 | NP |
| 1641172 | 35 Pine Hill Rd. | 35 | 205.7 | 2.3 | 9.2 | AKP |
| 1641175 | 35 Pine Hill Rd. | 35 | 167.9 | 1.8 | 9.8 | AKP |
| 1641168 | 37 Pine Hill Rd. | 37 | 418.5 | 3.6 | 6.4 | ACDJKP |
| 1641179 | 37 Pine Hill Rd. | 37 | 376.5 | 3.3 | 6.7 | ACDEJKP |
| 1641180 | 39 Pine Hill Rd. | 39 | 436.2 | 2.6 | 6.3 | DEJKP |

akey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| K | Detector in bedroom |

$K$ Detactor in bedroom

## Beverly Army Housing Area Beverly, Massachusetts 01915 Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectiors returned: 9
Number of detectors installed: 17 Number of outstanding debectors: 8
Number of replicate pairs: 1
Highest reported result: 2.9
Lowest reported result: 1.2

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adcress | Unit No. | Exposure [(pCil) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 40 Laurel St. | 40 |  |  |  | [ND] |
| 0 | 41 Laurel St. | 41 |  |  |  | (ND] |
| 1645807 | 42 Laurel St. | 42 | 166.2 | 1.6 | 9.8 | K P |
| 0 | 43 Laurel St. | 43 |  |  |  | [ND] |
| 0 | 44 Laurel St. | 44 |  |  |  | [ND] |
| 1645817 | 45 Laurel St. | 45 | 205.7 | 1.4 | 9.2 | K P |
| 0 | 46 Laurel St. | 46 |  |  |  | [ND] |
| 1645793 | 47 Laurel St. | 47 | 231.0 | 2.5 | 8.4 | BCDEJKP |
| 1645773 | 48 Laurel St. | 48 | 197.7 | 2.1 | 9.1 | DJKP |
| 0 | 49 Laurel St. | 49 |  |  |  | (ND] |
| 1645808 | 50 Laurel St. | 50 | 80.3 | 2.9 | 13.5 | EHKP |
| 1642311 | 51 Laurel St. | 51 | 452.6 | 2.5 | 6.1 |  |
| 0 | 52 Laural St. | 52 |  |  |  |  |
| 0 | 53 Laurel St. | 53 |  |  |  | (ND] |
| 1645810 | 54 Laural St. | 54 | 129.4 | 1.3 | 11.0 | ADJKP |
| 1645809 | 54 Laurel St. | 54 | 124.1 | 1.2 | 11.2 | ADJKP |
| 1645800 | 55 Laurel St. | 55 | 203.0 | 1.6 | 8.9 | BCDEJKP |

akey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| Detector in bedroom |  |

L Detector in living room
M Detector in kitchen
N Detector location unknown
C Detector placed by occu
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
NDI No data
(NR) Not returned

Burlington Army Housing Area
Burlington, Massachusetts 01803 Indoor Radon Concentratlons

Summary:
Number of residental structures: $12 \quad$ Number of detectors returned: 5
Number of detectors installed: 13
Number of replicate pairs: 1
Highest reported result: 4.1
Lowest reported result: 0.9
Number of outstanding detactors: 8

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adcress | Unit No. | Exposure [( PC Cin ) days] | Cona ( PCH - | Slandard Doviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 113 South Bedford | 113 |  |  |  | [ND] |
| 1641198 | 115 South Bedford | 115 | 118.9 | 0.9 | 11.4 | CDJKQ |
| 1641184 | 117 South Bedford | 117 | 430.8 | 4.1 | 6.3 | KO |
| 1641181 | 119 South Bedford | 119 |  |  |  | AKQ[NR] |
| 1641201 | 119 South Bedford | 119 |  |  |  | AKO[NR] |
| 1641167 | 121 South Bedford | 121 | 264.3 | 2.0 | 7.9 | CDJKO |
| 1641163 | 123 South Bedford | 123 | 174.9 | 1.4 | 9.6 | DEJKO |
| 0 | 125 South Bedford | 125 |  |  |  | [ND] |
| 0 | 127 South Bedford | 127 |  |  |  | [ND] |
| $164110{ }^{0}$ | 129 South Bedford | 129 |  |  |  |  |
| 1641192 | 131 South Bedford | 131 | 108.3 | 0.9 | 11.9 | CDJKQ |
| 0 | 133 South Bedford | 133 |  |  |  | [ND] |
| 0 | 135 South Bedford | 135 |  |  |  | [ ND ] |

akay to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Delector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| K | Detector in bedroom |

[^17]Hull Army Housing Area
Hull, Massachusetts 02045 Indoor Radon Concentrations

Summary:
Number of residental structures: 8
Number of detiectors relumed: 5
Number of detectors instaled: 8
Number of replicate pairs: 0
Highest reported result: 1.1
Lowest reported result: 0.3
Number of outstanding detectors: 3

| Detector No. | Address | Uni No. | $\begin{aligned} & \text { Exposure } \\ & {[(\mathrm{pCiL}) \text { days }]} \end{aligned}$ | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641202 | 1153 Nantasket | 1153 | 66.3 | 0.7 | 14.6 | BKP |
| 0 | 1155 Nantasket | 1155 |  |  |  | [ND] |
| 1641186 | 1157 Nantasket | 1157 | 30.0 | 0.3 |  | HKPU |
| 0 | 1159 Nantasket | 1159 |  |  |  | [ND] |
| 0 | 1161 Nantasket | 1161 |  |  |  | [ND] |
| 1641169 | 1163 Nantasket | 1163 | 87.3 | 0.8 | 13.0 | DJKP |
| 1643093 | 1165 Nantasket | 1165 | 71.5 | 0.8 | 14.1 |  |
| 1641157 | 1167 Nantasket | 1167 | 132.9 | 1.1 | 10.8 | CDEJKP |

aKey to Pemarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
$K$ Detector in bectroom
L. Detector in living room

M Detector in kitchen
N Detector location unknown
P Capehart home MCA home Duplex (one-story) home Duplex (multistory) home Apartment building
U Aplow detection limit

Nahant Army Housing Area
Nahant, Massachusetts 01908 Indoor Radon Concentrations

Summary:
Number of residental structures: 12
Number of detectors returned: 6
Number of delectors installed: 13
Number of ?eplicate pairs: 1
Highest reported result: 1.5
Lowest reported result: 0.6
Number of outstanding detectors: 7

| Detector No. | Adtross | Unit No | Exposure [ $(\mathrm{pCl} / \mathrm{L})$ days] | Conc. ( $\mathrm{pCl} / \mathrm{L}$ ) | Standard Deviaion (\%) | Femarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


aKey to Pemarks:

| A | Duplicate detactors | L | Detector in living room |
| :---: | :---: | :---: | :---: |
| 8 | Detector placed by occupant of DEH | M | Detector in kitchen |
| C | Starting date unknown | N | Detector location unknown |
| D | Ending date unknown | P | Capehart home |
| E | Detector received with no seal | 0 | MCA home |
| $F$ | No data sheet | R | Duplex (one-story) home |
| G | Unoccupied house | S | Duplex (multistory) home |
| H | Exposure < 90 days | $T$ | Aparment building |
| $J$ | Exact duration of exposure | U | Below dataction limit |
|  | unknown; concentration estimated | [ND] | No data |
| K | Catector in bedroom | [NR] | Not returned |

## Randolph Army Housing Area Randolph, Massachusetts 02368 Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors relumed: 12
Number of detectors installed: $17 \quad$ Number of outstanding detectors: 5
Number of replicate pairs: 1
Highest reported result: 7.7
Lowest reported result: 1.2

| Detector No. | Address | Unit No. | Exposure [(pCil) days] | Conc. ( pCil ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645822 | 01 Army St | 01 | 231.0 | 2.2 | 8.4 | COJKP |
| 1641190 | 02 Army St. | 02 |  |  |  | AKP[NR] |
| 1641162 | 02 Army St. | 02 | 313.4 | 2.3 | 7.3 | AKP |
| 1641191 | 03 Army St. | 03 | 138.1 | 1.5 | 10.7 | DJKP |
| 0 | 04 Army St. | 04 |  |  |  | [ND] |
| 1641195 | 05 Army St. | 05 | 395.7 | 3.2 | 6.7 | EKP |
| $1643099$ | 06 Army St. <br> 07 Army St. | 06 07 | 718.2 | 7.7 | 4.9 | DEJKP |
| 1641173 | 08 Army St. | 08 | 111.8 | 1.2 | 11.7 | DJKP |
| - 0 | 09 Army St. | 09 |  |  |  | [ND] |
| 1645778 | 10 Army St. | 10 | 215.0 | 2.2 | 9.0 | DJKP |
| 1641183 | 11 Army St. | 11 | 330.5 | 2.2 | 7.3 | KP |
| 1645770 | 12 Army St. | 12 | 259.7 | 2.6 | 8.2 | CDEJKP |
| 1641158 | 13 Army St. | 13 | 120.6 | 1.2 | 11.3 | DEJKP |
| 0 | 14 Army St. | 14 |  |  |  | [ND] |
| 1643094 | 15 Army St. | 15 | 189.0 | 2.2 | 9.2 | BENP |
| 1641177 | 16 Army St. | 16 | 618.7 | 3.4 | 5.3 | CJKP |

aKey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

[^18]> Swansea Army Housing Area
> Swansea, Massachuselts o2777 Indoor Radon Concentrations

Summary:
Number of residental stuctures: 16
Number of detectors returned: 5
Number of detectors installed: 16
Number of outstanding detectors: 1
Number of replicate pairs: 0
Highest reported result: 1.6
Lowest reported result: 0.3

| $\begin{aligned} & \text { Detsctor } \\ & \text { No. } \end{aligned}$ | Address | Unit No. | Exposure [(PCiL) days] | Conc. ( pCiL ) | Stanctard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644330 | 01 Missile Loop | 01 | 31.2 | 0.3 | 19.2 | CDJKP <br> [ND] <br> KP <br> CDEJKP |
| 0 | 02 Missile Loop | 02 |  |  |  |  |
| 1644331 | 03 Missile Loop | 03 | 163.6 | 0.9 | 9.7 |  |
| 1644327 | 04 Missile Loop | 04 | 62.8 | 0.7 | 14.9 |  |
| 0 | 05 Missila Loop | 05 |  |  |  | [ ND$]$ |
| 1643095 | 06 Missile Loop | 06 | 187.2 | 1.6 | 9.3 | CDJKP |
| 1643090 | 07 Missilg Loop | 07 |  |  |  | K P [ ${ }^{\text {NP] }}$ |
| 0 | 08 Missile Loop | 08 |  |  |  | [ND] |
| 1643078 | 09 Missile Loop | 09 |  |  |  | K P [NR] [ND] DJKP [ND] |
| 0 | 10 Missile Loop | 10 |  |  |  |  |
| 1644333 | 11 Missile Loop | 11 | 71.5 | 0.7 | 14.1 |  |
| 0 | 12 Missile Loop | 12 |  |  |  |  |
|  | 13 Missile Loop | 13 |  |  |  | [ND] |
| 0 | 14 Missile Loop | 14 |  |  |  | [ND] |
| 0 | 15 Missile Loop | 15 |  |  |  | [ND] |
| 0 | 16 Missile Lonp | 16 |  |  |  | [ND] |

aKey to Pemarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
K Detector in bectoom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home
$R$ Duplex (one-story) home
$S$ Duplex (multistory) home
$T$ Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

Topsfield Army Housing Area Topsfield, Massachusetts 01983 Indoor Radon Concentrations

Summary:
Number of residental strucures: $16 \quad$ Number of detectors returned: 12
Number of detectors installed: $16 \quad$ Number of outstanding detactors: 4
Number of replicate pairs: 0
Highest reported result: 3.1
Lowest reported result: 1.2

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adcress | Unit No. | Exposure [(pCil) days] | Conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645786 | 01 Nike Village | 01 | 131.1 | 1.4 | 10.9 | K P |
| 1645813 | 02 Nike Village | 02 | 136.4 | 1.4 | 10.7 | DEJKP |
| 1645816 | 03 Nike Village | 03 | 164.4 | 1.4 | 9.9 | DJKP |
| 1645795 | 04 Nike Village | 04 |  |  |  | KP [ NR ] |
| 1645794 | 05 Nike Village | 05 | 234.5 | 2.5 | 8.4 | DJKP |
| 1645792 | 06 Nike Village | 06 | 198.2 | 1.3 | 9.3 |  |
| 0 | 07 Nike Village | 07 |  |  |  | [ND] |
| 1645790 | 08 Nike Village | 08 | 108.3 | 1.2 | 11.9 | BEKP |
| 1645815 | 09 Nike Village | 09 | 178.4 | 1.5 | 9.5 | BDJKP |
| 1645802 | 10 Nike Village | 10 |  |  |  | KP [NR] |
| 1645801 | 11 Nike Village | 11 | 152.2 | 1.5 | 10.2 | DJKP |
| 1645820 | 12 Nike Village | 12 | 75.0 | 0.9 | 13.9 | DJKP |
| 1645788 | 13 Nike Village | 13 | 285.3 | 3.1 | 7.6 | BKP |
| 1645814 | 14 Nike Village | 14 | 293.2 | 2.0 | 7.8 | BNP |
| 1645787 | 15 Nike Village | 15 | 192.6 | 1.3 | 9.4 | DEJKP |
| 0 | 16 Nike Village | 16 |  |  |  | [ND] |

akey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | unknown: concentration estimated |
| Detector in bedroom |  |

$K$ Detector in bedroom

N Delector location unknown
P Capehart home

- MCA home
$R$ Duplex (one-story) home
S Duplex (multistory) home
Apartment building
Below detection limit
[ND] No data
[NR] Not returned

Wakefleld Army Housing Area Wakefield, Massachusetts 01880 Indoor Radon Concentralions

## Summary:

Number of residental strucures: $12 \quad$ Number of detectors retumed: 10
Number of detectors installed: $12 \quad$ Number of outstanding detectors: 2
Number of replicates: 0
Highest reported result: 1.9
Lowest reponted result: 0.7

| Detector No. | Adchess | Unit No. | Exposure ( $(\mathrm{PCH} / 4)$ days) | cona ( $\mathrm{p} C \mathrm{C} / \mathrm{L}$ ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645776 | 091 Hopkins | 091 |  |  |  | KQ[NR] |
| 1644320 | 099 Hopkins | 099 | 113.6 | 0.9 | 11.6 | DEJKQ |
| 1644326 | 107 Hopkins | 107 | 73.3 | 0.7 | 14.0 | 8CJNQ |
| 1643085 | 002 Torrance | 02 | 68.0 | 0.7 | 14.4 | K0 |
| 1643070 | 006 Torrance | 06 | 85.6 | 0.9 | 13.1 | KQ |
| 1643079 | 007 Torrance | 07 | 67.8 | 0.7 | 14.9 | KQ |
| 1643092 | 010 Torrance | 10 | 115.4 | 1.3 | 11.5 | KO |
| 1643089 | 011 Torrance | 11 | 185.5 | 1.7 | 9.3 | KQ |
| 0 | 012 Torrance |  |  |  |  | [ND] |
| 1643081 | 015 Torrance | 15 | 180.2 | 1.9 | 9.4 | DJKQ |
| 1642332 | 016 Torrance | 16 | 140.4 | 1.3 | 10.9 | DJKQ |
| 1644337 | 020 Torrance | 20 | 69.6 | 0.7 | 14.7 | BDJNQ |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| Ketector in bedroom |  |

$K$ Detector in bectrom

[^19]Franklin Lakes Army Housing Area
Franklin Lakes, Now Jersey 07430 Indoor Radon Concentrations

Summary:
Number of residental structures: 24
Number of deloctors retumed: 14
Number of detectors installed: 26
Number of replicate pairs: 2
Highest reported result: 1.4
Lowest reported result: 0.5
Number of outstanding detectors: 12

| Detector No. | Adcress | Unit No. | Exposure [(pCil) days] | Conc. ( pCi ) | Stencard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643652 | 213 Patrick Brems Dr. | 213 | 112.5 | 1.2 | 12.0 | LP |
| 1643647 | 214 Parick Brems Dr. | 214 | 100.0 | 0.6 | 11.9 | LP |
| 1643648 | 215 Patrick Brems Dr. | 215 | 71.5 | 0.5 | 14.6 | LP |
| 1643665 | 216 Parick Brems Dr. | 216 | 104.8 | 1.1 | 12.0 | DJLP |
| 1643651 | 217 Patrick Brems Dr. | 217 |  |  |  | NP[NR] |
| 1643658 | 218 Patick Brems Dr. | 218 | 104.8 | 0.8 | 12.0 | AKP |
| 1643673 | 218 Patrick Brems Dr. | 218 | 64.5 | 0.5 | 14.7 | AKP |
| 1643637 | 219 Patick Brems Dr. | 219 |  |  |  | BNP[ NR ] |
| 1643671 | 220 Patrick Brems Dr. | 220 |  |  |  | BNP[ ${ }^{\text {PR] }}$ |
| 1643644 | 221 Patrick Brems Dr. | 221 | 140.4 | 1.4 | 10.9 | DJLP |
| 1643667 | 222 Patrick Brems Dr. | 222 | 85.6 | 0.9 | 13.1 | DJLP |
| 1643650 | 223 Patrick Brems Dr. | 223 | 52.9 | 0.5 | 16.4 | BNP |
| 1643657 | 224 Patrick Brems Dr | 224 |  |  |  | BNP $\mathrm{NA}^{\text {] }}$ |
| 1645435 | 201 S. Brems CI. | 201 |  |  |  | BGNP[NR] |
| 0 | 202 S. Brems Ct. | 202 |  |  |  | [ND] |
| 1643668 | 203 S. Brems Ct. | 203 |  |  |  | LP [ NR ] |
| 1643664 | 204 S. Brems Ct. | 204 | 71.5 | 0.7 | 14.1 |  |
| 1643666 | 205 S. Brems Ct. | 205 |  |  |  | BNP[NR] |
| 1643645 | 206 S. Brems Ct. | 206 |  |  |  | BNP[NR] |
| 1643642 | 207 S. Brems Ct. | 207 | 64.5 | 0.7 | 14.7 | ADEJLP |
| 1643653 | 207 S. Brems Ct. | 207 | 48.8 | 0.5 | 16.4 | ADEJLP |
| 1643646 | 208 S. Brems Ct. | 208 | 59.3 | 0.7 | 15.2 | LP |
| 1643643 | 209 S. Brems Ct. | 209 | 62.8 | 0.6 | 14.9 | DJKP |
| 1643672 | 210 S. Brems Ct. | 210 |  |  |  | BNP[ NR ] |
| 1647468 | 211 S. Brems Ct. | 211 |  |  |  | BGNP[NR] |
| 1643654 | 212 S . Brems Ct. | 212 |  |  |  | LP [NR] |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Delector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Delector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| Ketector in bedroom |  |

Holmdel Army Housing Area
Holmdel, Now Jersey 07733
Indoor Radon Concentrations

Summary:
Number of residental structures: 12
Number of detectors retumed: 11
Number of datectors installed: 13
Number of outstanding detectiors: 2
Number of replicate pairs: 1
Highest reported result: 3.3
Lowest reported result: 0.5

| Detactor No. | Address | Unit No. | Exposure [ $(\mathrm{PCH} / \mathrm{L})$ days] | Conc. ( PCM ) | Stancard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645885 | 201 Telegraph Rd. | 201 | 162.7 | 1.8 | 9.9 | LP |
| 1643641 | 202 Telegraph Rd. | 202 | 183.7 | 2.0 | 9.4 | LP |
| 1643238 | 203 Telegraph Rd. | 203 | 59.3 | 0.6 | 15.2 | DJLP |
| 1647467 | 204 Telegraph Rd. | 204 | 104.8 | 1.1 | 12.0 | LP |
| 1643662 | 205 Telegraph Rd. | 205 |  |  |  | NP [ NR ] |
| 1643240 | 206 Telegraph Rd. | 206 | 75.2 | 0.8 | 14.3 | AKP |
| 1643244 | 206 Telegraph Rd. | 206 | 103.1 | 1.0 | 12.1 | AKP |
| 1643640 | 207 Telegraph Rd. | 207 | 43.5 | 0.5 | 17.7 | LP |
| 1645884 | 208 Telegraph Rd. | 208 |  |  |  | BGNP [NR] |
| 1643242 | 209 Telegraph Rd. | 209 | 127.6 | 1.3 | 11.0 | DEJLP |
| 1643247 | 210 Telegraph Rd. | 210 | 185.9 | 1.2 | 9.2 | LP |
| 1643241 | 211 Telegraph Rd. | 211 | 175.8 | 1.9 | 9.9 | LP |
| 1643649 | 212 Telegraph Rd. | 212 | 315.3 | 3.3 | 7.2 | LP |

akey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
Q MCA home
R Duplex (one-story) home
S Duplex (multistory) home
$T$ Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

Livingston Army Housing Area
East Hanover Twp., New Jersey 07936 Indoor Radon Concentrations

Summary:
Number of residental structures: $32 \quad$ Number of detectors retumed: 22
Number of detectors installed: 35
Nurnber of outstancing detectiors: 13
Number of replicate pairs: 3
Highest reported result: 3.1
Lowest reported result: 0.4

| $\begin{aligned} & \text { Detactor } \\ & \text { No. } \end{aligned}$ | Adcress | Unit No. | Exposure [( $\mathrm{PC} \mathrm{C} / 2$ ) days] | Conc. ( pCiL ) | Standerd <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643670 | 201 Homung Ct. | 01 |  |  |  | BNP[NR] |
| 1643243 | 202 Homung Ct . | 02 | 148.6 | 1.6 | 10.3 | HLP |
| 1645434 | 203 Homung Ct. | 03 | 174.9 | 1.8 | 9.6 | LP |
| 1645439 | 204 Hornung Ct . | 04 | 269.0 | 1.8 | 8.1 | DELP |
| 1643663 | 205 Hornung Ct. | 05 |  |  |  | LP [NR] |
| 1643675 | 206 Homung Ct . | 06 | 185.5 | 2.0 | 9.3 |  |
| 1645427 | 207 Homung Ct. | 07 | 117.1 | 1.2 | 11.5 | LP |
| 1645925 | 208 Homung Ct. | 08 | 82.1 | 0.8 | 13.4 | LP |
| 1645900 | 209 Homung Cl . | 09 |  |  |  | LP [ NR ] |
| 1643661 | 210 Homung Ct. | 10 |  |  |  | BNP[NR] |
| 1645898 | 211 Hornung Ct. | 11 |  |  |  | LP [NR] |
| 1645926 | 212 Homung Ct . | 12 |  |  |  | LP [NR] |
| 1645908 | 213 Homung Ct . | 13 |  |  |  | BNP [NR] |
| 1645423 | 214 Homung Cl . | 14 | 121.8 | 1.3 | 11.6 |  |
| 1645426 | 215 Homung Cl. | 15 | 196.0 | 2.2 | 9.1 | KP |
| 1643245 | 216 Hornung Ct. | 16 |  |  |  | GNP[NR] |
| 1643246 | 217 Homung Ct. | 17 |  |  |  | BNP[NR] |
| 1643674 | 218 Homung Ct . | 18 | 157.2 | 1.1 | 10.4 | ALP |
| 1643660 | 218 Homung Ct. | 18 | 229.9 | 1.6 | 8.7 | ALP |
| 1645902 | 219 Homung Ct. | 19 |  |  |  | B NP [ NR ] |
| 1645923 | 220 Homung Ct. | 20 | 111.8 | 1.1 | 11.7 |  |
| 1645432 | 221 Homung Ct. | 21 |  |  |  | ALP (NA) |
| 1645920 | 221 Homung Ct . | 21 | 302.9 | 3.1 | 7.4 | AELP |
| 1645922 | 222 Homung Ct . | 22 | 120.6 | 1.0 | 11.3 | ADJLP |
| 1645911 | 222 Homung Ct. | 22 | 108.8 | 0.9 | 12.2 | ADJLP |
| 1645919 | 223 Homung Cl . | 23 | 136.4 | 1.2 | 10.7 | DJMP |
| 1645431 | 224 Homung Ct . | 24 | 113.6 | 1.1 | 11.6 |  |
| 1645428 | 225 Homung Ct . | 25 |  |  |  | LP [NR] |

aKey to $r$ 3marks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
K Detactor in becroom
$L$ Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
MCA home
R Duplex (one-story) home
S Duplex (multisiory) home
T Apartment building
U Below detaction limit
[ND] No data
[NR] Not returned

Livingston Army Housing Area (Cont'd)
East Hanover Twp., Now Jersey 07936
Indoor Radon Concentrations

| Detector No. | Adtress | Unit No. | Exposure [ $(\mathrm{PC} \mathrm{C} / \mathrm{L})$ days] | Conc. ( $p \mathrm{Ci} / \mathrm{L}$ ) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645928 | 226 Homung Ct. | 26 | 117.1 | 1.3 | 11.5 | CDJLP |
| 1645430 | 227 Homung Ct . | 27 | 144.2 | 1.4 | 10.8 |  |
| 1645910 | 228 Homung Ct. | 28 |  |  |  | BGNP[NR] |
| 1643669 | 229 Homung Ct . | 29 | 113.6 | 1.2 | 11.6 | BENP |
| 1647473 | 230 Homung Ct . | 30 | 151.6 | 1.6 | 10.5 | DEJMP |
| 1645918 | 231 Homung Ct. | 31 | 92.6 | 1.0 | 12.7 | LP |
| 1645422 | 232 Homung Ct . | 32 | 36.5 | 0.4 | 18.3 | LP |

akey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheat
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

| L | Detector in living room |
| :--- | :--- |
| M | Detector in kitchen |
| N | Detector location unknown |
| P | Capehart home |
| Q | MCA home |
| R | Duplex (one-story) home |
| S | Duplex (multistory home |
| T | Aparment building |
| U | Below detection limit |
| [ND] | No data |
| [NR] | Not returned |

Old Bridge Army Housing Area
Oid Bridge, New Jersey 08857
Indoor Radon Concentrations

Summary:
Number of residental structures: $12 \quad$ Number of detectors returned: 8
Number of detectors installed: 13
Number of replicate pairs: 1
Highest reported result: 1.2
Lowest reported result: 0.3
Number of outstanding detactors: 5

| Detector No. | Address | Unit No. | Exposure [(pCi/L) days] | Conc. (pCil) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643237 | 201 Jake Brown Rd. | 201 | 45.2 | 0.4 | 15.6 | ENP |
| 1645424 | 202 Jake Brown Rd. | 202 |  |  |  | BGNP[NR] |
| 1645906 | 203 Jake Brown Rd. | 203 | 111.8 | 1.2 | 11.7 | LP |
| 1645904 | 204 Jake Brown Rd. | 204 | 95.7 | 0.9 | 12.9 | DEJKP |
| 1643638 | 205 Jake Brown Rd. | 205 |  |  |  | ALP [NR] |
| 1643656 | 205 Jake Brown Rd. | 205 |  |  |  | ALP [NR] |
| 1645929 | 206 Jake Brown Rd. | 206 |  |  |  | NP[ NR$]$ |
| 1643639 | 207 Jake Brown Rd. | 207 | 73.3 | 0.6 | 14.0 | DJLP |
| 1645429 | 208 Jake Brown Rd. | 208 |  |  |  | LP[NR] |
| 1643239 | 209 Jake Brown Rd. | 209 | 66.3 | 0.7 | 14.6 | DJKP |
| 1643236 | 210 Jake Brown Rd. | 210 | 54.0 | 0.6 | 15.8 | KP |
| 1643655 | 211 Jake Brown Rd. | 211 | 54.0 | 0.6 | 15.8 | DJLP |
| 1645438 | 212 Jake Brown Rd. | 212 | 56.2 | 0.3 | 14.6 | DJLP |

## akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupiad house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
K Detactor in bectoom
$L$ Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
Q MCA home
A Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
ND] No data
[NR] Not returned

Dry Hill Army Housing Area
Watertown, New York 13601 Indoor Radon Concentrations

Summary:
Number of residental strucures: 27
Number of detectiors returned: 21
Number of detectors installed: 28
Number of replicate pairs: 1
Highest reported result: 4.2
Lowest reportod result: 0.3
Number of outstanding detectors: 7

| Detactor No. | Adcress | Unit No. | Exposure [ $(\mathrm{pCl} / \mathrm{L})$ days] | Conc. ( $\mathrm{pCi} / 4$ ) | Senctard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641567 | 239 Coughlan Dr. | 239 | 94.3 | 2.4 | 12.6 | AHKP |
| 1643443 | 239 Coughlan Dr. | 239 | 113.6 | 2.9 | 11.6 | AHKP |
| 1643439 | 240 Coughlan Dr. | 240 | 384.5 | 4.2 | 6.8 | KP |
| 1641530 | 241 Coughlan Dr. | 241 | 234.5 | 2.2 | 8.4 | KP |
| 1643452 | 235 Delavan Ave. | 235 | 151.6 | 1.3 | 10.5 | DEJKP |
| 1643450 | 236 Delavan Ave. | 236 | 95.7 | 0.9 | 12.9 |  |
| 0 | 237 Delavan Ave. | 237 |  |  |  | [ ND ] |
| 1641564 | 238 Delavan Ave. | 238 | 180.2 | 2.0 | 9.4 | KP |
| 1643413 | 242 Delavan Ave. | 242 | 330.5 | 3.1 | 7.3 | DEJKP |
| 1641542 | 243 Delavan Ave. | 243 | 349.1 | 2.4 | 7.1 |  |
| 1641561 | 232 Rathbum Dr. | 232 |  |  |  | KP [NR] |
| 1643444 | 233 Rathbum Dr. | 233 | 90.1 | 1.5 | 13.2 | EKP |
| 1641528 | 234 Rathbum Dr. | 234 |  |  |  | KP [NR] |
| 1641554 | 255 Rathbum Dr. | 255 | 37.9 | 0.6 | 18.6 | DHJKP |
| 0 | 257 Rathbum Dr. | 257 |  |  |  | [ ND ] ${ }^{\text {P }}$ |
| 1641524 | 258 Rathbum Dr. | 258 | 101.3 | 1.0 | 12.2 | DJKP |
| 1641563 | 244 Reardon Ave. | 244 |  |  |  | K P [ ${ }^{\text {NR] }}$ |
| 0 | 245 Reardon Ave. | 245 |  |  |  |  |
| 1643445 | 246 Reardon Ave. | 246 | 269.0 | 3.0 | 8.1 | K P |
| 0 | 247 Reardon Ave. | 247 |  |  |  | (ND] |
| 1641565 | 248 Reardon Ave. | 248 | 278.3 | 2.9 | 7.7 | EKP |
| 1643420 | 249 Reardon Ave. | 249 | 80.8 | 0.9 | 13.9 | KP |
| 1641562 | 250 Reardon Ave. | 250 | 190.7 | 2.1 | 9.5 | KP |
| 1643422 | 251 Reardon Ave. | 251 | 30.0 | 0.3 |  | KPU |
| 1643419 | 252 Reardon Ave. | 252 | 162.7 | 1.7 | 9.9 |  |
| 1643424 | 253 Reardon Ave. | 253 | 30.0 | 0.3 |  | KPU |
| 1643421 | 254 Reardon Ave. | 254 | 68.0 | 0.7 | 14.4 | KP |
| 1643446 | 256 Reardon Ave. | 256 | 220.5 | 2.0 | 8.6 | KP |

akey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposurg < 90 days |
| J Exact duration of exposure |  |
| K | Unknown; concentration estimated |
| K | Detector in bedroom |

# Manhattan Beach Army Housing Area <br> Brooklyn, New York 11235 <br> Indoor Radon Concentrations 

Summary:
Number of residental structures: $9 \quad$ Number of detectors retumed: 31
Number of detectors installed: $76 \quad$ Number of outstanding detectors: 45
Number of replicate pairs: 4
Highest reported result: 0.6
Lowest reported result: 0.2

| Detector No. | Adtress | Unit No. | Exposure [ $(\mathrm{PC} \mathrm{C} / \mathrm{L})$ days] | Conc. ( $\mathrm{p} C \mathrm{C}$ ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645462 | 115A Quentin St. | 115A | 38.2 | 0.4 | 18.0 | BNS |
| 1643183 | 115B Quentin St. | 1158 |  |  |  | LS ${ }^{\text {dR] }}$ |
| 1645459 | 116A Quentin St. | 116A | 30.0 | 0.3 |  | DLSU[NR] |
| 1648220 | 1168 Quentin St. | 116 B |  |  |  | BNS[NR] |
| 1645482 | 119A Ouentin St. | 119A |  |  |  | BNS[NR] |
| 1645443 | 119B Ouentin St. | 119 B | 30.0 | 0.3 |  | CDJLSU |
| 1648172 | 120A Quentin St. | 120A | 36.5 | 0.4 | 18.3 | LS |
| 1645475 | 120B Ouentin St. | 120B | 30.0 | 0.3 |  | LSU |
| 1648225 | 121A Quentin St. | 121A |  |  |  | LS [NR] |
| 1645476 | 1218 Quentin St. | 121 B |  |  |  | BNS[NR] |
| 1648217 | 122A Quentin St. | 122A |  |  |  | GLS [NR] |
| 0 | 1228 Quentin St. | $122 B$ |  |  |  | [ ND ] |
| 1645464 1645473 | 125A Quentin St. 125B Quentin St. | $125 A$ 1258 | 41.7 |  |  | LS[NR] DEJLS |
| 1648219 | 126A Ouentin St. | 126A | 41.7 | 0.4 | 17.4 | DEJSS |
| 1648145 | 126B Ouentin St. | 1268 |  |  |  | LS[NR] |
| 1648213 | 129A Quentin St. | 129A |  |  |  | LS [NR] |
| 1645471 | 1298 Quentin St. | 129B | 34.2 | 0.4 | 19.2 |  |
| 1645452 | 130A Quentin St. | 130 A |  |  |  | BNS[NR] |
| 1648166 | 1308 Quentin St. | 130B | 30.0 | 0.3 |  | DJLSU |
| 1645472 | 131A Quentin St. | 131A |  |  |  | GLS[NR] |
| 1645461 | 131B Quentin St. | 131B | 43.5 | 0.5 | 17.1 | LS |
| 0 | 132A Quentin St. | 132A |  |  |  | [ ND ] |
| 1645450 | 132B Quentin St. | 1328 |  |  |  | BNS [NR] |
| 1645445 | 133A Quentin St. | 133A | 48.8 | 0.5 | 16.4 | LS |
| 1648140 | 1338 Quenti, St. | 133 B | 34.7 | 0.4 | 18.6 | LS |
| 1648168 | 134A Quentin St. | 134A | 30.0 | 0.5 |  | BHNSU |
| 1645486 | 134B Quentin St. | 134B |  |  |  | BNS[NR]. |
| 1645444 | 135A Quentin St. | 135A |  |  |  | LS [NP] |
| 1645446 | 135B Quentin St. | 135B |  |  |  | GLS[NR] |
| 1648139 | 136A Quentin St. | 136A |  |  |  | LS[NR] |
| 1648215 | 136B Quentin SI. | 136B |  |  |  | LS [NR] |

aKey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detactor placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| Knknown; concentration estimated |  |
| K | Detector in bedroom |

## Manhattan Beach Army Housing Area (Cont'd) Brooklyn, Now York 11235 Indoor Radon Concentrations

| Detactor No. | Adcress | $\begin{aligned} & \text { Uni } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviaion (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648214 | 139 Quentin St. | 139 |  |  |  | BNS[ NR ] |
| 1648138 | 140 Quentin St. | 140 | 47.3 | 0.5 | 17.1 | AMS |
| 1648149 | 140 Quentin st. | 140 | 30.0 | 0.3 |  | AMSU |
| 1645442 | 141 Quentin St. | 141 |  |  |  | MS [NR] |
| 1643182 | 142 Quentin St. | 142 | 30.0 | 0.3 |  | LSU |
| 1648155 | 145 Quentin St. | 145 |  |  |  | GKS[ NR ] |
| 1645484 | 146 Quentin St. | 146 | 37.9 | 0.2 | 18.6 | LS |
| 1648222 | 147 Quentin St. | 147 | 30.0 | 0.2 |  | LS |
| 1648216 | 148 Quentin St. | 148 | 30.0 | 0.3 |  | LSU |
| 1645470 | 149 Quentin St. | 149 |  |  |  | ANS[NR] |
| 1645460 | 149 Quentin St. | 149 |  |  |  | ANS[NR] |
| 1648167 | 150 Quentin St. | 150 | 47.0 | 0.3 | 15.4 | MS |
| 1648221 | 151 Quentin St. | 151 | 33.0 | 0.4 | 18.9 | HLS |
| 1648171 | 152 Quentin St. | 152 |  |  |  | LS[NR] |
| 1648162 | 155 Quentin St. | 155 |  |  |  | LS [NR] |
| 1648164 | 156 Quentin St. | 156 |  |  |  | LS (NR] |
| 1648158 | 157 Quentin St. | 157 |  |  |  |  |
| 1645483 | 158 Quentin St. | 158 | 30.0 | 0.5 |  | DJNSU |
| 1645485 | 162A Quentin St. | 162A |  |  |  | A $\mathrm{NSS}^{\text {[ }} \mathrm{NR}$ ] |
| 1645449 | 162A Quentin St. | 162A |  |  |  | A BNS [NR] |
| 1648153 | 162B Quentin St. | 162B | 41.7 | 0.5 | 17.4 | LS |
| 1648146 | 164A Quentin St. | 164A |  |  |  | BNS[NR] |
| 1645458 | 1648 Quentin St. | 164B | 75.2 | 0.6 | 14.3 | DEJLS |
| 1648159 | 166A Quentin St. | 166A | 30.0 | 0.2 |  | KSU |
| 1648226 | 166B Quentin St. | 166B |  |  |  | LS [NR] |
| 1648174 | 170A Quentin St. | 170A |  |  |  | BNS[NR] |
| 1648165 | 170B Quentin St. | 170B | 31.2 | 0.4 | 19.2 | DJLS |
| 1648223 | 173A Quentin St. | 173A |  |  |  | GLS[ NR ] |
| 1645478 | 173B Quentin St. | 173 B |  |  |  |  |
| 1645448 | 174A Quentin St. | 174A |  |  |  | GLS[NR] |
| 1645447 | 174B Quentin St. | 1748 | 32.4 | 0.3 | 19.6 | DLS |
| 1648152 | 175A Quentin St. | 175A |  |  |  | AGLS [NR] |
| 1648160 | 175A Ouentin St. | 175A |  |  |  | AGLS[NR] |
| 1648161 | 175B Quentin St. | 175B | 32.4 | 0.4 | 19.6 | LS |
| 1648154 | 176A Quentin St. | 176A |  |  |  | GLS[NR] |
| 1645451 | 176B Quentin St. | 176B |  |  |  | GLS[NR] |
| 1643181 | 177A Quentin St. | 177A |  |  |  | LS [NR] |
| 1648173 | 177B Quentin St. | 177B | 30.0 | 0.3 |  | BNS |
| 1648170 | 178A Quentin St. | 178A | 30.0 | 0.3 |  | LSU |
| 1645463 | 178B Quentin St. | 1788 |  |  |  | BNS[ NR$]$ |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | Unknown; concentration estimated |
| Ketector in bectoom |  |

# Manhattan Beach Army Housing Area (Cont'd) 

 Brooklyn, New York 11235 Indoor Radon Concentrations| Detrator No. | Adtress | Unit No. | Exposure [ $(\mathrm{PC} / / 4$ ) days] | Conc. ( $\mathrm{pCi} / 4$ ) | Standard <br> Deviation $\qquad$ | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - 1848163 181A 3000.3 St 0 din |  |  |  |  |  |  |
| 1648163 | 181A Quentin St. | 181A | 30.0 | 0.3 | - | DJLSU |
| 1648224 | 181B Quentin St. | 181B |  |  |  | BNS[ NR ] |
| 1648137 | 182A Quentin St. | 182A | 30.0 | 0.2 | - | LSU |
| 1648157 | 1828 Quentin St. | 182B |  |  |  | GLS [NR] |

## akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
Starting date unknown
Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detactor in bedroom
$L$ Detector in living room
M
N Detector in kitchen
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
$T$ Apartment building Aparment buibing
Below detection limit
[ND] No data
[NR] Not returned

Rocky Point Army Housing Area
Rocky Polnt, Now York 11786
Indoor Radon Concentrations

## Summary:

| Number of residental stuctures: 16 | Number of detectors retumed: 10 |
| :--- | :--- |
| Number of detectors installed: 17 | Number of outstanding detectors: 7 |

Number of replicate pairs: 1
Highest reported result: 2.1
Lowest reported result: 0.8

| Detector No. | Address | Unit No. | Exposure [( $\mathrm{PC} / / 4$ ) days] | Conc. ( pCH ) | Stanctard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645453 | 01 Defense Hill Rd. | 01 |  |  |  | LP [ NR ] |
| 1645474 | 02 Defense Hill Rd. | 02 | 118.1 | 1.3 | 11.8 |  |
| 1645487 | 03 Defense Hill Rd. | 03 |  |  |  | GKP[NR] |
| 1645468 | 04 Defense Hill Rd. | 04 | 152.2 | 1.7 | 10.2 |  |
| 1643184 | 05 Defense Hill Rd. | 05 | 108.3 | 1.2 | $1: 9$ | ALP |
| 1645465 | 05 Defense Hill Rd. | S5 | 73.3 | 0.8 | 14.0 | ALP |
| 1645481 | 06 Defense Hill Rd. | is | 108.8 | 1.2 | 12.2 | DJLP |
| 1645454 | 07 Defense Hill Rd. | 07 |  |  |  | LP[NR] |
| 1645469 | 08 Defense Hill Rd. | 08 | 125.9 | 1.3 | 11.1 | KP |
| 1645480 | 09 Defense Hill Rd. | 09 |  |  |  | LP [NR] |
| 1645456 | 10 Defense Hill Rd. | 10 |  |  |  | LP ${ }^{\text {P }}$ NR] |
| 1648148 | 11 Defense Hill Rd. | 11 | 88.3 | 0.9 | 13.4 |  |
| 1645467 | 12 Defense Hill Rd. | 12 | 226.1 | 1.5 | 8.8 | LP |
| 1648144 | 13 Defense Hill Rd. | 13 |  |  |  | BNP [NR] |
| 1645479 | 14 Defense Hill Rd. | 14 | 92.6 | 1.0 | 12.7 |  |
| 1645441 | 15 Defense Hill Rd. | 15 |  |  |  | BNP [ NR ] |
| 1645466 | 16 Defense Hill Rd. | 16 | 190.7 | 2.1 | 9.5 | LP |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| Knknown; concentration estimated |  |
| K | Detector in bedrcom |

A Duplicate detectors
Detector placed by occupant of DEH
Starting date unknown
Ending date unknown
No data sheet
G Unoccupied house
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom
L. Detector in living room

M Detector in kitchen
N Detector location unknown
P Capehart home
MCA home
R Duplex (one-story) home
S Duplex (multistory) home
Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

## Spring Valley Army Housing Area <br> Ramapo, Now York 10977 Indoor Radon Concentrations

Summary:
Number of residental structures: 12
Number of detectors instalied: 13
Number of replicate pairs: 1
Highest reported result: 0.9
Lowest reported result: 0.3
Number of detectors returned: 9
Number of outstanding detectors: 4

| Detector No. | Address | Unit <br> No. | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645889 | 201 Grandview Ave. | 201 | 125.5 | 0.8 | 11.5 | GKP |
| 1645886 | 202 Grandview Ave. | 202 |  |  |  | BNP [NR] |
| 1645873 | 203 Grandview Ave. | 203 | 92.6 | 0.9 | 12.7 | DJKP |
| 1645888 | 204 Grandview Ave. | 204 |  |  |  | KP [NR] |
| 1647465 | 205 Grandview Ave. | 205 |  |  |  | $A L P[N R]$ |
| 1647469 | 205 Grandview Ave. | 205 | 47.0 | 0.5 | 16.7 | ALP |
| 1647466 | 206 Grandview Ave. | 206 | 71.5 | 0.8 | 14.1 | I.P |
| 1645890 | 207 Grandview Ave. | 207 | 83.8 | 0.7 | 13.2 | OJLP |
| 1645872 | 208 Grandview Ave. | 208 | 88.3 | 0.6 | 13.4 | LP |
| 1647470 | 209 Grandview Ave. | 209 | 30.0 | 0.3 |  | BNPU |
| 1645870 | 210 Grandview Ave. | 210 | 96.4 | 0.6 | 12.0 | NP |
| 1647475 | 211 Grandview Ave. | 211 |  |  |  | B N P [NR] |
| 1645863 | 212 Grandviow Ave. | 212 | 78.9 | 0.5 | 14.0 | LP |

aKey to Remarks:

| A | Duplicate detectors | L | Detector in living room |
| :---: | :---: | :---: | :---: |
| B | Detector placed by occupant of DEH | M | Detector in kitchen |
| C | Starting date unknown | $N$ | Detector location unknown |
| 0 | Ending date unknown | $P$ | Capehart home |
| E | Detector received with no seal | Q | MCA home |
| F | No data sheet | R | Duplex (one-story) home |
| G | Unoccupied house | S | Duplex (multistory) home |
| H | Exposure < 90 days | $T$ | Apartment building |
| $J$ | Exact curation of exposure | U | Below detection limit |
|  | unknown; concentration estimated | [ND] | No data |
| K | Datector in bedroom | [NR] | Not returned |

Tappan Army Housing Area
Tappan, New York 10983 Indoor Radon Concentrations

Summary:
Number of residental structures: 36
Number of detactors retumed: 25
Number of detectors installed: 39
Number of oultanding detectors: 14
Number of replicate pairs: 3
Highest reported result: 3.0
Lowest reported result: 0.3

| $\begin{aligned} & \text { Detectior } \\ & \text { No. } \end{aligned}$ | Adtress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiLL) days] | Conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645887 | 423 Bogart Place | 423 |  |  |  | GKP(NR) |
| 1645477 | 424 Bogart Place | 424 |  |  |  | LP(NR] |
| 1545865 | 425 Bogart Place | 425 | 30.5 | 0.3 | 20.0 |  |
| 1645878 | 426 Bogat Place | 426 |  |  |  | LP [NR] |
| 1645861 | 427 Bogart Place | 427 | 80.3 | 0.9 | 13.5 | LP |
| 1645883 | 179 Greenbush Rd. | 429 | 64.0 | 0.4 | 15.2 | DJLP |
| 1645866 | 185 Greenbush Rd. | 430 | 75.0 | 0.8 | 13.9 | LP |
| 1645892 | 211 Greenbush Rd. | 428 | 116.2 | 1.0 | 11.9 | BN P |
| 0 | 401 Lafayette St. | 401 |  |  |  | [ND] |
| 1647476 | 402 Lafayette St. | 402 | 121.8 | 1.1 | 11.6 | DJLP |
| 1647472 | 403 Latayette St. | 403 | 121.8 | 0.8 | 11.6 |  |
| 1645880 | 404 Lafayette St. | 404 | 125.5 | 0.8 | 11.5 | DEJLP |
| 1645874 | 405 Lafayette St. | 405 |  |  |  | KP [NR] |
| 1645881 | 406 Lafayette St. | 406 |  |  |  | LP [NR] |
| 1645894 | 407 Lalayette St. | 407 |  |  |  | NP [ NR ] |
| 1645857 | 408 Latayette St. | 408 | 37.9 | 0.4 | 18.6 |  |
| 1645896 | 409 Latayette St. | 409 |  |  |  | BNP[NR] |
| 1645877 | 410 Lalayette St. | 410 | 68.0 | 0.7 | 14.4 |  |
| 1645457 | 411 Lalayette St. | 411 |  |  |  | BNP [ NR ] |
| 1645875 | 412 Lalayette St. | 412 | 55.8 | 0.6 | 15.6 | DJLP |
| 1645871 | 413 Lafayeme St. | 413 | 82.1 | 0.7 | 13.4 | ADGJKP |
| 1648143 | 413 Lafayette St. | 413 | 89.1 | 0.7 | 12.9 | ADGJKP |
| 1648141 | 414 Lalayette St. | 414 |  |  |  | BNPNR] |
| 1648142 | 415 Latayette St. | 415 |  |  |  | GKP[ NR$]$ |
| 1645858 | 416 Lalayette St. | 416 | 58.0 | 0.6 | 14.4 | LP |
| 1647474 | 417 Lafayette St. | 417 | 56.6 | 1.5 | 16.0 | HLP |
| 1645882 | 431 Lafayette St. | 431 | 110.6 | 1.2 | 12.1 | LP |
| 1645893 | 432 Lalayette St. | 432 | 86.4 | 0.9 | 13.5 | AKP |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector recoived with no seal |
| F | No data sheet |
| G Unoccupied house |  |
| H | Exposure < so days |
| J Exat duration of exposure |  |
| K | unknown; concentration estimated |
| Ketector in bedroom |  |

$L$ Detector in living room
M Detector in kitchen
M Detector location unknown
P Capehart home
Q MCA home
R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detaction limit
[ND] No data
[NR] Not returned

## Tappan Army Housing Area (Cont'd) <br> Tappan, Now York 10983 Indoor Radon Concentrations

| Detbetor No. | Adcress | Unit No. | Exposure [ $(\rho C i /$ ) days] | Conc. ( p Ci ) | Stancard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645860 | 432 Lafayette St. | 432 | 55.8 | 0.5 | 15.6 | AKP |
| 1645876 | 433 Lafayette St. | 433 | 38.2 | 0.3 | 18.0 | DEJLP |
| 1645879 | 434 Lafayette St. | 434 | 56.2 | 0.6 | 15.8 | DEJLP |
| 1645867 | 435 Lafayette St. | 435 | 97.6 | 1.0 | 12.8 | LP |
| 1648169 | 436 Lafayette St. | 436 | 62.8 | 0.7 | 14.9 | ALP |
| 1648175 | 436 Lafayette St. | 436 | 97.8 | 1.0 | 12.4 | ALP |
| 1645869 | 215 Western Hwy. | 421 |  |  |  | LP [NR] |
| 1645859 | 221 Westem Hwy. | 420 | 69.6 | 0.5 | 14.7 |  |
| $\begin{aligned} & 1645868 \\ & 1645895 \end{aligned}$ | 418 Westem Hwy. 419 Western Hwy | 418 419 |  |  |  | BNP GKP |
| 1645891 | 422 Westem Hwy. | 422 | 235.3 | 3.0 | 8.3 | BNP |

## akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C
C
Ending date unknown
danknown
F No data sheet
G Unoccupied house
H
$J$ Exact duration of exposure unknown; concentration estimated
$k$ Detector in bectoom

N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment buikding Apartment building
Below detection Iimit
(ND)
(NR]

No data
Not returned

Coraopolis 71C Army Housing Area
Robinson Twp., Pennsylvania 15108 Indoor Radon Concentrations

Summary:
Number of residental structures: $7 \quad$ Number of detectors returned: 7
Number of defectors instaled: 8
Number of replicate pairs: 1
Highest reported result: 1.6
Lowest reported result: 0.7

Number of outstanding detectors: 1

| Detector No. | Address | Unit No. | Exposure [ $(\mathrm{PC} \mathrm{C} / 几$ ) days] | Conc. ( pCi ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436095 | S1180 Ewings Mill Rd. | 118 | 101.0 | 1.1 | 11.4 | DJKP |
| 1436038 | S1190 Ewings Mill Rd. | 119 |  |  |  | $K P(N R)$ |
| 1436033 | S1200 Ewings Mill Rd. | 120 | 83.5 | 0.9 | 12.6 | KP |
| 1436195 | S1210 Ewings Mill Rd. | 121 | 148.4 | 1.6 | 9.8 | DJKP |
| 1436093 | S1220 Ewings Mill Rd. | 122 | 83.5 | 0.9 | 12.2 | DJKP |
| 1436058 | S1230 Ewings Mill Rd. | 123 | 78.3 | 0.7 | 12.5 | CDJKP |
| 1436037 | S1240 Ewings Mill Rd. | 124 | 120.8 | 1.2 | 11.0 | ADJKP |
| 1436001 | S1240 Ewings Mill Rd. | 124 | 109.8 | 1.1 | 11.0 | ADJKP |

aKey to Remarks:

[^20]$L$ Detector in living room
$M$ Detector in kitchen
N Detector location unknown
P Capehart home
MCA home
A Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detaction limit
[ND]
(NR] Not returned

## Coraopolls 71L Army Housing Area <br> Moon Twp., Pennayivania 15108 Indoor Radon Concentrations

Summary:
Number of residental structures: $5 \quad$ Number of detectors relurned: 2
Number of detectors installed: 5
Number of outstanding detactors:
Number of replicate pairs: 0
Highest reported result: 1.2
Lowest reported result: 1.2

| Denctor No. | Address | Uni No. | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436197 | S1130 Ewings Mill Rd. | 113 |  |  |  | BNP[ NR ] |
| 1436075 | S114Q Ewings Mill Rd. | 114 | 153.6 | 1.2 | 9.7 | BKP |
| 1436203 | S1150 Ewings Mill Rd. | 115 | 106.3 | 1.2 | 11.2 | $K P$ |
| 1436078 | S1160 Ewings Mill Rd. | 116 |  |  |  | KP [ NR ] |
| 1436016 | S117Q Ewings Mill Rd. | 117 |  |  |  | KP [ NR ] |

## akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
K Detector in bedroom

[^21]
# Dorseyville Army Housing Area <br> Dorseyville, Pennsylvania 15101 Indoor Radon Concentrations 

Summary:
Number of residental stuctures: $16 \quad$ Number of detectors retumed: 11
Number of detectors installed: 16
Number of replicate pairs: 0
Highest reported result: 4.0
Lowest reported result: 1.3

| Detector No. | Adcress | Unit No. | Exposure [ $(\mathrm{pCl} / \mathrm{L})$ days] | Conc. ( PCH ) | Sandard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436002 | S130 Myers Ln. | 13 | 129.2 | 1.4 | 10.4 | $K P$ |
| 1436094 | S140 Myers Ln. | 14 |  |  |  | BKP[NR] |
| 1436087 | S150 Myers Ln. | 15 | 251.8 | 2.6 | 7.8 | KP |
| 1436089 | S160 Myers Ln. | 16 | 158.9 | 1.7 | 9.5 | BENP |
| 1436046 | S170 Myers Ln. | 17 | 195.3 | 2.1 | 9.0 | KP |
| 1436072 | S180 Myers Ln. | 18 | 125.6 | 1.3 | 10.5 | KP |
| 1436065 | S190 Myers Ln. | 19 | 190.4 | 1.5 | 8.8 | DEJKP |
| 1436063 | S200 Myers Ln. | 20 | 285.1 | 3.1 | 7.4 | KP |
| 1436028 | S210 Myers Ln | 21 | 307.1 | 2.2 | 7.4 | EKP |
| 0 | S220 Myers Ln. | 22 |  |  |  | [ND] |
| 1436000 | S230 Myers Ln. | 23 | 372.7 | 4.0 | 6.6 | DEJKP |
| 0 | S240 Myers Ln. | 24 |  |  |  | [ND] |
| 0 | S250 Myers Ln. | 25 |  |  |  | [ ND$]$ |
| 1436007 | S260 Myers Ln. | 26 | 227.0 | 1.6 | 8.5 | BKP |
| 1436019 | S270 Myers Ln. | 27 | 161.7 | 1.5 | 9.8 | DEJKP |
| 0 | S280 Myers I . | 28 |  |  |  | [ND] |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F No data sheet |  |
| G Unoccupied house |  |
| H | Exposure < 90 days |
| J | Exact duration of oxposure |
| K Unknown; concentration estimated |  |
| K | Detector in becroom |

[^22]Number of outstanding detectors: 5

Ellzabeth Army Housing Area
Ellzabeth, Pennaylvania 15037 Indoor Radon Concentrations

Summary:
Number of residental structures: $12 \quad$ Number of detectors returned: 7
Number of detectors installed: 12
Number of replicate pairs: 0
Highest reported result: 12.3
Lowest reported result: 1.2
Number of outstanding detectors: 5

| Detoctor No. | Address | Unit No. | Exposure [(pCiL) days] | Conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643222 | S730 Route \#4 | 73 | 122.4 | 1.2 | 11.3 | KO |
| 1643210 | S74Q Route \#4 | 74 | 174.0 | 1.6 | 9.9 | BCDJLP |
| 0 | S750 Route \#4 | 75 |  |  |  | [ND] |
| 1643189 | S760 Route \#4 | 76 | 106.6 | 1.2 | 12.0 | KP |
| 1643188 | S770 Route \#4 | 77 | 323.0 | 3.5 | 7.4 | KP |
| 1643232 | S78Q Route \#4 | 78 |  |  |  | KP [ NR ] |
| 0 | S800 Route \#4 | 79 |  |  |  | [ND] |
| 0 | S800 Route \#4 | 80 |  |  |  | [ND] |
| 1643199 | S81Q Route \#4 | 81 | 181.9 | 2.0 | 9.4 | EKP |
| 1643211 | S82Q Route "4 | 82 | 282.0 | 3.0 | 7.9 | BLP |
| 1643212 | S83Q Route "4 | 83 |  |  |  | BNP[NR] |
| 1643086 | S84Q Route \#4 | 84 | 1252.7 | 12.3 | 3.7 | DJKP |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| Delector in bedroom |  |

K
$L$ Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
MCA home
R Duplex (one-story) home
Duplex (multistory) home
T Apartment building Below detection limit
[ND
[NR]

# Elrama Army Housing Area <br> Elrama, Pennaylvania 15332 Indoor Radon Concentrations 

Summary:
Number of residental structures: $16 \quad$ Number of datectors retumed: 13
Number of delectors installed: 16 Number of outstanding deffectors: 3
Number of replicate pairs: 0
Highest reported result: 20.2
Lowest reported result: 0.8

| $\begin{aligned} & \text { Detoctor } \\ & \text { No. } \end{aligned}$ | Adtress | Unit No. | $\begin{aligned} & \text { Exposure } \\ & {[(p c i /) \text { days }]} \end{aligned}$ | Conc. $\text { ( } \mathrm{p} C \cdot \mathrm{~L}, \mathrm{~L})$ | Stanctard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643214 | S0850 Route \#4 | 85 | 1612.0 | 20.2 | 3.3 | KP |
| 1643200 | S0860 Route \#4 | 86 | 1037.2 | 11.4 | 4.1 | EKP |
| 1643229 | S087Q Route \#4 | 87 |  |  |  | KP [ NR ] |
| 1643235 | S0880 Route ${ }^{\text {4 }}$ | 88 | 108.3 | 1.4 | 11.9 | HKP |
| 1643228 | S0890 Route *4 | 89 | 211.7 | 2.1 | 8.8 | BDEJKP |
| 1643195 | S0900 Route \#4 | 90 |  |  |  | BNP[NR] |
| 1643204 | S091Q Route \#4 | 91 | 185.5 | 1.8 | 9.3 | KP |
| 1643223 | S092Q Route \#4 | 92 | 330.5 | 2.3 | 7.3 | BKP |
| 1643226 | S093Q Route \#4 | 93 |  |  |  | KP [ NR ] |
| 1643216 | S0940 Route \#4 | 94 | 243.3 | 2.7 | 8.2 | BKP |
| 1643187 | S0950 Route \#4 | 95 | 234.5 | 2.5 | 8.4 | DJKP |
| 1643230 | S096Q Route \#4 | 96 | 281.8 | 3.1 | 7.7 | BKP |
| 1643201 | S0970 Route \#4 | 97 | 134.6 | 1.4 | 10.8 | DJKP |
| 1644323 | S0980 Route \#4 | 98 | 178.4 | 2.0 | 9.5 | EKP |
| 1643202 | S0990 Route \%4 | 99 | 69.8 | 0.8 | 14.3 | K ${ }^{\text {P }}$ |
| 1643219 | S1000 Route \#4 | 100 | 80.3 | 0.9 | 13.5 | BDJKP |

aKey to Pemarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < go days |
| J | Exact duration of exposure |
| K unknown; concentration estimated |  |
| K | Detactor in bedroom |

$K$ Defector in bedroom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
$S$ Duplex (multistory) home
$T$ Apartment building
U Below detaction limit
(ND) No dam
(NR] Not returned

Finleyville Army Housing Area
Finleyville, Pennsylvania 15332 Indoor Radon Concentrations

## Summary:

Number of residental structures: $12 \quad$ Number of detectors retumed: 10
Number of detectors installed: 12
Number of outstanding detectors: 2
Number of replicate pairs: 0
Highest reported result: 3.0
Lowest reported result: 0.9

| Detector No. | Address | Unit No. | Exposure [( $\mathrm{pCl} / \mathrm{L}$ ) days] | Conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643231 | S101Q Route *4 | 101 | 288.9 | 3.0 | 7.6 | KO |
| 1643227 | S102Q Route \#4 | 102 | 167.9 | 1.8 | 9.8 | DEJKP |
| 1643220 | S1030 Route \#4 | 103 | 164.4 | 1.5 | 9.9 | DEJKP |
| 1643185 | S1040 Route \#4 | 104 | 127.6 | 1.4 | 11.0 | KP |
| 1643203 | S1050 Route ${ }^{\text {W }} 4$ | 105 | 141.6 | 1.4 | 10.5 | DJKP |
| 1643215 | S1060 Route \$4 | 106 | 157.4 | 1.4 | 10.1 | CDEJKP |
| 1643233 | S1070 Route \#4 | 107 | 211.7 | 1.7 | 8.8 | BELP |
| 1643197 | S1080 Route \$4 | 108 | 134.6 | 1.2 | 10.8 | BDEJKP |
| 1643190 | S1090 Route \#4 | 109 | 115.4 | 1.1 | 11.5 | DEJKP |
| 1643198 | S1100 Route \#4 | 110 |  |  |  | KP [NR] |
| 1643221 | S1110 Route \#4 | 111 |  |  |  | KP [NR] |
| 1643194 | S1120 Route \#4 | 112 | 76.8 | 0.9 | 13.7 | BDEJKP |

## akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| Unknown; concentration estimated |  |
| K | Detector in bectroom |

$L$ Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
Q MCA home
R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
[ND] No data
(NA] Not returned

Herminic Army Housing Area
Herminie, Pennsylvania 15642
Indoor Radon Concentratlons

Summary:
Number of residental structures: $16 \quad$ Number of detectors relumed: 15
Number of detectors installed: 17
Number of replicate pairs: 1
Highest reported result: 18.0
Lowest reported result: 0.9

| Detactor No. | Address | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. ( pCiL ) | Standand Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436032 | S570 Mars Hill Rd. | 57 | 128.2 | 0.9 | 10.7 | KP |
| 1643208 | S58Q Mars Hill Rd. | 58 | 375.2 | 4.1 | 6.9 | AEKP |
| 1644339 | S580 Mars Hill Rd. | 58 | 324.9 | 3.6 | 7.4 | AKP |
| 1644338 | S590 Mars Hill Rd. | 59 | 182.3 | 1.1 | 9.3 | DJKP |
| 1643196 | S600 Mars Hill Rd. | 60 | 1128.0 | 9.8 | 4.0 | DEJKP |
| 1643191 | S6t0 Mars Hill Rd. | 61 | 125.9 | 1.3 | 11.1 |  |
| 0 | S620 Mars Hill Rd. | 62 |  |  |  | [ND] |
| 1643205 | S63Q Mars Hill Rd. | 63 | 304.7 | 1.9 | 7.4 | BNP |
| 1643224 | S640 Mars Hill Rd. | 64 | 1636.5 | 18.0 | 3.3 | KP |
| 1643206 | S650 Mars Hill Rd. | 65 | 232.8 | 2.5 | 8.4 | BKP |
| 1643213 | S660 Mars Hill Rd. | 66 | 282.7 | 4.3 | 6.8 | BLP |
| 1643192 | S67Q Mars Hill Ro. | 67 | 104.8 | 1.0 | 12.0 | KP |
| 1643225 | S68Q Mars Hill Rd. | 68 | 164.4 | 1.8 | 9.9 | KP |
| 1643234 | S690 Mars Hill Rd. | 69 | 134.8 | 0.9 | 11.1 | KP |
| 0 | S700 Mars Hill Rd. | 70 |  |  |  | [ ND$]$ |
| 1643186 | S710 Mars Hill Rd. | 71 | 127.4 | 1.0 | 11.4 | KP |
| 1643218 | S720 Mars Hill Rd. | 72 | 367.7 | 3.3 | 6.8 | BNP |

aKey to Remarks:
A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector recaived with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated

Detector in living room
Detector in kitchen
N Detector location unknown
P Capehart home
Q MCA home
R Duplex (one-story) home
S Duplex (multistory) home
$K$ Detector in bedroom
T Aparment building
U Botow detoction limit
[ND]
No data
[NR]
Not returned

> Irwin Army Housing Area
> Irwin, Pennsyivania 15642 Indoor Radon Concentratlons

## Summary:

Number of residental structures: $16 \quad$ Number of detectors retumed: 10
Number of defectors installed: $17 \quad$ Number of outstanding detectors: 7
Number of replicate pairs: 1
Highest reported result: 3.3
Lowest reported result: 1.0

| Deroctor No. | Address | Unis No. | Exposure [(pCiL) days] | Conc. (pCiL) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436083 | S410 Rd. 11 | 41 | 125.6 | 1.4 | 10.5 | BDJKP |
| 1436069 | S420 Rd. 11 | 42 | 154.3 | 1.7 | 10.0 | AKP |
| 1643193 | S420 Rd. 11 | 42 | 178.4 | 2.0 | 9.5 | AKP |
| 1436013 | S430 Rd. 11 | 43 | 303.4 | 3.3 | 7.4 | BKP |
| 1436030 | S44Q Rd. 11 | 44 |  |  |  | $K \mathrm{P}$ [ NR ] |
| 1436054 | S450 Rd. 11 | 45 | 76.5 | 1.2 | 12.6 | BHKP |
| 1643217 | S460 Rd. 11 | 46 |  |  |  | KP [NR] |
| 1436011 | S47Q Rd. 11 | 47 | 108.0 | 1.0 | 11.1 | BDJKP |
| 1436034 | S48Q Rd. 11 | 48 |  |  |  | KP [NR] |
| 0 | S490 Rd. 11 | 49 |  |  |  | [ND] |
| 1436050 | S500 Rd. 11 | 50 | 251.8 | 2.0 | 7.8 | DJKP |
| 1436066 | S51Q Rd. 11 | 51 | 137.5 | 1.5 | 10.4 | BDEJKP |
| 1436082 | S520 Rd. 11 | 52 |  |  |  | K P [ NR ] |
| 1436194 | S530 Rd. 11 | 53 | 207.9 | 3.2 | 8.5 | BDEHJKP |
| 1436009 | S54Q Rd. 11 | 54 | 122.1 | 1.3 | 10.6 | DJLP |
| 0 | S55O Rd. 11 | 55 |  |  |  | [ND] |
| 0 | S56Q Rd. 11 | 56 |  |  |  | [ND] |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Endiny date unknown |
| E | Detactor received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | unknown; concentration estimated |
| Ketector in bedroom |  |

# Monroeville Army Housing Area Monroeville, Pennayivania 15239 Indoor Radon Concentrations 

Summary:
Number of residental structures: $12 \quad$ Number of detectors retumed: 11
Number of detactors instailed: $12 \quad$ Number of outstanding detectors: 1
Number of replicate pairs: 0
Highest reported result: 2.7
Lowest reported result: 0.8

| Detector No. | Address | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Exposure } \\ & {[(p C i L) \text { days] }} \end{aligned}$ | Conc. <br> ( PCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436202 | S290 7d. 2 | 29 | 115.1 | 1.3 | 10.8 | BKO |
| 1436056 | S300 Rd. 2 | 30 | 137.8 | 2.0 | 10.1 | BHKP |
| 1436048 | S310 Rd. 2 | 31 |  |  |  | BKP [NR] |
| 1436029 | S320 Rd. 2 | 32 | 124.5 | 1.3 | 10.8 | DJKP |
| 1436018 | S330 Rd. 2 | 33 | 126.3 | 1.1 | 10.8 | DJKP |
| 1436006 | S340 Rd. 2 | 34 | 71.2 | 0.8 | 12.4 | BKP |
| 1436201 | S350 Rd. 2 | 35 | 99.3 | 1.1 | 11.5 | BKP |
| 1436092 | S360 Rd. 2 | 36 | 152.4 | 1.6 | 10.0 | BEKP |
| 1436071 | S370 Rd. 2 | 37 | 143.1 | 1.6 | 10.3 | BKP |
| 1436199 | S380 Rd. 2 | 38 | 243.0 | 2.7 | 8.0 | BKP |
| 1436043 | S390 Rd. 2 | 39 | 211.4 | 2.3 | 8.5 | BKP |
| 1436064 | S400 Rd. 2 | 40 | 134.3 | 1.3 | 10.2 | BKP |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J Exact duration of exposure |  |
| K | unknown; concentration estimated |
| Ketector in bedroom |  |

[^23]Rural Ridge Army Housing Area Rural Rldge, Pennsyivania 15024 Indoor Radon Concentrations

Summary:
Number of residental structures: $12 \quad$ Number of detectors returned: 8
Number of delectiors installed: 12
Number of replicate pairs: 0
Highest reported result: 2.3
Lowest reported result: 0.8
Number of outstanding detectors:

| Detactor No. | Adtress | Unit No. | Exposure [ $\mathrm{p} \mathrm{p} \mathrm{C} / \mathrm{L}$ ) days] | Conc. $\text { ( } \mathrm{pCiL} \text { ) }$ | Standard <br> Deviation | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1436196 | S010 Crawiord Run Rd. | 01 | 150.1 | 1.5 | 9.8 | BKP |
| 1436012 | S020 Crawford Run Rd. | 02 | 67.7 | 1.2 | 13.1 | BHKP |
| 1436026 | S030 Crawiord Run Rd. | 03 | 162.4 | 1.8 | 9.4 | BKP |
| 0 | S04Q Crawford Run Rd. | 04 |  |  |  | [ND] |
| 0 | S050 Crawiord Run Rd. | 05 |  |  |  | [ ND ] |
| 1436041 | S060 Crawtord Run Rd. | 06 | 120.8 | 1.3 | 11.0 | KP |
| 1436010 | S070 Crawiord Run Rd. | 07 |  |  |  | KP [NR] |
| 1436003 | S080 Crawford Run Rd. | 08 | 123.2 | 0.8 |  | DJKP |
| 1436027 | S090 Crawiord Run Rd. | 09 | 209.1 | 1.3 |  | DEJKP |
| 1436005 | S100 Crawtord Run Rd. | 10 |  |  |  | $K P(N R)$ |
| 1436068 | S110 Crawford Run Rd. | 11 | 202.7 | 2.3 | 8.6 | KP |
| 1436020 | S120 Crawiord Run Rd. | 12 | 173.8 | 1.2 | 9.3 | KP |

akey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
K Detector in bedroom

[^24]Davisville Army Housing Area
North Kingston, Rhode Island 02852
Indoor Radon Concentrations

Summary:

Number of residental structures: $21 \quad$ Number of detectors returned: 42
Number of detectors installed: 63
Number of replicate pairs: 1
Highest reported result: 1.9
Lowest reported result: 0.3

Number of detectors reumed: 42
Number of outstanding detectors: 21

| Detector No. | Address | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. (pCiL) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647492 | 01 Naw | 01 | 65.9 | 0.5 | 15.1 | ENS |
| 1647491 | 02 Navy | 02 |  |  |  | BNS[NR] |
| 1642341 | 03 Navy | 03 |  |  |  | BNS[NR] |
| 1647489 | 04 Navy | 04 |  |  |  | BNS[NR] |
| 1643075 | 05 Navy | 05 | 68.0 | 0.7 | 14.4 | BENS |
| 1642327 | 06 Naw | 06 | 73.4 | 0.5 | 14.4 | DJNS |
| 1642336 | 07 Navy | 07 | 68.0 | 0.7 | 14.4 | DEJNS |
| 1642328 | 08 Navy | 08 | 122.4 | 0.9 | 11.3 | NS |
| 0 | 09 Naw | 09 |  |  |  | [ND] |
| 1647478 | 10 Navy | 10 | 48.8 | 0.5 | 16.4 | NS |
| 1642342 | 11 Navy | 11 |  |  |  | LS (NR) |
| 1642348 | 12 Navy | 12 | 71.5 | 0.5 | 14.6 | ENS |
| 0 | 13 Navy | 13 |  |  |  | [ ND ] |
| 1642312 | 14 Navy | 14 |  |  |  | NS [ NR ] |
| 0 | 15 Navy | 15 |  |  |  | [ NO$]$ |
| 1647483 | 16 Navy | 16 | 51.0 | 0.4 | 16.7 | DJNS |
| 1642340 | 17 Navy | 17 | 99.4 | 1.0 | 12.7 | DEJLS |
| 1647481 | 18 Naw | 18 | 82.1 | 0.9 | 13.4 | NS |
| 1642344 | 19 Navy | 19 |  |  |  | BLS[NR] |
| 1642345 | 20 Navy | 20 | 181.4 | 1.3 | 9.7 | EMS |
| 0 | 21 Navy | 21 |  |  |  | [ND] |
| 1642346 | 22 Navy | 22 | 85.6 | 0.9 | 13.1 | DJNS |
| 1642339 | 23 Nawy | 23 | 76.8 | 0.8 | 13.7 |  |
| 1642320 | 24 Navy | 24 |  |  |  | NS[ ${ }^{\text {PR] }}$ |
| 1642338 | 25 Navy | 25 | 58.4 | 0.5 | 15.8 | EMS |
| 1647485 | 27 Naw | 27 | 122.4 | 1.4 | 11.3 | MS |
| 0 | 29 Naw | 29 |  |  |  | [ND] |
| 1642343 | 31 Naw | 31 | 116.5 | 0.7 | 11.2 | LS |

aKey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

1 Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home
MCA home
R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
(ND) No data
[NR] Not returned

Davisville Army Housing Area (Cont'd) North Kingston, Rhode lsland 02852 Indoor Radon Concentrations

| Detactor No. | Address | Unit No. | Exposure [(pCiL) days] | Conc. ( PCiL ) | Stanctard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1642337 | 33 Navy | 33 |  |  |  | MS [ NP ] |
| 1643080 | 35 Navy | 35 | 211.7 | 1.9 | 8.8 | BENS |
| 1642318 | 36 Naw | 36 | 166.2 | 1.3 | 9.8 | DJNS |
| 1643074 | 37 Navy | 37 | 52.3 | 0.5 | 16.0 | MS |
| 1642319 | 38 Naw | 38 | 88.3 | 0.9 | 13.4 | DJNS |
| 1642334 | 39 Naw | 39 | 101.3 | 0.8 | 12.2 | DJMS |
| 0 | 40 Navy | 40 |  |  |  | [ND] |
| 1642325 | 41 Navy | 41 | 106.9 | 1.2 | 12.3 | MS |
| 1647484 | 42 Navy | 42 | 51.0 | 0.6 | 16.7 | LS |
| 1647480 | 43 Navy | 43 | 85.9 | 0.5 | 12.5 | LS |
| 1647482 | 44 Navy | 44 | 99.4 | 1.1 | 12.7 | NS |
| 0 | 45 Naw | 45 |  |  |  | [ ND ] |
| 1647477 | 46 Navy | 46 | 54.7 | 0.3 | 16.2 | DJNS |
| 1643073 | 47 Navy | 47 | 78.9 | 0.8 | 14.0 | DJKS |
| 0 | 48 Navy | 48 |  |  |  | [ND] |
| 1642349 | 49 Navy | 49 | 50.5 | 0.5 | 16.2 | MS |
| 1642331 | 50 Navy | 50 | 76.8 | 0.8 | 13.7 | ANS |
| 1642333 | 50 Navy | 50 | 69.8 | 0.8 | 14.3 | ANS |
| 1642351 | 51 Navy | 51 | 113.6 | 0.9 | 11.6 | MS |
| 1642322 | 52 Navy | 52 | 73.3 | 0.8 | 14.0 | NS |
| 1641199 | 53 Navy | 53 | 67.8 | 0.6 | 14.9 | MS |
| 1647490 | 54 Navy | 54 |  |  |  | N S [NR] |
| 0 | 55 Navy | 55 |  |  |  | [ND] |
| 1647479 | 56 Navy | 56 | 65.9 | 0.7 | 15.1 | DJNS |
| 1644319 | 57 Navy | 57 | 57.5 | 0.6 | 15.4 | MS |
| 1642329 | 58 Nawy | 58 | 82.7 | 0.9 | 13.7 | DEJNS |
| 1647488 | 59 Navy | 59 | 179.6 | 1.2 | 9.8 | DJLS |
| 1642330 | 60 Navy | 60 | 52.3 | 0.6 | 16.0 | DJNS |
| 0 | 61 Nav; | 61 |  |  |  | (ND) |
| 1641200 | 62 Nav ; | 62 | 89.1 | 1.0 | 12.9 | NS |
| 0 | 63 Navy | 63 |  |  |  | [ND] |
| 1643069 | 64 Navy | 64 | 97.6 | 0.9 | 12.8 | DEJNS |
| 1642335 | 65 Navy | 65 | 51.0 | 0.7 | 16.7 | HLS |
| 0 | 66 Navy | 66 |  |  |  | [ ND ] |
| 1647486 | 67 Navy | 67 | 69.8 | 0.8 | 14.3 | BMS |

aKey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unocclupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom

L Detector in living room
M Detector in kitchen
N Delector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
$T$ Apartment building Below detection limit
[ND] No data
[NR] Not returned

Slatersville Army Housing Area
North Smithfleld, Rhode Island 02895
Indoor Radon Concentrations

Summary:
Number of residental structures: $16 \quad$ Number of detectors returned: 17
Number of detectors instatled: 19
Number of replicate pairs: 3
Highest reported result: 2.9
Lowest reported result: 0.8
Number of outstanding detectors: 2

| Detector No. | Adcress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Exposure } \\ & {[(\mathrm{P}(\mathrm{iL}) \text { days }]} \end{aligned}$ | Conc. (pCiL) | Stanctard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645798 | 1001 Pound Hill Rd. | 01 | 138.1 | 1.5 | 10.7 | DEJKP |
| 1642324 | 1002 Pound Hill Rd. | 02 | 211.7 | 1.7 | 8.8 |  |
| 0 | 1003 Pound Hill Rd. | 03 |  |  |  | [ND] |
| 1643083 | 1004 Pound Hill Rd. | 04 | 341.7 | 2.9 | 7.2 | DJKP |
| 1643088 | 1005 Pound Hill Rd. | 05 | 82.7 | 0.8 | 13.7 | DJKP |
| 1643098 | 1006 Pound Hill Rd. | 06 | 259.7 | 2.7 | 8.2 | ADJKP |
| 1643097 | 1006 Pound Hill Rd. | 06 | 187.2 | 1.9 | 9.3 | ADJKP |
| 1643084 | 1007 Pound Hill Rd. | 07 | 246.8 | 2.7 | 8.2 | AKP |
| 1643077 | 1007 Pound Hill Rd. | 07 | 255.6 | 2.8 | 8.0 | AKP |
| 1643071 | 1008 Pound Hill Rd. | 08 | 157.4 | 1.6 | 10.1 | DJKP |
| 1644329 | 1009 Pound Hill Rd. | 09 | 78.9 | 0.8 | 14.0 | BDEJNP |
| 1643087 | 1010 Pound Hill Rd. | 10 | 139.9 | 1.3 | 10.6 | DJKP |
| 1643082 | 1011 Pound Hill Rd. | 11 |  |  |  | $K P[N R]$ |
| 1643096 | 1012 Pound Hill Rd. | 12 | 174.9 | 1.9 | 9.6 | EKP |
| 1645777 | 1013 Pound Hill Rd. | 13 | 103.1 | 1.1 | 12.1 | ADJKP |
| 1641185 | 1013 Pound Hill Rd. | 13 | 86.4 | 0.9 | 13.5 | ADJKP |
| 1642326 | 1014 Pound Hill Rd. | 14 | 111.8 | 1.1 | 11.7 | NP |
| 1643100 | 1015 Pound Hill Rd. | 15 | 117.1 | 1.2 | 11.5 | BNP |
| 1643076 | 1016 Pound Hill Rd. | 16 | 118.1 | 1.3 | 11.8 | DJKP |

aKey to Remarks:

A Duplicate detectors
B Detector placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
J Exact duration of exposure unknown; concentration estimated
$K$ Detector in bectoom

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
5 Duplex (multistory) home
T Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

# Manassas Army Housing Area 

Manasses, VIrginla 22111 Indoor Radon Concentrations

Summary:
Number of residental stuctures: 9
Number of detectors retuimed: 4
Number of detactors installed: 10
Number of outstanding detectors: 6
Number of replicate pairs: 1
Highest reported result: 1.8
Lowest reported result: 0.7

| Detoctor No. | Adtress | Unin No. | Exposure [(pCiL) days] | Conc. (pCiL) | Standand <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 7801 Arden Rd. | 1 |  |  |  | [ND] |
| 1647554 | 7801 Arden Rd. | 2 | 111.8 | 1.8 | 11.7 | HKO |
| 0 | 7801 Arden Rd. | 3 |  |  |  | [ ND ] |
| 0 | 7801 Arden Rd. | 4 |  |  |  | [ND] |
| 1643681 | 7801 Arden Rd. | 5 | 108.8 | 1.0 | 12.2 | ADJKQ |
| 1643689 | 7801 Arden Rd. | 5 | 75.0 | 0.7 | 13.9 | ADJKQ |
| 0 | 7801 Arden Rd. | 6 |  |  |  | [ND] |
| 1643691 | 7801 Arden Rd. | 7 |  |  |  | KP [NR] |
| $\begin{aligned} & 1647545 \\ & 1643684 \end{aligned}$ | 7801 Arden Rd. 7801 Arden Rd | 8 9 | 113.6 | 1.3 | 11.6 | $K P$ <br> $K P[N R]$ |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < so days |
| J Exact duration of exposure |  |
| K | unknown; concentration estimated |
| K | Detector in bedroom |

[^25]
## Patrick Henry Army Housing Area Newport Nows, VIrginia 23602 Indoor Radon Concentrations

## Summary:

Number of residental strucures: 14
Number of detectors returned: 6 Number of detectors installed: 15
Number of replicate pairs: 1
Highest reported result: 5.4
Lowest reported result: 0.5
Number of outstanding detectors: 9

| $\begin{aligned} & \text { Detsctor } \\ & \text { No. } \end{aligned}$ | Adcress | $\begin{aligned} & \text { Unit } \\ & \text { No. } \end{aligned}$ | Exposure [(pCiL) days] | Conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647541 | Unit \#01 | 1 | 285.6 | 3.0 | - | $K P$ |
| 0 | Unit ${ }^{1} 02$ | 2 |  |  |  | [ ND$]$ |
| 1647558 | Unit ${ }^{\text {\% }}$ 3 | 3 | 189.8 | 2.0 | - | AKP |
| 1647561 | Unit ${ }^{1} 03$ | 3 | 209.7 | 2.2 | - | AKP |
| 1647562 | Unit \#04 | 4 |  |  |  | KP [NR] |
| 0 | Unit 05 | 5 |  |  |  | [ ND$]$ |
| 1647564 | Unit ${ }^{\text {P }}$ 06 | 6 |  |  |  | $K \mathrm{P}$ [ NR ] |
| 1647567 | Unit ${ }^{1} 07$ | 7 | 95.9 | 1.0 | - |  |
| 0 | Unit \#08 | 8 |  |  |  | [ ND ] |
| 1647557 | Unit ${ }^{1} 09$ | 9 | 504.4 | 5.4 | 5.8 | KP |
| 1647556 | Unit \#10 | 10 |  |  |  | KP [NR] |
| 0 | Unit \#11 | 11 |  |  |  | [ND] |
| 0 | Unit \#12 | 12 |  |  |  | [ ND$]$ |
| 0 | Unit \#13 | 13 |  |  |  | [ ND ] |
| 1647555 | Unit \#14 | 14 | 48.9 | 0.5 | - | K P |

-No standard deviations reported.
aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccuoied house |
| H | Exposure 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| K | Detector in bedroom |

> Woodbridge Army Housing Area
> Woodbridge, Virginia 22191
> Indoor Radon Concentrations

Summary:
Number of residental structures: $2 \quad$ Number of detectors retumed: 8 Number of detectors installed: 11
Number of replicate pairs: 1
Highest reported result: 2.3
Lowest reported result: 0.7
Number of outstanding detectors: 3

| Detector No. | Adcress | Unit No. | Exposure [( $\mathrm{P} \mathrm{C} / 4$ ) days) | Conc. $\text { ( } \mathrm{pCiL} \text { ) }$ | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647566 | 14000 Dawson Beach Rd. |  | 123.7 | 0.9 | 11.5 | AKT |
| 1643690 | 14000 Dawson Beach Rd. |  | 138.6 | 1.0 | 11.0 | AKT |
| 1647563 | 14002 Dawson Beach Rd. |  |  |  |  | LT (NR) |
| 1647559 | 14004 Dawson Beach Rd. |  | 149.8 | 1.1 | 10.6 |  |
| 1643682 | 14006 Dawson Beach Rd. |  | 116.5 | 0.7 | 11.2 | ELT |
| 1647547 | 14008 Dawson Beach Rd. |  | 140.4 | 1.0 | 10.9 | KT |
| 1647544 | 14010 Dawson Beach Rd. |  | 120.6 | 1.4 | 11.3 | KT |
| 1647570 | 14011 Dawson Beach Rd. |  |  |  |  | K R [ NR ] |
| 1644110 | 14012 Dawson Beach Rd. |  | 78.9 | 0.9 | 14.0 | BLT |
| $1644095$ | 14013 Dawson Beach Rd. |  | 254.1 | 2.3 | 8.3 | DEJKR [ND |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detoctor received with no seal |
| F | No data sheer |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| Knknown; concentration estimated |  |
| K | Detector in bedroom |

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below detection limit
[ND] No data
[NR] Not returned

# Midway Army Housing Area <br> Kent, Washington 98032 <br> Indoor Radon Concentrations 

Summary:
Number of residental stuctures: $32 \quad$ Number of detectors returned: 25
Number of datectors installed: 34
Number of replicate pairs: 2
Highest reported result: 1.8
Lowest reponted result: 0.4
Number of outstanding detactors: 9

| $\begin{aligned} & \text { Detector } \\ & \text { No. } \end{aligned}$ | Adcress | Unit No. | Exposure <br> [(pCin) days] | Conc. ( pCiL ) | Standard <br> Deviation (\%) | Pemarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645136 | m-01 Avenue B | m-1 |  |  |  | $K P[N R]$ |
| 1645110 | m-02 Avenue B | m-2 | 54.0 | 0.6 | 15.8 | KP |
| 1645112 | m-03 Avenue B | m-3 | 101.3 | 1.1 | 12.2 | $K P$ |
| 1645135 | m-04 Avenue B | m-4 | 62.2 | 0.7 | 15.4 | $K P$ |
| 1645126 | m-05 Avenue B | $\cdots-5$ | 78.5 | 0.8 | 13.6 | ADEJKP |
| 1645139 | m-05 Avenue B | m-5 | 64.5 | 0.7 | 14.7 | ADEJKP |
| 1645109 | m-06 Avenue B | m-6 |  |  |  | KP [ NR ] |
| 1644012 | m-07 Avenue B | m-7 | 90.8 | 1.0 | 12.8 | K P |
| 1645119 | m-08 Avenue B | m-8 | 106.6 | 1.1 | 12.0 | $K P$ |
| 1644016 | m-09 Avenue 8 | m-9 | 66.3 | 0.7 | 14.6 | AEKP |
| 1644015 | m-09 Avenue B | m-9 | 76.8 | 0.8 | 13.7 | AEKP |
| 1645085 | m-10 Avenue B | m-10 | 142.3 | 1.6 | 10.8 | K P |
| 1645125 | m-11 Avenue B | m-11 |  |  |  | $K P$ [ NR ] |
| 1645116 | m-12 Avenue B | m-12 | 69.8 | 0.8 | 14.3 | $K P$ |
| 1645129 | m-13 Avenue B | m-13 |  |  |  | KP [NR] |
| 1645143 | m-14 Avenue B | m-14 | 52.9 | 0.6 | 16.4 | KP |
| 1645141 | m-15 Avenue B | m-15 |  |  |  | KP [ NR ] |
| 1645104 | m-16 Avenue B | m-16 | 92.6 | 1.1 | 12.7 | KP |
| 1645107 | m-17 Avenue 8 | m-17 | 97.6 | 1.1 | 12.8 | DEJKP |
| 1644008 | m -18 Avenue B | m-18 | 166.5 | 1.8 | 10.1 | KP |
| 1645123 | m-19 Avenue B | m-19 | 32.6 | 0.9 | 12.7 | $K P$ |
| 1645142 | m-20Avenue B | m-20 | 84.5 | 0.9 | 13.6 | $K P$ |
| 1644030 | m-21 Avenue B | m-21 |  |  |  | $K P[N R]$ |
| 1645101 | m-22 Avenue B | m-22 | 200.1 | 1.3 | 9.3 | KP |
| 1644013 | m-23 Avenue 8 | m-23 |  |  |  | KP[NR] |
| 1644009 | m-24 Jelfrey Rd. | m-24 | 103.1 | 1.0 | 12.1 | DEJNP |
| 1645118 | m-25 Jeftrey Rd. | m-25 |  |  |  | KP [ NR ] |
| 1645124 | m-26 Jeftrey Pd. | m-26 | 69.8 | 0.7 | 14.3 | DJKP |

aKey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of OEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| Knknown; concentration estimated |  |
| K | Detector in bedroom |

Midway Army Housing Area (Cont'd) Kent, Washington 98032 Indoor Radon Concentrations

| Detector No. | Adtress | Unit No. | $\begin{aligned} & \text { Exposure } \\ & {[(\mathrm{PCiLL}) \text { days }]} \end{aligned}$ | Conc. ( pCi ) | Standard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645108 | m-27 Jeftrey Rd. | m-27 |  |  |  | KP [NR] |
| 1645114 | m-28 Jeftrey Rd. | m-28 | 77.1 | 0.7 | 14.1 |  |
| 1645137 | m -29 Jeffrey Rd. | m-29 | 117.1 | 1.2 | 11.5 | KP |
| 1645113 | m-30 Jeffrey Rd. | m-30 | 87.3 | 0.9 | 13.0 | KP |
| 1645138 | m-31 Jeffrey Rd. | m-31 | 41.7 | 0.4 | 18.0 | DJKP |
| 1645115 | m-32 Jeffrey Rd. | m-32 | 82.1 | 0.9 | 13.4 |  |

akey to Remarks:

| A | Duplicate detectors | L | Detector in living room |
| :---: | :---: | :---: | :---: |
| B | Detector placed by occupant of DEH | M | Detector in kitchen |
| C | Starting date unknown | N | Detector location unknown |
| 0 | Ending date unknown | P | Capehart home |
| E | Detector received with no seal | Q | MCA home |
| $F$ | No data sheet | R | Duplex (one-story) home |
| G | Unoccupied house | S | Duplex (multistory) home |
| H | Exposure < 90 days | $T$ | Apartment building |
| $J$ | Exact duration of exposure unknown; concentration estimated | $\xrightarrow[\text { U }]{\text { [ND] }}$ | Below detection limit No data |
| K | Detector in bedroom | (NR] | Not returned |

Youngs Lake Army Housing Area
Renton, Washington 98055 Indoor Radon Concentratlons

## Summary:

Number of residental structures: $28 \quad$ Number of datectors retumed: $\mathbf{2 6}$
Number of detectors installed: 31 Number of outstanding detectors: 5
Number of replicate pairs: 3
Highest reported result: 1.2
Lowest reported result: 0.3

| Detector No. |  | Address | Unit No. | Exposure [( $\mathrm{P} / \mathrm{C} / \mathrm{L})$ days] | Conc. ( pCi ) | Stanctard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645105 | L-01 |  | L-1 | 30.0 | 0.3 |  | KQU |
| 1645106 | L-02 |  | L-3 | 54.0 | 0.5 | 15.8 | KQ |
| 1645099 | L-03 |  | L-3 | 54.0 | 0.5 | 15.8 | KO |
| 1645097 | L-04 |  | L-4 | 57.5 | 0.6 | 15.4 | KO |
| 1645098 | L-05 |  | L-5 | 41.7 | 0.5 | 17.4 | KO |
| 1645131 | L-06 |  | L-6 | 37.9 | 0.4 | 18.6 | DJKO |
| 1645096 | L-07 |  | L-7 | 48.9 | 0.5 | 16.7 |  |
| 1645089 | L-08 |  | L-8 |  |  |  | KO [NR] |
| 1645094 | L-09 |  | L-9 | 73.3 | 0.6 | 14.0 | EKP |
| 1645095 | L-10 |  | L-10 | 30.5 | 0.3 | 20.0 | KPU |
| 1645117 | L-11 |  | L-11 | 30.0 | 0.3 |  | KPU |
| 1645093 | L-12 |  | L-12 | 30.0 | 0.3 |  | EKPU |
| 1645132 | L-13 |  | L-13 | 49.1 | 0.5 | 16.9 | KP |
| 1644010 | L-14 |  | L-14 | 51.0 | 0.5 | 16.7 | KP |
| 1645128 | L-15 |  | L-15 | 30.0 | 0.3 |  | KPU |
| 1645127 | L-16 |  | L-16 | 55.8 | 0.7 | 15.6 | HKO |
| 1645102 | L-17 |  | L-17 | 111.8 | 1.2 | 11.7 | KO |
| 1644017 | L-18 |  | L-18 |  |  |  | KQ[NP] |
| 1644019 | L-19 |  | L-19 |  |  |  | KQ[NR] |
| 1645133 | L-20 |  | L-20 |  |  |  | AKO[NR] |
| 1645103 | L-20 |  | L-20 |  |  |  | AKO[NR] |
| 1645122 | L-21 |  | L-21 | 66.3 | 0.7 | 14.6 |  |
| 1644011 | L-22 |  | L-22 | 80.3 | 0.9 | 13.5 | AKO |
| 1644014 | L-22 |  | L-22 | 30.0 | 0.3 |  | AKQU |
| 1645140 | L-23 |  | L-23 | 77.1 | 0.9 | 14.1 |  |
| 1644031 | L-24 |  | L-24 | 83.8 | 0.9 | 13.2 | DJKO |
| 1645121 | L-25 |  | L-25 | 59.3 | 0.5 | 15.2 | AKO |
| 1645100 | L-25 |  | L-25 | 71.5 | 0.6 | 14.1 | AKO |
| 1645130 | L-26 |  | L-26 | 60.3 | 0.7 | 15.6 | DJKQ |
| 1645134 | L-27 |  | L-27 | 71.5 | 0.8 | 14.1 | DJKQ |
| 1645120 | L-28 |  | L-28 | 40.0 | 0.3 | 17.7 | ELP |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detecter placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| Ketector in bedroom |  |

[^26]
# Sun Prairle Army Housing Area <br> Sun Prairle, Wisconsin 53590 <br> Indoor Radon Concentrations 

Summary:
Number of residental structures: 76
Number of detectors relumed: 115
Number of detectors installed: 118
Number of replicate pairs: 8
Highest reported resuli: 17.4
Lowest reported result: 1.0

| Detector No. | Adcress | Unis No. | Exposure [(pCiL) days] | Conc. ( $\mathrm{p} C \mathrm{~L} /$ ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641504 | 086 Andrews Dr. | 1114 | 298.8 | 3.3 | 7.7 | KR |
| 1643996 | 117 Andrews Dr. | 1122 | 220.6 | 2.4 | 8.9 | KR |
| 1644023 | 119 Andrews Dr. | 1106 | 216.8 | 2.4 | 8.9 | KR |
| 1647587 | 095 Ent Dr. | 1105 | 351.9 | 3.9 | 6.9 | KR |
| 1644107 | 095 Ent Dr. | 1109 | 162.8 | 1.8 | 10.2 | KR |
| 1644106 | 096 Ent Dr. | 1113 |  |  |  | KR[NR] |
| 1647585 | 096 Ent Dr. | 1117 | 222.3 | 2.5 | 8.6 | AKR |
| 1643122 | 096 Ent Dr. | 1117 | 201.2 | 2.3 | 9.0 | AKR |
| 1647584 | 097 Ent Dr. | 1201 | 287.6 | 3.2 | 7.8 | KR |
| 1646992 | 097 Ent Dr. | 1205 | 148.6 | 1.7 | 10.3 | KR |
| 1646999 | 098 Ent Dr. | 1209 | 125.9 | 1.4 | 11.1 | KR |
| 1647009 | 098 Ent Dr. | 1213 | 224.0 | 2.5 | 8.5 | KR |
| 1644113 | 099 Ent Dr. | 1217 | 311.9 | 3.5 | 7.5 | KR |
| 1643134 | 099 Ent Dr. | 1221 | 520.6 | 5.8 | 5.9 | KR |
| 1646979 | 100 Ent Dr. | 1220 | 231.7 | 2.6 | 8.7 | KR |
| 1643121 | 100 Ent Dr. | 1224 | 265.3 | 3.0 | 8.1 | AKR |
| 1644108 | 100 Ent Dr. | 1224 | 206.5 | 2.3 | 8.9 | AKR |
| 1647588 | 101 Ent Dr. | 1212 | 276.5 | 2.9 | 8.0 | KR |
| 1641509 | 101 Ent Dr. | 1216 | 367.7 | 4.0 | 6.8 | KR |
| 1647586 | 102 Ent Dr . | 1202 | 572.7 | 6.4 | 5.6 | KR |
| 1647033 | 102 Ent Dr. | 1208 | 309.9 | 3.4 | 7.3 | KR |
| 1646996 | 103 Ent Dr. | 1118 | 216.8 | 2.4 | 8.9 | KR |
| 1647004 | 103 Ent Dr. | 1122 | 278.3 | 3.0 | 8.0 | KR |
| 1646997 | 104 Ent Dr. | 1110 | 227.5 | 2.5 | 8.5 | KR |
| 1643123 | 104 Ent Dr. | 1114 | 364.0 | 4.1 | 7.0 | KR |
| 1641505 | 105 Ent Dr. | 1102 | 162.8 | 1.8 | 10.2 | EKR |
| 1647007 | 105 Ent Dr. | 1106 | 151.6 | 1.6 | 10.5 | DJKR |
| 1647011 | 147 Fairchild | 1001 | 434.3 | 4.8 | 6.2 | AKR |
| 1643130 | 147 Fairchild | 1001 | 323.9 | 3.6 | 7.2 | AKR |
| 1647021 | 148 Fairchild | 1009 | 198.2 | 2.2 | 9.3 | DJKP |
| 1647023 | 149 Fairchild | 1017 | 326.8 | 3.6 | 7.4 | KP |
| 1647006 | 150 Fairchild | 1101 | 194.2 | 5.9 | 9.1 | DHJKP |

akey to Remarks:

A Duplicate detectors
B Detactor placed by occupant of DEH
C Starting date unknown
D Ending date unknown
E Detector received with no seal
F No data sheet
G Unoccupied house
H Exposure < 90 days
$J$ Exact duration of exposure unknown; concentration estimated
$K$ Detector in bedroom
$L$ Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment building
U Below datection limit
[ND] No data
[NA] Not returned

Sun Prairle Army Housing Area (Cont'd) Sun Prairle, Wisconsin 53590 Indoor Radon Concentrations

| Dotector No. | Address | Unit No. | Exposure [ $(\mathrm{PC} \cdot \mathrm{L})$ days] | conc. ( pCiL ) | Standard Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646988 | 151 Fairchild | 1109 | 206.5 | 2.3 | 8.9 | KP |
| 1646994 | 138 Harmon Cir. | 1134 | 308.1 | 3.4 | 7.6 | KP |
| 1644022 | 139 Harmon Cir. | 1126 | 298.8 | 3.3 | 7.7 | KP |
| 1643988 | 140 Harmon Cir. | 1118 | 321.2 | 3.5 | 7.4 | KP |
| 1647032 | 141 Harmon Cir. | 1110 | 259.1 | 2.9 | 8.0 | KP |
| 1643990 | 142 Harmon Cir. | 1102 | 211.2 | 2.3 | 9.1 | KP |
| 1643109 | 143 Harmon Cir. | 1101 | 442.3 | 4.8 | 6.4 | DJKP |
| 1647015 | 144 Harmon Cir. | 1109 | 339.8 | 3.8 | 7.2 | KP |
| 1647010 | 145 Hamon Cir. | 1117 | 224.3 | 2.5 | 8.8 | K P |
| 1645091 | 146 Harmon Cir. | 1129 | 325.7 | 3.6 | 7.2 | KP |
| 1646984 | 086 N. Andrews Dr. | 1110 | 139.9 | 1.6 | 10.6 | KR |
| 1643117 | 087 N. Andrews Dr. | 1102 | 534.2 | 6.0 | 5.6 | K R |
| 1646993 | 087 N. Andrews Dr. | 1106 | 1101.9 | 12.4 | 4.1 |  |
| 1647581 | 088 N. Andrews Dr. | 1010 |  |  |  | K R [NR] |
| 1646980 | 088 N. Andrews Dr. | 1014 | 472.1 | 5.2 | 6.2 | K R |
| 1643116 | 089 N. Andrews Dr. | 1002 | 351.0 | 3.9 | 7.1 | K R |
| 1643124 | 089 N . Andrews Dr. | 1006 | 172.1 | 1.9 | 10.0 | K ${ }^{\text {P }}$ |
| 1643989 | 120 Schumann | 1026 | 326.8 | 3.6 | 7.4 | KP |
| 1644026 | 121 Schumann | 1018 | 388.3 | 4.3 | 6.9 | KP |
| 1646990 | 122 Schumann | 1010 | 308.1 | 3.4 | 7.4 | KP |
| 1643998 | 123 Schumann | 1002 | 183.3 | 4.0 | 9.7 | KP |
| 1647020 | 124 Schumann | 0926 | 241.5 | 2.6 | 8.2 | DJKP |
| 1641501 | 125 Schumann | 0918 | 311.6 | 3.5 | 7.3 | KP |
| 1647017 | 126 Schumann | 0910 | 421.8 | 4.7 | 6.5 | KP |
| 1646986 | 127 Schumann | 0902 | 431.1 | 4.8 | 6.5 | AKP |
| 1647016 | 127 Schumann | 0902 | 387.0 | 4.3 | 6.6 | AKP |
| 1647018 | 128 Scnumann | 0830 | 197., | 2.2 | 9.1 | KP |
| 1643131 | 129 Schumann | 0822 | 269.6 | 3.0 | 7.8 | GKP |
| 1647024 | 130 Schumann | 0814 | 324.9 | 3.6 | 7.4 | KP |
| 1647005 | 131 Schumann | 0806 | 257.3 | 2.9 | 8.0 | KP |
| 1647029 | 152 Stull | 1110 | 216.8 | 2.4 | 8.9 | KP |
| 1647014 | 153 Stull | 1102 | 192.5 | 2.1 | 9.2 | K P |
| 1647013 | 154 Stull | 1018 | 390.1 | 4.3 | 6.8 | $k ?$ $k P$ |
| 1647560 | 155 Stull | 1010 | 317.5 | 3.5 | 7.5 | KP |
| 1647003 | 156 Stull | 1002 | 309.9 | 3.4 | 7.3 | NR |
| 1647002 | 157 Stull | 1002 | 157.4 | 1.7 | 10.1 | $K P$ |
| 1647026 | 158 Stull | 1101 |  |  |  | KP [NR] |
| 1647001 | 159 Stuil | 1017 | 1655.8 | 17.4 | 3.2 | GKA |
| 1647025 | 160 Stull | 1009 | 301.1 | 3.3 | 7.4 | DJKP |
| 1647012 | 161 Stull | 1001 | 437.8 | 4.9 | 6.2 | KP |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Detector received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | unknown; concentration estimated |
| Ketector in bectoom |  |

L Detector in living room
M Detector in kitchen
N Detector location unknown
P Capehart home

- MCA home

R Duplex (one-story) home
S Duplex (multistory) home
T Apartment buibling
U Below datection limit
[ND] No data
[NR] Not returned

| Detector No. | Address | Unit No. | Exposure [( $\mathrm{pCl} / \mathrm{L}$ ) days] | Conc. ( pCiL ) | Stancard <br> Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1646977 | 090 Vandenburg | 1220 | 311.9 | 3.4 | 7.5 | DJKR |
| 1643132 | 090 Vandenburg | 1224 | 106.9 | 1.2 | 12.3 |  |
| 1647008 | 091 Vandenburg | 1210 | 238.0 | 2.7 | 8.3 | KR |
| 1647035 | 091 Vandenburg | 1216 | 218.7 | 2.4 | 8.9 | KR |
| 1641503 | 092 Vandenburg | 1202 | 280.2 | 3.1 | 7.9 | KR |
| 1646998 | 092 Vandenburg | 1206 | 106.9 | 1.2 | 12.3 | AKR |
| 1646995 | 092 Vandenburg | 1206 | 104.8 | 1.2 | 12.0 | AKR |
| 1643127 | 093 Vandenburg | 1110 | 166.2 | 1.9 | 9.8 | KR |
| 1643125 | 093 Vandenburg | 1114 | 92.6 | 1.0 | 12.7 | CKR |
| 1647582 | 094 Vandenburg | 1102 | 352.9 | 40 | 71 | KR |
| 1643118 | 094 Vandenburg | 1106 | 373.4 | 42 | 60 | KR |
| 1643108 | 106 W. Andrews Dr. | 1001 | 375.2 | 42 | 6.9 | PR |
| 1643107 | 106 W. Andrews Dr. | 1009 | 488.9 | 5.4 | 6.1 | KR |
| 1646989 | 107 W. Andrews Dr. | 1017 | 263.4 | 2.9 | 8.2 | KR |
| 1647028 | 107 W. Andrews Dr. | 1025 | 401.0 | 4.4 | 6.5 | KR |
| 1647548 | 108 W. Andrews Dr. | 1033 | 155.3 | 1.7 | 10.4 | KR |
| 1643104 | 108 W. Andrews Dr. | 1041 | 285.3 | 3.2 | 7.6 | KR |
| 1643103 | 109 W. Andrews Dr. | 1049 | 131.1 | 1.5 | 11.3 | KR |
| 1643135 | 109 W. Andrews Dr. | 1057 | 451.6 | 5.0 | 6.3 | KR |
| 1647000 | 110 W. Andrews Dr. | 1105 | 138.6 | 1.5 | 11.0 | KR |
| 1646987 | 110 W. Andrews Dr. | 1109 | 267.1 | 2.9 | 8.1 | AKR |
| 1643128 | 110 W. Andrews Dr. | 1109 | 236.3 | 2.6 | 8.3 | AKR |
| 1644001 | 111 W. Andrews Dr. | 1113 | 172.1 | 1.9 | 10.0 | KR |
| 1643129 | 111 W. Andrews Dr. | 1117 | 301.1 | 3.3 | 7.4 | KR |
| 1643113 | 112 W. Andrews Dr. | 1121 | 248.5 | 2.8 | 8.4 | GLR |
| 1646985 | 112 W. Andrews Dr. | 1125 | 271.3 | 3.0 | 7.8 | KR |
| 1643115 | 113 W. Andrews Dr. | 1201 | 854.1 | 9.5 | 4.6 | KR |
| 1643995 | 113 W. Andrews Dr. | 1205 | 598.8 | 6.6 | 5.5 | AKR |
| 1644025 | 113 W. Andrews Dr. | 1205 | 530.7 | 5.8 | 5.7 | AKR |
| 1643120 | 114 W. Andrews Dr. | 1209 | 157.2 | 1.7 | 10.4 | KR |
| 1646983 | 114 W. Andrews Dr. | 1213 | 294.1 | 3.3 | 7.5 | KR |
| 1643114 | 115 W. Andrews Dr. | 1210 | 215.0 | 2.8 | 9.0 | DHJKR |
| 1644029 | 115 W. Andrews Dr. | 1214 | 833.6 | 9.2 | 4.7 | KR |
| 1643111 | 116 W. Andrews Dr. | 1202 | 306.4 | 3.4 | 7.4 | AKR |
| 1643110 | 116 W. Andrews Dr. | 1202 | 311.6 | 3.5 | 7.3 | AKR |
| 1646978 | 116 W. Andrews Dr. | 1206 | 325.7 | 3.8 | 7.2 | KR |
| 1643102 | 117 W. Andrews Dr. | 1126 | 300.7 | 3.4 | 7.7 | KR |
| 1646991 | 118 W. Andrews Dr. | 1114 | 241.1 | 2.7 | 8.5 | KR |
| 1643112 | 118 W. Andrews Dr. | 1118 | 352.9 | 4.0 | 7.1 | GKR |
| 1643105 | 119 W. Andrews Dr. | 1110 | 373.4 | 4.1 | 6.9 | KR |

akey to Remarks:

| A | Duplicate detectors |
| :--- | :--- |
| B | Detector placed by occupant of DEH |
| C | Starting date unknown |
| D | Ending date unknown |
| E | Dettoctor received with no seal |
| F | No data sheet |
| G | Unoccupied house |
| H | Exposure < 90 days |
| J | Exact duration of exposure |
| K | Unknown; concentration estimated |
| K | Detector in bedroom |

[^27]Sun Prairle Army Housing Area (Cont'd)
Sun Prairle, Wisconsin 53590 Indoor Radon Ccncentrations

| Detector No. |  | Address | Unit No. | Exposure [ $(\rho \mathrm{C} / \mathrm{l} / \mathrm{)}$ days] | Conc. (pCiL) | Sendand Deviation (\%) | Remarks ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643106 | 132 W | Andrews Dr. | 1042 | 190.7 | 2.1 | 9.5 | $K P$ |
| 1647034 | 133 W | Andrews Dr. | 1034 | 162.7 | 1.8 | 9.9 | NP |
| 1643126 | 134 W | Andrews Dr. | 1026 | 185.2 | 2.0 | 9.6 | DJKP |
| 1647565 | 135 W | Andrews Dr. | 1018 | 180.2 | 2.0 | 9.4 | NP |
| 1643133 | 136 W | Andrews Dr. | 1010 | 194.5 | 2.2 | 94 | $K P$ |
| 1644006 | 137 W . | Andrews Dr. | 1002 | 313.7 | 3.5 | 7.5 | K P |

akey to Remarks

| A | Duplicate detectors | L | Detector in living room |
| :---: | :---: | :---: | :---: |
| B | Detector placed by occupant of DEH | M | Detector in kitchen |
| C | Starting date unknown | N | Detector location uniknown |
| 0 | Ending date unknown | P | Capehart home |
| E | Detector received with no seal | 0 | MCA home |
| $F$ | No data sheet | $R$ | Duplex (one-story) home |
| G | Unoccupied house | S | Duplex (multistory) home |
| H | Exposure < 90 days | $T$ | Apartment building |
| $J$ | Exact duration of exposure | U | Below delaction limit No dasa |
| K | Detector in bedroom | (NR) | Not returned |

## Appendix G

## Patrick Henry Army Housing Results Submitted by Fort Eustis

## DEPARTMENT OF THE ARMY

u.s. abmy transportation center

FORT EUSTIS. VIRGINIA 23804-5000

Reply to
ATTENTION OF:
Directorate of Enginearing and Housing

Mr. Ron Kolpa
Argonne National Laboratories
9700 S. Casa Avenue
Mall Code: ER/203, B148
Argonne, Illinola 60430-4815
Dear Mr. Kolpa:
Enclosed please IInd the requested copiea of radon detector rasults (Enci 1) for Fort Eustis and Patrick Henry Village, Newport News, Virginia. Alac, please find the original data aheeta (Encl 2) used by our personnel when collecting the detectors at Patrick Henry Houling area, Newport News, Virsinia.

Any queations should be directed to Mr. William J. Barnes, Jr. at (804) 878-4123.

Sincorely,


Chitr, Public Works D/ivision

YIINBJ NOIIVIBODSNVYI AWY甘 Sn
YBaNVWWOJ
ATTN：ATZF－EH，BUILDING 1407
FORT EUSTIS．VA 23604

## Acct．No． 0404992


PROGRAM NAME： 045904

## Appendix H

Analytical Results as Submitted to Argonne by Tech/Ops Landauer


$$
\begin{aligned}
& \text { AREUNNE NATIUNAL LAGURATORY } \\
& \text { ATTN: TINA BECKER, ELDG ER-203 } \\
& \text { 9\%OO SGUTH CASS AVENUE } \\
& \text { ARGUNNE. IL BUU439 }
\end{aligned}
$$

Radon Monitoring Report

## Acct. No. 0400063

Radon Monitoring Report Tech/Ops Landauer, Inc.



## Radon Monitoring Report



| Detector Number | Delector | $\begin{gathered} \text { Slartung } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Field Data / Co |  | Exposure pCill-days | Avg Radon Conc. pClill | $\begin{aligned} & \hline P C T \\ & S T D \\ & D E V \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643076 | DRN | 03-5EP-E0 | NOT GIVEN | ND END DATE PROVI |  | 118.1 |  | 11.8 |  |
| 1643074 | ORN | 10-SEP-E9 | 17-DEC-89 |  |  | 67.8 | 0.7 | 14.9 | 98 |
| 1643088 | DFN | 08-5EP-Es | fot given | NO END DATE PRDVID |  | 82.7 |  | 13. 7 |  |
| 1643098 | DRN | 08-SEP-89 | NOT GIVEN | No END date provi |  | 259.7 |  | 8. 2 |  |
| 1643102 | DRN | 15-SEP-89 | 13-DEC-89 |  |  | 300.7 | 3.4 | 7. 7 | 89 |
| 1643103 | DRN | 14-SEP-89 | 13-DEC-89 |  |  | 131.1 | 1. 5 | 11.3 | 90 |
| 1643105 | DRN | 14-SEP-89 | 13-DEC-89 |  |  | 373.4 | 4. 1 | 6. 9 | 90 |
| 1643106 | DRN | 14-SEP-89 | 14-DEC-89 |  |  | 190.7 | 2. 1 | 9. 5 | 91 |
| 1643107 | DFN | 14-SEP-89 | 13-DEC-69 |  |  | 488.9 | 5.4 | 6. 1 | 90 |
| 1643108 | DRM | 14-SEP-89 | 13-DEC-89 |  |  | 375. 2 | 4. 2 | 6.9 | 90 |
| 1643109 | DRN | 14-SEP-89 | nor given | NO END DATE PROVI |  | 442. 3 |  | 6. 4 |  |
| 1643112 | DRN | 15-SEP-89 | 13-DEC-89 |  |  | 352. 9 | 4. 0 | 7. 1 | 89 |
| 1643113 | DRN | 14-SEP-89 | 13-DEC-89 |  |  | 248. 5 | 2. 8 | B. 4 | 90 |
| 1643114 | DRN | 14-SEP-39 | NOT GIVEN | NO END date provi |  | 215.0 |  | 9.0 |  |
| 1643115 | DRN | 14-SEP-89 | 13-DEC-89 |  |  | 854. 1 | 9.5 | 4.6 | 90 |
| (1) | (2) (3) |  | (4) | (5) |  | (6) | (7) | (1) |  |
|  |  |  | OC. Release Process No <br> DLH <br> AO6675  | $\begin{aligned} & \text { Repor Date } \\ & \text { OE-FEB-90 } \end{aligned}$ | $\begin{aligned} & \text { to Received } \\ & S-J A N-90 \\ & \hline \end{aligned}$ | PAGE | 4 OF | 15 |




Radon Monitoring Report Tech/Ops Landauer, Inc.

## Acct. No. 0400063

> ARGONHE NATIONAL LABORATURY 9700 SCUTH CASS aVENUE ARGONNE IL SƯ439

Radon Monitoring Report


| Detector Number | $\begin{gathered} \text { Derecior } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Slaring } \\ \text { Date } \end{gathered}$ | Ending Date | Field Data Co | enis | Exposure pCill-days | Avg Radon Conc DCIII | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. DF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1644110 | DRN | 07-4CT-89 | 02-JAN-90 |  |  | 78.9 | 0.9 | 14.0 | 87 |
| 1644113 | Crat | 15-EEP-87 | 13-DEC-89 |  |  | 311.9 | 35 | 75 | 89 |
| 1644211 | DRT | 06-SEP-89 | NOT GIVEN | NO END date provi |  | 93.9 |  | 13.0 |  |
| 1644216 | DRT | OS-SEP-89 | 07-DEC-89 |  |  | 159.1 | 1.7 | 10.3 | 92 |
| 1644218 | DRN | 11-SEP-89 | 11-DEC-89 |  |  | 92.0 | 1.0 | 13. 1 | 91 |
| 1644220 | DRN | idot given | NOT GIVEN | NO DATES PROVIDED |  | 54.7 |  | 16. 2 |  |
| 1644223 | DRN | 11-SEP-89 | 12-DEC-69 |  |  | 134. 8 | 1. 5 | 11.1 | 92 |
| 1644226 | DRN | 1-5EP-89 | 11-DEC-89 |  |  | 30. 5 | 0.3 | 20.0 | 91 |
| 1644230 | DRN | 1-SEF-89 | 11-DEC-89 |  |  | 56.6 | 0.6 | 16. 0 | 91 |
| 1644243 | DRN | NOT GIVEN | 15-DEC-89 | NO START DATE PRO | DED | 49. 1 |  | 16.9 |  |
| 1644250 | DRN | 21-SEP--89 | 12-DEC-89 |  |  | 80.8 | 0.9 | 13.9 | 92 |
| 1644255 | DRN | 11-5EP-89 | 11-LEこ-89 |  |  | 32.4 | 0.4 | 19.6 | 91 |
| 1644339 | DRN | 1こ-SEP--ET | 12-DEC-89 |  |  | 324.9 | 3.6 | 7. 4 | 91 |
| 1645086 | DRH | 07-SEP-89 | 07-DEC-89 |  |  | 78.9 | 0.9 | 14.0 | 91 |
| 1645095 | LIPN | 05-SEP-89 | O2-Jâd-90 |  |  | 30.5 | 0.3 | 20.0 | 119 |
| (1) | (2) | (3) | (4) | (5) |  | (6) | (7) |  | (0) |
|  |  |  |  | $O C$ Release Process No. <br> DLH <br> AO6675  | $\begin{gathered} \text { Repor Date } \\ 02-F E B-90 \end{gathered}$ | Date Received $26-J A N-90$ | PAGE | $\theta$ OF | 15 |




| Detector Number | Detector Type | Startiog Date | Ending Date | Field Data / Comments | Exposure DCill-days | Avg Radon Conc pCill | $\begin{aligned} & \hline P C T \\ & S T D \\ & D E V \end{aligned}$ | $\begin{aligned} & \text { NU. DF } \\ & \text { DAYS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645458 | DRT | 06-SEP-8\% | NOT GIVEN | NO END DATE PRDVIDED | 75.2 |  | 14. 3 |  |
| 1645459 | DRN | 06-5EP-89 | NOT GIVEN | * - LESS THAN INDICATED VALUE NO END DATE PROVIDED | * 30.0 |  |  |  |
| 1645466 | DRN | 07-SEP-89 | 0日-DEC-89 |  | 190.7 | 2. 1 | 9. 5 | 92 |
| 1645469 | DRN | 07-SEP-E\% | 12-DEC-89 |  | 125. 9 | 1. 3 | 11. 1 | 96 |
| 1645471 | DRN | O5-EEP-E9 | NOT GIVEN | NO END DATE PRDVIDED | 34.2 |  | 19.2 |  |
| 1645474 | DRN | 27-5EP-39 | 06-DEC-89 |  | 118. 1 | 1. 3 | 11.8 | 90 |
| 1645481 | DRN | U4-SEP-89 | NOT GIVEN | NO END DATE PROVIDED | 108.8 |  | 12. 2 |  |
| 1645583 | DRN | NOT GIVEN | NOT GIVEN | * - less than indicated value NO DATES PROVIDED | * 30.0 |  |  |  |
| 1645584 | DRN | NCT GIVEN | NOT GIVEN | NO DATES PROVIDED | 30. 5 |  | 20.0 |  |
| 1645597 | DRN | NUT GIVEN | NOT GIVEN | * - LESS THAN INDICATED VALUE NO DATES PROVIDED | * 30.0 |  |  |  |
| 1645639 | DRN | NOT GIVEN | NOT GIVEN | * - LESS THAN INDICATED VALUE NO DATES PROVIDED | * 30. 0 |  |  |  |
| 1645757 | DRN | 11-55P-89 | 14-DEC-69 |  | 105.0 | 1. 1 | 12. 4 | 94 |
| 1645765 | DRN | 1)-5EP-89 | 10-DEC-89 |  | 43. 5 | 0. 5 | 17. 7 | 91 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |  | ( ${ }^{\text {a }}$ |
|  |  |  |  | O.C. Release Process No. Report Date <br> DL.H A06675 $02-$ FEB-90 | Date Received $26-J A N-90$ | Page | 10 OF | 15 |

## 0400063 <br> Acct. No.

PCT
Radon Monitoring Report


| Detectior Number | $\begin{gathered} \text { Detector } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Starting } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Fieta Data Co | ents | Exposure pCill-days | Avg. Radon Conc. pC C/I | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. DF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645770 | UFiN | NOT GIVEN | NOT GIVEN | NO DATES PROVIDED |  | 259.7 |  | 8.2 |  |
| 1645778 | DRH | 07-SEP-89 | not given | NO END date provid |  | 215.0 |  | 9. 0 |  |
| 1645785 | DRN | 07-ЕЕР-89 | 11-DEC-89 |  |  | 170.2 | 1.8 | 10.0 | 95 |
| 1645857 | DRN | 08-5EP-89 | -10-DEC-89 |  |  | 37.9 | 0.4 | 18.6 | 93 |
| 1645865 | DEN | O8-5EP-39 | 08-DEC-89 |  |  | 30.5 | 0. 3 | 20.0 | 91 |
| 1645867 | DRN | 08-SEP-89 | 16-DEC-89 |  |  | 97.6 | 1. 0 | 12. 8 | 99 |
| 1645882 | Drin | 08-SEP-S9 | 12-DEC-89 |  |  | 110.6 | 1. 2 | 12. 1 | 95 |
| 1645893 | DRN | 08-SEP-89 | 08-DEC-89 |  |  | 86. 4 | 0.9 | 13. 5 | 91 |
| 1645904 | DRN | 13-SEP-39 | Not given | NO END date provid |  | 95.7 |  | 12. 9 |  |
| 1646027 | ERN | 11-0ct-89 | 15-DEC-89 |  |  | 1090.7 | 16. 9 | 4. 1 | 65 |
| 1646039 | DRN | 11-0ct-89 | 15-LEC-89 |  |  | 1051.6 | 16. 2 | 4. 2 | 65 |
| 1646428 | DRN | NOT GIVEN | NOT GIVEN | NO DATES PROVIDED |  | 65.9 |  | 15. 1 |  |
| 1646431 | DFN | 10-5EP-89 | NOT GIVEN | No end date provi |  | 75.2 |  | 14.3 |  |
| 1646434 | DRN | 10-SEP-89 | nat given | NO END DATE PROVI |  | 43. 5 |  | 17.7 |  |
| 1646443 | DRN | 10-SEF-99 | NOT GIVEN | NO END DATE PROVI |  | 45.4 |  | 17. 4 |  |
| (1) | (2) | (3) | (1) | (5) |  | (6) | (7) |  | (1) |
|  |  |  |  | Q.C. Release <br> DLH Process $N \mathrm{No}$ <br> A06675 | $\begin{gathered} \text { Report Date } \\ 02-\mathrm{FEB}-90 \end{gathered}$ | Date Recelved $26-J A N-90$ | PAGE | 11 OF | 15 |

## Acct. No. 0400063





## Radon Monitoring Report

> ARGUNNE NATIUNAL LABURATURY ATTN TINA BECKER, BLIDG ER-EOZ 9700 SOUTH CASS AUENUE ARGDNIJE, IL. 60439

## 0400063 <br> Acct. No.

## みodey Bu!lot!uOW uopey

> ARGONITE NATIONAL LAROKATURY ATTN: TINA BECKER, BLDG ER-2O3 G7OO SGUTH CASS AVENUE ARGONINE, IL 60439

| Detector Number | $\begin{gathered} \text { Detector } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Stanting } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { Ending } \\ & \text { Data } \end{aligned}$ | Fietd Data : Comments | Expor re pCi/l-udys | Avg Radon Conc. $\mathrm{pCi} / \mathrm{I}$ | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647588 | DRN | 15-5EP-89 | 18-DEC-89 |  | 276.5 | 2.9 | 8. 0 | 94 |
| 1648138 | DRN | 18-SEP-99 | 17-DEC-89 |  | 47.3 | 0.5 | 17. 1 | 90 |
| 1648148 | DRN | 07-SEP-89 | 18-DEC-89 |  | 88.3 | 0. 9 | 13. 4 | 102 |
| 1648161 | DRN | O6-SEP-89 | -06-DEC-89 |  | 32.4 | 0.4 | 19.6 | 91 |
| 1648163 | DRN | 06-5EP-89 | Nat given | * - less than indicated value NO END DATE PROVIDED | * 30.0 |  |  |  |
| 1648166 | ERN | 06-SEP-89 | NOT GIVEN | * - LESS than indicated value NO END DATE PROVIDED | * 30.0 |  |  |  |
| 1648168 | DRN | 25-SEP-89 | 25-NOV-89 | * - less than indicated value | * 30.0 | * 0.5 |  | 61 |
| 1648216 | ERN | 06-5EP-89 | 08-DEC-39 | * - LESS THAN INDICATED VALUE | * 30.0 | - 0.3 |  | 93 |
| 1648230 | DRN | 10-5EP-89 | 11-DEC-89 |  | 306.3 | 3. 3 | 7.6 | 92 |
| 1648247 | ERM | 06-SEP-89 | nat given | NO END DATE PROVIDED | 188.9 |  | 9.5 |  |
| 1648254 | DRN | 07-3EP-89 | 07-DEC-89 |  | 131.1 | 1. 4 | 11.3 | 91 |
| 1648257 | DRN | NOT GIVEN | NOT GIVEN | ND DATES PROVIDED | 1064. 7 |  | 4. 2 |  |
| 1648258 | DRN | NOT GIVEN | NDT GIVEN | NO DATES PROVIDED | 110.6 |  | 12. 1 |  |
| 1648259 | DRN | NOT GIVEN | NOT GIVEN | NO DATES PROVIDED | 67.8 |  | 14.9 |  |
| (1) | (2) | (3) | (1) | (5) | (6) | (7) |  | (1) |
|  |  |  |  | O.c. Reiease <br> DLH Process No. <br> AO6675 Report Date <br> 02-FEB-90 | Date Received $26-J A N-90$ | Page | 15 DF | 15 |

## Radon Monitoring Report

| Detector Number | $\begin{gathered} \text { Detectior } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Startung } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Field Data / Co | ents | Exposure $\mathrm{pC} / \mathrm{l}$-days | Avg. Radon Conc. $\mathrm{pCl} / \mathrm{I}$ | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ' 1436009 | DRNA | NOT GIVEN | NOT GIVEN | NO DATES PROUIDED |  | 122.1 |  | 10.6 |  |
| 1436011 | DRNA | 18-SEP-89 | Not given | NO END date provi |  | 108. 0 |  | 11.1 |  |
| 1436012 | drna | 13-SEP-89 | O8-NOV-89 |  |  | 67.7 | 1. 2 | 13. 1 | 56 |
| 1436043 | DRNA | 13-5EP-89 | -13-DEC-89 |  |  | 211.4 | 2. 3 | 8. 5 | 91 |
| 1436072 | drna | 13-5EP-89 | 17-DEC-89 |  |  | 125.6 | 1. 3 | 10.5 | 95 |
| 1436087 | DRNA | 13-SEP-89 | 19-DEC-89 |  |  | 251.8 | 2.6 | 7. 8 | 97 |
| 1436093 | DRNA | NOT GIVEN | Not given | NO DATES PRDUIDED |  | 83.5 |  | 12. 2 |  |
| 1436195 | DRNA | 13-SEP-89 | Not given | ND END DATE PROVI |  | 148. 4 |  | 9. 8 |  |
| 1436201 | DRNA | 13-SEP-89 | 12-DEC-89 |  |  | 99.3 | 1.1 | 11.5 | 90 |
| 1436202 | DRNA | not given | 13-DEC-89 | ND START DATE PRO START DATE 89 |  | 115.1 |  | 10.8 |  |
| 1641157 | DRN | Not given | not given | NO END DATE PROVI |  | 132. 9 |  | 10. 8 |  |
| 1641258 | DRN | 07-SEP-89 | NOT GIVEN | NO END DATE PROUID |  | 120.6 |  | 11.3 |  |
| 1641160 | DRN | 10-5EP-89 | 10-DEC-89 |  |  | 208. 2 | 2. 3 | 8. 8 | 91 |
| 1641184 | DRN | 07-SEP-89 | 20-DEC-89 |  |  | 430.8 | 4. 1 | 6. 3 | 104 |
| (1) | (2) |  | (1) | (5) |  | ( | (1) | (0) |  |
|  |  |  | O.C. Release  <br> DLH Process No. <br> AO6685 | $\begin{aligned} & \text { Repori Date } \\ & 02-F E B-90 \end{aligned}$ | Date Recelved 26-JAN-90 | PAGE |  |  |


Radon Monitoring Repcit Tech/Ops Landauer, Inc.



## Radon Monitoring Report

| Detector Number | Detector | $\begin{gathered} \text { Starting } \\ \text { Date } \end{gathered}$ | Ending Date | Field Data Comments | Exposure pCill.days | Avg Aadon Conc. pCill | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643189 | DRN | 12-SEP-89 | 12-DEC-89 |  | 106.6 | 1.2 | 12.0 | 91 |
| 1643191 | DRN | 12-SEP-89 | 16-DEC-89 |  | 125.9 | 1. 3 | 11.1 | 95 |
| 1643199 | DRN | 12-SEP-89 | 12-DEC-89 |  | 181.9 | 2. 0 | 9.4 | 91 |
| 1643224 | DRN | 12-SEP-89 | 12-DEC-89 | . | 1636.5 | 18.0 | 3. 3 | 91 |
| 1643235 | DRN | 12-SEP-89 | 29-NOU-89 |  | 108. 3 | 1. 4 | 11.9 | 78 |
| 1643236 | DRN | 11-5EP-89 | 11-DEC-89 |  | 54.0 | 0.6 | 15.8 | 91 |
| 1643238 | DRN | 11-SEP-89 | NOT GIVEN | NO END DATE PROVIDED | 59.3 |  | 15. 2 |  |
| 1643242 | DRN | 11-SEP-89 | NOT GIVEN | NO END DATE PROUIDED | 127.6 |  | 11.0 |  |
| 1643414 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1119.5 | 17.2 | 3. 9 | 65 |
| 1643419 | DRN | 14-SEP-89 | 20-DEC-89 |  | 162. 7 | 1.7 | 9.9 | 97 |
| 1643421 | DRN | 14-SEP-89 | 15-DEC-89 |  | 68.0 | 0.7 | 14.4 | 92 |
| 1643430 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1121.3 | 17.3 | 3. 9 | 65 |
| 1643434 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1100.3 | 16.9 | 4. 0 | 65 |
| 1643442 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1005.6 | 15. 3 | 4. 1 | 65 |
| 1643446 | DRN | 14-SEP-89 | 04-JAN-90 |  | 220.5 | 2. 0 | 8. 6 | 112 |
| (1) | (2) | (3) | (4) | (5) | (0) | (7) |  | (B) |
|  |  |  |  | O.C. Release <br> DLHProcess No <br> AO6 685$\quad$Report Date <br> O2-FEB-90 | Date Recelved $26-J A N-90$ | PAGE | 4 OF | 14 |


Radon Monitoring Report

## Acct. No. 0400063



Radon Monitoring Report


|  | Fieto Data Comments |  |  | Exposure pCill days | $\xrightarrow{\text { Avg Radan }}$ Conc. pill | PCT STD DEV | $\begin{aligned} & \text { NO. OF } \\ & \text { DAYS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | * - less than indicated value |  |  | 41.7 | 0.5 | 17.4 | 92 |
|  |  |  |  | - 30.0 | * 0.3 |  | 95 |
|  |  |  |  | 87.3 | 0.9 | 13.0 | 92 |
|  |  |  |  | 82.1 | 0.9 | 13.4 | 93 |
|  |  |  |  | 69.8 | 0.8 | 14.3 | 91 |
|  | no end date provided |  |  | 40.0 |  | 17.7 |  |
|  | no end date provided no end date provided |  |  | 59.3 | 0.5 | 15.2 | 123 |
|  |  |  |  | 69.8 |  | 14.3 |  |
|  |  |  |  | 78.5 |  | 13.6 |  |
|  |  |  |  | 71.5 | 0.8 | 14.1 | 91 |
|  |  |  |  | 196.0 | 2.2 | 9.1 | 91 |
|  |  |  |  | 1095.0 | 16.8 | 4. 0 | 65 |
|  |  |  |  | 1024.9 | 15.8 | 4.1 | 65 |
|  |  |  |  | 48.8 | 0.5 | 16. 4 | 101 |
|  |  |  |  | 43.5 | 0.5 | 17. 1 | 91 |
| (5) |  |  |  | (1) | (7) |  | (1) |
|  | $\begin{aligned} & \text { OC. Release } \\ & \text { DLH } \end{aligned}$ | Process No A06685 | $\begin{aligned} & \text { Repor Date } \\ & \text { O2-FEB-90 } \end{aligned}$ | $\begin{aligned} & \text { aate Recelved } \\ & \text { 26-JAN } 90 \end{aligned}$ | Page | 7 OF | 14 |

ARGONNE NATIONAL LABORATORY
ATTN: TINA BECKER, BLDG ER-203 9700 SOUTH CASS AVENUE
ARGONNE, IL 60439

> Acct. No. 0400063

| AREONNE NATIONAL LABORATORY ATTN: TINA BECKER, BLDG ER-203 9700 SOUTH CASS aVENUE ARGONNE, IL 60439 |  |  |  | Acct No 0400063 |  |  | eport | Tech/0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Delector Number | $\begin{gathered} \text { Detectoct } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Slaring } \\ \text { Date } \end{gathered}$ | ${ }_{\substack{\text { Ending } \\ \text { Daie }}}^{\text {a }}$ | Field Dala : Commenis |  |  | ${ }_{\substack{\text { Exposure } \\ \text { pCill } \\ \text { day }}}$ | Avg, Racon Conc. pCill a |
| 1645468 | DRN | 07-SEP-89 | 07-DEC-89 | no end date provided <br> * - less than indicated value <br> * - less than indicated value No dates provided |  |  | 152.2 |  |
| 1645473 | DRN | 06-SEP-89 | not given |  |  |  | 41.7 |  |
| 1645483 | DRN | 18-dCT-89 | 18-dec-89 |  |  |  | - 30.0 |  |
| 1645381 | dRN | not given | nat given |  |  |  | - 30.0 |  |
| 1645582 | DRN | not given | not civen | * - LES Nu DATE | THAN IND PRDVIDED | cated value | - 30.0 |  |
| 1645592 | DRN | not given | not given | * - Les NO DATE | THAN IND PROVIDED | ated value | * 30.0 |  |
| 1645393 | drn | not given | not given | * - LES <br> NO DATE | THAN IND | cated value | - 30.0 |  |
| 1645638 | DRN | not given | not given | $\stackrel{*}{*}{ }_{\text {NO DASE }}$ | THAN IND PROVIDED | cated value | - 30.0 |  |
| 1645641 | drN | not given | not given | * - Les NO DATE | THAN IND PROVIDED | cated value | - 30.0 |  |
| 1645758 | dRN | 11-SEP-89 | 11-dEC-89 | * - Les | than ind | ated value | * 30.0 | * 0.3 |
| 1645759 | DRN | not given | not given | * LESS NO DATE | THAN 1 ND | ated value | * 30.0 |  |
| (1) | (2) | (3) (1) |  | (5) |  |  | (6) | ( $)$ |
|  |  |  |  | $\begin{aligned} & \text { O.C. Release } \\ & \text { DL.H } \end{aligned}$ | Process No. AO 668 S | $\begin{aligned} & \text { Report Date } \\ & 02-F E B-90 \end{aligned}$ | $\begin{aligned} & \text { Date Recelved } \\ & 26-J A N-90 \end{aligned}$ | Page |

Radon Monitoring Report Tech/Ops Landauer, Inc. ARGONNE NATIONAL LABORATORY 9700 SOUTH CASS AVENUE
ARGONNE, IL 60439

## Acct. No. 0400063



Radon Monitoring Report

## Acct. No. 0400063

Radon Monitoring Report Tech/Ops Landauer, Inc.


| Defector Number | $\begin{gathered} \text { Detector } \\ T_{y p e} \end{gathered}$ | $\begin{aligned} & \text { Stating } \\ & \text { Date } \end{aligned}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Fietd Data : Comments | Exposure pCitl-days | Avg. Radon Conc $\mathrm{pCl} / \mathrm{l}$ | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645916 | DRN | 11-0ct-89 | 15-DEC-89 |  | 1079.2 | 16.6 | 4.0 | 65 |
| 1645916 | DRN | 12-SEP-89 | 13-DEC-89 |  | 92.6 | 1.0 | 12. 7 | 92 |
| 1645921 | DRN | 11-0Ст-89 | 15-DEC-89 |  | 1058. 2 | 16. 3 | 4. 0 | 65 |
| 1645923 | DRN | 12-SEP-89 | 19-DEC-89 |  | 111.8 | 1. 1 | 11.7 | 98 |
| 1645928 | DRN | 12-5EP-89 | 12-DEC-89 |  | 117.1 | 1. 3 | 11.5 | 91 |
| 1646028 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1039. 9 | 16.0 | 4. 1 | 65 |
| 1646040 | DRN | 11-0CT-89 | 15-DEC-89 |  | 1070. 5 | 16. 5 | 4. 0 | 65 |
| 1646426 | DRN | 10-SEP-89 | 09-DEC-89. |  | 55.9 | 0.6 | 15.6 | 90 |
| 1646433 | DRN | 10-SEP-89 | 10-DEC-89 | * - Less than indicated valve | - 30.0 | * 0.3 |  | 91 |
| 1646438 | DRN | 0日-SEP-89 | NDt eiven | NO END date provided | 78. 5 |  | 13.6 |  |
| 1646445 | DRN | NDT GIVEN | 14-DEC-89 | NO START DATE PROUIDED | 108. 3 |  | 11.9 |  |
| 1646450 | DRN | 10-SEP-89 | 16-DEC-89 |  | 48. 8 | 0. 5 | 16. 4 | 97 |
| 1646453 | DRN | NDT GIVEN | 22-DEC-89 | NO StART DATE PROUIDED | 64.5 |  | 14.7 |  |
| 1646456 | DRN | 11-SEP-89 | Not given | NO END DATE PROVIDED | 89. 1 |  | 12.9 |  |
| 1646458 | DRN | 10-SEP-89 | NOT OIVEN | NO END DATE PROUIDED | 55.8 |  | 15.6 |  |
| (1) | (2) | (3) | (1) | (5) | ( 0 | ( 7 |  | (8) |
|  |  |  |  |  | $\begin{aligned} & \text { Date Received } \\ & 26-J A N-90 \end{aligned}$ | Page | 10 OF | 14 |



Radon Monitoring Report
AREONNE NATIONAL LABORATORY ATTN: TINA BECKER, BLDG ER-203 ARGONNE, IL 60439

## Acct. No. 0400063



Radon Monitoring Report Tech/Ops Landauer, Inc.






| Detector Number | Detector Type | Statting | Ending |
| :---: | :---: | :---: | :---: |
| 1642336 | DRN | 99－ラEP－89 | Nat given |
| 1642351 | DRN | 05－SEP－89 | 07－JAN－90 |
| 1643071 | DRN | NOT GIVEN | NOT GIVEN |
| 1643074 | DRN | 09－5EP－89 | －14－DEC－89 |
| 1643075 | DRN | 09－SEP－89 | 17－DEC－89 |
| 1643077 | DRN | 08－EEP－89 | 08－DEC－89 |
| 1643090 | DRN | 07－SEP－89 | 30－DEC－89 |
| 1643083 | LRN | NGT GIVEN | NDT GIVEN |
| 1643085 | DRN | 01－SEP－89 | 10－DEC－89 |
| 1643086 | DRN | 12－EEP－－89 | NOT GIVEN |
| 1643087 | DRN | NOT GIVEN | NOT GIVEN |
| 1643089 | DRN | 13－5EP－89 | 31－DEC－89 |
| 1643092 | DRN | NOT GIVEN | 10－DEC－89 |
| 1643097 | DRN | NOT GIVEN | 15－DEC－89 |
| 1643100 | DRN | 23－コミア－87 | 31－DEC－89 |

[^28]\[

$$
\begin{aligned}
& \text { WTH CASS AVENUE } \\
& \text { IL } 60439
\end{aligned}
$$
\]




$$
\begin{aligned}
& 9700 \text { SOUTH CASS AVENUE } \\
& \text { ARGONHE, IL } 60439
\end{aligned}
$$


Radon Monitoring Report



Radon Monitoring Report


| Detector Number | $\begin{aligned} & \text { Detector } \\ & \text { Type } \end{aligned}$ | $\begin{gathered} \text { Slarting } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Field Data / Co |  | Exposure pCill-days | Arg. Padon Conc. $\mathrm{pCi} / \mathrm{l}$ | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEU } \end{aligned}$ | $\begin{aligned} & \text { NO. OF } \\ & \text { DAYS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1643664 | ERId | 17-SEP-E7 | 14-DEC-69 |  |  | 71.5 | 0.7 | 14. 1 | 96 |
| 1643665 | DRN | 09-SEP-89 | NOT GIVEN | NO END DATE PROVI |  | 104. 8 |  | 12.0 |  |
| 1643669 | DRN | 25-0СT-87 | 25-Jind-90 |  |  | 113.6 | 1. 2 | 11.6 | 92 |
| 1643673 | DRN | 09-5EP-89 | -14-JAN-90 |  |  | 64.5 | 0. 5 | 14.7 | 127 |
| 1643678 | DRiv | 12-5EP-89 | 19-JAN-70 |  |  | 231.0 | 1. 8 | 8. 4 | 129 |
| 1643679 | DRN | 11-SEP-89 | 11-DEC-89 |  |  | 276.6 | 3. 0 | 7.7 | 91 |
| 1643680 | DRN | 12-SEP-89 | 19-JAN-90 |  |  | 110. 1 | 0.9 | 11.8 | 129 |
| 1643688 | DRA | 12-SEP-E9 | not given | ND END DATE PROVI END DATE 9-19-90 |  | 215. 2 |  | 8. 7 |  |
| 1643997 | DRH | 07-SEP-87 | 07-DEC-89 |  |  | 514.9 | 5. 7 | 5. 7 | 91 |
| 1644002 | DFN | 07-SEf-89 | 07-DEC--87 |  |  | 280.1 | 3. 1 | 7.7 | 91 |
| 1644003 | DRN | 07-SEP-89 | 0日-JAN-90 |  |  | 635.9 | 5.2 | 5. 2 | 123 |
| 1644005 | DEN | 08-SEP-89 | NOT GIVEN | No END date provi |  | 148.6 |  | 10. 3 |  |
| 1644009 | DRN | 14-SEP-89 | NOT GIVEN | NO END DATE PROVI |  | 103. 1 |  | 12. 1 |  |
| 1644011 | ERrs | ob-5Ep-37 | not given | NO END DATE PROVI |  | 80.3 |  | 13. 5 |  |
| (1) | (2) | (3) | (1) | (5) |  | (1) | (7) | ( |  |
|  |  |  |  | OC. Release Process No <br> DLH <br> AO6712  | $\begin{aligned} & \text { Report Date } \\ & 06-F E B-90 \end{aligned}$ | Date Recelved 30-JAN-90 | PAGE | 7 OF | 16 |




| Detector Number | $\begin{gathered} \text { Detector } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Stating } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ |  | Field Data $/$ Co |  | Exposure pCill-days | Avg. Radon Conc. pCill | $\begin{aligned} & \hline P C T \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16.45421 | LRN | 11-cct-89 | 15-DEC-89 |  |  |  | 1035. 4 | 15.9 | 4. 1 | 65 |
| 1645422 | DRIN | 12-SEP-89 | 16-DEC-99 |  |  |  | 36. 5 | 0.4 | 18. 3 | 95 |
| 1645427 | DEN | 12-5EF-87 | 19-DEC-89 |  |  |  | 117.1 | 1.2 | 11.5 | 98 |
| 1645431 | DRN | 12-SEP-89 | 26-DEC-89 |  |  |  | 113.6 | 1. 1 | 11.6 | 105 |
| 1645434 | DRN | 12-5SP-89 | 19-DEC-89 |  |  |  | 174.9 | 1. 1 | 9.6 | 98 |
| 1645462 | DRN | 1b-OCT-89 | 16-JAN-90 |  |  |  | 38.2 | 0.4 | 18. 0 | 92 |
| 1645465 | DRN | 07-SEP-89 | 10-DEC-89 |  |  |  | 73.3 | 0. 8 | 14.0 | 94 |
| 1645479 | DRN | 07-SEP-89 | 08-DEC-89 |  |  |  | 92.6 | 1.0 | 12. 7 | 92 |
| 1645590 | DRN | NOT GIVEN | NOT GIVEN | * L LESS NO DATES | THAN IND PROVIDED | ated value | - 30.0 |  |  |  |
| 1645591 | DRN | not given | NOT GIVEN | * - LESS NO DATES | THAN IND PROVIDED | ated value | * 30.0 |  |  |  |
| 1645596 | DRN | hit given | NGT given | * - LESS NO DATES | THAN IND PROVIDED | ated value | * 30.0 |  |  |  |
| 1645598 | DRN | Not given | not given | * - LESS NO DATES | THAN IND PROVIDED | ated value | * 30.0 |  |  |  |
| (1) | (2) |  | (1) | (5) |  |  | (0) | (7) | (1) |  |
|  |  |  | O.C. Release DL.H | $\begin{aligned} & \text { Process No. } \\ & \text { A06712 } \end{aligned}$ | $\begin{aligned} & \text { Report Date } \\ & 06-F E B-90 \end{aligned}$ | Date Recelved 30-JAN-90 | PAGE | 10 OF | 16 |

Radon Monitoring Report

| Detector Number | $\begin{aligned} & \text { Deiector } \\ & \text { Type } \end{aligned}$ | $\begin{gathered} \text { Starting } \\ \text { Date } \end{gathered}$ | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ |  | Firid Data Com |  | Exposure pCilldays | Avg. Radon Conc. pCill | $\begin{aligned} & \hline \mathrm{PCT} \\ & \mathrm{STD} \end{aligned}$ DEV | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645599 | DEN | :ICT EIVEA | NOT GIVEN | * - LES <br> ND dATE | THAN IND PRDVIDED | ated value | * 30.0 |  |  |  |
| 1645633 | DRN | NOT GIVEA | Nat given | * - LES <br> NO DATE | THAN IND PROVIDED | ated value | * 30.0 |  |  |  |
| 1645763 | DFN | 10-5EP-89 | -HOT GIVEN | * - LES | THAN IND date provi | ated value | - 30.0 |  |  |  |
| 1645772 | ERT | 2t-5EP-89 | Not given | NO END | date provi |  | 64.5 |  | 147 |  |
| 1645773 | DRN | 0s-SEP-89 | NOT GIVEN | NO END | DATE PROUI |  | 197.7 |  | 9. 1 |  |
| 1645774 | DRA | OS-SEP-89 | 11-DEC-89 |  |  |  | 131. 1 | 1. 4 | 10.9 | 96 |
| 1645780 | DRM | NOT GIVEN | NOT GIVEN | NO DATE | 5 PROVIDED |  | 66.3 |  | 14.6 |  |
| 1645781 | DRH | 0ち-SEP-79 | NOT GIVEN | NO END | date provi |  | 55.8 |  | 15.6 |  |
| 1645786 | DRN | 05-SEP-39 | 06-DEC-89 |  |  |  | 131.1 | 1. 4 | 10.9 | 92 |
| 1645789 | DRN | 11-SEP-89 | NOT GIVEN | NO END | date provid |  | 187.2 |  | 9. 3 |  |
| 1645790 | LRT | 11-SEP-89 | 11-DEC-89 |  |  |  | 108. 3 | 1.2 | 11.9 | 91 |
| 1645793 | ERA | NLT GIVEN | NOT GIVEN | NO DATE | PROUIDED |  | 231.0 |  | 8. 4 |  |
| 1645798 | DEf: | NGT GIVEA | NOT GIVEN | NO Date | S PRDVIDED |  | 138. 1 |  | 10. 7 |  |
| (1) | (2) | (3) | (1) | (3) |  |  | (0) | (1) |  | O |
|  |  |  |  | O.C. Felease DLH | Process No. A06712 | $\begin{aligned} & \text { Repor Date } \\ & \text { 06-FEB-90 } \end{aligned}$ | $\begin{aligned} & \text { Date Recelved } \\ & 30-J A N-90 \end{aligned}$ | PAGE | 11 OF | 16 |



Radon Monitoring Report

## 0400063 <br> Acct. No.

| Detector Number | $\begin{gathered} \text { Detector } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Startung } \\ \text { Date } \end{gathered}$ | $\begin{aligned} & \text { Ending } \\ & \hline \text { Data } \end{aligned}$ |  | Fieto Data : Co | ents | Exposure DCill-days | Avg. Radon Conc. $\mathrm{pCl} / \mathrm{I}$ | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1645877 | DRN |  | 08-DEC-89 |  |  |  | 68.0 | 0.7 | 14.4 | 91 |
| 1645890 | DFN | 09-5EF-E9 | NOT GIVEN | NO END D | DATE PROVI |  | 83.8 |  | 13.2 |  |
| 1645897 | DRN | 11-0CT-29 | 15-DEC-89 |  |  |  | 1003. 9 | 15.4 | 4. 1 | 65 |
| 1645901 | DRN | 11-0CT-89 | -15-DEC-89 |  |  |  | 1028. 4 | 15.8 | 4. 1 | 65 |
| 1645911 | DRN | 12-SEP-89 | nat given | ND END D | date provi |  | 108. 8 |  | 12. 2 |  |
| 1645913 | drn | 11-0Ct-89 | 15-DEC-89 |  |  |  | 1074.0 | 16.5 | 4.0 | 65 |
| 1645915 | DRN | 11-0.9-89 | 15-DEC-89 |  |  |  | 1054. 7 | 16.2 | 4. 0 | 65 |
| 1645917 | DRN | 11-0CT-89 | 15-DEC-89 |  |  |  | 1007.4 | 15.5 | 4. 1 | 65 |
| 1645919 | DRN | 12-SEP-89 | Not given | NO END D | DATE PROVI |  | 136.4 |  | 10.7 |  |
| 1645920 | DRN | 12-SEP-89 | 20-DEC-89 |  |  |  | 302.9 | 3. 1 | 7.4 | 99 |
| 1645922 | DFid | 12-SEP-69 | Not given | NO END D | date provi |  | 120.6 |  | 11.3 |  |
| 1645925 | brid | 12-3E!-89 | 19-DEC-89 |  |  |  | 82. 1 | 0. 1 | 13. 4 | 98 |
| 1646026 | DRN | 11-0ct-87 | 15-LEC-89 |  |  |  | 1023. 2 | 15. 7 | 4. 1 | 65 |
| 1646029 | DRN | 11-0CT-89 | 15-DEC-89 |  |  |  | 1063. 5 | 16. 4 | 4. 0 | 65 |
| 1646421 | DRN | 08-SEP-89 | Not given | NO END D | DATE PROVI |  | 157.4 |  | 10.1 |  |
| (1) | (2) | (1) | (4) | (5) |  |  | (0) | ( $)$ |  | ( |
|  |  |  |  | O.C. Release DLH | Process No. A06712 | $\begin{gathered} \text { Repon Date } \\ 06-\mathrm{FEB}^{2} \end{gathered}$ | Date Recelved 30-JAN-90 | PAGE | 13 OF | 16 |



Landouer $\begin{aligned} & \text { Glenwood, Ilinois 60425-1586 } \\ & \text { Telephone (708) 755-7000 }\end{aligned}$


| Detector Number | $\begin{gathered} \text { Detector } \\ \text { Type } \end{gathered}$ | $\begin{gathered} \text { Starting } \\ \text { Dale } \end{gathered}$ | $\begin{aligned} & \text { Ending } \\ & \text { Date } \end{aligned}$ |  | Field Data / Com |  | Exposure DCill.days | Avg. Radon Conc. pCill | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647448 | DRN | NOT GIVEN | NOT GIVEN | $\begin{aligned} & \text { * - LES } \\ & \text { NO DATE } \end{aligned}$ | THAN INDI PROVIDED | ated value | * 30.0 |  |  |  |
| 1647460 | DRN | NOT GIVEN | NOT GIVEN | * - LES ND DATE | THAN IND PROVIDED | ted value | * 30.0 |  |  |  |
| 1647461 | DEN | NOT GIVEN | 'NOT GIVEN | * - LES <br> ND DATE | THAN IND PROVIDED | ated value | * 30.0 |  |  |  |
| 1647462 | DRN | NOT GIVEN | Not given | $\begin{aligned} & \text { * - LES } \\ & \text { NO DATE } \end{aligned}$ | THAN IND PROVIDED | ated value | - 30.0 |  |  |  |
| 1647467 | DRN | 11-SEP-89 | 17-DEC-89 |  |  |  | 104.8 | 1. 1 | 12. 0 | 97 |
| 1647469 | DRN | 09-SEP-89 | 16-DEC-89 |  |  |  | 47.0 | 0.5 | 16.7 | 98 |
| 1647470 | DRN | 20-SEP-89 | 03-JAN-90 | * - LES | THAN IND | ated value | - 30.0 | - 0.3 |  | 105 |
| 1647478 | DRN | 10-SEP-89 | 09-DEC-89 |  |  |  | 48. 8 | 0.5 | 16. 4 | 90 |
| 1647481 | DRN | 09-5EP-89 | 13-DEC-89 | . |  |  | 82. 1 | 0.9 | 13. 4 | 95 |
| 1647485 | DRN | 09-SEP-99 | 07-DEC-89 |  |  |  | 122.4 | 1.4 | 11.3 | 89 |
| 1647486 | DRN | 15-SEP-89 | 16-DEC-89 |  |  |  | 69.8 | 0. 8 | 14.3 | 91 |
| 1647553 | DRN | 12-5EP-89 | 19-JAN-90 |  |  |  | 125.9 | 1.0 | 11.1 | 129 |
| 1647565 | DRN | 13-SEP-89 | 13-DEC-89 |  |  |  | 180. 2 | 2. 0 | 9.4 | 91 |
| (1) | (2) | (3) | (1) | (5) |  |  | (6) | (7) | ( |  |
|  |  |  |  | a.c. Release DLH | Process No. <br> A06712 | $\begin{aligned} & \text { Repor Oate } \\ & \text { O6-FEB-90 } \end{aligned}$ | Dats Received 30-JAN-90 | PAgE | 15 OF | 16 |



## Radon Monitoring Report




| Detector Number | Detector Type | $\begin{gathered} \text { Starting } \\ \text { Date } \end{gathered}$ | Ending | Field Data / Con | nts | Exposure pCi/l-days | Avg Radon Conc. pCill | $\begin{aligned} & \hline \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1341742 | DRNA | 36-APR-89 | NOT GIVEN | NO END DATE PROVI END DATE 4-26-40 |  | 4 E .5 |  | 14.6 |  |
| 1347509 | DRNA | 25-MAR-89 | 15-JAN-90 |  |  | 30.9 | 0. 1 | 16. 4 | 296 |
| 1435998 | DRNA | Hot given | 25-JAN-90 | NO START DATE PRO | DED | 94.0 |  | 11.7 |  |
| 1435999 | DRNA | NDT GIVEN | 25-JAN-90 | NO START DATE PROV | DED | 164.1 |  | 9. 4 |  |
| 1436000 | drna | 13-SEP-89 | NOT GIVEN | NO END DATE PROVI |  | 372.7 |  | 6.6 |  |
| 1436001 | DRNA | NOT GIVEN | NOT GIVEN | NO DATES PROVIDED | $\cdots$ | 109. 8 | . | 11.0 |  |
| 1436002 | DRNA | 13-SEP-89 | 13-DEC-89 |  | : | 129. 1 | $\cdots 1.4$ | 10. 4 | 91 |
| 1436006 | DRNA | 13-SEP-89 | 13-DEC-89 |  |  | 71.2 | 0.8 | 12. 9 | 91 |
| 1436022 | drna | NOT GIVEN | 25-JAN-90 | NO StART DATE PROU | DED | 122. 1 |  | 10.6 |  |
| 1436026 | DRNA | 13-SEP-89 | 13-DEC-89 |  |  | 162. 4 | 1. 8 | 9. 4 | 91 |
| 1436031 | drna | not given | 25-JAN-90 | NO START DATE PROV | DED | 111.6 |  | 11.0 |  |
| 1436050 | DRNA | NOT GIVEN | NOT GIVEN | ND DATES PROVIDED |  | 251.8 |  | 7. 8 |  |
| 1436054 | DRNA | 13-SEP-89 | 17-NOV-89 |  |  | 76. 5 | 1. 2 | 12.6 | 65 |
| 1436056 | DRNA | 13-SEP-89 | 21-NOV-89 |  |  | 137. 8 | 2. 0 | 10. 1 | 69 |
| (1) | (3) | (3) | (4) | (5) |  | ( | (7) |  | (1) |
|  |  |  |  | O.C. Release Process No. <br> DLH <br> AO6719  | $\begin{gathered} \text { Repor Date } \\ \text { O6-FEB-90 } \end{gathered}$ | $\begin{aligned} & \text { Oate Recelvod } \\ & 30-J A N-90 \end{aligned}$ | PAGE | 1 OF | 9 |

ARGON:NE NATIONAL LABORATORY
ATTN: TINA BECKER, BLDG ER-3O3

$$
\begin{aligned}
& \text { 97OO SUUTH CASS AVENUE } \\
& \text { ARGONNE. IL } 60439
\end{aligned}
$$

Radon Monitoring Report

## Acct. No. 0400063

| Detector <br> Number | Detector <br> Type | Starting <br> Date | Ending <br> Date |
| :---: | :---: | :---: | :---: |

## Radon Monitoring Report




Radon Monitoring Report

|  | Field Data Comments |  | Exposure pCilldays | Avg Radon Conc pCill | $\begin{aligned} & \hline P C T \\ & S T D \\ & \mathrm{DEV} \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EN | NO END DATE PROVIDED NO END DATE PROVIDED |  | 94.3 |  | 12.8 |  |
| EN |  |  | 478. 1 |  | 6.0 |  |
| 89 |  |  | 68.0 | 0.7 | 14.4 | 91 |
| -90 |  |  | 34. 7 | 0.3 | 18.6 | 129 |
| -89 |  |  | 257.3 | 2. 9 | 8. 0 | 90 |
| 89 | * - less than indicated value |  | * 30. 0 | * 0. 3 |  | 99 |
| VEN | NO END DATE PROVIDED |  | 55.8 |  | 15.6 |  |
| 89 | NO START DATE PROVIDED |  | 64.5 |  | 14.7 |  |
| VEN | NO END date provided |  | 80. 3 |  | 13. 5 |  |
| -89 | * - less than indicated value |  | 31.2 | 0. 3 | 19.2 | 91 |
| -69 |  |  | * 30. 0 | * 0.5 |  | 65 |
| 89 |  |  | 43.5 | 0. 5 | 17.1 | 91 |
| -89 |  |  | 178. 4 | 2. 0 | 9. 5 | 91 |
| -89 |  |  | 1079. 2 | 16.6 | 4. 0 | 65 |
| -89 | * - LESS THAN IND | ATED VALUE | - 30.0 | * 0.3 |  | 98 |
|  | (5) |  | (1) | (7) |  | (3) |
|  | Q.C. Release <br> DLH Process <br> No. <br> A06719 | $\begin{aligned} & \text { Report Date } \\ & 06-\text { FEB-90 } \end{aligned}$ | Date Recelved 30-JAN-90 | Page | 5 Of | 9 |





| Detector Number | Detector Type | Starting Date | Ending Date | Fieid Data / Co |  | Exposure pCi/l-days | Avg. Radon Conc. pCill | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | ND. DF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1648234 | DRN | 15-DCT-89 | O3-JAN-90 |  |  | 187.2 | 2. 3 | 9. 3 | 80 |
| 1648243 | DRN | NIDT GIVEN | NOT GIVEN | NO DATES PROVIDED |  | 45. 3 |  | 16. 9 |  |
| 1648249 | DRN | O6-SEP-89 | NOT GIVEN | NO END DATE PROVI | - | 57.5 |  | 15. 4 |  |
| 1648251 | DRN | NOT GIVEN | - NOT GIVEN | NO DATES PROVIDED |  | 2016.6 |  | 4.0 |  |
| 1648252 | DRN | O8-5EP-E9 | 07-DEC-89 |  |  | 599.0 | 6. 7 | 5. 3 | 90 |
| 1648253 | DRN | 07-SEP-89 | NOT GIVEN | NO END DATE PROV | D .. | 139.9 |  | 10.6 |  |
| 1648265 | DRN | 06-5EP-89 | NOT GIVEN | NO END DATE PRQVI |  | 108. 3 |  | 11.9 |  |
| 1648273 | DRN | NOT GIVEN | NOT GIVEN | NO DATES PROVIDED |  | 301.1 |  | 7. 4 |  |
| 1648276 | DRN | NOT GIVEN | 06-DEC-89 | NO START DATE PRO | DED | 83.8 |  | 13. 2 |  |
| 1648277 | DRN | NOT GIVEN | 07-DEC-89 | NO ETART DATE PRO | DED | 371.2 |  | 6. 7 |  |
| 1648278 | DRN | 08-5EP-89 | NDT GIVEN | ND END DATE PROVI |  | 113.6 |  | 11.6 |  |
| 1648281 | DRN | 08-EEP-89 | 11-DEC-B9 |  |  | 99.6 | 1. 1 | 12. 3 | 94 |
| 1648286 | DRN | 08-5EP-97 | NOT GIVEN | ND END DATE PROVI |  | 52. 3 |  | 16. 0 |  |
| (1) | (2) |  | (4) | (5) |  | (6) | (7) |  | (0) |
|  |  |  | Q.C. Reiease Process No. <br> DLH <br> A06  | $\begin{aligned} & \text { Report Date } \\ & 06-F E B-90 \end{aligned}$ | Date Recelved $30-J A N-90$ | PAGE | 9 OF | 9 |

Radon Monitoring Report

> ARGUNE NA ATTN: TINA BECMER, BLDG ER-203 9700 SOUTH CASS AVENUE ARGONNF. II 60477

| $\begin{array}{c}\text { Oetector } \\ \text { Number }\end{array}$ | $\begin{array}{c}\text { Delector } \\ \text { Type }\end{array}$ | $\begin{array}{c}\text { Starting } \\ \text { Date }\end{array}$ | $\begin{array}{c}\text { Ending } \\ \text { Date }\end{array}$ | Field Data / Comments |
| :---: | :---: | :---: | :---: | :---: |
| 1436007 | DRNA | $13-$ SEF-B9 | $31-$ JAN-90 |  |
| 1436025 | DRNA | 07-SEP-89 | OB-JAN-90 | . |
| 1436029 | DRNA | $13-$ SEP-83 | NOT GIVEN | NO END DATE PROUIDED |

1436032 DRNA NOT GIVEN -GS-FEB-90 NO START DATE PROVIDED \begin{tabular}{l|l|l|l|}
1641183 \& DRN \& $07-5 E P-89$ \& $07-F E B-90$

 1641185 DRN OB-SEP-89 NOT GIVEN 1641193 DFN 11 -SEP-89 11 1-FEB-90 1641195 DRN $07-$ SEP-89 1641523 DRN 12 -SEP-89 $\quad$ NDT GIVEN 

1641540 \& DRN \& $12-5 E P-89$ \& NOT GIVEN

 1641542 DRN 14 -SEP-89 

05-FEB-90

 1642293 DRN 11 1-0CT-89 1 15-DEC-89 1642303 DRN 11 -DCT-G9 

$15-D E C-89$

 1642321 DRN 

\hline $109-S E P-69$ \& $05-F E B-90$ <br>
\hline

 

1642345 \& DRN \& $09-$ SEP-89 \& $29-J A N-90$ <br>
\hline
\end{tabular}

(4)
(3)
(1)

Radon Monitoring Report

## Acct. No. 0400063



| Detector Number | Detector Type | Starting | $\begin{aligned} & \text { Ending } \\ & \text { Date } \end{aligned}$ |  | Field Data / Co |  | Exposure pCill-days | Avg. Radon Conc. pCill | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1642348 | DRN | 09-SEP-89 | 09-FEB-90 |  |  |  | 71.5 | 0.5 | 14.6 | 153 |
| 1643186 | DRN | 12-SEP-89 | 14-JAN-90 |  |  |  | 127.4 | 1. 0 | 11.4 | 124 |
| 1643223 | DRN | 12-5EP-89 | O5-FEB-90 |  |  |  | 330.5 | 2. 3 | 7. 3 | 146 |
| 1643234 | DRN | 12-5EP-89 | 05-FEB-90 |  |  |  | 134.8 | 0.9 | 11.1 | 146 |
| 1643428 | DRN | 10-0С T-89 | O6-FEB-90 |  |  |  | 270.9 | 2. 3 | B. 1 | 119 |
| 1643431 | DRN | 10-0CT-89 | 06-FEB-90 |  |  | - | 131.1 | 1. 1 | 11.3 | 119 |
| 1643432 | DRN | 11-aCT-89 | 15-DEC-89 |  |  |  | 1109.4 | 17. 1 | 4. 1 | 65 |
| 1643648 | DRN | 09-SEP-89 | 03-FEB-90 |  |  |  | 71.5 | 0.5 | 14.6 | 147 |
| 1643660 | DRN | 12-SEP-89 | 06-FEB-90 |  |  |  | 229.9 | 1.6 | 8. 7 | 147 |
| 1643674 | DRN | 12-SEP-89 | 06-FEB-90 |  |  |  | 157.2 | 1. 1 | 10.4 | 147 |
| 1643690 | DRN | 12-SEP-89 | 28-JAN-90 |  |  |  | 138.6 | 1. 0 | 11.0 | 138 |
| 1643692 | DRN | 13-5EP-89 | 13-DEC-89 |  |  |  | 62.2 | 0. 7 | 15. 4 | 91 |
| 1644008 | DRN | 14-SEP-89 | 14-DEC-89 |  |  |  | 166. 5 | 1. 8 | 10.1 | 91 |
| 1644010 | DRN | 14-SEP-89 | 21-DEC-89 |  |  |  | 51.0 | 0. 5 | 16. 7 | 98 |
| 1644201 | DRN | 06-SEP-89 | 05-FEB-90 |  |  |  | 231.7 | 1.5 | 8. 7 | 152 |
| (1) | (2) | (3) | (1) | (5) |  |  | (0) | (3) |  | ( |
|  |  |  |  | a.c. Release DLH | $\begin{aligned} & \text { Process No. } \\ & \text { AO6967 } \end{aligned}$ | $\begin{aligned} & \text { Report Date } \\ & 28-F E B-90 \end{aligned}$ | $\begin{aligned} & \text { Date Recelved } \\ & 21-F E B-90 \end{aligned}$ | Page | 2 OF | 6 |

Radon Monitoring Report

> ARGONNE NATIUNAL LAPORATORY ATTN: TINA BECKER, BLDG ER-203 9700 SOUTH CASS AUENUE ARGONNE, IL 60439

## Acct. No. 0400063

Radon Monitoring Report


Radon Monitoring Report
ARGONIJE NATIONAL LABQRATORY 9700 SIOUTH CASS AVENUE ARGONITE. IL 60437

Radon Monitoring Report
ARGONNE NATIONAL LABORATIRY 9700 SOUTH CASS AVENUE

## 0400063

| Detector Number | $\begin{gathered} \text { Delector } \\ \text { Type } \end{gathered}$ | Slatring | $\begin{gathered} \text { Ending } \\ \text { Date } \end{gathered}$ | Field Data / Co |  | Exposure pCilldays | Avg. Radon Conc. $\mathrm{pCli/l}$ | $\begin{aligned} & \text { PCT } \\ & \text { STD } \\ & \text { DEV } \end{aligned}$ | NO. OF DAYS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1647477 | DRN | NOT GIVEN | NOT GIVEN | NO DATES PROUIDED |  | 54.7 |  | 16.2 |  |
| 1647488 | DRN | 09-SEP-89 | NOT GIVEN | No END date provi |  | 179.6 |  | 9. 8 |  |
| 1647492 | DRN | 09-SEP-89 | 29-JAN-90 |  |  | 65.9 | 0. 5 | 15.1 | 142 |
| 1647547 | DRN | 12-SEP-89 | 28-JAN-90 |  |  | 140.4 | 1.0 | 10.9 | 138 |
| 1647551 | DRN | 13-SEP-89 | 12-DEC-89 |  |  | 97.6 | 1. 1 | 12. 8 | 90 |
| 1647559 | DRN | 12-5EP-89 | 28-JAN-90 |  |  | 149.8 | 1.1 | 10.6 | 138 |
| 1647566 | DRN | 12-SEP-89 | 2B-JAN-90 |  |  | 123. 7 | 0.9 | 11.5 | 138 |
| 1648137 | DRN | 06-SEP-89 | 06-FEB-90 | * - Less than ind | ated value | * 30.0 | - 0.2 |  | 153 |
| 1648159 | DRN | 06-SEP-89 | 07-FED-90 | * - Less than ind | ated value | * 30.0 | * 0.2 |  | 154 |
| 1648244 | DRN | 07-SEP-89 | NOT GIVEN | NO END date provi |  | 522.4 |  | 5. 9 |  |
| 1648245 | DRN | 06-SEP-E9 | NOT GIVEN | NO END date provi |  | 168. 4 |  | 10.1 |  |
| 1648246 | DRN | 07-SEP-89 | Not given | NO END date provi |  | 503. 8 |  | 6.0 |  |
| 1648266 | DRN | 06-SEP-89 | NOT GIVEN | NO END date provi |  | 257.8 |  | B. 2 |  |
| 1648269 | DRN | 06-SEP-89 | 05-FEB-90 |  |  | 248.5 | 1.6 | B. 4 | 152 |
| 1648285 | DRN | 08-5EP-89 | 06-FEB-90 |  |  | 168. 4 | 1. 1 | 10.1 | 151 |
| (1) | (2) | (3) | (1) | (3) |  | ( 0 | (7) |  | (1) |
|  |  |  |  | OC. Release $^{\text {DLH }}$$\quad$Process No. <br> AO6967 | $\begin{aligned} & \text { Roport Date } \\ & 28-F E B-90 \end{aligned}$ | Dale Recelved <br> Dale Recelvod $21-$ FEB-90 | Page | 6 OF | 6 |



| Detector Number | Detector Type | Starting Date | Enaing Date |  | Field Data $/ \mathrm{Co}$ |  | Exposure pCiII－days | Avg．Racon Conc．pCill | $\begin{aligned} & \text { PGT } \\ & \text { STD } \\ & D E V \end{aligned}$ | $\begin{aligned} & \text { N:C OF } \\ & \text { LAYS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1641180 | EFR |  | NET G：GEM | NO END | DATE PROVI |  | 436.2 |  | 6.3 |  |
| 1641557 | ERR： | ：$\because-E P-57$ | $03-11 A F-90$ |  |  |  | 227.9 | 1． 3 | 8． 4 | 172 |
| 1642288 | DRA | ここーラセア－日ラ | 19－JAN－90 |  |  |  | 220． 1 | 1． 7 | E． 5 | 13.3 |
| 1642291 | DRN |  | －15－DEC－B9 | － |  |  | －1044．7 | 16． 1 | 4． 1 | 65 |
| 1642343 | DRN | 5ラ－56P－35 | 2こ－FEG－90 |  |  |  | 116.5 | 0.7 | 11.2 | 166 |
| 1643205 | URN | 12－5cp－89 | 23－FEB－90 |  |  |  | 304.7 | 1． 9 | 7． 4 | 164 |
| 1643237 | DRG | 11－5ミP－87 | 14－JAN－90 |  | － |  | 45． 2 | 0． 4 | 15．6 | 125 |
| 1643247 | DR： |  | 13－FEB－70 | $\therefore$. |  |  | 185．9 | 1． 2 | 9.2 | 158 |
| 1643647 | DRN | アローシミアーミツ | 13－FEG－90 |  |  |  | 100．0 | 0.6 | 11.9 | 157 |
| 1643676 | DRN | ：ミーミミア・•日 | 27－Jinv－70 |  |  |  | 227． 9 | 1． 7 | B． 4 | 137 |
| 1643682 | QRil | iニ－SiP－39 | 26－FEB－00 | ． |  |  | 116.5 | 0.7 | 11．2 | 167 |
| 1643686 | ［5：1 | ：シージア－®9 | E1－FEE－70 |  |  |  | 90．9 | 0.6 | 12．3 | 142 |
| 1643687 | E．RA | 1®－EEP－E\％ | 27－JAN－76 |  |  |  | 668.3 | 4． 9 | 5． 1 | 137 |
| 1643993 | SRA | 1こッシミアーラヲ | ET－VAN－70 |  |  |  | 368． 6 | 27 | 6． 8 | 137 |
| 1644021 | 3 O－ | ぶージアーラ゙ | NOT GIVEN | NO END | DATE PROVI |  | 33\％ 6 |  | 71 |  |
| （1） | （2） | （3） | （4） | （5） |  |  |  | （7） | （3） |  |
|  |  |  |  | Q．C．Release KSR | Process No． <br> AO7161 |  | $\begin{aligned} & \text { Date Received } \\ & 08-M A R-90 \end{aligned}$ | PAGE | 1 OF | 4 |

Radon Monitoring Report

## Acct. No. 0400063

Tech/Ops Landauar, Inc.




## Radon Monitoring Report



[^29]Acct. No. 0400063

Radon Monitoring Report


Radon Monitoring Report




## NOTICE

Standard deviation values for six detectors analyzed by Tech/Ops Landauer do not appear in the preceding report sheets. However, those standard deviation values were reported by telephone by Tech/Ops Landauer to Argonne personnel on April 3, 1990. Those verbally reported standard deviations are tabulated below. They also have been inserted into the appropriate tables of Appendix $F$.

Percent
Detector Standard
Number Deviation
$1647020 \quad 8.2$
$1647025 \quad 7.4$
$1647028 \quad 6.5$
16470328.0
16470337.3
16470349.9

## Appendix I

## Graphic Display of Results for Each Monitored Property

KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L
[NR] Detector Not Returned
[ND] No Data For This Location
[ ] [ ] Field Replicate
( ) Unit or Apartment Number

Ansonia Army Housing Ansonia, Connecticut Indoor Radon Concentrations


## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Returned [ND] No Data For This Location
[ ][ ] Field Replicate
( ) Unit or Apartment Number


Private Residences

KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detecter Not Returned [ND] No Data For This Location ( ] | | Field Replicate
( ) Unit or Apartment Number


```
KEY
    Seven-digit Number is Monitor Serial Number
        [ ] Radon Concentration in pCi/L
        [NR] Detector Not Returned
        [ND] No Data For This Location
[ |l ] Field Replicate
    ( ) Unit or Apartment Number
```


## Manchester Army Housing Manchester, Connecticut Indoor Radon Concentrations



KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned [ND] No Data For This Location
( 11 ] Field Replicate ( ) Unit or Apartment Number

Middletown Army Housing Middletown, Connecticut Indoor Radon Concentrations


KEY
Seven-digit Number is Monitor Serial Number ( ) Radon Concentration in $\mathrm{PCi} / \mathrm{L}$ [NR] Detector Not Returned
[ND] No Data For This Location
[ ] ] Field Replicate
( ) Unit or Apartment Number

Milford Army Housing Milford, Connecticut Indoor Radon Concentrations


EELS HILL ROAD

RESIDENTIAL

## KEY

New Britain Army Housing
Seven-digit Number is Monitor Serial Number New Britain, Connecticut [ ] Radon Concentration in pCi/L [NR] Detector Not Returned [ND] No Data For This Location
( ][ ] Field Replicate
( ) Unit or Apartment Number

## KEY

## Orange Army Housing Orange, Connecticut Indoor Radon Concentrations

Seven-digit Number is Monitor Serial Number [NR] Detector Not Returned [ND] No Data For This Location
( ] [ ) Field Replicate ( ) Unit or Apartment Number


## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Returned [ND] No Data For This Location
[ 1| | Field Replicate ( ) Unit or Apartment Number


```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ \[ ] Field Roplicate
    () Unit or Apartment Number
```


## Portland Army Housing Portland, Connecticut Indoor Radon Concentrations



## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{PCi} / \mathrm{L}$ [NR] Detector Not Returned (ND] No Data For This Location
[ ] ] Field Replicate
( ) Unit or Apartment Number

## Shelton Army Housing Shelton, Connecticut Indoor Radon Concentrations



```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ ][ ] Field Replicate
    ( ) Unit or Apartment Number

> KEY Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Returned [ND] No Data For This Location [ ][ F Field Replicate () Unit or Apartment Number
```


## Westport Army Housing Westport, Connecticut Indoor Radon Concentrations



## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi/L}$ [NR] Detector Not Returned [ND] No Data For This Location ( ) ] ) Field Replicate ( ) Unit or Apartment Number

## Addison Army Housing Addison, Illinois Indoor Radon Concentrations



## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCli} /$ [NR] Detector Not Returned [ND] No Data For This Location
[ ][ ] Field Replicate
( ) Unit or Apartment Number

## Worth Army Housing <br> Worth, Illinois <br> Indoor Radon Concentrations



## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NP] Detector Not Retumed [ND] No Data For This Location
[ ] ] Field Replicate
( ) Unit or Apartment Number

Croom Army Housing
Croom, Maryland
Indoor Radon Concentrations


KEY
Seven－digit Number is Monitor Serial Number ［ ］Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ ［NR］Detector Not Retumed ［ND］No Data For This Location
［ II ］Field Repiicate
（ ）Unit or Apartment Number

Bedford Army Housing Bedford，Massachusetts Indoor Radon Concentrations


## KEY <br> Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi/L}$ [NR] Detector Not Returned [ND] No Data For This Location [ || ] Field Replicate <br> ( ) Unit or Apartment Number



```
KEY
    Seven-digit Number is Monitor Serial Number
    | | Radon Concentration in pCi/L
    [NR] Detector Not Retumed
    [ND] No Data For This Location
[ | ] Field Replicate
    ( ) Unit or Apartment Number
```

| KEY |
| :--- | :--- |
| Seven-digit Number is Monitor Serial Number |
| ( ) Radon Concentration in pCi/L |
| (NR) Detector Not Retumed |
| IND I No Data For This Location |
| (1) Field Replicate |
| ( ) Unit or Apartment Number |

Hull Army Housing Hull, Massachusetts Indoor Radon Concentrations


KEY
Seven-digit Number is Monitor Serial Number
[ | Radon Concentration in $\mathrm{PCi} / \mathrm{L}$
[NR] Detector Not Retumed
[ND] No Data For This Location
[ ] ] Field Replicate
( ) Unit or Apartment Number

Nahant Army Housing Nahant, Massachusetts Indoor Radon Concentrations



## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Retumed [ND] No Data For This Location
[ ]I ] Field Replicate
() Ünit or Apartment Number

Swansea Army Housing Swansea, Massachusetts Indoor Radon Concentrations


$$
\begin{aligned}
& \text { KEY } \\
& \text { Seven-digit Number is Monitor Serial Number } \\
& \text { [ ] Radon Concentration in pCi/L } \\
& \text { [NR] Detector Not Returned } \\
& \text { [ND] No Data For This Location } \\
& \text { [ ] ] Field Replicate } \\
& \text { ( ) Unit or Apartment Number } \\
& \hline
\end{aligned}
$$

Topsfield Army Housing Topsfield, Massachusetts Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
        [ ] Radon Concentration in pCi/L
        [NR] Detector Not Returned
    [ND] No Data For This Location
[ ][ ] Field Replicate
    ( ) Unit or Apartment Number
```

Wakefield Army Housing Wakefield, Massachusetts Indoor Radon Concentrations


## KEY

Seven－digit Number is Monitor Serial Number ［ ］Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ ［NR］Detector Not Retumed ［ND］No Data For This Location
（ ）（ ）Field Replicate （ ）Unit or Apartment Number

Franklin Lakes Army Housing Franklin Lakes，New Jersey Indoor Radon Concentrations


KEY
Holmdel Army Housing
Holmdel, New Jersey Indoor Radon Concentrations

## KEY

Seven-digit Number is Monitor Serial Number [] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned [ND] No Data For This Location
[ ] [ ] Field Replicate
( ) Unit or Apartment Number


## KEY

Old Bridge Army Housing Old Bridge, New Jersey Indoor Radon Concentrations

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Returned (ND) No Data For This Location
[ ] | Field Replicate ( ) Unit or Apartment Number


KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned [ND] No Data For This Location
[ ] [ Field Replicate
( ) Unit or Apartment Number


KEY
Seven-digit Number is Monitor Serial Number
[ ) Radon Concentration in pCi/L
(NR) Detector Not Returned
(ND] No Data For This Location
[ ] | Field Replicate
( ) Unit or Apartment Number


## Manhattan Beach Army Housing Brooklyn, New York Indoor Radon Concentrations



## KEY

Rocky Point Army Housing Rocky Point, New York Indoor Radon Concentrations

Seven-digit Number is Monitor Serial Number [] Radon Concentration in pCi/L [NR] Detector Not Retumed (ND] No Data For This Location
[ ][ ] Field Replicate
( ) Unit or Apartment Number


## KEY <br> Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ <br> [NR] Detector Not Returned [ND] No Data For This Location <br> [ ][ ] Field Replicate <br> ( ) Unit or Apartment Number

Spring Valley Army Housing
Ramapo, New York Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
        [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
```

Tappan, New York
Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ If ] Field Replicate
    ( ) Unit or Apartment Number
```



| KEY |
| :--- | :--- |
| Seven-digit Number is Monitor Serial Number |
| [ ] Radon Concentration in pCi/L |
| [NR) Detoctor Not Retumed |
| [ND] No Data For This Location |
| ( ] ] Field Replicate |
| ( ) Unit or Apartment Number |

## Coraopolis 71L Army Housing Moon Twp, Pennsylvania Indoor Radon Concentrations



KEY
Dorseyville Army Housing
Seven-digit Number is Monitor Serial Number Dorseyville, Pennsylvania
[NR] Detector Not Retumed
[ND] No Data For This Location
[ II | Field Replicate
( ) Unit or Apartment Number


## KEY

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned
[ND] No Data For This Location
( ) [ ] Field Replicate
( ) Unit or Apartment Number

Elizabeth Army Housing Elizabeth, Pennsylvania Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ \] ) Field Replicate
    ( ) Unit or Apartment Number
```

Elrama Army Housing Elrama, Pennsyivania Indoor Radon Concentrations


Finleyville Army Housing
Finleyville，Pennsylvania Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ I| | Field Replicate
    () Unit or Apartment Number
```

Herminie Army Housing
Herminie, Pennsylvania Indoor Radon Concentrations


```
KEY
    Seven-digit Number is Monitor Serial Number
    [ ] Radon Concentration in pCi/L
    [NR] Detector Not Retumed
    [ND] No Data For This Location
| || | Field Replicate
    ( ) Unit or Apartment Number
```

Irwin Army Housing Irwin, Pennsylvania Indoor Radon Concentrations

```
KEY
    Seven-digit Number is Monitor Serial Number
        | Radon Concentration in pCi/L
        [NR] Detector Not Returned
[ND] No Data For This Location
! \| \| Field Replicate
( ) Unit or Apartment Number
```

    Monroeville, Pennsylvania Indoor Radon Concentrations
    

```
KEY
    Seven-digit Number is Monitor Serial Number
        [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ I| I Field Replicate
    ( ) Unit or Apartment Number
```

Rural Ridge Army Housing Rural Ridge, Pennsylvania Indoor Radon Concentrations


KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCill [NR] Detector Not Retumed [ND] No Data For This Location ] | Field Replicate ) Unit or Apartment Number
(51) $1642351[0.9]$
(67) $1647486[0.8]$
(49) $1642349[0.5]-$
(47) $1643073[0.8]-$
(45)0 [ND]
(59) $1647488[1.2]]$ (57) $1644319[0.6]$ -
(53) $1641199[0.6]$
(55) 0 [ND]

(66)

(60) 1642330 [0.6]
(58) $1642329[0.9]$
(56) $1647479[0.7]$
(54) $1647490[\mathrm{NR}]$
(46) $1647477[0.3]$ -
(44) $1647482[1.1]$
(48) 0 [ND]
(50) $164233[0.8]$


```
KEY
    Seven-digit Number is Monitor Serial Number
        [ ] Radon Concentration in pCi/L
    [NR] Detector Not Returned
    [ND] No Data For This Location
[ ][ ] Field Roplicrte
    ( ) Unit or Apartment Number
```



> KEY
> Seven-digit Number is Monitor Serial Number
> [ ] Radon Concentration in pCi/L
> [NR] Detector Not Retumed
> [ND] No Data For This Location
> ( I] Field Replicate
> ( ) Unit or Apartment Number

## Manassas Army Housing Manassas, Virginia Indoor Radon Concentrations



KEY
Severı-digit Number is Monitor Serial Number
[ ] Radon Concentration in pCi/L
[NR] Detector Not Retumed
[ND] No Data For This Location
[ If j Field Replicate
( ) Unit or Apartnent Number

Patrick Henry Army Housing Newport News, Virginia Indoor Radon Concentrations


## KEY

Seven-digit Number is Monitor Serial Number
[ ] Radon Concentration in pCi/L
[NR] Detector Not Returned
[ND] No Data For This Location
[ II | Field Replicate
( ) Unit or Apartment Number
Woodbridge Army Housing Woodbridge, Virginia Indoor Radon Concentrations


KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned [ND] No Data For This Location
[ ]| | Field Replicate ( ) Unit or Apartment Number

## Midway Army Housing Kent, Washington Indoor Radon Concentrations



## KEY

## Youngs Lake Army Housing Renton, Washington

Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in $\mathrm{pCi} / \mathrm{L}$ [NR] Detector Not Returned [ND] No Data For This Location
[ ] ] Field Replicate ( ) Unit or Apartment Number


KEY
Seven-digit Number is Monitor Serial Number [ ] Radon Concentration in pCi/L [NR] Detector Not Resumed [ND] No Data For This Location
[ ] [ Field Replicate ( ) Unit or Apartment Number


$$
I-53 \mathrm{~A}
$$

Sun Prairie Army Housing
Sun Prairie, Wisconsin Indoor Radon Concentrations


## Appendix J

## Variances in Replicate Detector Pair Results

Appendix J:
Varlances in Replicate Detector Pair Resultsa

| Property | Detector | Exposure [(pCiL) days] | Percent Deviation from Mean (tor pair) |
| :---: | :---: | :---: | :---: |
| Ansonia, Conn. | $\begin{aligned} & 1648257 \\ & 1648251 \end{aligned}$ | $\begin{aligned} & 1064.7 \\ & 2016.6 \end{aligned}$ | 30.9 |
| East Windsor, Conn. | $\begin{aligned} & 1646442 \\ & 1645763 \end{aligned}$ | $\begin{array}{r} 38.2 \\ 30.0 \end{array}$ | 12.0 |
| Fairlield, Conn. | $\begin{aligned} & 1644201 \\ & 1644208 \end{aligned}$ | $\begin{aligned} & 231.7 \\ & 198.2 \end{aligned}$ | 7.8 |
| Fairfield, Conn. | $\begin{aligned} & 1646475 \\ & 1646494 \end{aligned}$ | $\begin{aligned} & 152.2 \\ & 152.2 \end{aligned}$ | 0.0 |
| Manchester, Conn. | $\begin{aligned} & 1646434 \\ & 1646451 \end{aligned}$ | $\begin{aligned} & 43.5 \\ & 61.0 \end{aligned}$ | 16.7 |
| Middletown, Conn. | $\begin{aligned} & 1645758 \\ & 1644254 \end{aligned}$ | $\begin{array}{r} 30.0 \\ 43.5 \end{array}$ | 18.4 |
| Milford, Conn. | $\begin{aligned} & 1644210 \\ & 1646491 \end{aligned}$ | $\begin{aligned} & 96.1 \\ & 78.5 \end{aligned}$ | 10.1 |
| Miliford, Conn. | $\begin{aligned} & 1648233 \\ & 1648265 \end{aligned}$ | $\begin{array}{r} 99.6 \\ 108.3 \end{array}$ | 4.2 |
| New Britain, Conn. | $\begin{aligned} & 1641540 \\ & 1641523 \end{aligned}$ | $\begin{aligned} & 207.5 \\ & 188.9 \end{aligned}$ | 4.7 |
| Orange, Conn. | $\begin{aligned} & 1648280 \\ & 1648279 \end{aligned}$ | $\begin{aligned} & N R^{b} \\ & N R \end{aligned}$ |  |
| Orange, Conn. | $\begin{aligned} & 1646422 \\ & 1646423 \end{aligned}$ | $\begin{aligned} & 200.1 \\ & 199.5 \end{aligned}$ | 0.2 |
| Orange, Conn. | $\begin{aligned} & 1648284 \\ & 1646447 \end{aligned}$ | $\begin{aligned} & 114.3 \\ & 115.4 \end{aligned}$ | 0.5 |
| Orange, Conn. | $\begin{aligned} & 1648282 \\ & 1646480 \end{aligned}$ | $\begin{array}{r} 66.3 \\ 103.1 \end{array}$ | -c |
| Plainville, Conn. | $\begin{aligned} & 1643438 \\ & 1643456 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Plainville, Conn. | $\begin{aligned} & 1641525 \\ & 1641526 \end{aligned}$ | $\begin{aligned} & 87.3 \\ & 40.0 \end{aligned}$ | 37.2 |


| Property | Detector | Exposure [(pCiL) days] | Percent Deviation from Mean (for pair) |
| :---: | :---: | :---: | :---: |
| Plainville, Conn. | $\begin{aligned} & 1641536 \\ & 1641522 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Plainville, Conn. | $\begin{aligned} & 1641545 \\ & 1641513 \end{aligned}$ | $\begin{aligned} & 127.4 \\ & 113.6 \end{aligned}$ | 5.7 |
| Portland, Conn. | $\begin{aligned} & 1644222 \\ & 1644224 \end{aligned}$ | $\begin{aligned} & 73.3 \\ & 68.0 \end{aligned}$ | 3.8 |
| Shelton, Conn. | $\begin{aligned} & 1646471 \\ & 1648231 \end{aligned}$ | $\begin{aligned} & 649.4 \\ & 517.6 \end{aligned}$ | 11.3 |
| Westport, Conn. | $\begin{aligned} & 1646481 \\ & 1644204 \end{aligned}$ | $\begin{aligned} & 576.3 \\ & 495.6 \end{aligned}$ | 7.5 |
| Addison, III. | $\begin{aligned} & 1644027 \\ & 1644003 \end{aligned}$ | $\begin{aligned} & 593.8 \\ & 635.9 \end{aligned}$ | 3.4 |
| Worth, III. | $\begin{aligned} & 1647030 \\ & 1647031 \end{aligned}$ | $\begin{aligned} & 204.7 \\ & 185.5 \end{aligned}$ | 4.9 |
| Croom, Md. | $\begin{aligned} & 1643685 \\ & 1643677 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Bedford, Mass. | $\begin{aligned} & 1641196 \\ & 1641170 \end{aligned}$ | $\begin{aligned} & 129.3 \\ & 116.2 \end{aligned}$ | 5.3 |
| Bedford, Mass. | $\begin{aligned} & 1641172 \\ & 1641175 \end{aligned}$ | $\begin{aligned} & 205.7 \\ & 167.9 \end{aligned}$ | 10.1 |
| Bedford, Mass. | $\begin{aligned} & 1641168 \\ & 1641179 \end{aligned}$ | $\begin{aligned} & 418.5 \\ & 376.5 \end{aligned}$ | 5.3 |
| Beverly, Mass. | $\begin{aligned} & 1645810 \\ & 1645809 \end{aligned}$ | $\begin{aligned} & 129.4 \\ & 124.1 \end{aligned}$ | 2.1 |
| Burlington, Mass. | $\begin{aligned} & 1641181 \\ & 1641201 \end{aligned}$ | NR NR |  |
| Nahant, Mass. | $\begin{aligned} & 1645781 \\ & 1645780 \end{aligned}$ | $\begin{aligned} & 55.8 \\ & 66.3 \end{aligned}$ | 8.6 |
| Randolph, Mass. | $\begin{aligned} & 1641190 \\ & 1641162 \end{aligned}$ | $\begin{array}{r} \text { NR } \\ 313.4 \end{array}$ |  |
| East Hanover, N.J. | $\begin{aligned} & 1643674 \\ & 1643660 \end{aligned}$ | $\begin{aligned} & 157.2 \\ & 229.9 \end{aligned}$ | 18.8 |
| East Hanover, N.J. | $\begin{aligned} & 1645432 \\ & 1645920 \end{aligned}$ | $\begin{array}{r} \text { NR } \\ 302.9 \end{array}$ |  |


| Property | Detector | Exposure [(pCiL) days] | Percent Deviation from Mean (for pair) |
| :---: | :---: | :---: | :---: |
| East Hanover, N.J. | $\begin{aligned} & 1645922 \\ & 1645911 \end{aligned}$ | $\begin{aligned} & 120.6 \\ & 108.8 \end{aligned}$ | 5.1 |
| Franklin Lakes, N.J. | $\begin{aligned} & 1643658 \\ & 1643673 \end{aligned}$ | $\begin{array}{r} 104.8 \\ 64.5 \end{array}$ | 23.8 |
| Franklin Lakes, N.J. | $\begin{aligned} & 1643642 \\ & 1643653 \end{aligned}$ | $\begin{aligned} & 64.5 \\ & 48.8 \end{aligned}$ | 14.6 |
| Holmdel, N.J. | $\begin{aligned} & 1643240 \\ & 1643244 \end{aligned}$ | $\begin{array}{r} 75.2 \\ 103.1 \end{array}$ | 15.6 |
| Old Bridge, N.J. | $\begin{aligned} & 1643638 \\ & 1643656 \end{aligned}$ | NR NR |  |
| Brooklyn, N.Y. | $\begin{aligned} & 1648138 \\ & 1648149 \end{aligned}$ | $\begin{aligned} & 47.3 \\ & 30.0 \end{aligned}$ | 22.4 |
| Brooklyn, N.Y.' | $\begin{aligned} & 1645485 \\ & 1645449 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Brooklyn, N.Y. | $\begin{aligned} & 1645470 \\ & 1645460 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Brooklyn, N.Y. | $\begin{aligned} & 1648152 \\ & 1648160 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Rocky Point, N.Y. | $\begin{aligned} & 1643184 \\ & 1645465 \end{aligned}$ | $\begin{array}{r} 108.3 \\ 73.3 \end{array}$ | 19.3 |
| Spring Valley, N.Y. | $\begin{aligned} & 1647465 \\ & 1647469 \end{aligned}$ | $\begin{array}{r} \text { NR } \\ 47.0 \end{array}$ |  |
| Tappan, N.Y. | $\begin{aligned} & 1645871 \\ & 1648143 \end{aligned}$ | $\begin{aligned} & 82.1 \\ & 89.1 \end{aligned}$ | 4.1 |
| Tappan, N.Y. | $\begin{aligned} & 1645893 \\ & 1645860 \end{aligned}$ | $\begin{aligned} & 86.4 \\ & 55.8 \end{aligned}$ | 21.5 |
| Tappan, N.Y. | $\begin{aligned} & 1648169 \\ & 1648175 \end{aligned}$ | $\begin{aligned} & 62.8 \\ & 97.8 \end{aligned}$ | 21.8 |
| Watertown, N.Y. | $\begin{aligned} & 1641567 \\ & 1643443 \end{aligned}$ | $\begin{array}{r} 94.3 \\ 113.6 \end{array}$ | 9.3 |
| Coraopolis, Penn. (Robinson Twp.) | $\begin{aligned} & 1436037 \\ & 1436001 \end{aligned}$ | $\begin{aligned} & 120.8 \\ & 109.8 \end{aligned}$ | 4.8 |
| Herminie, Penn. | $\begin{aligned} & 1643208 \\ & 1644339 \end{aligned}$ | $\begin{aligned} & 375.2 \\ & 324.9 \end{aligned}$ | 7.2 |


| Property | Detector | Exposure <br> [(pCiL) days] | Percent Deviation from Mean (for pair) |
| :---: | :---: | :---: | :---: |
| Irwin, Penn. | $\begin{aligned} & 1436069 \\ & 1643193 \end{aligned}$ | $\begin{aligned} & 154.3 \\ & 178.4 \end{aligned}$ | 7.2 |
| North Kingston, R.I. | $\begin{aligned} & 1642331 \\ & 1642333 \end{aligned}$ | $\begin{aligned} & 76.8 \\ & 69.8 \end{aligned}$ | 4.8 |
| Slatersville, R.I. | $\begin{aligned} & 1643097 \\ & 1643098 \end{aligned}$ | $\begin{aligned} & 187.2 \\ & 259.7 \end{aligned}$ | 16.2 |
| Slatersville, R.I. | $\begin{aligned} & 1643084 \\ & 1643077 \end{aligned}$ | $\begin{aligned} & 246.8 \\ & 255.6 \end{aligned}$ | 1.8 |
| Slatersville, R.I. | $\begin{aligned} & 1645777 \\ & 1641185 \end{aligned}$ | $\begin{array}{r} 103.1 \\ 86.4 \end{array}$ | 8.8 |
| Manassas, Va. | $\begin{aligned} & 1643681 \\ & 1643689 \end{aligned}$ | $\begin{array}{r} 108.8 \\ 75.0 \end{array}$ | 18.4 |
| Newport News, Va. | $\begin{aligned} & 1647558 \\ & 1647561 \end{aligned}$ | $\begin{aligned} & 189.8 \\ & 209.7 \end{aligned}$ | 5.0 |
| Woodbridge, Va. | $\begin{aligned} & 1647566 \\ & 1643690 \end{aligned}$ | $\begin{aligned} & 123.7 \\ & 138.6 \end{aligned}$ | 5.0 |
| Kent, Wash. | $\begin{aligned} & 1645126 \\ & 1645139 \end{aligned}$ | $\begin{aligned} & 78.5 \\ & 64.5 \end{aligned}$ | 9.8 |
| Kent, Wash. | $\begin{aligned} & 1644016 \\ & 1644015 \end{aligned}$ | $\begin{aligned} & 66.3 \\ & 76.8 \end{aligned}$ | 7.3 |
| Renton, Wash. | $\begin{aligned} & 1645133 \\ & 1645103 \end{aligned}$ | $\begin{aligned} & \text { NR } \\ & \text { NR } \end{aligned}$ |  |
| Renton, Wash. | $\begin{aligned} & 1644011 \\ & 1644014 \end{aligned}$ | $\begin{aligned} & 80.3 \\ & 30.0 \end{aligned}$ | 45.6 |
| Renton, Wash. | $\begin{aligned} & 1645121 \\ & 1645100 \end{aligned}$ | $\begin{array}{r} 59.3 \\ 71.5 \end{array}$ | 9.3 |
| Sun Praine, Wisc. | $\begin{aligned} & 1647585 \\ & 1643122 \end{aligned}$ | $\begin{aligned} & 222.3 \\ & 201.2 \end{aligned}$ | 5.0 |
| Sun Praine, Wisc. | $\begin{aligned} & 1643121 \\ & 1644108 \end{aligned}$ | $\begin{aligned} & 265.3 \\ & 206.5 \end{aligned}$ | 12.5 |
| Sun Prairie, Wisc. | $\begin{aligned} & 1647011 \\ & 1643130 \end{aligned}$ | $\begin{aligned} & 434.3 \\ & 323.9 \end{aligned}$ | 14.6 |
| Sun Prairie, Wisc. | $\begin{aligned} & 1646986 \\ & 1647016 \end{aligned}$ | $\begin{aligned} & 431.1 \\ & 387.0 \end{aligned}$ | 5.4 |


| Property | Detector | Exposure <br> [(pCiL) days] | Percent <br> Deviation <br> from Mean <br> (for pair) |
| :--- | :---: | :---: | :---: |
| Sun Praine, Wisc. | 1646998 | 106.9 | 1.0 |
| Sun Praine, Wisc. | 1646995 | 104.8 |  |
|  | 1643128 | 236.3 | 6.1 |
| Sun Praine, Wisc. | 1646987 | 267.1 |  |
|  | 1643995 | 598.8 | 6.0 |
| Sun Prairie, Wisc. | 1643111 | 3025 | 530.7 |
|  | 1643110 | 311.6 | 0.8 |

asummary:
Average of the mean deviations: $10.7 \pm 9.2 \%$ (at two sigma level of confidence)
Maximum mean deviation: $45.6 \%$
Minimum mean deviation: $0.0 \%$
Number of replicate pairs in calculation: 56 Total number of replicate pairs deployed: 70
bNR, detector not returned for analysis.
'Of this replicate pair, one detector was deployed for less than 90 days and the other for a different time period, thus invalidating a calculation of this type.


[^0]:    ${ }^{\text {a Key to Pemarks: }}$
    Key to Remarks
    A Duplicate detectors
    B
    Detector placed by occupant of DEH
    C
    B Detector placed by occupant of DEH
    D Ending date unknown
    E Detector received with no seal
    G Unoccupied house

[^1]:    aKey to Remarks

[^2]:    A Duplicate detectors Starting date unknown Ending date unknown No data sheet

    G Unoccupied house

[^3]:    A Duplicate detectors
    B Detector placed by occupant of DEH C Starting date unknown

    E Detector received with no seal
    F No data sheet

[^4]:    A Duplicate detectors
    B Detector placed by occupant of DEH

[^5]:    A Duplicate detectors
    Starting date unknown
    Detector received with no seal
    No data sheet
    G Unoccupied house

[^6]:    $\begin{array}{ll}\text { P } & \text { Capehart home } \\ \text { Q } & \text { MCA home } \\ \text { R } & \text { Duplex (one-story) home } \\ \text { S } & \text { Duplex (multistory) home } \\ \text { T Apartment building } \\ \text { U } & \text { Below detection limit } \\ \text { [ND] No data } \\ \text { [NR] Not returned }\end{array}$
    H Exposure < 90 days
    $\checkmark$ Exact duration of exposure
    K Detector in bedroom
    L Detector in living room
    N Detector location unknown

    A Duplicate detectors
    B Detector placed by occupant of DEH
    C Starting date unknown
    E Detector received with no seal
    No data sheet
    G Unoccupied house

[^7]:    aKey to Remarks

[^8]:    A Duplicate detectors
    B Detector placed by occupant of DEH
    C Starting date unknown
    D Ending date unknown
    E Detector received with no seal
    F No data sheet
    G Unoccupied house

[^9]:    A Duplicate detectors
    B Detector placed by occupant of DEH Starting date unknown

    Detector received with no seal
    No data sheet
    G Unoccupied house

[^10]:    A Duplicate detectors Starting date unknown Ending date unknown Detector received with no seal F No data sheet

[^11]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment buibling
    U Below detection limit
    [ND] No data
    [NR] Not returned

[^12]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detaction limit
    ND No data
    [NR] Not returned

[^13]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    S. Duplex (multistory) h

    U Below detection limit
    [ND] No data
    [NR] Not returned

[^14]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknor:n
    P Capehart home

    - MCA home

    A Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detection limit
    [ND] No data
    (NR) Not returned

[^15]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detection limit
    (ND)
    [NR]

[^16]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    A Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below delection limit
    [ND] No data
    [NR] Not returned

[^17]:    $L$ Detector in living room
    M Detector in kirchen
    N Detector location unknown
    P Capehart home
    Q MCA home
    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detection limit
    [ND] No data
    [NR] Not returned

[^18]:    L Detector in living room
    M Detector in kitchen
    $N$ Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building Eelow detection limit
    [ND] No data
    (NR] Not returned

[^19]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home
    MCA home
    A Duplex (one-story) home
    Duplex (multistory) home
    Apartment building Below detaction limit
    [ND] No data
    (NR) Not returned

[^20]:    A Duplicate detectors
    B Detector placed by occupant of DEH
    C Starting dato unknown
    D Ending date unknown
    E Detector received with no seal
    F No data sheet
    G Unoccupied house
    H Exposure < 90 days
    $J$ Exact duration of exposure unknown; concentration estimated
    $K$ Detector in betroom

[^21]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    ## MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detection limit
    [ND] No data
    [NR] Not returned

[^22]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home
    Q MCA home
    A Duplex (one-story) home
    S Duplex (multistory) home
    $T$ Apartment building
    U Below detection limit
    (ND)
    [NR]

[^23]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    5 Duplex (multistory) home
    T Apartment building
    U Below detection limit
    [ND] No data
    (NR] Not returned

[^24]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    T Apartment building
    U Below detection limit
    (ND] No data
    [NA] Not returned

[^25]:    $L$ Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    $T$ Apantment building
    U Below detection limit
    [ND] No data
    [NR] Not returned

[^26]:    M Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capohart home

    - MCA home

    Duplex (one-story) home
    S Duplex (multistory) home
    Apartment building
    U Below detaction limit
    [ND] No data
    [NR] Not returned

[^27]:    L Detector in living room
    M Detector in kitchen
    N Detector location unknown
    P Capehart home

    - MCA home

    R Duplex (one-story) home
    S Duplex (multistory) home
    Apartment building
    U Below detection limit
    [ND] No data
    [NR] Not returned

[^28]:    （1）

[^29]:    
    

