

## Audio cassette condition assessment

See Appendix D1.2b

### Step 1. Record tracking information for the condition assessment



Appendix D1.2b: Audio Cassette Condition Report

Tape ID: \_\_\_\_\_

Assessment Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Locator #: \_\_\_\_\_

Digi Tech: \_\_\_\_\_

<b>Final Recommendations</b> <input type="checkbox"/> Digitization <input type="checkbox"/> Heightened Monitoring <input type="checkbox"/> Set aside for special processing <input type="checkbox"/> Remove damaged section <input type="checkbox"/> Replace/Reattach foam pad <input type="checkbox"/> Replace Shell <input type="checkbox"/> Playback assessment <input type="checkbox"/> Other: _____ <input type="checkbox"/> Do not digitize	Recommendation Notes:															
<b>Cassette Case</b> Case Type: Plastic, Paper board, other: _____ Is there hub support? Yes / No _____ Is the case broken or damaged? Yes / No _____ Cassette Case Label: _____ Date Recorded: _____ Primary Participants: _____ Label Summary: _____																
<b>Audio Cassette</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Type</td> <td style="width: 25%;">Type I</td> <td style="width: 25%;">Type II</td> <td style="width: 25%;">Type III</td> <td style="width: 25%;">Type IV</td> </tr> <tr> <td>Manufacturer / Model:</td> <td colspan="4">_____</td> </tr> <tr> <td>Run Time:</td> <td colspan="4">_____</td> </tr> </table>		Type	Type I	Type II	Type III	Type IV	Manufacturer / Model:	_____				Run Time:	_____			
Type	Type I	Type II	Type III	Type IV												
Manufacturer / Model:	_____															
Run Time:	_____															

Enter the following information on the corresponding box on the report

Tape ID: Use assigned cassette numbering sequence or existing ID number [as supplied by your project manager].

Assessment Date: Date when the condition assessment was carried out.

Project Name: Name of the project or collection the tape is a part of.

Locator: The container number, shelf number, or other information required to identify the location of the tape.

Digi Tech: Name of the individual who is conducting the condition assessment.

**NOTE:** The “Final Recommendations” section is to be completed last (in Step 11).

### Step 2. Cassette Case / Examine the cassette case

Record information regarding material type and damage.



Appendix D1.2b: Audio Cassette Condition Report

Tape ID: \_\_\_\_\_

Assessment Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Locator #: \_\_\_\_\_

Digi Tech: \_\_\_\_\_

<b>Final Recommendations</b> <input type="checkbox"/> Digitization <input type="checkbox"/> Heightened Monitoring <input type="checkbox"/> Set aside for special processing <input type="checkbox"/> Remove damaged section <input type="checkbox"/> Replace/Reattach foam pad <input type="checkbox"/> Replace Shell <input type="checkbox"/> Playback assessment <input type="checkbox"/> Other: _____ <input type="checkbox"/> Do not digitize	Recommendation Notes:															
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Type	Type I	Type II	Type III	Type IV												
Manufacturer / Model:	_____															
Run Time:	_____															

- Check to ensure that the tape is in the correct case. If not, set the case aside and note it in the condition assessment as the correct tape might appear later in the collection.
- If a tape is in a damaged case or without a case, the tape should be rehoused. If the original case has labeling information on it, make note of this information and retain the case. In addition, you may want to take photocopies or pictures of the labels and attach them to the condition assessment for future reference.

Case Type: Indicate the material that the case is made out of. For example, is it a paper sleeve or a plastic case?

Is there hub support?: Indicate if the case provides hub support. Hub support prevents wheels from turning over time and damaging the magnetic tape.

Broken or Damaged Case: Indicate if the case is damaged in any way such as if it is warped or cracked.

### Step 3. Cassette Case Label / Record information found on the cassette case label

Before entering information on the Condition report review what type of information is required with the project manager.



Appendix D1.2b: Audio Cassette Condition Report

Tape ID: \_\_\_\_\_  
 Assessment Date: \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 Locator #: \_\_\_\_\_  
 Digi Tech: \_\_\_\_\_

Final Recommendations		Recommendation Notes:
<input type="checkbox"/> Digitization <input type="checkbox"/> Heightened Monitoring <input type="checkbox"/> Set aside for special processing <input type="checkbox"/> Remove damaged section <input type="checkbox"/> Replace/Reattach foam pad <input type="checkbox"/> Replace Shell <input type="checkbox"/> Playback assessment <input type="checkbox"/> Other: _____ <input type="checkbox"/> Do not digitize		

Cassette Case	
Case Type: Plastic, Paper board, other:	
Is there hub support? Yes / No	
Is the case broken or damaged? Yes / No	
Cassette Case Label	
Date Recorded:	
Primary Participants:	
Label Summary:	

Audio Cassette				
Type Type	Type I	Type II	Type III	Type IV
Manufacturer / Model:				
Run Time:				

- Decide if labels will be photographed or photocopied
- Leave fields blank if information is not known
- If there is information about the tape in associated records that should be recorded on the report, a standard approach is to put the information in square brackets to indicate that it is not from the tape / tape label.

**Date Recorded:** The date the cassette was recorded according to the cassette case label. YYYY-MM-DD format.

**Primary Participants:** The primary participants involved in the recording of the cassette according to the cassette case label.

**Project Information:** Include any label information on the recording project of the contents on the box, if there was one.

**Label Summary:** Summarize what can be found on the cassette case's label(s). Include any inserts found in the case, and how many of these labels and/or inserts there are for future reference. You may also want to include here any information found on the cassette shell.

#### Step 4. Determine Cassette Specifications



Appendix D1.2b: Audio Cassette Condition Report

Tape ID: \_\_\_\_\_  
 Assessment Date: \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 Locator #: \_\_\_\_\_  
 Digi Tech: \_\_\_\_\_

Final Recommendations		Recommendation Notes:
<input type="checkbox"/> Digitization <input type="checkbox"/> Heightened Monitoring <input type="checkbox"/> Set aside for special processing <input type="checkbox"/> Remove damaged section <input type="checkbox"/> Replace/Reattach foam pad <input type="checkbox"/> Replace Shell <input type="checkbox"/> Playback assessment <input type="checkbox"/> Other: _____ <input type="checkbox"/> Do not digitize		

Cassette Case	
Case Type: Plastic, Paper board, other:	
Is there hub support? Yes / No	
Is the case broken or damaged? Yes / No	
Cassette Case Label	
Date Recorded:	
Primary Participants:	
Label Summary:	

Audio Cassette				
Type Type	Type I	Type II	Type III	Type IV
Manufacturer / Model:				
Run Time:				

**Tape Type:** Circle the appropriate tape type:



From the top Types I, II, III, and a Tape IV with a write protection tabs removed to prevent recording over the contents.

**Manufacturer / Model:** The cassette manufacturer and/or model according to the cassette shell.

**Run Time:** The run time of the tape. The most common of which include: C46 (23 min. per side), C60 (30 min. per side), C90 (45 min. per side), and C120 (60 min. per side).

**Noise Reduction:** Circle whether or not noise reduction was used. The only way to determine if noise reduction was used is to examine the labels and see if anyone documented that noise reduction was enabled at the time of recording. Otherwise, circle “no.”

**Step 5. Look for Biological Contamination**

<b>Biological Contamination:</b> Mould: Yes / No Pest: Yes / No Other: Yes / No	Description of Contamination:
Odour: Yes / No	Description of Odour:
Liquid Contamination: Yes / No	Description of Contamination:
<b>Particulate Contamination:</b> <input type="checkbox"/> Foreign Objects <input type="checkbox"/> Dust <input type="checkbox"/> Particles <input type="checkbox"/> Oxide Flaking <input type="checkbox"/> Other: _____	Contamination Description:
Shell Damage: Yes / No	Damage Description:
<b>Tape Deformation:</b> <input type="checkbox"/> Cinching <input type="checkbox"/> Cupping <input type="checkbox"/> Creases <input type="checkbox"/> Edge Damage <input type="checkbox"/> Stretching <input type="checkbox"/> Breakage <input type="checkbox"/> Gapping or Windowing <input type="checkbox"/> Other	Description of Deformation:

Examine the cassette for biological contamination and circle the appropriate box and describe the contamination.

- For mould, examine the inside of the cassette case and the edges of the tape. Mould can be black, brown, or mustard-coloured, and has fuzziness and hair-like growths.<sup>1</sup>
- Look for sightings of the pests, droppings, urine stains, tracks, and gnawing damage.

If pests or mould is discovered, immediately quarantine the media by sealing it in a plastic bag and set it aside for special processing. View the special processing guide provided with this toolkit for more information.

**Step 6. Smell Test / Test the media for chemical breakdown by smelling the media**

**IMPORTANT:** Do **NOT** smell the media until you have examined it for mould contamination and confirmed that it is not present.

Open the cassette case and hold it slightly away from your nose. Do not breathe in deeply, but instead waft the smell towards your nose by making quick fanning gestures with your hand.<sup>2</sup> If the tape has a waxy, dirty socks, or pungent odour the chemical breakdown has likely occurred.<sup>3</sup> In this case, make the recommendation (see Step 11) of **quarantined storage and Heightened Monitoring** during digitization. Circle Yes / No and describe smell.

**Step 7: Liquid Contamination / Examine the tape for signs of liquid contamination**

Note signs of liquid contamination including stains, cassette shell discolouration, or a curling label. If exposed to moisture media would be at a heightened risk for damage such as hydrolysis.

If you discover liquid contamination then make the **recommendation of Heightened Monitoring** during digitization and continue with the Condition Assessment (see Step 11).

<b>Biological Contamination:</b> Mould: Yes / No Pest: Yes / No Other: Yes / No	Description of Contamination:
Odour: Yes / No	Description of Odour:
Liquid Contamination: Yes / No	Description of Contamination:
<b>Particulate Contamination:</b> <input type="checkbox"/> Foreign Objects <input type="checkbox"/> Dust <input type="checkbox"/> Particles <input type="checkbox"/> Oxide Flaking <input type="checkbox"/> Other: _____	Contamination Description:
Shell Damage: Yes / No	Damage Description:
<b>Tape Deformation:</b> <input type="checkbox"/> Cinching <input type="checkbox"/> Cupping <input type="checkbox"/> Creases <input type="checkbox"/> Edge Damage <input type="checkbox"/> Stretching <input type="checkbox"/> Breakage <input type="checkbox"/> Gapping or Windowing <input type="checkbox"/> Other	Description of Deformation:

<sup>1</sup> New York University (NYU), “ViPIRS Compact Cassette Survey Instructions,” *Visual & Playback Inspection Rating System*. Accessed November 17, 2011, <http://library.nyu.edu/preservation/movingimage/files/ViPIRS%20Manual%20compact%20cassette.doc>

<sup>2</sup> New York University (NYU), “ViPIRS Compact Cassette Survey Instructions,” *Visual & Playback Inspection Rating System*. Accessed November 17, 2011, <http://library.nyu.edu/preservation/movingimage/files/ViPIRS%20Manual%20compact%20cassette.doc>

<sup>3</sup> Ibid.

Biological Contamination: Mould: Yes / No Pest: Yes / No Other: Yes / No	Description of Contamination:
Odour: Yes / No	Description of Odour:
Liquid Contamination: Yes / No	Description of Contamination:
Particulate Contamination: <input type="checkbox"/> Foreign Objects <input type="checkbox"/> Dust <input type="checkbox"/> Particles <input type="checkbox"/> Oxide Flaking <input type="checkbox"/> Other: _____	Contamination Description:
Shell Damage: Yes / No	Damage Description:
Tape Deformation: <input type="checkbox"/> Cinching <input type="checkbox"/> Cupping <input type="checkbox"/> Creases <input type="checkbox"/> Edge Damage <input type="checkbox"/> Stretching <input type="checkbox"/> Breakage <input type="checkbox"/> Gapping or Windowing <input type="checkbox"/> Other	Description of Deformation:

continue the condition assessment

### Step 9. Cassette Shell / Examine the cassette shell for damage

The shell is the plastic covering of the tape. Check for the following signs of damage:

- Cracked shell
- Cracked or missing cassette window
- Detached, off center, loose, or missing pressure pad.

Circle Yes / No. Make note of the damage and recommend either shell replacement or foam pad replacement based on type of damage (Step 11) .

Biological Contamination: Mould: Yes / No Pest: Yes / No Other: Yes / No	Description of Contamination:
Odour: Yes / No	Description of Odour:
Liquid Contamination: Yes / No	Description of Contamination:
Particulate Contamination: <input type="checkbox"/> Foreign Objects <input type="checkbox"/> Dust <input type="checkbox"/> Particles <input type="checkbox"/> Oxide Flaking <input type="checkbox"/> Other: _____	Contamination Description:
Shell Damage: Yes / No	Damage Description:
Tape Deformation: <input type="checkbox"/> Cinching <input type="checkbox"/> Cupping <input type="checkbox"/> Creases <input type="checkbox"/> Edge Damage <input type="checkbox"/> Stretching <input type="checkbox"/> Breakage <input type="checkbox"/> Gapping or Windowing <input type="checkbox"/> Other	Description of Deformation:

### Step 10. Tape Deformation / Examine the cassette for signs of tape deformation

Biological Contamination: Mould: Yes / No Pest: Yes / No Other: Yes / No	Description of Contamination:
Odour: Yes / No	Description of Odour:
Liquid Contamination: Yes / No	Description of Contamination:
Particulate Contamination: <input type="checkbox"/> Foreign Objects <input type="checkbox"/> Dust <input type="checkbox"/> Particles <input type="checkbox"/> Oxide Flaking <input type="checkbox"/> Other: _____	Contamination Description:
Shell Damage: Yes / No	Damage Description:
Tape Deformation: <input type="checkbox"/> Cinching <input type="checkbox"/> Cupping <input type="checkbox"/> Creases <input type="checkbox"/> Edge Damage <input type="checkbox"/> Stretching <input type="checkbox"/> Breakage <input type="checkbox"/> Gapping or Windowing <input type="checkbox"/> Other	Description of Deformation:

Check the appropriate box for the following conditions where appropriate and describe deformation.

**Cinching:** A section of the tape has wrinkled or folded in on itself “causing buckling and in severe cases can give the appearance of ‘accordion-like’ creases”<sup>1</sup>.

**Cupping:** The tape is curved in a u-shape.

**Creases:** There are creases in the tape.

**Edge damage:** The top or bottom edge of the magnetic tape is distorted or damaged.<sup>1</sup> Not very common in cassettes.

**Stretching:** The tape is stretched either in width and/or length. To check for stretching examine the exposed tape at the bottom of the cassette. Take your index finger and insert the tip of your finger into the right hub of the cassette. Turn the hub counter clockwise and, while winding, continue to check the tape for evidence of stretching.<sup>1</sup>

### Step 8. Particulate Contamination / Examine the tape for particulates

Note any particulates lodged inside the shell including: foreign objects, dust, or other particles. These particulates could affect playback and leave particulates in the machine. Check appropriate box and describe as required.

Check for **Oxide Flaking** - a binder/base adhesion failure by looking for tape particulates at the bottom of the cassette case and inside the shell. If you discover particulates inside the cassette shell then recommend particulate cleaning (special processing guide) and

**Breakage:** A cut, tear or missing portion of the tape.

**Gapping:** There is a major tension loss and the tape strands buckle to the point where gaps or ‘windows’ appear in the tape pack.

**Step 11. Final Recommendations / Based on the condition report and make final recommendations for this cassette.**

Return to the first page of the condition assessment. Fill in the grey box at the top of the form based on the recommendations noted for each step.

**Digitization:** The tape is in good condition and, therefore, ready for digitization.

**Heightened monitoring:** Storage condition (from container assessment or general condition of the tape indicated that heightened monitoring is required.

**Set aside for special processing:** The tape is significantly damaged or contaminated and further steps need to be taken in order to make this tape ready for digitization. Note the damage in the “Recommendation Notes” field. Select from one of the following the type of special processing necessary:

- **Remove damaged section:** There is a damaged section of the tape that needs to be removed.
- **Replace/Reattach foam pad:** The foam pad is missing or loose and needs to be replaced or reattached.
- **Replace Shell:** The cassette shell is damaged and needs to be replaced.
- **Playback assessment:** Unsure of whether or not the tape should be digitized and, therefore, a playback assessment is necessary.
- **Other:** Describe any other action you feel needs to be taken here.
- **Do not digitize:** The tape is too damaged to digitize and special processing is not possible.



Appendix D1.2b: Audio Cassette Condition Report  
Tape ID: \_\_\_\_\_  
Assessment Date: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Locator #: \_\_\_\_\_  
Digi Tech: \_\_\_\_\_

<b>Final Recommendations</b>		Recommendation Notes:		
<input type="checkbox"/> Digitization <input type="checkbox"/> Heightened Monitoring <input type="checkbox"/> Set aside for special processing <ul style="list-style-type: none"><li><input type="checkbox"/> Remove damaged section</li><li><input type="checkbox"/> Replace/Reattach foam pad</li><li><input type="checkbox"/> Replace Shell</li><li><input type="checkbox"/> Playback assessment</li><li><input type="checkbox"/> Other: _____</li><li><input type="checkbox"/> Do not digitize</li></ul>				
<b>Cassette Case</b>				
Case Type: Plastic, Paper board, other: _____				
Is there hub support? Yes / No _____				
Is the case broken or damaged? Yes / No _____				
Cassette Case Label _____				
Date Recorded: _____				
Primary Participants: _____				
Label Summary: _____				
<b>Audio Cassette</b>				
Type Type	Type I	Type II	Type III	Type IV
Manufacturer / Model: _____				
Run Time: _____				

### Condition assessment summary

1. Record tracking information for the condition assessment.
2. Examine the cassette case. Record information regarding material type and damage.
3. Record information found on the cassette case label.
4. Examine the cassette to determine audio cassette specifications.
5. Examine the cassette for biological contamination. **If biological contamination is detected, quarantine the media and set aside for special processing. Do not continue the condition assessment.**
6. Test the media for chemical breakdown by smelling the media.
7. Examine the tape for signs of liquid contamination.
8. Examine the tape for particulates.
9. Examine the cassette shell for damage.
10. Examine the cassette for signs of tape deformation including:
  - Cinching
  - Cupping
  - Creases
  - Edge Damage
  - Stretching
  - Breakage
  - Gapping or “Windowing”
11. Based on the results of the above examination, make final recommendations for this cassette.