

# HIGH-LEVEL TACTILE INSPECTIONS

SAMPLING PHASE 1  
REPORT  
Tantallon Castle  
PIC164



HISTORIC  
ENVIRONMENT  
SCOTLAND

ÀRAINNEACHD  
EACHDRAIDHEIL  
ALBA

CONTROL SHEET

Document Control

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Version	Date	Status	Prepared by	Amendments
V0001	19/08/2021	Draft	[REDACTED]	First draft
V0100	17/09/2021	Approved	[REDACTED]	Approved

# HLTI Sampling: Report - Introduction



<b>PIC ID # ↓</b>	<b>PIC164</b>	<b>Site name</b>	<b>Tantallon Castle</b>		
<b>Inspection start</b>	09/08/2021	<b>Inspection end</b>	11/08/2021	<b>Submission</b>	17/09/2021
<b>Lead HBFA</b>	[REDACTED]				
<b>Sample Inspectors</b>	[REDACTED]				

## Introduction:

As a result of findings on the first four full site High Level Tactile Inspections, SMT endorsed an accelerated programme that will see high-level tactile sample inspection carried out initially to 16 sites identified as having a high risk potential. Sample inspection for Tantallon Castle was carried out in accordance with HES Management of Risk Procedures as set out in High-level Fabric Policy and High level Tactile Inspection Procedures.

The Sample Inspection Report only reports on high level fabric risks within pre-determined areas and does not provide any assessment of risk in other areas on site.

Tactile inspections of five sample areas (Kitchen Range/Leigh Hall (A), Gatehouse and Foretower (B), remaining Stack of masonry at the North end of the Kitchen Range (C), the Outer Gate (D) and the Doocot (E) were completed from an alloy tower or using rope access/steeple jack teams (observed with GoPro Cameras).

## HLF Inspection Risk Matrix:

HES-T1C-HLF-RAS-X-X-V0200-RiskMatrix

Consequence		1	2	3	4	5
		No injury	Minor injury	Moderate injury	Major injury	Fatal or life-altering injury
Probability						
5	Fabric fall almost certain	5	10	15	20	25
4	Fabric fall highly likely	4	8	12	16	20
3	Fabric fall likely	3	6	9	12	15
2	Fabric fall unlikely	2	4	6	8	10
1	Fabric fall highly unlikely	1	2	3	4	5

RISK RATING	RISK SCORE RANGE
High	15-25
Medium	10- 14
Low	1-9

## HLTI Sample Areas:

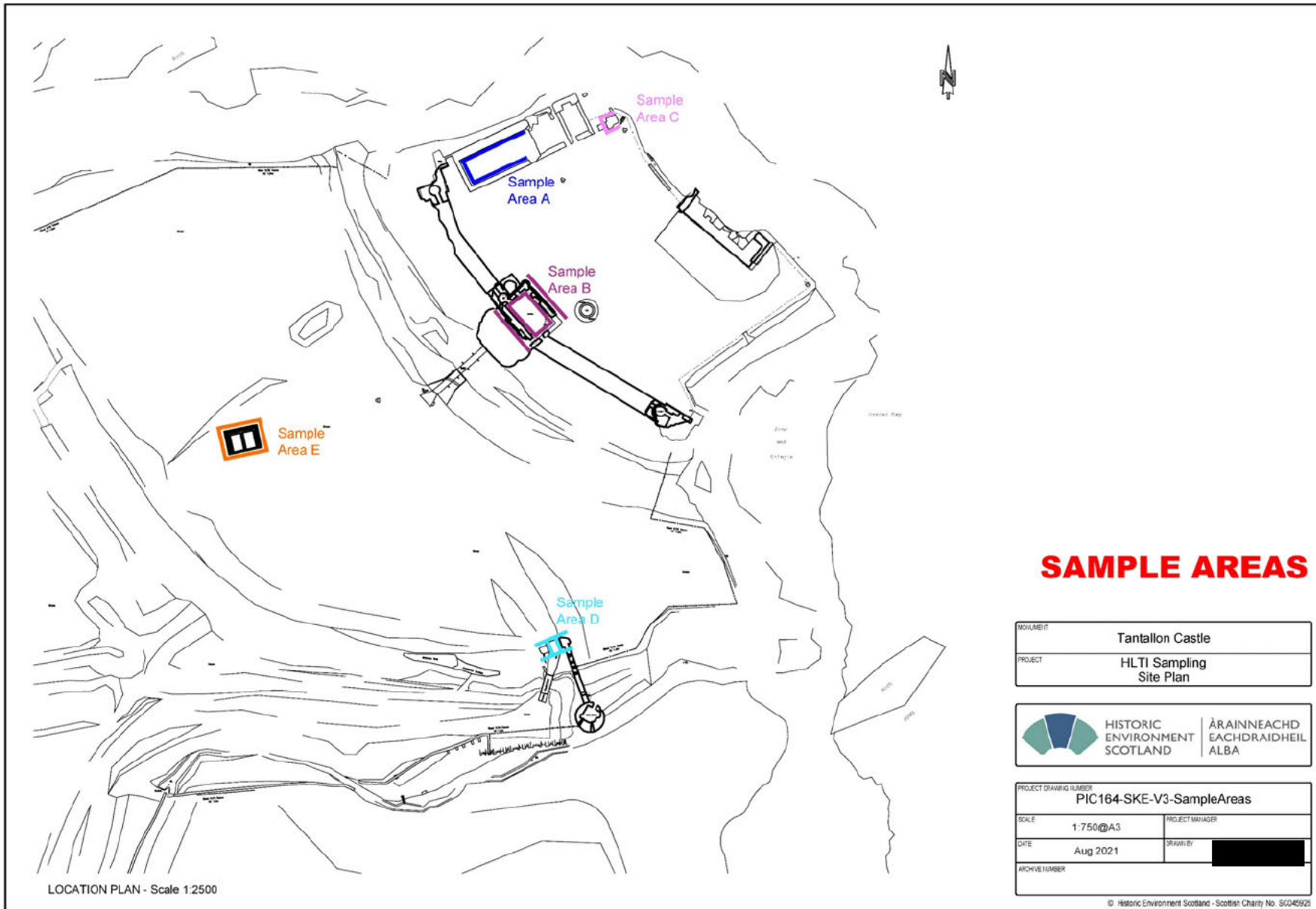
## HLTI Sampling: Report - Introduction



<i>Area:</i>	<i>Colour:</i>	<i>Sample Area Name:</i>
A	Blue	Kitchen Range
B	Maroon	Gatehouse
C	Pink	Stack
D	Cyan	Outer Entrance
E	Orange	Doocot



Click on link to open drawing in PDF viewer: [PIC164-SKE-V3-SampleAreas.pdf](#)



## SAMPLE AREAS

MONUMENT	Tantallon Castle
PROJECT	HLTI Sampling Site Plan

 HISTORIC ENVIRONMENT SCOTLAND	ÀRAINNEACHD EACHDRAIDHEIL ALBA

PROJECT DRAWING NUMBER	
PIC164-SKE-V3-SampleAreas	
SCALE	PROJECT MANAGER
1:750@A3	
DATE	DRAWN BY
Aug 2021	
ARCHIVE NUMBER	

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# HLTI Sampling: Report - Summary dashboard



PIC ID#	PIC164	Submission	17/09/2021
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Select Sample area of which data should be displayed ↓	All areas	Number of observations	40
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## Identified Risk



## Residual Risk



## Inspection Action:

Class V Report = Fabric detached during tactile inspection	Access Restriction = Risk of fabric falling and causing harm			Monitor Observation / Plan Repairs = No immediate action
	High = Full site closure	Medium = Partial site closure	Low = Minor access restriction	
16	0	6	0	18

Inspection types:	Tactile	40	Visual	0
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## Key comments:

Tantallon castle is predominantly constructed from a mixture of sandstone and poorly compacted breccia. Within the inspected areas these were found to be soft and susceptible to erosion. The sandstone also suffers surface scaling and delamination along bedding planes while the breccia tends to be friable and prone to crumbling. Localised decay and failure of the pointing mortar has caused some to become detached, often also resulting in the loosening of pinning stones.

Loose fragments of sufficient height and/or size to cause severe injury or death to people below were found inside the gatehouse. The risk of injury or death is heightened as all visitors to the castle have to pass through the restricted space below to enter the castle. Of particular risk are the arch voussoirs of the southern upper window where two sizeable fragments detached during inspection. Further voussoirs are cracked and an associated structural crack runs through the window to the wall head. Sizeable areas of surface delamination were observed on the stepped gable skews of the doocot and the harling was found to be boss in many areas on this structure. No high risk areas remain outstanding inside the Kitchen Range/Leigh Hall or the stack at the North end of the Kitchen range nor on the outer gate adjacent to the visitor path.



Click on link below image to open Interactive PDF in PDF viewer. In PDF viewer, the drawing is an interactive PDF, click on the labels to open the relevant OBS form for further information.

Sample Area A

**INTERACTIVE PDF**  
Click on labels to open relevant OBS form.

**KEY:**  
 A01 Low identified risk label  
 A02 Medium identified risk label  
 A03 High identified risk label  
 A04 High identified risk, fabric removed under Class V label (see attached app)  
 A01 Label reference: An Sample Area (e.g. A1 or C), Or OBS number (e.g. 01 to 99)

**Notes:**  
 • Use Sample Area drawing for location of observation  
 • Areas identified as high risk areas under fabric, a removal under Class V, or a removal under Class V  
 • Refer to Observation Form for precise location & details of risk & defects  
 • Observation is a non-invasive survey by a qualified observer

**HIGH LEVEL FABRIC TACTILE SAMPLE INSPECTION**  
02/08/2021 to 04/08/2021

**IDENTIFIED RISK**

PIC164 Tantallon Castle  
High Level Tactile Sample Inspection  
Identified Risk - Area A - Kitchen Range

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PIC164 HLR-SI-A  
1:10 @ A1  
Aug 2021

**Sample Area A**  
Tantallon Castle - Kitchen Range

[PIC164-HLR-SI-A.pdf](#)

Sample Area B

**INTERACTIVE PDF**  
Click on labels to open relevant OBS form.

**KEY:**  
 A01 Low identified risk label  
 A02 Medium identified risk label  
 A03 High identified risk label  
 A04 High identified risk, fabric removed under Class V label (see attached app)  
 A01 Label reference: An Sample Area (e.g. A1 or C), Or OBS number (e.g. 01 to 99)

**Notes:**  
 • Use Sample Area drawing for location of observation  
 • Areas identified as high risk areas under fabric, a removal under Class V, or a removal under Class V  
 • Refer to Observation Form for precise location & details of risk & defects  
 • Observation is a non-invasive survey by a qualified observer

**HIGH LEVEL FABRIC TACTILE SAMPLE INSPECTION**  
02/08/2021 to 04/08/2021

**IDENTIFIED RISK**

PIC164 Tantallon Castle  
High Level Tactile Sample Inspection  
Identified Risk - Area B - External

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PIC164 HLR-SI-B-EXT  
1:10 @ A1  
Aug 2021

**Sample Area B**  
Tantallon Castle - Gatehouse - External South West & North East Elevations

[PIC164-HLR-SI-B-Ext.pdf](#)

**INTERACTIVE PDF**  
Click on labels to open relevant OBS form.

**KEY:**  
 A01 Low identified risk label  
 A02 Medium identified risk label  
 A03 High identified risk label  
 A04 High identified risk, fabric removed under Class V label (see attached app)  
 A01 Label reference: An Sample Area (e.g. A1 or C), Or OBS number (e.g. 01 to 99)

**Notes:**  
 • Use Sample Area drawing for location of observation  
 • Areas identified as high risk areas under fabric, a removal under Class V, or a removal under Class V  
 • Refer to Observation Form for precise location & details of risk & defects  
 • Observation is a non-invasive survey by a qualified observer

**HIGH LEVEL FABRIC TACTILE SAMPLE INSPECTION**  
02/08/2021 to 04/08/2021

**IDENTIFIED RISK**

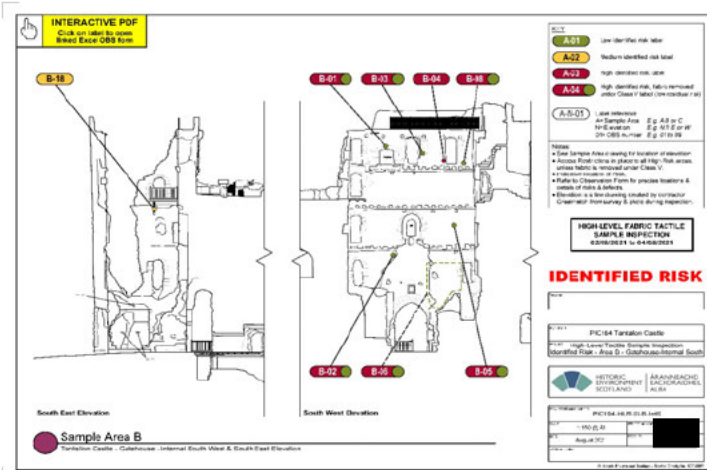
PIC164 Tantallon Castle  
High Level Tactile Sample Inspection  
Identified Risk - Area B - Internal

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PIC164 HLR-SI-B-INT  
1:10 @ A1  
Aug 2021

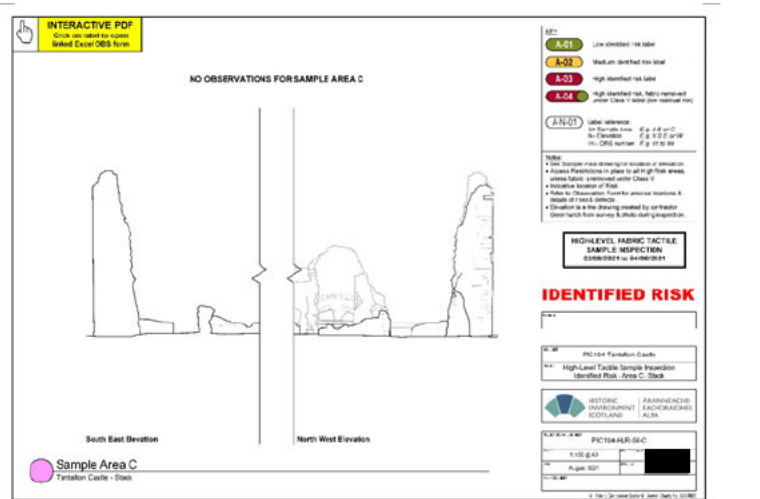
**Sample Area B**  
Tantallon Castle - Gatehouse - Internal North West & North East Elevations

[PIC164-HLR-SI-B-IntN.pdf](#)



[PIC164-HLR-SI-B-IntS.pdf](#)

Sample Area C

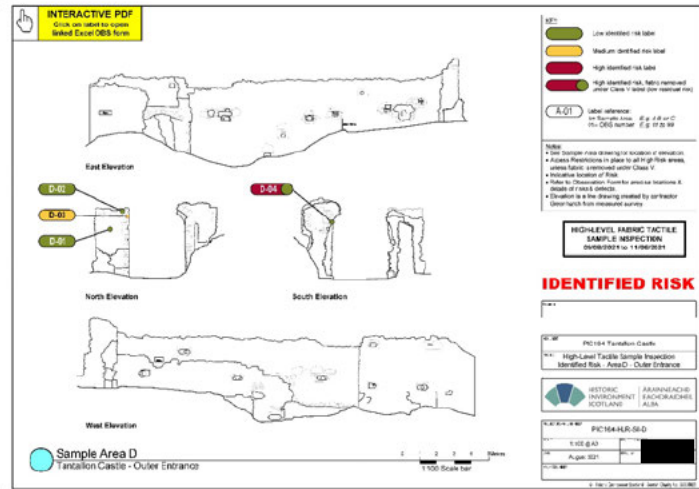


[PIC164-HLR-SI-C.pdf](#)



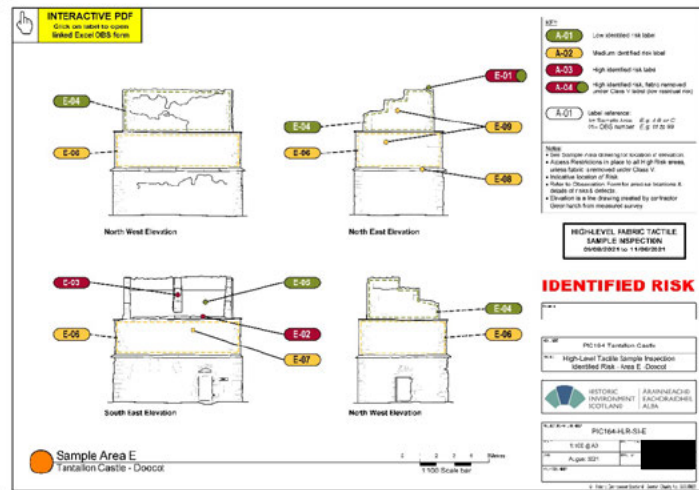


**Sample Area D**



[PIC164-HLR-SI-D.pdf](#)

**Sample Area E**



[PIC164-HLR-SI-E.pdf](#)