

	<b>1a 1b</b>
Received Date / Reported Date	2014-05-30 / 2014-06-03
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Analytical Work Order / QC Release	1415095001 / NHE
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\*\*No NVLAP accreditation is available from NVLAP for thermal neutron or X type dosimeters. When exposure results

are reported for thermal neutrons or X type dosimeters, this report contains data that are not covered by the NVLAP

# LANDAUER®

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# **Radiation Dosimetry Report**

accreditation. Account : 709008 Subaccount: 1431640 Series: CST 4 Dose Equivalent (mrem) for Periods Shown Below Date Serial Number Quality Participant Number Dosimeter Rad. Type DDE-Deep Dose Equivalent LDE-Lens Dose Equivalent SDE-Shallow Dose Equivalent Name Inception Use Period Shown Below Quarter to Date Year to Date Lifetime to Date Rad. **ID** Number Birth Date DDF I DE SDE. DDF I DF SDF DDF I DF SDF DDF LDE SDF 9 (10)8 For Monitoring Period: 7 2014-05-01 to 2014-05-31 QUARTER 2 2014 LIFETIME Average Control Dose Pa 6 5 5 Pa COLLAR Halpert, Jim \*P 10 10 10 2005/03 6794392C 01067 000-11-2222 1979-10-20 5 (11)12 12 12 ASSIGNED 10 12 12 12 12 12 12 12 10 10 NOTE (13) Participant active in other account(s) or subaccount(s) For Monitoring Period: 2014-06-01 to 2014-06-30 QUARTER 2 2014 LIFETIME 00CST CONTROL CNTRL Ja 7254728C Control Dose Used Ja 22 22 22 CONTROL Ра CNTRL 7254729C Control Dose Used Ра 22 22 22 CONTROL Та CNTRL 7254730C Control Dose Used Та 22 22 22 м М 01068 Beesly, Pam Ра COLLAR М 2005/03 7254731C 1111-22-3333 1974-05-07 ASSIGNED м м м М М М М М Μ M Μ M NOTE Participant active in other account(s) or subaccount(s) 2014/06 7254733C 01069 Reynolds, Malcolm Pa COLLAR Р 18 18 18 222-33-4444 1971-03-27 ASSIGNED 18 30 34 30 34 30 34 18 NOTE Assigned dose based on EDE2 Calculation 14 NOTE Participant active in other accord int(s) or subaccount(s) COLLAR P 1078 1078 1078 2008/01 7254734C 01070 White, Walter Ра 333-44-5555 1956-03-07 NOTE Imaging indicates an irregular exposure. Dosimeter reprocessed, second read agrees with reported dose. ASSIGNED 1078 1078 2092 2123 2124 2092 2123 2124 2092 2124 1078 2123 NOTE Participant active in other account(s) or subaccount(s)

\* - Standard background control rate used for control subtraction

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

# **Radiation Dosimetry Report**

### LEGEND

- **1a.** The date Landauer received the dosimeters. Date is formatted as YYYY-MM-DD.
- **1b.** The date the report was generated. Date is formatted as YYYY-MM-DD.
- **2.** Each report has a unique Analytical Work Order (AWO). An AWO is used to maintain chain of custody for the dosimeter(s).
- **3a.** The first copy of a report shows a copy indicator of 0, while the second copy of a report shows an indicator of 1. The second copy of a report can be sent to a separate address and can have different privacy options.
- **3b.** The Version number indicates whether a report is the original (1) or a corrected report (2).
- **4.** The Account number is a unique identifier for a specific customer. The Subaccount number is a unique identifier for accounts that choose to organize their participants in groups. The Series code can be letters and numbers and is 1 to 3 characters and assists with easier identification of subaccounts.
- **5.** The Participant Number is a 5 digit number that uniquely identifies a participant within the account.
- **6.** The type of dosimeter worn by a participant.
- **7.** The beginning and end dates during which the dosimeters were worn, also known as "wear period."
- **8.** DDE (Deep Dose Equivalent) applies to external whole body exposure at a tissue depth of 1 cm (1000 mg/cm<sup>2</sup>) averaged over an area 1 cm<sup>2</sup>.
- **9.** LDE (Lens Dose Equivalent) applies to external exposure of the lens at a tissue depth of 0.3 cm (300 mg/cm<sup>2</sup>).
- **10.** SDE (Shallow Dose Equivalent) applies to the external exposure of the skin or extremity at a tissue depth of 0.007 cm (7 mg/cm<sup>2</sup>) averaged over an area of 1 cm<sup>2</sup>.
- **11.** The Inception Date indicates the date Landauer began keeping records for a participant with the current customer.
- **12.** The Serial Number of a dosimeter. Every dosimeter has a unique number attached to it.
- **13.** Indication that a participant is active in multiple subaccounts or multiple accounts within the same customer.
- **14.** The Assigned Dose Note indicates that a Special Calculation (EDE1, EDE2, etc) was applied for a specific participant. The Special Calculation is applied per customer request with Regulatory Body Approval.

# GENERAL FACTS

- **Purpose:** The Radiation Dosimetry Report provides dose of record information for participants wearing radiation monitoring dosimeters. This report is generated every time a customer returns dosimeters to Landauer for analysis.
- NVLAP Lab Code 100518-0 indicates that Landauer is an accredited dosimeter processor.
- The report is generated and mailed to the primary reporting address at the subaccount level.

## FREQUENTLY ASKED QUESTIONS

#### I don't see any numbers for my doses. I only see an "M." What does "M" mean?

"M" stands for minimal, meaning that after the Control Subtraction, the resulting Occupational Dose was below the Minimal Reporting capabilities of the dosimeter. For example, Minimal Reporting threshold for Luxel+ is 1 mrem (0.01 mSv).

#### I am looking at my report and I don't see any doses, I only see "Unused." What does "Unused" mean?

The "Unused" note indicates that the dosimeter was not used for the specific wear period. Landauer identifies any dosimeter returned to Landauer in the original cellophane wrapper as unused. The unused dosimeter is processed but the dose is not shown on the report. Also, the dose is not included in the dose accumulation for the participant.

#### What is a Control dosimeter, and how do I use it?

The Control dosimeter measures radiation received by the dosimeters in transit and in storage. It is important to store a Control dosimeter away from radiation sources and in an area that is representative of the background radiation at your facility. A Control dosimeter should be returned with the same participant dosimeters with which it was shipped.

#### Why wasn't my Control dosimeter used?

To allow for precise dosimetry, the Control dosimeters accompany the shipment of dosimeters between your facility and Landauer. A Control dosimeter is deemed not representative of a dosimeter group and will not be used in Control Subtraction if: A) the Control dosimeter exhibits signs of use for personnel monitoring or B) the Control dosimeter's reading is notably higher than the participant dosimeters'. If a Control dosimeter is not used for the control subtraction, it will be indicated by an asterisk with an explanation at the bottom of your report.

#### Why is there a letter under "Rad. Type"?

The Radiation Type is a qualitative indication of the type of incident radiation. A letter under the "Rad Type" column will only appear for dosimeters with doses above the minimal reportable level. "P" under Rad. Type stands for Photon radiation. "B" stands for Beta radiation. "N" stands for Neutron radiation. More detailed information regarding the letter indicators may be found on the legend for the Radiation Dosimetry Report, please see page 34.

#### Am I able to receive this report without visible Social Security Numbers or birth dates?

Yes. There are several options for suppressing an individual's personal information. Please contact Customer Service to make changes to your account.