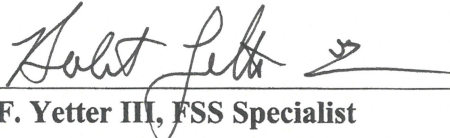


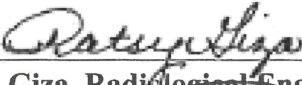


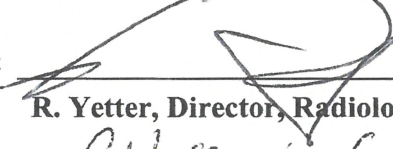
**LA CROSSE BOILING WATER REACTOR
FINAL STATUS SURVEY RELEASE RECORD**


**GENOA 3 CRIB HOUSE
SURVEY UNIT B2-010-102**



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LIST OF ACRONYMS AND ABBREVIATIONS

ALARA	As Low As Reasonably Achievable
ASP	Alarm Set Point
DQA	Data Quality Assessment
DQO	Data Quality Objective
DCGL	Derived Concentration Guideline Level
DCGL _{AGB}	Above Grade Building Derived Concentration Guideline Level
FSS	Final Status Survey
GPS	Global Positioning System
G-3	Genoa 3
HSA	Historical Site Assessment
IC	Insignificant Contributors
LACBWR	La Crosse Boiling Water Reactor
LBGR	Lower Bound of the Gray Region
LTP	License Termination Plan
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDC	Minimum Detectable Concentration
MDCR	Minimal Detectable Count Rate
OpDCGL _{AGB}	Above Grade Building Operational Derived Concentration Guideline Level
QAPP	Quality Assurance Project Plan
QC	Quality Control
ROC	Radionuclides of Concern
SOF	Sum-of-Fraction
TEDE	Total Effective Dose Equivalent
UBGR	Upper Bound of the Gray Region
UCL	Upper Confidence Limit
URS	Unconditional Release Survey
USNRC	United States Nuclear Regulatory Commission

1. EXECUTIVE SUMMARY

This Final Status Survey (FSS) Release Record for survey unit B2-010-102, Genoa 3 (G-3) Crib House, has been generated in accordance with LaCrosseSolutions procedure LC-FS-PR-009, *Final Status Survey Data Reporting* (Reference 1) and satisfies the requirements of Section 5.11 of the *La Crosse Boiling Water Reactor License Termination Plan* (LACBWR LTP) (Reference 2).

An FSS sample plan for this survey unit was developed in accordance with LaCrosseSolutions procedures LC-FS-PR-015, *Final Status Surveys for Structures* (Reference 3) and LC-FS-PR-002, *Final Status Survey Package Development* (Reference 4), the LACBWR LTP, and with guidance from NUREG-1575, Revision 1, *Multi-Agency Radiation Survey and Site Investigation Manual* (MARSSIM) (Reference 5).

This above grade building survey unit has a MARSSIM classification of 2. A survey plan was designed based upon use of the Sign Test as the nonparametric statistical test for compliance. Both the Type I (α) and Type II (β) decision error rates were set at 0.05. As a systematic measurement population, fifty-six (56) static beta measurements were acquired from the survey unit. In addition, surface scanning was performed on approximately 27% of the total surface area in the survey unit. The data assessment results for survey unit B2-010-102 indicate that the maximum gross activity among systematic measurements is equal to 1,488 dpm/100 cm², which is 47.07% of the Adjusted Gross Operational Derived Concentration Guideline Level (DCGL) for above grade buildings (see Section 5 of this release record for the calculations of adjusted gross DCGLs). Therefore, the null hypothesis of the Sign test is rejected, and survey unit B2-010-102 is acceptable for unrestricted release. The mean gross activity among systematic measurements is equal to 274 dpm/100 cm², which is 1.39% of the Adjusted Gross Base Case DCGL. Multiplying this fraction by 25 mrem/yr results in a dose for the survey unit of 0.3469 mrem/yr.

2. SURVEY UNIT DESCRIPTION

B2-010-102 is an impacted Class 2 above grade building survey unit. The G-3 Crib House is utilized as the circulatory water pumping station for the G-3 Goal Plant. The survey unit consists of the interior and exterior surfaces of a main building, an east addition, and a south addition. The total surface area of the survey unit is 2,873 m². Refer to Attachment 1 of this report for figures and maps depicting survey unit B2-010-102.

3. CLASSIFICATION BASIS

Based on the *La Crosse Boiling Water Reactor Historical Site Assessment* (HSA) (Reference 6), survey unit B2-010-102 was identified as a Class 2 structure survey unit. The

following summarizes the results of the characterization surveys for seven (7) of the above grade buildings to be left on-site upon termination of the license.

The characterization surveys for the above grade buildings were conducted between November 8, 2016, and November 18, 2016. In total, fifty-six (56) static beta measurements were collected in the buildings (eight [8] in each of seven [7] buildings). No measurements exceeded their respective action levels. A summary of the static measurements are presented in Table 3-1. The summary statistics for the characterization data are provided in Table 3-2.

Table 3-1 – Static Measurements for Characterization of Above Grade Buildings

Static Beta Measurements (dpm/100 cm ²)						
LACBWR Crib House	G-3 Crib House	Back-Up Control Center	Transmission Sub-Station Switch House	Barge Wash Break Room	G-1 Crib House	Security Station
313	1,264	588	213	0	751	0
13	13	363	226	38	0	150
0	38	0	0	0	0	0
1,702	26	88	889	0	1,514	0
138	0	0	376	0	0	38
0	450	0	238	0	551	100
0	100	0	0	163	438	225
0	2,203	651	0	0	1,089	13

Table 3-2 – Summary Statistics for Characterization of Above Grade Buildings

Mean (dpm/100 cm ²)	Median (dpm/100 cm ²)	Minimum (dpm/100 cm ²)	Maximum (dpm/100 cm ²)	Standard Deviation (dpm/100 cm ²)
267	32	0	2,203	473

Based upon review of the historical information, the results of the characterization survey data, and completion of a final Survey Unit Classification Worksheet, the correct final classification of survey unit B2-010-102 was determined to be Class 2.

4. DATA QUALITY OBJECTIVES

FSS planning and design relies on a properly executed Data Quality Objective (DQO) process to ensure, through compliance with explicitly defined inputs and boundaries, that the primary objective of the survey is satisfied. The DQO process, utilized in accordance

with MARSSIM, is described in the LACBWR LTP. The appropriate design for a given survey was developed using the DQO process as outlined in Appendix D of MARSSIM.

The DQO process incorporated hypothesis testing and probabilistic sampling distributions to control decision errors during data analysis. Hypothesis testing is a process based on the scientific method that compares a baseline condition to an alternate condition. The baseline condition is technically known as the null hypothesis. Hypothesis testing rests on the premise that the null hypothesis is true and that sufficient evidence must be provided for rejection. In designing the survey plan, the underlying assumption, or null hypothesis was that residual activity in the survey unit exceeded the release criteria. Rejection of the null hypothesis would indicate that residual activity within the survey unit does not exceed the release criteria. Therefore, the survey unit would satisfy the primary objective of the FSS sample plan.

The primary objective of the FSS sample plan is to demonstrate that the level of residual radioactivity in survey unit B2-010-102 did not exceed the release criteria specified in the LTP and that the potential dose from residual radioactivity is As Low As Reasonably Achievable (ALARA).

LaCrosseSolutions TSD RS-TD-313196-001, *Radionuclides of Concern during LACBWR Decommissioning* (Reference 7) established the basis for an initial suite of potential ROC for decommissioning. Insignificant contributors (IC) were determined consistent with the guidance contained in Section 3.3 of NUREG-1757, Volume 2, Revision 1, *Consolidated Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria, Final Report* (Reference 8). In all soil and concrete scenarios, Cs-137, Co-60, Sr-90, Eu-152 and Eu-154 contribute nearly 100% of the total dose. The remaining radionuclides were designated as IC and were eliminated from further detailed evaluation. Therefore, the final ROCs for LACBWR above grade buildings, soil, basement concrete, and buried piping are Cs-137, Co-60, Sr-90, Eu-152 and Eu-154.

The LTP, Section 6.14.1 discusses the process used to derive the ROC for the decommissioning of LACBWR, including the elimination of IC from the initial suite. Table 4-1 presents the ROC for the decommissioning of above grade buildings at LACBWR and the normalized mixture fractions based on the radionuclide mixture.

Table 4-1 - Dose Significant Radionuclides and Mixture for Above Grade Buildings

Radionuclide	Fraction of Total Activity (normalized) ⁽¹⁾
Co-60	0.0644
Sr-90	0.0981
Cs-137	0.829
Eu-152	0.00549
Eu-154	0.00281

(1) Based on maximum percent of total activity from Table 22 of RS-TD-313196-001, normalized to one for the dose significant radionuclides.

LTP, Section 5.2 states that each radionuclide-specific Base Case DCGL is equivalent to the level of residual radioactivity (above background levels) that could, when considered independently, result in a Total Effective Dose Equivalent (TEDE) of 25 mrem/yr to an Average Member of the Critical Group. To ensure that the summation of dose from each source term is 25 mrem/yr or less after all FSS is completed, the Base Case DCGLs are reduced based on an expected, or *a priori*, fraction of the 25 mrem/yr dose limit from each source term. The reduced DCGLs, or “Operational” DCGLs, can be related to the Base Case DCGLs as an expected fraction of dose based on an *a priori* assessment of what the expected dose should be based on the results of site characterization, process knowledge, and the extent of planned remediation. The Operational DCGL is then used as the DCGL for the FSS design of the survey unit (calculation of surrogate DCGLs, investigations levels, etc.). Details of the Operational DCGLs derived for each dose component and the basis for the applied *a priori* dose fractions are provided in LC-FS-TSD-002, *Operational Derived Concentration Guideline Levels for Final Status Survey* (Reference 9).

At LACBWR, compliance is demonstrated through the summation of dose from five (5) distinct source terms (i.e., basements, soils, buried pipe, above grade buildings, and groundwater) for the end-state. When applied to above grade buildings, the DCGLs are expressed in units of activity per surface area (dpm/100 cm²).

The Screening Values in NUREG-1757, Volume 2, Revision 1, *Consolidated Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria, Final Report*, Table H-1, are applied to the FSS of above grade buildings. The Table H-1 Screening Values are presented as Base Case DCGLs (equivalent to 25 mrem/yr) and are reproduced in Table 4-2 below.

Table 4-2 - Base Case DCGLs for Above Grade Buildings (DCGL_{AGB})

Radionuclide	DCGL_{AGB} (dpm/100cm²)
Co-60	7,100
Sr-90	8,700
Cs-137	28,000
Eu-152	12,700
Eu-154	11,500

The Operational DCGLs are then used as the DCGL for the FSS design of the survey unit (calculation of surrogate DCGLs, investigation levels, etc.). The Operational DCGLs for the unrestricted release of above grade buildings are provided in Table 4-3.

Table 4-3 - Operational DCGLs for Above Grade Buildings (OpDCGL_{AGB})

Radionuclide	OpDCGL_{AGB} (dpm/100cm²)
Co-60	1,136
Sr-90	1,392
Cs-137	4,480
Eu-152	2,032
Eu-154	1,840

Instrument DQOs included a verification of the ability of the survey instrument to detect the radiation(s) of interest relative to the Operational DCGL. Survey instrument response checks were required prior to issuance and after the instrument had been used. Control and accountability of survey instruments was required to assure the quality and prevent the loss of data. The minimum acceptable MDC for measurements obtained using field instruments was 50% of the applicable Operational DCGL.

5. SURVEY DESIGN

The level of effort associated with planning a survey is based on the complexity of the survey unit and nature of the hazards. Guidance for preparing FSS plans is provided in procedures LC-FS-PR-015, *Final Status Surveys for Structures* and LC-FS-PR-002, *Final Status Survey Package Development*.

For the FSS of above grade buildings, Adjusted Gross DCGLs are calculated. This is done because radionuclide-specific data is not acquired with static measurements. The equation for calculating the Adjusted Gross DCGL is as follows:

Equation 1

$$DCGL_{AG} = \frac{1}{\left[\left(\frac{f_1}{DCGL_1} \right) + \left(\frac{f_2}{DCGL_2} \right) + \cdots \left(\frac{f_i}{DCGL_i} \right) \right]}$$

Where: $DCGL_{AG}$ = Adjusted Gross DCGL in units of dpm/100 cm²
 $DCGL_i$ = Gross DCGL for detectable radionuclide in units of dpm/100 cm²
 f_i = Mixture fraction of detectable radionuclides

Using Equation 1, and values within Tables 4-1 and 4-3, the Adjusted Gross Operational DCGL was calculated as follows:

Equation 2

$$\begin{aligned} OpDCGL_{AG} &= \frac{1}{\left[\left(\frac{0.0644}{1136_{(Co-60)}} \right) + \left(\frac{0.0981}{1392_{(Sr-90)}} \right) + \left(\frac{0.829}{4480_{(Cs-137)}} \right) + \left(\frac{0.00549}{2032_{(Eu-152)}} \right) + \left(\frac{0.00281}{1840_{(Eu-154)}} \right) \right]} \\ &= 3160 \text{ dpm}/100 \text{ cm}^2 \end{aligned}$$

The Adjusted Gross Operational DCGL was calculated as 3,160 dpm/100 cm², which was the action level for survey unit B2-010-102.

Using Equation 1, and values within Tables 4-1 and 4-2, the Adjusted Gross Base Case DCGL was calculated as follows:

Equation 3

$$\begin{aligned} BcDCGL_{AG} &= \frac{1}{\left[\left(\frac{0.0644}{7100_{(Co-60)}} \right) + \left(\frac{0.0981}{8700_{(Sr-90)}} \right) + \left(\frac{0.829}{28000_{(Cs-137)}} \right) + \left(\frac{0.00549}{12700_{(Eu-152)}} \right) + \left(\frac{0.00281}{11500_{(Eu-154)}} \right) \right]} \\ &= 19751 \text{ dpm}/100 \text{ cm}^2 \end{aligned}$$

The Adjusted Gross Base Case DCGL was calculated as 19,751 dpm/100 cm². The mean activity from the FSS systematic measurements is compared to the Adjusted Gross Base Case DCGL, and the dose contribution from the survey unit is calculated.

The Sign test was selected as the nonparametric statistical test for compliance with the release criteria. The number of measurements for use with the Sign test was determined in accordance with procedures LC-FS-PR-002 and LC-FS-PR-015. The relative shift (Δ/σ) for the survey unit data set is defined as shift (Δ), which is the Upper Boundary of the Gray Region (UBGR), or the DCGL, minus the Lower Bound of the Gray Region (LBGR), divided by sigma (σ), which is the standard deviation of the data set used for survey design. The optimal value for Δ/σ should range between one (1) and three (3). The largest value the Δ/σ can have is three (3). If the calculated value of Δ/σ exceeds three (3), an adjusted value of three (3) will be used for Δ/σ . The Δ/σ for survey unit B2-010-102, based on the amalgamated gross measurement data from characterization of the LACBWR above grade buildings to remain at license termination, was calculated as follows:

Equation 4

$$\Delta/\sigma = 1580/473 = 3.34$$

As the calculated relative shift was greater than three (3), then a value of three (3) was used as the adjusted Δ/σ . Both the Type I error (i.e., α value) and the Type II error (i.e., β value) was set at 0.05. The sample size from Table 5.5 of MARSSIM that equates to the Type I and Type II error of 0.05 for use with the Sign test is an N value of fourteen (14). Fifty-six (28) total systematic measurements (14 interior and 14 exterior on main building, 14 in the east addition, and 14 in the south addition) were included in the survey design for survey unit B2-010-102.

A Prospective Power Curve was generated using COMPASS, a software package developed under the sponsorship of the United States Nuclear Regulatory Commission (USNRC) for implementation of the MARSSIM in support of the decommissioning license termination rule (10CFR20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design.

As the survey unit was designated Class 2, measurement locations were selected based on a systematic grid with a random starting point. The systematic locations of the static measurements were selected using Visual Sample Plan (VSP). Input parameters included the use of survey unit drawings and the systematic sampling tool set with a predetermined number of measurement locations. The systematic measurement locations were identified in the field using dimension parameters provided on the survey unit map (see Attachment 1). Table 5-1 lists the systematic, judgmental, and QC measurements collected for FSS of survey unit B2-010-102.

Table 5-1 – Survey Unit B2-010-102 Measurement Designations

Measurement ID	
B2-010-102-FSCC-B01-BD	B2-010-102-FSWM-A13-BD
B2-010-102-FSCC-B02-BD	B2-010-102-FSWM-A14-BD
B2-010-102-FSCC-B03-BD	B2-010-102-FSWM-B04-BD
B2-010-102-FSCC-D07-BD	B2-010-102-FSWM-B05-BD
B2-010-102-FSCC-D08-BD	B2-010-102-FSWM-B08-BD
B2-010-102-FSCC-D09-BD	B2-010-102-FSWM-B12-BD
B2-010-102-FSFC-B06-BD	B2-010-102-FSWM-B14-BD
B2-010-102-FSFC-B09-BD	B2-010-102-FSWM-C01-BD
B2-010-102-FSFC-B10-BD	B2-010-102-FSWM-C03-BD
B2-010-102-FSFC-B13-BD	B2-010-102-FSWM-C04-BD
B2-010-102-FSFC-C02-BD	B2-010-102-FSWM-C05-BD
B2-010-102-FSFC-D02-BD	B2-010-102-FSWM-C06-BD
B2-010-102-FSFC-D05-BD	B2-010-102-FSWM-C07-BD
B2-010-102-FSRO-A06-BD	B2-010-102-FSWM-C08-BD
B2-010-102-FSRO-A07-BD	B2-010-102-FSWM-C09-BD
B2-010-102-FSRO-A10-BD	B2-010-102-FSWM-C11-BD
B2-010-102-FSRO-A11-BD	B2-010-102-FSWM-C12-BD
B2-010-102-FSRO-C10-BD	B2-010-102-FSWM-C13-BD
B2-010-102-FSRO-D11-BD	B2-010-102-FSWM-C14-BD
B2-010-102-FSRO-D12-BD	B2-010-102-FSWM-D03-BD
B2-010-102-FSRO-D13-BD	B2-010-102-FSWM-D04-BD
B2-010-102-FSWK-B07-BD	B2-010-102-FSWM-D06-BD
B2-010-102-FSWK-B11-BD	B2-010-102-FSWM-D10-BD
B2-010-102-FSWK-D01-BD	B2-010-102-FSWM-D14-BD
B2-010-102-FSWM-A01-BD	B2-010-102-FQFC-D05-BD
B2-010-102-FSWM-A02-BD	B2-010-102-FQRO-A07-BD
B2-010-102-FSWM-A03-BD	B2-010-102-FQRO-C10-BD
B2-010-102-FSWM-A04-BD	B2-010-102-FQWM-B12-BD
B2-010-102-FSWM-A05-BD	B2-010-102-FJFC-B15-BD
B2-010-102-FSWM-A08-BD	B2-010-102-FJFC-C15-BD
B2-010-102-FSWM-A09-BD	B2-010-102-FJWM-A15-BD
B2-010-102-FSWM-A12-BD	B2-010-102-FJWM-D15-BD

The implementation of quality control measures, as referenced in LTP, Section 5.9, and LaCrosseSolutions LC-QA-PN-001, *Final Status Survey Quality Assurance Project Plan* (QAPP) (Reference 10), includes the collection of a replicate measurement on 5% of the measurements collected in a survey unit, with the locations selected at random. Four (4) replicate measurements, B2-010-102-FQFC-A07-BD, B2-010-102-FQWM-B12-BD, B2-010-102-FQRO-C10-BD, and B2-010-102-FQRO-D05-BD, were selected at random for the QC replicate measurement analysis for the FSS of this survey unit.

The LTP, Section 5.6.4.4 and Table 5-15, specifies that for Class 2 structure survey units, systematic and judgmental surface scans will be performed on 10% to 100% of the surface area in the survey unit. For survey unit B2-010-102, 25% scan coverage was selected, which equates to 718 m². Sixty (60) scan areas (one [1] scan area at each systematic measurement location and four [4] judgmental scan areas), covering 780 m² of the survey unit (more than the required minimum), were established. Refer to Attachment 1 for figures and maps depicting the measurement and scan locations in survey unit B2-010-102.

For this Class 2 structure survey unit, the “Investigation Levels” for area scanning and direct measurement results are those levels specified in the LTP, Table 5-16, and are reproduced below in Table 5-2.

Table 5-2 – Investigation Levels

Classification	Scan Investigation Levels	Direct Investigation Levels
Class 2	>Operational DCGL or >MDC _{scan} if MDC _{scan} is greater than Operational DCGL	>Operational DCGL

Table 5-3 provides a synopsis of the survey design for survey unit B2-010-102.

Table 5-3 – Synopsis of Survey Design

Feature	Design Criteria	Basis
Survey Unit Surface Area	2,873 m ²	Building Dimensions
Number of Systematic Measurements (N)	56	<ul style="list-style-type: none"> • $\sigma = 473$ • UBGR = 3,160 • LBGR = 1,580 • Type I & II error = 0.05 • $\Delta/\sigma = 3$ (adjusted) • MARSSIM Table 5.5
DCGL/Action Level	3,160 dpm/100 cm ²	Adjusted Gross Operational DCGL (Equation 2)

Feature	Design Criteria	Basis
Direct Investigation Level	>Operational DCGL	LTP, Table 5-16
Scan Investigation Level	>Operational DCGL or >MDC _{scan}	LTP, Table 5-16
Scan Areal Coverage	780 m ² (with 4 judgmental scan areas) or ~27%	LTP, Table 5-15 Actual Scan Coverage
Judgmental Measurements	4	Per Survey Design
QC	4 replicate measurements selected at random locations	LTP, Section 5.9

6. SURVEY IMPLEMENTATION

For survey unit B2-010-102, compliance with the unrestricted release criteria was demonstrated through a combination of surface scanning and surface static measurements with a Ludlum Model 44-116 beta/gamma detector.

An FSS Supervisor performed a visual inspection and walk-down of the survey unit during the Unconditional Release Survey (URS) that was performed prior to FSS. The purpose of the walk-down was to assess the physical condition of the survey unit, evaluate access points and travel paths, and identify potentially hazardous conditions. At the time of FSS, the interior and exterior of the building was dry and reasonably free of debris. No conditions prohibited the proper collection of static and scan measurements.

FSS field activities were conducted under the FSS Sample Plan, which included DQOs, survey design, detailed FSS instructions, job safety analysis, and related procedures for reference. FSS field activities were projected to take four (4) working days to complete. Daily briefings were conducted to discuss the expectations for job performance and to review safety aspects of the job. A "Field Log" was used to document field activities and other information pertaining to the performance of the FSS. FSS field activities commenced on June 7, 2019, and were concluded on July 17, 2019.

A total of sixty (60) different scan areas (fifty-six [56] systematic and four [4] judgmental), constituting an areal coverage of 780 m², were scanned using a Ludlum 2350-1 paired with a Ludlum Model 44-116 detector (125 cm² detector area). The background was established as the average of five (5) 1-minute static measurements, while maintaining the detector waist high. In survey unit B2-010-102, background ranged from 160 cpm up to 302 cpm.

All designated scan areas were scanned using a Ludlum 2350-1 paired with a Model 44-116 beta/gamma detector operated in the rate-meter mode and using audio response. The probe was positioned as close to the surface as possible and was moved at a scan speed of approximately one (1) detector width per second. Scan MDC was sufficient to detect

residual radioactivity at the action level of 3,160 dpm/100cm² (Adjusted Gross Operational DCGL). Complete scan results are provided in Attachment 2.

The fifty-six (56) systematic static measurement locations were marked based on the dimensions provided on the survey map. Four (4) judgmental measurement locations were selected and marked as per the sample plan. Using the Ludlum 2350-1 paired with a Model 44-116 detector, a 1-minute static measurement was acquired at the location of highest scan indication within each systematic and judgmental scan area.

The implementation of survey specific QC measures included the collection of four (4) replicate static measurements (B2-010-102-FQFC-A07-BD, B2-010-102-FQWM-B12-BD, B2-010-102-FQRO-C10-BD, and B2-010-102-FQRO-D05-BD) for QC analysis.

7. SURVEY RESULTS

All areas identified in the FSS plan were scanned for elevated activity levels. No alarms were produced during the scanning of survey unit B2-010-102. Table 7-1 provides an overview of the scan results. Complete scan results are provided in Attachment 2.

Table 7-1 – Synopsis of Scan Results

Scan Area	Highest Logged Reading (cpm)	Action Level ⁽¹⁾ (cpm)	# of Scan Alarms	Investigation Measurements
A01	308	456	0	0
A02	277	456	0	0
A03	224	535	0	0
A04	208	535	0	0
A05	253	513	0	0
A06	481	631	0	0
A07	441	631	0	0
A07 Q	612	803	0	0
A08	203	513	0	0
A09	213	513	0	0
A10	406	631	0	0
A11	476	631	0	0
A12	272	456	0	0
A13	253	513	0	0
A14	372	513	0	0
A15 J	415	516	0	0

Scan Area	Highest Logged Reading (cpm)	Action Level ⁽¹⁾ (cpm)	# of Scan Alarms	Investigation Measurements
B01	379	644	0	0
B02	453	644	0	0
B03	449	644	0	0
B04	374	541	0	0
B05	422	541	0	0
B06	456	521	0	0
B07	513	541	0	0
B08	228	644	0	0
B09	517	521	0	0
B10	423	521	0	0
B11	433	541	0	0
B12	378	541	0	0
B12 Q	347	456	0	0
B13	421	521	0	0
B14	410	541	0	0
B15 J	484	541	0	0
C01	413	467	0	0
C02	320	467	0	0
C03	329	467	0	0
C04	358	467	0	0
C05	433	467	0	0
C06	338	467	0	0
C07	363	475	0	0
C08	300	475	0	0
C09	252	475	0	0
C10	630	735	0	0
C10 Q	489	631	0	0
C11	353	475	0	0
C12	264	475	0	0
C13	269	475	0	0
C14	280	475	0	0
C15 J	396	475	0	0
D01	508	571	0	0
D02	447	571	0	0

Scan Area	Highest Logged Reading (cpm)	Action Level ⁽¹⁾ (cpm)	# of Scan Alarms	Investigation Measurements
D03	359	492	0	0
D04	423	571	0	0
D05	399	492	0	0
D05 Q	299	644	0	0
D06	418	492	0	0
D07	409	492	0	0
D08	561	605	0	0
D09	448	492	0	0
D10	319	571	0	0
D11	485	492	0	0
D12	475	492	0	0
D13	447	492	0	0
D14	259	492	0	0
D15 J	442	492	0	0

(1) Action Level for scanning was conservatively based on the average background plus 50% of the Operational DCGL converted to cpm using the detector efficiency.

Background was subtracted from all measurements, then the measurements were converted from cpm to dpm/100 cm² (net cpm divided by detector efficiency) for direct comparison to the Adjusted Gross DCGLs. Table 7-2 below presents the detector efficiencies used for conversions. A summary of the results for the fifty-six (56) systematic static measurements, four (4) judgmental static measurements, and four (4) QC static measurements is provided in Table 7-3. The basic statistics for the systematic measurement population are summarized in Table 7-4.

Table 7-2 – Detector Efficiencies

44-116 Detector #	Efficiency (c/d)
222981	0.1653
223244	0.1698
357009	0.2104
357439	0.2169

Table 7-3 - Summary of Systematic, Judgmental, and QC Static Measurements

Measurement ID	Gross Activity (dpm/100 cm ²)	Fraction of Adjusted Gross OpDCGL
B2-010-102-FSCC-B01-BD	466	0.1474
B2-010-102-FSCC-B02-BD	304	0.0963
B2-010-102-FSCC-B03-BD	535	0.1692
B2-010-102-FSCC-D07-BD	1488	0.4707
B2-010-102-FSCC-D08-BD	452	0.1429
B2-010-102-FSCC-D09-BD	775	0.2451
B2-010-102-FSFC-B06-BD	417	0.1321
B2-010-102-FSFC-B09-BD	575	0.1819
B2-010-102-FSFC-B10-BD	351	0.1110
B2-010-102-FSFC-B13-BD	181	0.0574
B2-010-102-FSFC-C02-BD	695	0.2199
B2-010-102-FSFC-D02-BD	138	0.0436
B2-010-102-FSFC-D05-BD	333	0.1053
B2-010-102-FSRO-A06-BD	420	0.1328
B2-010-102-FSRO-A07-BD	775	0.2451
B2-010-102-FSRO-A10-BD	641	0.2028
B2-010-102-FSRO-A11-BD	549	0.1736
B2-010-102-FSRO-C10-BD	1396	0.4417
B2-010-102-FSRO-D11-BD	490	0.1549
B2-010-102-FSRO-D12-BD	447	0.1414
B2-010-102-FSRO-D13-BD	413	0.1308
B2-010-102-FSWK-B07-BD	0	0.0000
B2-010-102-FSWK-B11-BD	36	0.0115
B2-010-102-FSWK-D01-BD	86	0.0271
B2-010-102-FSWM-A01-BD	0	0.0000
B2-010-102-FSWM-A02-BD	53	0.0168
B2-010-102-FSWM-A03-BD	0	0.0000
B2-010-102-FSWM-A04-BD	0	0.0000
B2-010-102-FSWM-A05-BD	41	0.0131
B2-010-102-FSWM-A08-BD	235	0.0744
B2-010-102-FSWM-A09-BD	350	0.1109
B2-010-102-FSWM-A12-BD	0	0.0000

Measurement ID	Gross Activity (dpm/100 cm ²)	Fraction of Adjusted Gross OpDCGL
B2-010-102-FSWM-A13-BD	277	0.0875
B2-010-102-FSWM-A14-BD	286	0.0905
B2-010-102-FSWM-B04-BD	0	0.0000
B2-010-102-FSWM-B05-BD	0	0.0000
B2-010-102-FSWM-B08-BD	0	0.0000
B2-010-102-FSWM-B12-BD	0	0.0000
B2-010-102-FSWM-B14-BD	0	0.0000
B2-010-102-FSWM-C01-BD	0	0.0000
B2-010-102-FSWM-C03-BD	571	0.1808
B2-010-102-FSWM-C04-BD	0	0.0000
B2-010-102-FSWM-C05-BD	0	0.0000
B2-010-102-FSWM-C06-BD	0	0.0000
B2-010-102-FSWM-C07-BD	665	0.2106
B2-010-102-FSWM-C08-BD	777	0.2460
B2-010-102-FSWM-C09-BD	0	0.0000
B2-010-102-FSWM-C11-BD	0	0.0000
B2-010-102-FSWM-C12-BD	0	0.0000
B2-010-102-FSWM-C13-BD	0	0.0000
B2-010-102-FSWM-C14-BD	0	0.0000
B2-010-102-FSWM-D03-BD	0	0.0000
B2-010-102-FSWM-D04-BD	0	0.0000
B2-010-102-FSWM-D06-BD	95	0.0301
B2-010-102-FSWM-D10-BD	0	0.0000
B2-010-102-FSWM-D14-BD	38	0.0120
B2-010-102-FQFC-D05-BD	0	0.0000
B2-010-102-FQRO-A07-BD	0	0.0000
B2-010-102-FQRO-C10-BD	793	0.2509
B2-010-102-FQWM-B12-BD	0	0.0000
B2-010-102-FJFC-B15-BD	0	0.0000
B2-010-102-FJFC-C15-BD	0	0.0000
B2-010-102-FJWM-A15-BD	14	0.0044
B2-010-102-FJWM-D15-BD	632	0.2000

Table 7-4 - Basic Statistical Properties of Systematic Measurement Population

Mean (dpm/100cm ²)	Median (dpm/100cm ²)	Max (dpm/100cm ²)	Min (dpm/100cm ²)	Std. Dev. (dpm/100cm ²)	Adjusted Gross BcDCGL (dpm/100cm ²)	Mean Adjusted Gross BcDCGL Fraction	Dose (mrem/ yr)
274	69	1488	0	340	19751	0.0139	0.3469

The mean activity from systematic static measurements was divided by the Adjusted Gross Base Case DCGL to derive a mean fraction. The mean fraction was then multiplied by twenty-five (25) mrem/yr to derive the dose attributed to the survey unit. For survey unit B2-010-102, the calculated dose from residual activity is 0.3469 mrem/yr.

8. QUALITY CONTROL

The implementation of survey specific QC measures included the collection of two (2) replicate static measurements (B2-010-102-FQCM-B05-BD and B2-010-102-FQWM-A01-BD) for QC analysis. The acceptance criterion for replicate static measurements is that the same conclusion is reached for each measurement. The acceptance criterion is satisfied if the replicate measurement is within 20% of the standard measurement. In cases where the replicate measurement is not within 20% of the standard measurement, but both measurements are below the Operational DCGL as well as the static MDC, there is an acceptable agreement. The QC replicate measurements did not fall within the 20% criteria, but both the standard and replicate measurements were well below the Adjusted Gross Operational DCGL as well as the static MDC, and no further action was deemed necessary.

9. INVESTIGATIONS AND RESULTS

No investigations were performed during the performance or analyses of the survey.

10. REMEDIATION AND RESULTS

No radiological remedial action as described by MARSSIM Section 5.4 was performed in this survey unit prior to or as a result of the FSS. Chapter 4 of the LTP determined that remediation beyond that required to meet the release criteria is unnecessary and that the remaining residual radioactivity in above grade buildings was ALARA.

11. CHANGES FROM THE FINAL STATUS SURVEY PLAN

There were no addendums to the FSS plan.

12. DATA QUALITY ASSESSMENT (DQA)

The DQO sample design and data were reviewed in accordance with LC-FS-PR-008, *Final Status Survey Data Assessment* (Reference 11) for completeness and consistency. Documentation was complete and legible. Scan surveys and the collection of static measurements were consistent with the DQOs and were sufficient to ensure that the survey unit was properly designated as Class 2. The survey design had adequate power as indicated by the Retrospective Power Curve (see Attachment 5).

The measurement results indicated that all measurements were less than 50% of the Adjusted Gross Operational DCGL.

Although MARSSIM states that the Sign test need not be performed in the instance that no measurements exceed the DCGL, the test was conducted to demonstrate coherence to the statistical principles of the DQO process. The Sign test was performed on the data and compared to the original assumptions of the DQOs. The evaluation of the Sign test results clearly demonstrates that the survey unit passes the unrestricted release criteria, thus, the null hypothesis is rejected. The results of the Sign test are presented in Attachment 3.

The preliminary data review consisted of calculating basic statistical quantities (e.g., mean, median, standard deviation). The mean and median values of the data were well below the Adjusted Gross Operational DCGL. Also, the retrospective power curve shows that a sufficient number of measurements were collected to achieve the desired power. Therefore, the survey unit meets the unrestricted release criteria with adequate power as required by the DQOs.

The survey unit data is presented graphically through a frequency plot and quantile plot. All graphical presentations are provided in Attachment 5.

13. ANOMALIES

No anomalies were observed during the performance or analyses of the survey.

14. CONCLUSION

Survey unit B2-010-102 has met the DQOs of the FSS plan. The ALARA criteria as specified in Chapter 4 of the LTP were achieved.

The sample data passed the Sign test. The null hypothesis was rejected. The Retrospective Power Curve showed that adequate power was achieved. The survey unit is properly classified as Class 2. Therefore, in accordance with the LTP, Section 5.11, the survey unit meets the release criteria.

The dose contribution from survey unit B2-010-102 is 0.3469 mrem/yr TEDE, based on the mean activity of measurements used for non-parametric statistical sampling.

Survey unit B2-010-102 is acceptable for unrestricted release.

15. REFERENCES

1. LC-FS-PR-009, Final Status Survey Data Reporting
2. *La Crosse Boiling Water Reactor License Termination Plan*
3. LC-FS-PR-015, *Final Status Surveys for Structures*
4. LC-FS-PR-002, *Final Status Survey Package Development*
5. NUREG-1575, Revision 1, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*
6. *La Crosse Boiling Water Reactor Historical Site Assessment*
7. RS-TD-313196-001, *Radionuclides of Concern during LACBWR Decommissioning*
8. NUREG-1757, Volume 2, Revision 1, *Consolidated Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria, Final Report*
9. LC-FS-TSD-002, *Operational Derived Concentration Guideline Levels for Final Status Survey*
10. LC-QA-PN-001, *Final Status Survey Quality Assurance Project Plan*
11. LC-FS-PR-008, *Final Status Survey Data Assessment*

16. ATTACHMENTS

Attachment 1 – Figures and Maps

Attachment 2 – Scan Data

Attachment 3 – Sign Test

Attachment 4 – Quality Control Assessment

Attachment 5 – Graphical Presentations

Attachment 6 – Ludlum 2350-1 Download Reports

ATTACHMENT 1

FIGURES AND MAPS

Figure 16-1 – Survey Unit B2-010-102 Exterior Systematic and Judgmental Measurement Locations Map

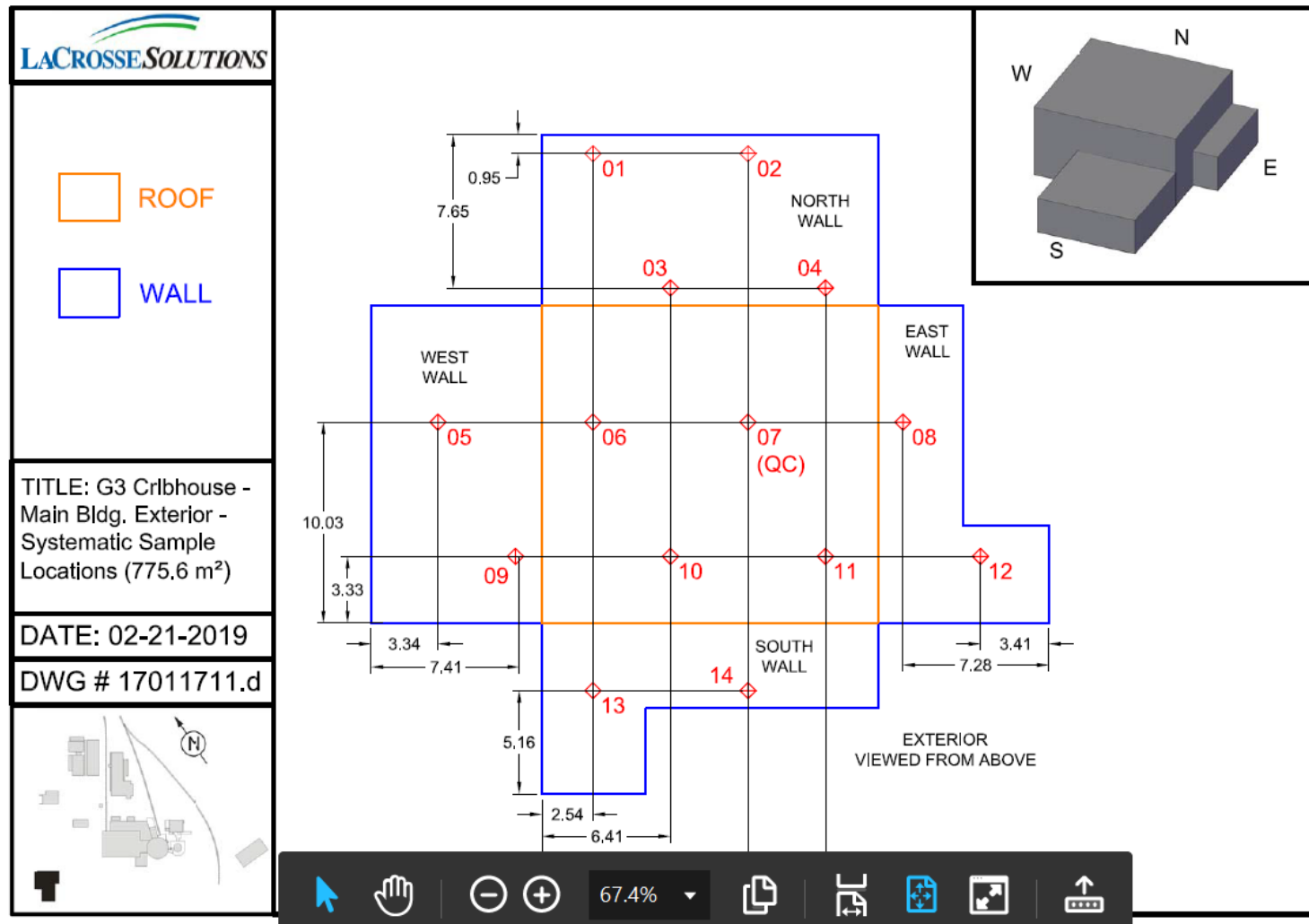


Figure 16-2 – Survey Unit B2-010-102 Interior Systematic and Judgmental Measurement Locations Map

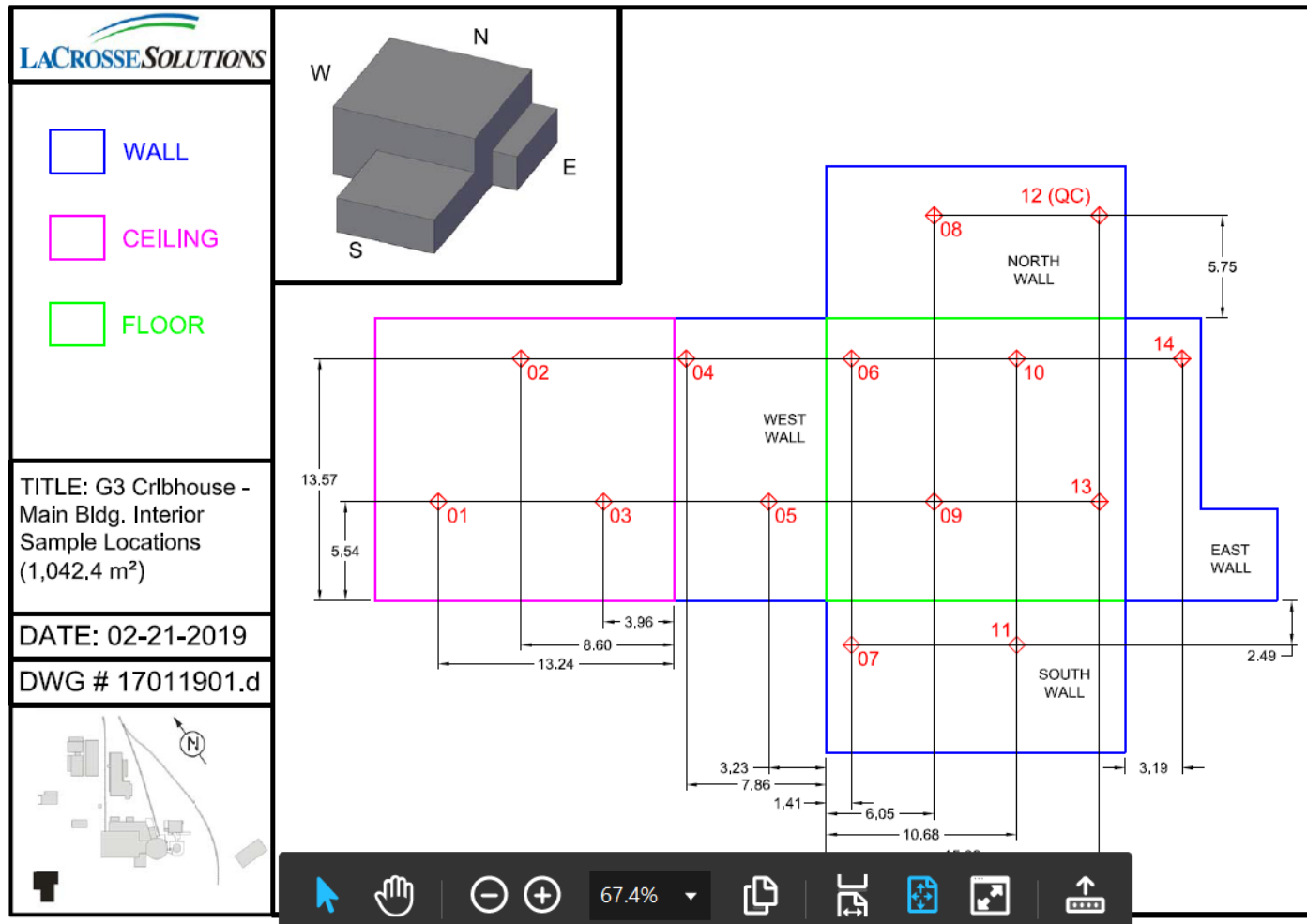


Figure 16-3 – Survey Unit B2-010-102 East Addition Systematic and Judgmental Measurement Locations Map

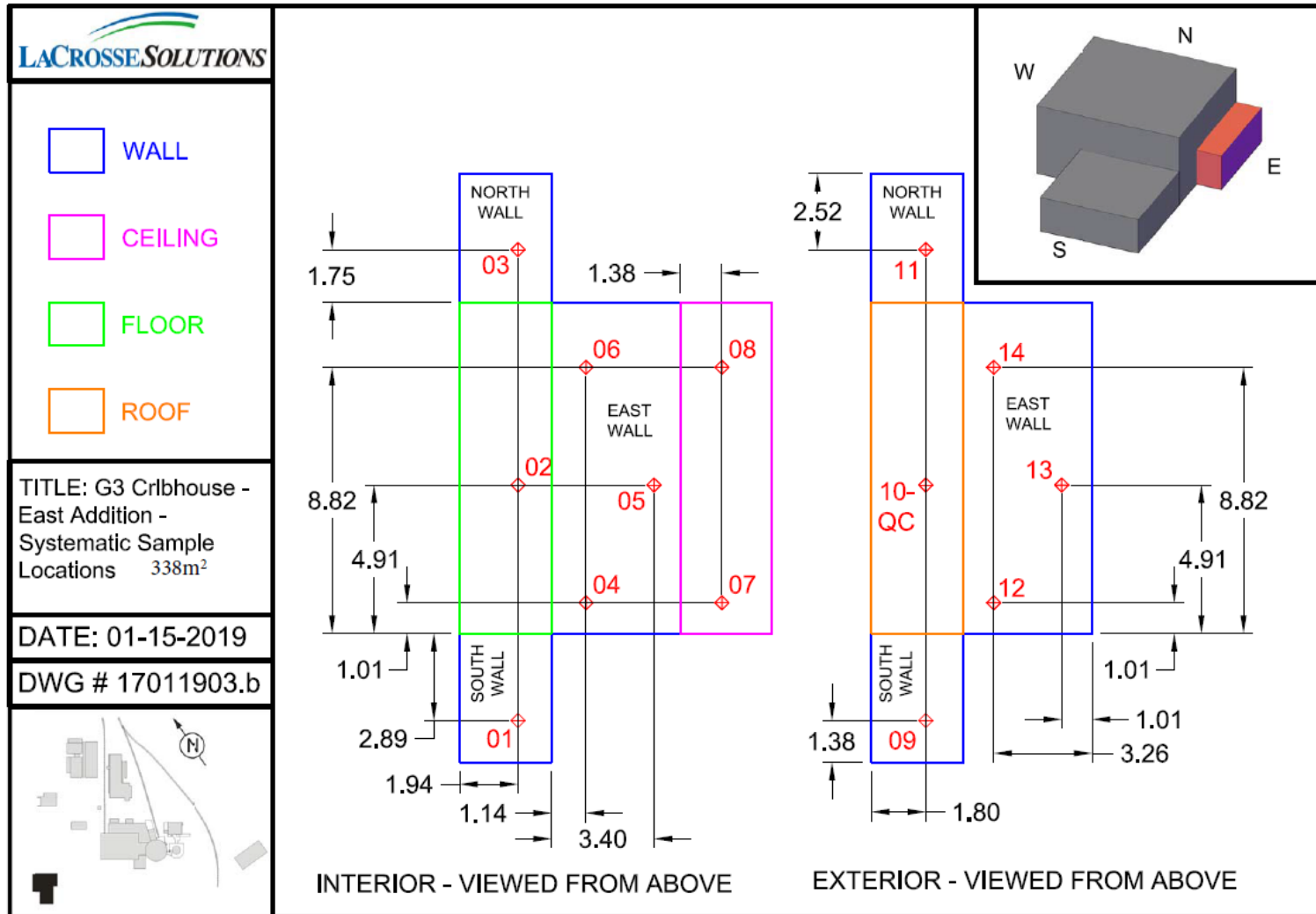
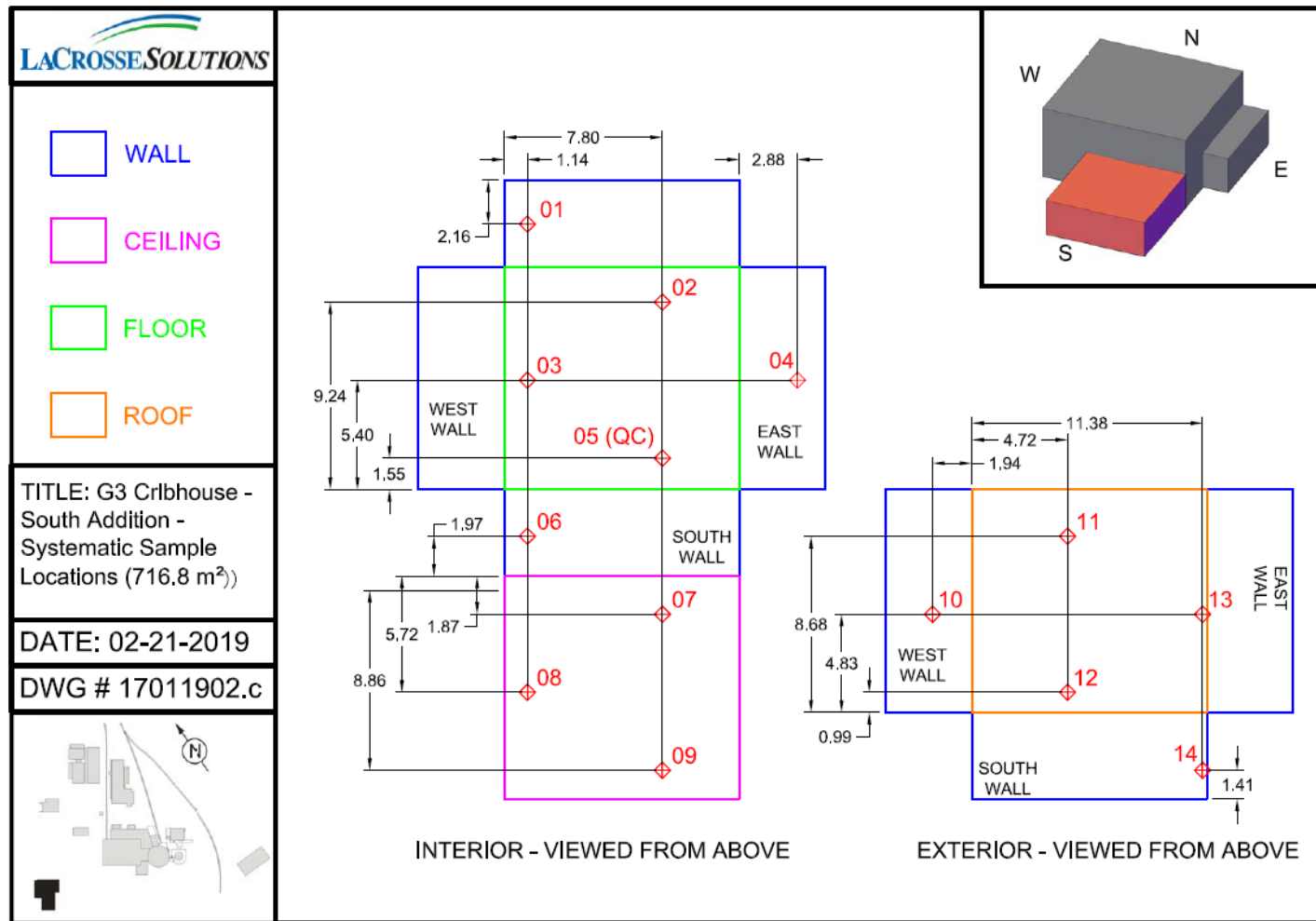


Figure 16-4 – Survey Unit B2-010-102 South Addition Systematic and Judgmental Measurement Locations Map



ATTACHMENT 2

SCAN DATA

Table 16-1 – Survey Unit B2-010-102 Complete Scan Data

Detector Type	Detector ID	M2350-1 ID	Location	Scan Logged Result (cpm)	Avg Background (cpm)	Action Level⁽¹⁾ (cpm)	Scan Alarms
44-116	223244	98647	A01	308	188	456	0
44-116	223244	98647	A02	277	188	456	0
44-116	357439	325261	A03	224	193	535	0
44-116	357439	325261	A04	208	193	535	0
44-116	357439	325261	A05	253	171	513	0
44-116	357439	325261	A06	481	289	631	0
44-116	357439	325261	A07	441	289	631	0
44-116	357009	325246	A07 Q	612	471	803	0
44-116	357439	325261	A08	203	171	513	0
44-116	357439	325261	A09	213	171	513	0
44-116	357439	325261	A10	406	289	631	0
44-116	357439	325261	A11	476	289	631	0
44-116	223244	98647	A12	272	188	456	0
44-116	357439	325261	A13	253	171	513	0
44-116	357439	325261	A14	372	171	513	0
44-116	357439	325261	A15 J	415	173	516	0
44-116	357439	325261	B01	379	302	644	0
44-116	357439	325261	B02	453	302	644	0
44-116	357439	325261	B03	449	302	644	0
44-116	222981	126195	B04	374	280	541	0
44-116	222981	126195	B05	422	280	541	0
44-116	222981	126195	B06	456	250	521	0
44-116	222981	126195	B07	513	280	541	0
44-116	357439	325261	B08	228	302	644	0
44-116	222981	126195	B09	517	250	521	0
44-116	222981	126195	B10	423	250	521	0
44-116	222981	126195	B11	433	280	541	0
44-116	222981	126195	B12	378	280	541	0
44-116	223244	98647	B12 Q	347	188	456	0
44-116	222981	126195	B13	421	250	521	0
44-116	222981	126195	B14	410	280	541	0
44-116	222981	126195	B15 J	484	280	541	0
44-116	223244	98647	C01	413	199	467	0
44-116	223244	98647	C02	320	199	467	0
44-116	223244	98647	C03	329	199	467	0
44-116	223244	98647	C04	358	199	467	0

Detector Type	Detector ID	M2350-1 ID	Location	Scan Logged Result (cpm)	Avg Background (cpm)	Action Level ⁽¹⁾ (cpm)	Scan Alarms
44-116	223244	98647	C05	433	199	467	0
44-116	223244	98647	C06	338	199	467	0
44-116	223244	98647	C07	363	208	475	0
44-116	223244	98647	C08	300	208	475	0
44-116	223244	98647	C09	252	208	475	0
44-116	223244	98647	C10	630	469	735	0
44-116	357439	325261	C10 Q	489	289	631	0
44-116	223244	98647	C11	353	208	475	0
44-116	223244	98647	C12	264	208	475	0
44-116	223244	98647	C13	269	208	475	0
44-116	223244	98647	C14	280	208	475	0
44-116	223244	98647	C15 J	396	208	475	0
44-116	357009	325246	D01	508	239	571	0
44-116	357009	325246	D02	447	239	571	0
44-116	357009	325246	D03	359	160	492	0
44-116	357009	325246	D04	423	239	571	0
44-116	357009	325246	D05	399	160	492	0
44-116	357439	325261	D05 Q	299	302	644	0
44-116	357009	325246	D06	418	160	492	0
44-116	357009	325246	D07	409	160	492	0
44-116	357009	325246	D08	561	273	605	0
44-116	357009	325246	D09	448	160	492	0
44-116	357009	325246	D10	319	239	571	0
44-116	357009	325246	D11	485	160	492	0
44-116	357009	325246	D12	475	160	492	0
44-116	357009	325246	D13	447	160	492	0
44-116	357009	325246	D14	259	160	492	0
44-116	357009	325246	D15 J	442	160	492	0

(1) Action Level for scanning was conservatively based on the average background plus 50% of the Operational DCGL converted to cpm using the detector efficiency.

ATTACHMENT 3

SIGN TEST

Table 16-2 – Survey Unit B2-010-102 Sign Test

#	SOF (Ws)	1-Ws	Sign
1	0.1474	0.8526	+1
2	0.0963	0.9037	+1
3	0.1692	0.8308	+1
4	0.4707	0.5293	+1
5	0.1429	0.8571	+1
6	0.2451	0.7549	+1
7	0.1321	0.8679	+1
8	0.1819	0.8181	+1
9	0.1110	0.8890	+1
10	0.0574	0.9426	+1
11	0.2199	0.7801	+1
12	0.0436	0.9564	+1
13	0.1053	0.8947	+1
14	0.1328	0.8672	+1
15	0.2451	0.7549	+1
16	0.2028	0.7972	+1
17	0.1736	0.8264	+1
18	0.4417	0.5583	+1
19	0.1549	0.8451	+1
20	0.1414	0.8586	+1
21	0.1308	0.8692	+1
22	0.0000	1.0000	+1
23	0.0115	0.9885	+1
24	0.0271	0.9729	+1
25	0.0000	1.0000	+1
26	0.0168	0.9832	+1
27	0.0000	1.0000	+1
28	0.0000	1.0000	+1
29	0.0131	0.9869	+1
30	0.0744	0.9256	+1
31	0.1109	0.8891	+1
32	0.0000	1.0000	+1
33	0.0875	0.9125	+1
34	0.0905	0.9095	+1
35	0.0000	1.0000	+1
36	0.0000	1.0000	+1
37	0.0000	1.0000	+1
38	0.0000	1.0000	+1
39	0.0000	1.0000	+1
40	0.0000	1.0000	+1
41	0.1808	0.8192	+1
42	0.0000	1.0000	+1
43	0.0000	1.0000	+1

#	SOF (Ws)	1-Ws	Sign
44	0.0000	1.0000	+1
45	0.2106	0.7894	+1
46	0.2460	0.7540	+1
47	0.0000	1.0000	+1
48	0.0000	1.0000	+1
49	0.0000	1.0000	+1
50	0.0000	1.0000	+1
51	0.0000	1.0000	+1
52	0.0000	1.0000	+1
53	0.0000	1.0000	+1
54	0.0301	0.9699	+1
55	0.0000	1.0000	+1
56	0.0120	0.9880	+1

Number of positive differences (S+) 56

Critical Value 34

Survey Unit Meets
 the Acceptance Criteria

ATTACHMENT 4

QUALITY CONTROL ASSESSMENT

Table 16-3 – Survey Unit B2-010-102 QC Assessment

Standard	Activity (dpm/100cm ²)	-20%	+20%	Comparison	Activity (dpm/100cm ²)	Within 20%
B2-010-102-FSFC-D05-BD	333	266	399	B2-010-102-FQFC-D05-BD	0	N
B2-010-102-FSRO-A07-BD	775	620	929	B2-010-102-FQRO-A07-BD	0	N
B2-010-102-FSRO-C10-BD	1396	1117	1675	B2-010-102-FQRO-C10-BD	793	N
B2-010-102-FSWM-B12-BD	0	0	0	B2-010-102-FQWM-B12-BD	0	N

ATTACHMENT 5

GRAPHICAL PRESENTATIONS

Figure 16-5 – Quantile Plot for Gross Activity

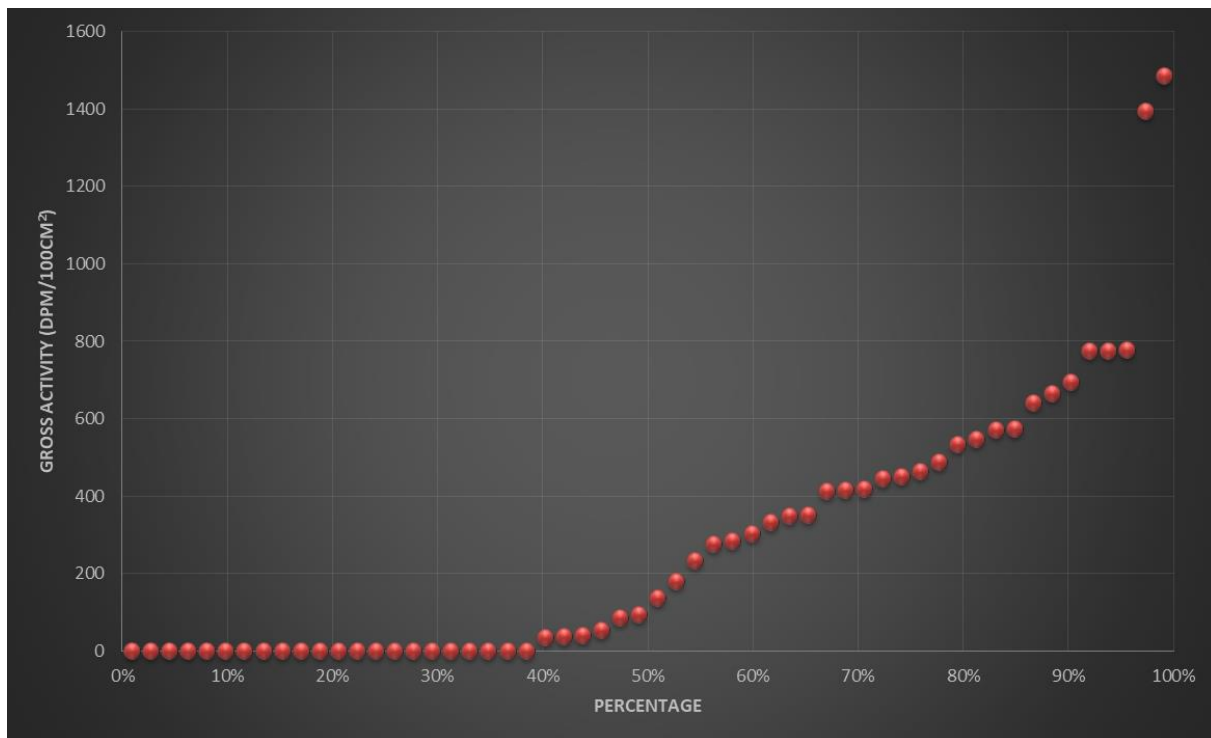


Figure 16-6 – Histogram for Gross Activity

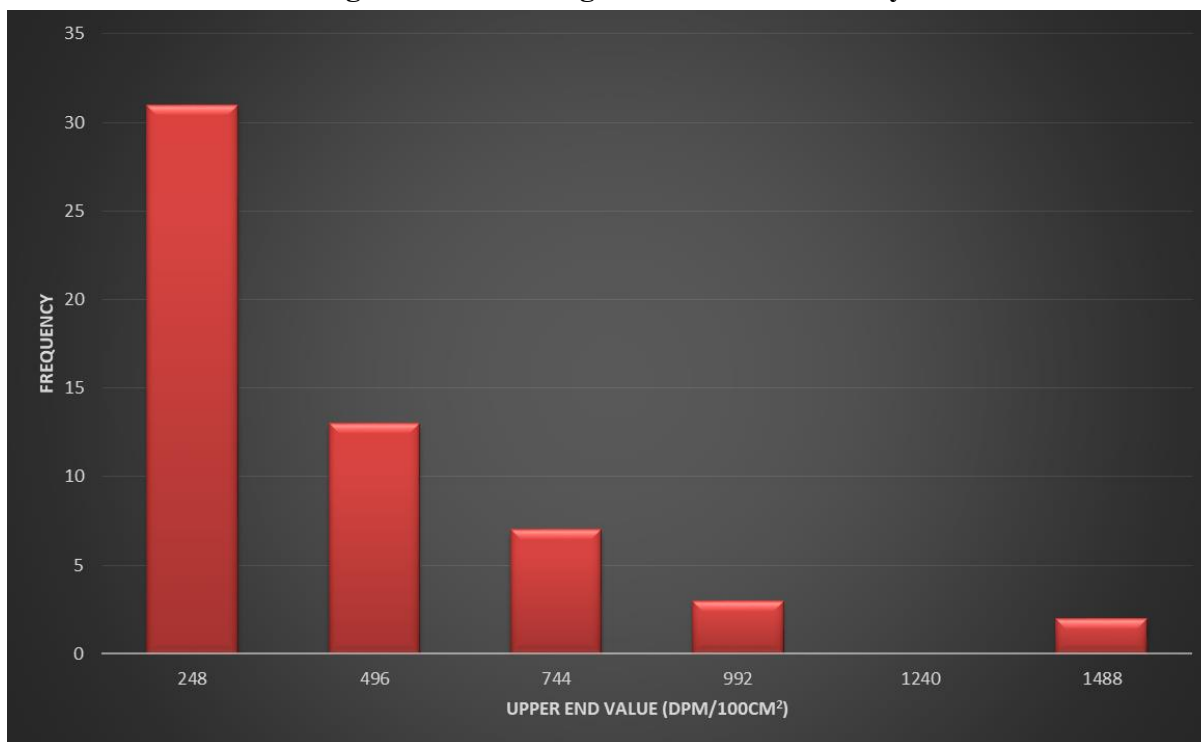
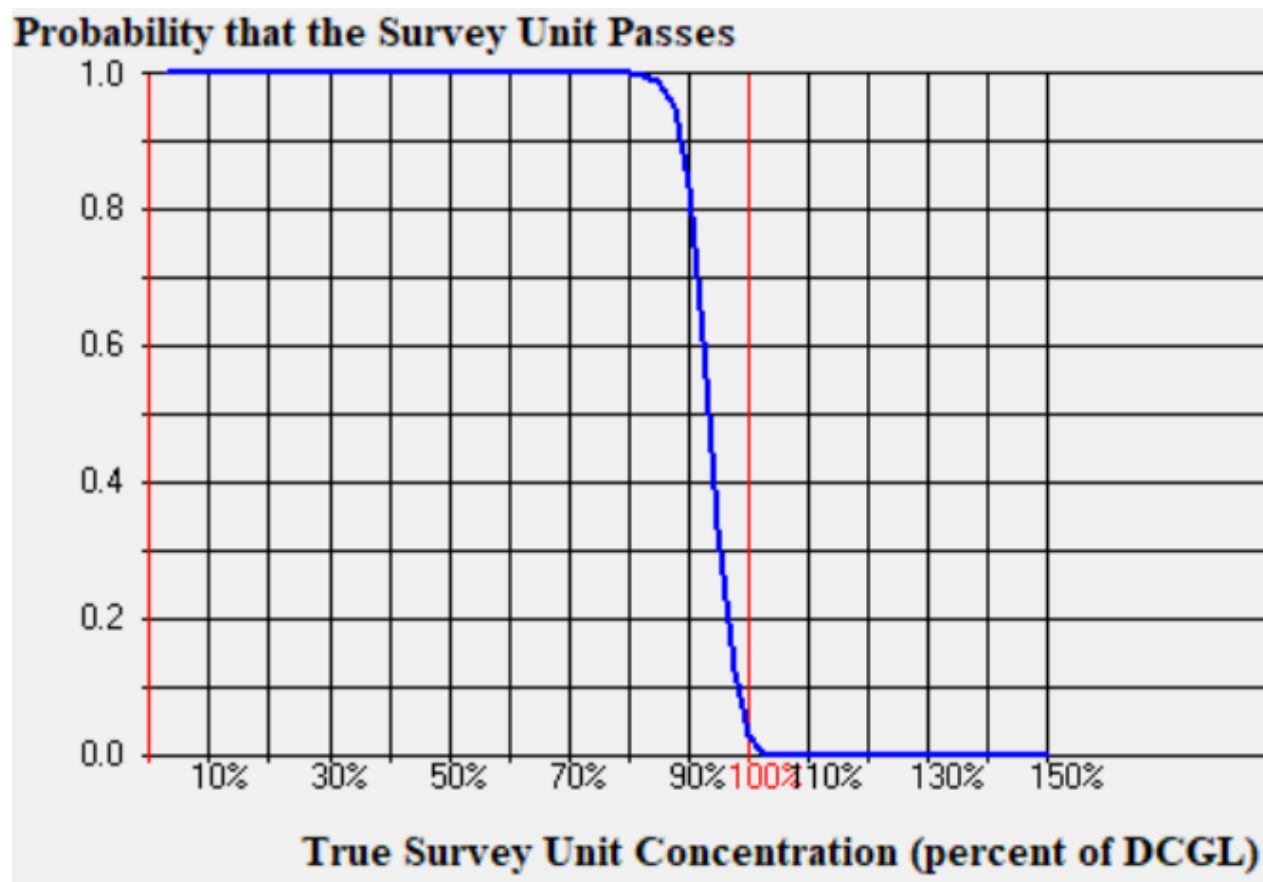


Figure 16-7 – Retrospective Power Curve



ATTACHMENT 6
LUDLUM 2350-1 DOWNLOAD
REPORTS

B2-010-102D

Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	357009	0			BD	PRBKG		6/7/2019 7:43	2	201	c	60	1	0	325246	SB1521
44-116	357009	1			BD		PRCHK	6/7/2019 7:46	2	2531	c	60	1	1	325246	SB1521
44-116	357009	2		FLDBK	BD			6/7/2019 9:57	2	277	c	60	1	0	325246	SB1521
44-116	357009	3		FLDBK	BD			6/7/2019 9:58	2	202	c	60	1	0	325246	SB1521
44-116	357009	4		FLDBK	BD			6/7/2019 9:59	2	266	c	60	1	0	325246	SB1521
44-116	357009	5		FLDBK	BD			6/7/2019 10:00	2	210	c	60	1	0	325246	SB1521
44-116	357009	6		FLDBK	BD			6/7/2019 10:02	2	240	c	60	1	0	325246	SB1521
44-116	357009	7	B102D	2	BS			6/7/2019 12:30	2	447	c	0	0	0	325246	SB1521
44-116	357009	8	B102D	2	BD			6/7/2019 12:37	2	268	c	60	1	0	325246	SB1521
44-116	357009	9	B102D	1	BS			6/7/2019 12:57	2	508	c	0	0	0	325246	SB1521
44-116	357009	10	B102D	1	BD			6/7/2019 13:00	2	257	c	60	1	0	325246	SB1521
44-116	357009	11	B102D	4	BS			6/7/2019 13:25	2	423	c	0	0	0	325246	SB1521
44-116	357009	12	B102D	4	BD			6/7/2019 13:28	2	169	c	60	1	0	325246	SB1521
44-116	357009	13	B102D	10	BS			6/7/2019 14:20	2	319	c	0	0	0	325246	SB1521
44-116	357009	14	B102D	10	BD			6/7/2019 14:22	2	164	c	60	1	0	325246	SB1521
44-116	357009	15			BD	PSBKG		6/7/2019 16:07	2	211	c	60	1	0	325246	SB1521
44-116	357009	16			BD		PSCHK	6/7/2019 16:20	2	2636	c	60	1	1	325246	SB1521



B2-010-102C

Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	223244	0			BD	PRBKG		6/7/2019 7:56	2	173	c	60	1	0	98647	LC8226
44-116	223244	1			BD		PRCHK	6/7/2019 7:59	2	2018	c	60	1	1	98647	LC8226
44-116	223244	7	B102C	FLDBK	BD			6/7/2019 10:23	2	204	c	60	1	0	98647	LC8226
44-116	223244	8	B102C	FLDBK	BD			6/7/2019 10:24	2	200	c	60	1	0	98647	LC8226
44-116	223244	9	B102C	FLDBK	BD			6/7/2019 10:25	2	189	c	60	1	0	98647	LC8226
44-116	223244	10	B102C	FLDBK	BD			6/7/2019 10:26	2	185	c	60	1	0	98647	LC8226
44-116	223244	11	B102C	FLDBK	BD			6/7/2019 10:27	2	217	c	60	1	0	98647	LC8226
44-116	223244	12	B102C	G1	BS			6/7/2019 12:31	2	413	c	0	0	0	98647	LC8226
44-116	223244	13	B102C	G2	BS			6/7/2019 12:44	2	320	c	0	0	0	98647	LC8226
44-116	223244	14	B102C	G3	BS			6/7/2019 12:55	2	329	c	0	0	0	98647	LC8226
44-116	223244	15	B102C	G1	BD			6/7/2019 13:05	2	167	c	60	1	0	98647	LC8226
44-116	223244	16	B102C	G2	BD			6/7/2019 13:19	2	317	c	60	1	0	98647	LC8226
44-116	223244	17	B102C	G3	BD			6/7/2019 13:30	2	296	c	60	1	0	98647	LC8226
44-116	223244	18	B102C	G4	BS			6/7/2019 13:44	2	487	c	0	0	1	98647	LC8226
44-116	223244	19	B102C	G4	BS			6/7/2019 13:46	2	358	c	0	0	0	98647	LC8226
44-116	223244	20	B102C	G5	BS			6/7/2019 13:56	2	496	c	0	0	1	98647	LC8226
44-116	223244	21	B102C	G5	BS			6/7/2019 13:59	2	433	c	0	0	0	98647	LC8226
44-116	223244	22	B102C	G6	BS			6/7/2019 14:49	2	491	c	0	0	1	98647	LC8226
44-116	223244	23	B102C	G6	BS			6/7/2019 14:54	2	338	c	0	0	0	98647	LC8226
44-116	223244	24	B102C	G4	BD			6/7/2019 14:57	2	144	c	60	1	0	98647	LC8226
44-116	223244	25	B102C	G5	BD			6/7/2019 15:00	2	159	c	60	1	0	98647	LC8226
44-116	223244	26	B102C	G6	BD			6/7/2019 15:14	2	173	c	60	1	0	98647	LC8226
44-116	223244	27			BD	PSBKG		6/7/2019 15:50	2	217	c	60	1	0	98647	LC8226
44-116	223244	28			BD		PSCHK	6/7/2019 15:56	2	2052	c	60	1	1	98647	LC8226

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B2-010-102B

Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	222981	0			BD	PRBKG		6/7/2019 7:56	3	201	c	60	1	0	126195	DD2222
44-116	222981	1			BD		PRCHK	6/7/2019 8:02	3	2199	c	60	1	1	126195	DD2222
44-116	222981	3	B102B	FLDBK	BD			6/7/2019 9:26	3	263	c	60	1	0	126195	DD2222
44-116	222981	4	B102B	FLDBK	BD			6/7/2019 9:28	3	259	c	60	1	0	126195	DD2222
44-116	222981	5	B102B	FLDBK	BD			6/7/2019 9:29	3	240	c	60	1	0	126195	DD2222
44-116	222981	6	B102B	FLDBK	BD			6/7/2019 9:30	3	292	c	60	1	0	126195	DD2222
44-116	222981	7	B102B	FLDBK	BD			6/7/2019 9:31	3	248	c	60	1	0	126195	DD2222
44-116	222981	10	B102B	13	BS			6/7/2019 13:24	3	421	c	0	0	0	126195	DD2222
44-116	222981	11	B102B	13	BD			6/7/2019 13:28	3	290	c	60	1	0	126195	DD2222
44-116	222981	12	B102B	10	BS			6/7/2019 14:08	3	423	c	0	0	0	126195	DD2222
44-116	222981	13	B102B	10	BD			6/7/2019 14:10	3	318	c	60	1	0	126195	DD2222
44-116	222981	14	B102B	6	BS			6/7/2019 14:43	3	456	c	0	0	0	126195	DD2222
44-116	222981	15	B102B	6	BD			6/7/2019 14:46	3	329	c	60	1	0	126195	DD2222
44-116	222981	16	B102B	9	BS			6/7/2019 15:24	3	517	c	0	0	0	126195	DD2222
44-116	222981	17	B102B	9	BD			6/7/2019 15:26	3	355	c	60	1	0	126195	DD2222
44-116	222981	18			BD	PRBKG		6/7/2019 16:17	3	289	c	60	1	0	126195	DD2222
44-116	222981	19			BD		PSCHK	6/7/2019 16:24	3	2181	c	60	1	1	126195	DD2222

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G3 CRIBHOUSE

Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	357439	0			BD	PRBKG		6/7/2019 7:59	1	203	c	60	1	0	325261	WDC1111
44-116	357439	1			BD		PRCHK	6/7/2019 8:24	1	2666	c	60	1	1	325261	WDC1111
44-116	357439	2	102A	FLDBK	BD			6/7/2019 12:57	1	181	c	60	1	0	325261	WDC1111
44-116	357439	3	102A	FLDBK	BD			6/7/2019 12:58	1	200	c	60	1	0	325261	WDC1111
44-116	357439	4	102A	FLDBK	BD			6/7/2019 12:59	1	190	c	60	1	0	325261	WDC1111
44-116	357439	5	102A	FLDBK	BD			6/7/2019 13:01	1	190	c	60	1	0	325261	WDC1111
44-116	357439	6	102A	FLDBK	BD			6/7/2019 13:02	1	204	c	60	1	0	325261	WDC1111
44-116	357439	7	102A	4	BS			6/7/2019 15:24	1	208	c	0	0	0	325261	WDC1111
44-116	357439	8	102A	4	BD			6/7/2019 15:25	1	140	c	60	1	0	325261	WDC1111
44-116	357439	9	102A	3	BS			6/7/2019 15:46	1	224	c	0	0	0	325261	WDC1111
44-116	357439	10	102A	3	BS			6/7/2019 15:47	1	163	c	60	1	0	325261	WDC1111
44-116	357439	11			BD	PSBKG		6/7/2019 16:20	1	231	c	60	1	0	325261	WDC1111
44-116	357439	12			BD		PSCHK	6/7/2019 16:34	1	2694	c	60	1	1	325261	WDC1111

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Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	357009	0			BD	PRBKG		6/8/2019 6:07	2	183	c	60	1	0	325246	SB1521
44-116	357009	1			BD		PRCHK	6/8/2019 6:10	2	2538	c	60	1	1	325246	SB1521
44-116	357009	2	B102D	FLDBK	BD			6/8/2019 6:56	2	145	c	60	1	0	325246	SB1521
44-116	357009	3	B102D	FLDBK	BD			6/8/2019 6:58	2	162	c	60	1	0	325246	SB1521
44-116	357009	4	B102D	FLDBK	BD			6/8/2019 6:59	2	158	c	60	1	0	325246	SB1521
44-116	357009	5	B102D	FLDBK	BD			6/8/2019 7:00	2	166	c	60	1	0	325246	SB1521
44-116	357009	6	B102D	FLDBK	BD			6/8/2019 7:01	2	168	c	60	1	0	325246	SB1521
44-116	357009	7	B102D	14	BS			6/8/2019 7:26	2	259	c	0	0	0	325246	SB1521
44-116	357009	8	B102D	14	BD			6/8/2019 7:28	2	168	c	60	1	0	325246	SB1521
44-116	357009	9	B102D	11	BS			6/8/2019 8:00	2	485	c	0	0	0	325246	SB1521
44-116	357009	10	B102D	11	BD			6/8/2019 8:03	2	263	c	60	1	0	325246	SB1521
44-116	357009	11	B102D	12	BS			6/8/2019 8:27	2	475	c	0	0	0	325246	SB1521
44-116	357009	12	B102D	12	BD			6/8/2019 8:29	2	254	c	60	1	0	325246	SB1521
44-116	357009	13	B102D	13	BS			6/8/2019 8:49	2	447	c	0	0	0	325246	SB1521
44-116	357009	14	B102D	13	BD			6/8/2019 8:51	2	247	c	60	1	0	325246	SB1521
44-116	357009	15	B102D	7	BS			6/8/2019 9:22	2	409	c	0	0	0	325246	SB1521
44-116	357009	16	B102D	7	BD			6/8/2019 9:27	2	473	c	60	1	0	325246	SB1521
44-116	357009	17			BD	PRBKG		6/8/2019 10:18	2	165	c	60	1	0	325246	SB1521
44-116	357009	18			BD		PRCHK	6/8/2019 10:22	2	2613	c	60	1	1	325246	SB1521
44-116	357009	19	B102D	15	BS			6/8/2019 13:22	2	442	c	0	0	0	325246	SB1521
44-116	357009	20	B102D	15	BD			6/8/2019 13:39	2	293	c	60	1	0	325246	SB1521
44-116	357009	21			BD	PRBKG		6/8/2019 14:17	2	178	c	60	1	0	325246	SB1521
44-116	357009	22			BD		PRCHK	6/8/2019 14:19	2	2523	c	60	1	1	325246	SB1521
44-116	357009	23	B102D	5	BS			6/8/2019 14:51	2	399	c	0	0	0	325246	SB1521
44-116	357009	24	B102D	5	BD			6/8/2019 14:53	2	230	c	60	1	0	325246	SB1521
44-116	357009	25	B102D	6	BS			6/8/2019 15:13	2	418	c	0	0	0	325246	SB1521
44-116	357009	26	B102D	6	BD			6/8/2019 15:15	2	180	c	60	1	0	325246	SB1521
44-116	357009	27	B102D	9	BS			6/8/2019 15:38	2	448	c	0	0	0	325246	SB1521
44-116	357009	28	B102D	9	BD			6/8/2019 15:40	2	323	c	60	1	0	325246	SB1521
44-116	357009	29	B102D	3	BS			6/8/2019 16:10	2	359	c	0	0	0	325246	SB1521
44-116	357009	30	B102D	3	BD			6/8/2019 16:12	2	118	c	60	1	0	325246	SB1521
44-116	357009	31			BD	PSBKG		6/8/2019 16:29	2	183	c	60	1	0	325246	SB1521
44-116	357009	32			BD		PSCHK	6/8/2019 16:32	2	2552	c	60	1	1	325246	SB1521

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Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	223244	0	B102C		BD	PRBKG		6/8/2019 6:20	2	219	c	60	1	0	98647	LC8226
44-116	223244	1	B102C		BD		PRCHK	6/8/2019 6:34	2	2099	c	60	1	1	98647	LC8226
44-116	223244	2	B102C	FLDBK	BD			6/8/2019 7:23	2	219	c	60	1	0	98647	LC8226
44-116	223244	3	B102C	FLDBK	BD			6/8/2019 7:24	2	199	c	60	1	0	98647	LC8226
44-116	223244	4	B102C	FLDBK	BD			6/8/2019 7:26	2	186	c	60	1	0	98647	LC8226
44-116	223244	5	B102C	FLDBK	BD			6/8/2019 7:27	2	239	c	60	1	0	98647	LC8226
44-116	223244	6	B102C	FLDBK	BD			6/8/2019 7:28	2	195	c	60	1	0	98647	LC8226
44-116	223244	7	B102C	G7	BS			6/8/2019 7:51	2	363	c	0	0	0	98647	LC8226
44-116	223244	8	B102C	G8	BS			6/8/2019 8:05	2	300	c	0	0	0	98647	LC8226
44-116	223244	9	B102C	G8	BD			6/8/2019 8:08	2	340	c	60	1	0	98647	LC8226
44-116	223244	10	B102C	G7	BD			6/8/2019 8:10	2	321	c	60	1	0	98647	LC8226
44-116	223244	11	B102C	G9	BS			6/8/2019 9:11	2	252	c	0	0	0	98647	LC8226
44-116	223244	12	B102C	FLDBK	BD			6/8/2019 10:02	2	480	c	60	1	0	98647	LC8226
44-116	223244	13	B102C	FLDBK	BD			6/8/2019 10:03	2	458	c	60	1	0	98647	LC8226
44-116	223244	14	B102C	FLDBK	BD			6/8/2019 10:04	2	456	c	60	1	0	98647	LC8226
44-116	223244	15	B102C	FLDBK	BD			6/8/2019 10:06	2	461	c	60	1	0	98647	LC8226
44-116	223244	16	B102C	FLDBK	BD			6/8/2019 10:07	2	488	c	60	1	0	98647	LC8226
44-116	223244	17	B102C	G10	BS			6/8/2019 10:28	2	630	c	0	0	0	98647	LC8226
44-116	223244	18	B102C	G10	BD			6/8/2019 10:29	2	445	c	60	1	0	98647	LC8226
44-116	223244	19	B102C	G11	BS			6/8/2019 10:43	2	353	c	0	0	0	98647	LC8226
44-116	223244	20	B102C	G11	BD			6/8/2019 10:45	2	205	c	60	1	0	98647	LC8226
44-116	223244	21	B102C	G9	BD			6/8/2019 10:47	2	194	c	60	1	0	98647	LC8226
44-116	223244	22	B102C	G12	BS			6/8/2019 12:37	2	264	c	0	0	0	98647	LC8226
44-116	223244	23	B102C	G13	BS			6/8/2019 12:48	2	269	c	0	0	0	98647	LC8226
44-116	223244	24	B102C	G14	BS			6/8/2019 12:59	2	280	c	0	0	0	98647	LC8226
44-116	223244	25	B102C	G12	BD			6/8/2019 13:00	2	183	c	60	1	0	98647	LC8226
44-116	223244	26	B102C	G13	BD			6/8/2019 13:02	2	202	c	60	1	0	98647	LC8226
44-116	223244	27	B102C	G14	BD			6/8/2019 13:04	2	198	c	60	1	0	98647	LC8226
44-116	223244	28	B102C	J1	BS			6/8/2019 13:15	2	396	c	0	0	0	98647	LC8226
44-116	223244	29	B102C	J1	BD			6/8/2019 13:16	2	188	c	60	1	0	98647	LC8226
44-116	223244	30	B102C		BD	PSBKG		6/8/2019 13:29	2	214	c	60	1	0	98647	LC8226
44-116	223244	31	B102C		BD		PSCHK	6/8/2019 13:32	2	1916	c	60	1	1	98647	LC8226



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Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	222981	0			BD	PRBKG		6/8/2019 6:28	3	219	c	60	1	0	126195	DD2222
44-116	222981	1			BD		PRCHK	6/8/2019 6:32	3	2200	c	60	1	1	126195	DD2222
44-116	222981	2	B102B	FLDBK	BD			6/8/2019 7:47	3	304	c	60	1	0	126195	DD2222
44-116	222981	3	B102B	FLDBK	BD			6/8/2019 7:48	3	261	c	60	1	0	126195	DD2222
44-116	222981	4	B102B	FLDBK	BD			6/8/2019 7:49	3	272	c	60	1	0	126195	DD2222
44-116	222981	5	B102B	FLDBK	BD			6/8/2019 7:50	3	278	c	60	1	0	126195	DD2222
44-116	222981	6	B102B	FLDBK	BD			6/8/2019 7:52	3	286	c	60	1	0	126195	DD2222
44-116	222981	7	B102B	11	BS			6/8/2019 8:59	3	433	c	0	0	0	126195	DD2222
44-116	222981	8	B102B	11	BD			6/8/2019 9:06	3	286	c	60	1	0	126195	DD2222
44-116	222981	9	B102B	7	BS			6/8/2019 9:42	3	513	c	0	0	0	126195	DD2222
44-116	222981	10	B102B	7	BD			6/8/2019 9:46	3	257	c	60	1	0	126195	DD2222
44-116	222981	11	B102B	5	BS			6/8/2019 10:21	3	422	c	0	0	0	126195	DD2222
44-116	222981	12	B102B	5	BD			6/8/2019 10:23	3	184	c	60	1	0	126195	DD2222
44-116	222981	13	B102B	4	BS			6/8/2019 10:54	3	374	c	0	0	0	126195	DD2222
44-116	222981	14	B102B	4	BD			6/8/2019 10:57	3	188	c	60	1	0	126195	DD2222
44-116	222981	15	B102B	14	BS			6/8/2019 13:25	3	410	c	0	0	0	126195	DD2222
44-116	222981	16	B102B	14	BD			6/8/2019 13:31	3	225	c	60	1	0	126195	DD2222
44-116	222981	17	B102B	12	BS			6/8/2019 14:16	3	378	c	0	0	0	126195	DD2222
44-116	222981	18	B102B	12	BD			6/8/2019 14:19	3	225	c	60	1	0	126195	DD2222
44-116	222981	19	B102B	15	BS			6/8/2019 15:04	3	484	c	0	0	0	126195	DD2222
44-116	222981	20	B102B	15	BD			6/8/2019 15:07	3	171	c	60	1	0	126195	DD2222
44-116	222981	21			BD	PSBKG		6/8/2019 15:46	3	262	c	60	1	0	126195	DD2222
44-116	222981	22			BD		PSCHK	6/8/2019 15:53	3	2160	c	60	1	1	126195	DD2222



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Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 Alarm=0	No	Inst Serial Number	Tech Name
44-116	357439	0			BD	PRBKG		6/8/2019 8:26	1	221 c		60		1	0	325261	WDC1111
44-116	357439	1			BD		PRCHK	6/8/2019 8:32	1	2709 c		60		1	1	325261	WDC1111
44-116	357439	2	102B	FLDBK	BD			6/8/2019 10:50	1	280 c		60		1	0	325261	WDC1111
44-116	357439	3	102B	FLDBK	BD			6/8/2019 10:51	1	303 c		60		1	0	325261	WDC1111
44-116	357439	4	102B	FLDBK	BD			6/8/2019 10:53	1	306 c		60		1	0	325261	WDC1111
44-116	357439	5	102B	FLDBK	BD			6/8/2019 10:54	1	320 c		60		1	0	325261	WDC1111
44-116	357439	6	102B	FLDBK	BD			6/8/2019 10:55	1	301 c		60		1	0	325261	WDC1111
44-116	357439	7	102B		3 BS			6/8/2019 12:42	1	449 c		0		0	0	325261	WDC1111
44-116	357439	8	102B		3 BD			6/8/2019 12:44	1	418 c		60		1	0	325261	WDC1111
44-116	357439	9	102B		2 BS			6/8/2019 13:19	1	453 c		0		0	0	325261	WDC1111
44-116	357439	10	102B		2 BD			6/8/2019 13:21	1	368 c		60		1	0	325261	WDC1111
44-116	357439	11	102B		1 BS			6/8/2019 13:49	1	379 c		0		0	0	325261	WDC1111
44-116	357439	12	102B		1 BD			6/8/2019 13:51	1	403 c		60		1	0	325261	WDC1111
44-116	357439	13	102B		8 BS			6/8/2019 15:05	1	228 c		0		0	0	325261	WDC1111
44-116	357439	14	102B		8 BD			6/8/2019 15:08	1	163 c		60		1	0	325261	WDC1111
44-116	357439	15	102D	QC5	BS			6/8/2019 15:43	1	299 c		0		0	0	325261	WDC1111
44-116	357439	16	102D	QC5	BD			6/8/2019 15:44	1	286 c		60		1	0	325261	WDC1111
44-116	357439	17			BD	PSBKG		6/8/2019 16:28	1	207 c		60		1	0	325261	WDC1111
44-116	357439	18			BD		PSCHK	6/8/2019 16:30	1	2615 c		60		1	1	325261	WDC1111

WJG

B2-010-102D

Probe Model	Serial Number	Sample Number	Survey Unit - Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	357009	0			BD	PRBKG		6/10/2019 7:22	2	177	c	60	1	0	325246	SB1521
44-116	357009	1			BD		PRCHK	6/10/2019 7:26	2	2447	c	60	1	1	325246	SB1521
44-116	357009	2	B102D	FLDBK	BD			6/10/2019 8:16	2	300	c	60	1	0	325246	SB1521
44-116	357009	3	B102D	FLDBK	BD			6/10/2019 8:17	2	282	c	60	1	0	325246	SB1521
44-116	357009	4	B102D	FLDBK	BD			6/10/2019 8:18	2	262	c	60	1	0	325246	SB1521
44-116	357009	5	B102D	FLDBK	BD			6/10/2019 8:19	2	261	c	60	1	0	325246	SB1521
44-116	357009	6	B102D	FLDBK	BD			6/10/2019 8:20	2	261	c	60	1	0	325246	SB1521
44-116	357009	7	B102D	8	BS			6/10/2019 9:04	2	561	c	0	0	0	325246	SB1521
44-116	357009	8	B102D	8	BD			6/10/2019 9:09	2	368	c	60	1	0	325246	SB1521
44-116	357009	16			BD	PSBKG		6/10/2019 13:29	2	263	c	60	1	0	325246	SB1521
44-116	357009	17			BD		PSCHK	6/10/2019 13:38	2	2630	c	60	1	1	325246	SB1521



Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	223244	0			BD	PRBKG		6/10/2019 6:45	2	175	c	60	1	0	98647	LC8226
44-116	223244	1			BD		PRCHK	6/10/2019 6:49	2	2090	c	60	1	1	98647	LC8226
44-116	223244	2	B102A	FLDBK	BD			6/10/2019 7:55	2	189	c	60	1	0	98647	LC8226
44-116	223244	3	B102A	FLDBK	BD			6/10/2019 7:56	2	207	c	60	1	0	98647	LC8226
44-116	223244	4	B102A	FLDBK	BD			6/10/2019 7:57	2	177	c	60	1	0	98647	LC8226
44-116	223244	5	B102A	FLDBK	BD			6/10/2019 7:58	2	187	c	60	1	0	98647	LC8226
44-116	223244	6	B102A	FLDBK	BD			6/10/2019 8:00	2	179	c	60	1	0	98647	LC8226
44-116	223244	7	B102A	G1	BS			6/10/2019 8:38	2	308	c	0	0	0	98647	LC8226
44-116	223244	8	B102A	G2	BS			6/10/2019 9:10	2	277	c	0	0	0	98647	LC8226
44-116	223244	9	B102A	G12	BS			6/10/2019 9:52	2	272	c	0	0	0	98647	LC8226
44-116	223244	10	B102A	G1	BD			6/10/2019 10:04	2	181	c	60	1	0	98647	LC8226
44-116	223244	11	B102A	G2	BD			6/10/2019 10:06	2	197	c	60	1	0	98647	LC8226
44-116	223244	12	B102A	G12	BD			6/10/2019 10:08	2	184	c	60	1	0	98647	LC8226
44-116	223244	13	B102B	G12QC	BS			6/10/2019 10:39	2	347	c	0	0	0	98647	LC8226
44-116	223244	14	B102B	G12QC	BD			6/10/2019 10:40	2	172	c	60	1	0	98647	LC8226
44-116	223244	15			BD	PSBKG		6/10/2019 12:15	2	235	c	60	1	0	98647	LC8226
44-116	223244	16			BD		PSCHK	6/10/2019 12:18	2	2031	c	60	1	1	98647	LC8226

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Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 Alarm=0	No	Inst Serial Number	Tech Name
44-116	357439	0			BD	PRBKG		6/10/2019 8:47	1	205	c	60	1	0		325261	WDC1111
44-116	357439	1			BD		PRCHK	6/10/2019 8:49	1	2540	c	60	1	1		325261	WDC1111
44-116	357439	2	102A	FLDBK	BD			6/10/2019 9:49	1	284	c	60	1	0		325261	WDC1111
44-116	357439	3	102A	FLDBK	BD			6/10/2019 9:50	1	299	c	60	1	0		325261	WDC1111
44-116	357439	4	102A	FLDBK	BD			6/10/2019 9:52	1	276	c	60	1	0		325261	WDC1111
44-116	357439	5	102A	FLDBK	BD			6/10/2019 9:53	1	307	c	60	1	0		325261	WDC1111
44-116	357439	6	102A	FLDBK	BD			6/10/2019 9:55	1	279	c	60	1	0		325261	WDC1111
44-116	357439	7	102A	7	BS			6/10/2019 10:19	1	441	c	0	0	0		325261	WDC1111
44-116	357439	8	102A	7	BD			6/10/2019 10:21	1	457	c	60	1	0		325261	WDC1111
44-116	357439	9	102A	6	BS			6/10/2019 10:45	1	481	c	0	0	0		325261	WDC1111
44-116	357439	10	102A	6	BD			6/10/2019 10:46	1	380	c	60	1	0		325261	WDC1111
44-116	357439	11	102A	10	BS			6/10/2019 12:30	1	406	c	0	0	0		325261	WDC1111
44-116	357439	12	102A	10	BD			6/10/2019 12:31	1	428	c	60	1	0		325261	WDC1111
44-116	357439	13	102A	11	BS			6/10/2019 12:51	1	476	c	0	0	0		325261	WDC1111
44-116	357439	14	102A	11	BD			6/10/2019 12:52	1	408	c	60	1	0		325261	WDC1111
44-116	357439	15	102C		BD	BKG		6/10/2019 13:48	1	198	c	60	1	0		325261	WDC1111
44-116	357439	16	102C		BD		CHK	6/10/2019 13:53	1	2524	c	60	1	1		325261	WDC1111
44-116	357439	17	102C	10QC	BS			6/10/2019 14:14	1	489	c	0	0	0		325261	WDC1111
44-116	357439	18	102C	10QC	BD			6/10/2019 14:15	1	461	c	60	1	0		325261	WDC1111
44-116	357439	19	102A	FLDBK	BD			6/10/2019 14:40	1	164	c	60	1	0		325261	WDC1111
44-116	357439	20	102A	FLDBK	BD			6/10/2019 14:41	1	187	c	60	1	0		325261	WDC1111
44-116	357439	21	102A	FLDBK	BD			6/10/2019 14:42	1	174	c	60	1	0		325261	WDC1111
44-116	357439	22	102A	FLDBK	BD			6/10/2019 14:43	1	141	c	60	1	0		325261	WDC1111
44-116	357439	23	102A	FLDBK	BD			6/10/2019 14:44	1	190	c	60	1	0		325261	WDC1111
44-116	357439	24	102A	14	BS			6/10/2019 14:56	1	372	c	0	0	0		325261	WDC1111
44-116	357439	25	102A	14	BD			6/10/2019 14:58	1	233	c	60	1	0		325261	WDC1111
44-116	357439	26	102A	13	BS			6/10/2019 15:11	1	253	c	0	0	0		325261	WDC1111
44-116	357439	27	102A	13	BD			6/10/2019 15:13	1	231	c	60	1	0		325261	WDC1111
44-116	357439	28	102A	9	BS			6/10/2019 15:31	1	213	c	0	0	0		325261	WDC1111
44-116	357439	29	102A	9	BD			6/10/2019 15:32	1	247	c	60	1	0		325261	WDC1111
44-116	357439	30	102A	5	BS			6/10/2019 15:52	1	253	c	0	0	0		325261	WDC1111
44-116	357439	31	102A	5	BD			6/10/2019 15:53	1	180	c	60	1	0		325261	WDC1111
44-116	357439	32	102A	8	BS			6/10/2019 16:18	1	203	c	0	0	0		325261	WDC1111
44-116	357439	33	102A	8	BD			6/10/2019 16:19	1	222	c	60	1	0		325261	WDC1111
44-116	357439	34			BD	PSBKG		6/10/2019 16:40	1	231	c	60	1	0		325261	WDC1111
44-116	357439	35			BD		PSCHK	6/10/2019 16:44	1	2820	c	60	1	1		325261	WDC1111

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B2-010-102A

Probe Model	Serial Number	Sample Number	Survey Unit Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 No Alarm=0	Inst Serial Number	Tech Name
44-116	357009	0			BD	PRBKG		6/10/2019 7:22	2	177	c	60	1	0	325246	SB1521
44-116	357009	1			BD		PRCHK	6/10/2019 7:26	2	2447	c	60	1	1	325246	SB1521
44-116	357009	9	102A	FLDBK	BD			6/10/2019 10:26	2	478	c	60	1	0	325246	SB1521
44-116	357009	10	102A	FLDBK	BD			6/10/2019 10:28	2	462	c	60	1	0	325246	SB1521
44-116	357009	11	102A	FLDBK	BD			6/10/2019 10:29	2	482	c	60	1	0	325246	SB1521
44-116	357009	12	102A	FLDBK	BD			6/10/2019 10:30	2	450	c	60	1	0	325246	SB1521
44-116	357009	13	102A	FLDBK	BD			6/10/2019 10:33	2	482	c	60	1	0	325246	SB1521
44-116	357009	14	102A	QC07	BS			6/10/2019 12:31	2	612	c	0	0	0	325246	SB1521
44-116	357009	15	102A	QC07	BD			6/10/2019 12:34	2	317	c	60	1	0	325246	SB1521
44-116	357009	16			BD	PSBKG		6/10/2019 13:29	2	263	c	60	1	0	325246	SB1521
44-116	357009	17			BD		PSCHK	6/10/2019 13:38	2	2630	c	60	1	1	325246	SB1521

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Probe Model	Serial Number	Sample Number	Survey Unit - Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 Alarm=0	No	Inst Serial Number	Tech Name
44-116	357439	0			BD	PRBKG		7/17/2019 12:00	1	196	c	60	1	0		325261	WDC1111
44-116	357439	1			BD		PRCHK	7/17/2019 12:03	1	2411	c	60	1	1		325261	WDC1111
44-116	357439	2	102A	FLDBK	BD			7/17/2019 12:49	1	183	c	60	1	0		325261	WDC1111
44-116	357439	3	102A	FLDBK	BD			7/17/2019 12:51	1	161	c	60	1	0		325261	WDC1111
44-116	357439	4	102A	FLDBK	BD			7/17/2019 12:52	1	175	c	60	1	0		325261	WDC1111
44-116	357439	5	102A	FLDBK	BD			7/17/2019 12:53	1	186	c	60	1	0		325261	WDC1111
44-116	357439	6	102A	FLDBK	BD			7/17/2019 12:54	1	162	c	60	1	0		325261	WDC1111
44-116	357439	7	102A	15	BS			7/17/2019 13:30	1	415	c	0	0	0		325261	WDC1111
44-116	357439	8	102A	15	BD			7/17/2019 13:31	1	176	c	60	1	0		325261	WDC1111
44-116	357439	9			BD	PSBKG		7/17/2019 13:41	1	212	c	60	1	0		325261	WDC1111
44-116	357439	10			BD		PSCHK	7/17/2019 13:46	1	2440	c	60	1	1		325261	WDC1111

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G3 CRIBHOUSE

Probe Model	Serial Number	Sample Number	Survey Unit - Grid	Location	D=Direct S=Scan	BKG	Source Check	Date / Time	Detector Setup	Logged Reading	Units (cpm)	Count Time	Logging Mode(min)	Alarm=1 Alarm=0	Inst Serial Number	Tech Name
44-116	357439	0			BD	PRBKG		7/17/2019 12:00	1	196	c	60	1	0	325261	WDC1111
44-116	357439	1			BD		PRCHK	7/17/2019 12:03	1	2411	c	60	1	1	325261	WDC1111
44-116	357439	2	102A	FLDBK	BD			7/17/2019 12:49	1	183	c	60	1	0	325261	WDC1111
44-116	357439	3	102A	FLDBK	BD			7/17/2019 12:51	1	161	c	60	1	0	325261	WDC1111
44-116	357439	4	102A	FLDBK	BD			7/17/2019 12:52	1	175	c	60	1	0	325261	WDC1111
44-116	357439	5	102A	FLDBK	BD			7/17/2019 12:53	1	186	c	60	1	0	325261	WDC1111
44-116	357439	6	102A	FLDBK	BD			7/17/2019 12:54	1	162	c	60	1	0	325261	WDC1111
44-116	357439	7	102A	15	BS			7/17/2019 13:30	1	415	c	0	0	0	325261	WDC1111
44-116	357439	8	102A	15	BD			7/17/2019 13:31	1	176	c	60	1	0	325261	WDC1111
44-116	357439	9			BD	PSBKG		7/17/2019 13:41	1	212	c	60	1	0	325261	WDC1111
44-116	357439	10			BD		PSCHK	7/17/2019 13:46	1	2440	c	60	1	1	325261	WDC1111

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