

**Radiochemical Data Review Checklist  
Schofield Barracks**

**Project:** 07-3080.04 Schofield Barracks  
**LAB ID:** SC&A  
**Reviewer:** Stacey Sedano  
**Date:** 12/27/2007

**Work Order:** 7910  
**Analysis Type:** Gamma Spectrometry

Sample	Matrix	Collection Date	Date Received	Preparation Date	Hold Times Met? (Y, N< or N/A)	Analysis Date	Hold Times Met? (Y, N< or N/A)
SB-CZ-SS-2011-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2012-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2013-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2014-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2015-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2016-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2017-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2018-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2019-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2020-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2021-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2022-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2023-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2024-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2025-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/02/07	N/A
SB-CZ-SS-2026-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/03/07	N/A
SB-CZ-SS-2027-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/03/07	N/A
SB-CZ-SS-2028-BD	SOIL	9/12/07	9/25/07	9/30/07	N/A	11/03/07	N/A

**Radiochemical Data Review Checklist  
Schofield Barracks**

Validation Item	Acceptable (YES)	Not Acceptable (NO)	Not Applicable (N/A)
<b>Sample Chain of Custody Review</b>			
Are there printed names and signatures present in the Relinquished By and Received By Blocks?		X (1)	
Does the COC date match the Relinquished By date?	X		
Is the Received By date consistent with sample custody transfer (Relinquished By)?	X		
Have all the samples listed on the Chain of Custody have been analyzed? (Verify this by checking that the Memo and/or case narratives are consistent with the COC.)	X		
Were the sample(s) preserved appropriately?			X
Are all the samples included in the analytical report are listed correctly on the Chain of Custody?	X		
Are the analytes reported consistent with the project requirements? (See Attached Sheet)	X		
Comments:			
<p style="margin-left: 40px;">1. Printed name not present in received by block. No data were qualified as a result of this omission.</p>			
<b>Sample Receipt Checklist Review</b>			
Did the laboratory complete the Sample Receiving Checklist?	X		
Are all receipt inspection items marked "Yes"? (If "No" are they acceptable?).	X		
Comments:			
<b>Case Narrative/Analytical Report</b>			
Does the Case Narrative report submitted by the laboratory indicate any problems with the analysis or other factors which could impact the validity of the sample analysis?	X		
Does the Analytical report agree with the analyte list specified for the project?	X		

**Radiochemical Data Review Checklist  
Schofield Barracks**

Validation Item	Acceptable	Not Acceptable	Not Applicable
Are results that are flagged by laboratory necessary and complete, and are understandable comments provided?	X		
Are the reporting units are correct and consistent? (pCi/g)	X		
Comments:			
<b>Laboratory Quality Control Sample Review</b>			
Did the laboratory properly complete all required laboratory quality control samples at required frequencies? LCS - 1 per matrix and one per batch or 1/20 samples whichever is more frequent Matrix Spike – 1 per matrix and one per batch or 1/20 samples whichever is more frequent Duplicates - 1 per matrix and one per batch or 1/20 samples whichever is more frequent Blanks - 1 per matrix and one per batch or 1/20 samples whichever is more frequent	X (2)		
Are the laboratory quality control sample results acceptable (solids)? LCS - 30% -69% estimated (J); >130% estimated (J); <30% unusable (R) Matrix Spike – 20% -70% estimated (J); >130% estimated (J); <20% unusable (R) Duplicates - Duplicates – Normalized Absolute Difference (NAD)>1.96 estimated (J)	X(2,3,4)		
Comments:  2. Matrix Spikes are not necessary for Gamma Spec. 3. LCS and NAD results are all acceptable. 4. Potential Blank contamination for samples with Pb-214 with activity less than 0.37 pCi/g. The below samples were J flagged for blank contamination: SB-CZ-SS-2017-BD SB-CZ-SS-2018-BD SB-CZ-SS-2019-BD SB-CZ-SS-2021-BD SB-CZ-SS-2026-BD SB-CZ-SS-2028-BD			

**Radiochemical Data Review Checklist  
Schofield Barracks**

Validation Item	Acceptable	Not Acceptable	Not Applicable
<b>Other Evaluation Factors</b>			
If a result has an uncertainty greater than the result, is the uncertainty is less than the required detection limit?	X		
Are the sample hold times acceptable? (Six months or less for all Rad except <sup>3</sup> H, which is three months or less )			X
Are total propagated uncertainty (TPU) values provided for all results?	X		
Are the aliquot sizes appropriate – (1 g minimum for dry solids)	X		
Are soil sample results reported on a dry-weight basis? (See Case Narrative)	X		
Were required detection limits achieved? (see “QA/QC Plan” Table 2.2)	X(5)		
<b>Comments:</b>  5. Detection limit of 0.5 pCi/g was not met for samples for Th-234 listed below: <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">SB-CZ-SS-2017-BD</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">SB-CZ-SS-2024-BD</div>			