

LMHC Pearl Information Sheet # 1

Submissions Containing Multiple Natural and/or Cultured Pearls

Members of the Laboratory Manual Harmonisation Committee (LMHC) and the LMHC Technical Pearl Commission (TPC) have standardised their examination policies and the report wording that they use to describe natural and cultured pearls when strung in strands, necklaces or bunches, set as multiples in jewellery or submitted loose in multiples in variously sized 'lots'.

Pearl culturing techniques have advanced to the point where present test methods and procedures are only appropriate if carefully applied in numerous directions to single pearls or small groups, rather than larger groups, e.g., in strands, necklaces or bunches, set as multiples in jewellery or submitted loose in multiples in variously sized 'lots'. Procedural changes, which greatly increase the data collection requirement and as a consequence the amount of time needed to examine both natural and cultured pearls, are now necessary. The LMHC-TPC has therefore resolved to apply the following reporting solutions.

1)

Strands of "pearls", a jewellery item containing "pearls" or a lot of loose "pearls" (all with >20 pearls involved) are submitted for examination.

The "pearls" are all of a similar appearance and microradiography can determine that **more than 20% are cultured**. However, due to the nature of the stringing or setting many cannot be identified as either natural or cultured unless more time is allowed for additional multidirectional microradiography which would involve the removal of the "pearls" from their strands or settings. In these circumstances laboratories will offer the following;

Immediately reported as: Contains cultured pearls

Without specifying the number of pearls that have been identified as cultured.

Should the client/owner need to know the identification of every pearl, laboratories will offer the following subject to every pearl being removed from the strand or item of jewellery, or more time being allowed for the examination of already loose pearls.

Every pearl will be **individually** examined and

Subsequently reported as: Natural pearl or cultured pearl using known criteria,

e.g., classic natural pearl structures – with the temporary exception of the unusual "white centre" structure that has yet to be evaluated, classic micro-radiographic bead cultured pearl structures, classic non-bead cultured pearl micro-radiographic structures (see Figure 1). Where none of these characteristics prevail, the result would be **undetermined**.



Figure 1: The classic micro-radiographic structure for a natural pearl (left), the classic micro-radiographic structure for a bead cultured pearl (centre), and the classic micro-radiographic structure for a non-bead cultured pearl (right). **Note;** these images are only examples and in each case may vary considerably.

2)

Strands of “pearls”, a jewellery item containing “pearls” or a lot of loose “pearls” (all with >20 pearls involved) are submitted for examination.

The “pearls” are all of a similar appearance and microradiography can determine that **less than 20% are cultured**. However, due to the nature of the stringing or setting many cannot be identified as either natural or cultured unless more time is allowed for additional multidirectional microradiography which would involve the removal of the “pearls” from their strands or settings. In these circumstances laboratories will offer the following;

Immediately reported as: Contains (e.g., 6) cultured pearls at positions (e.g., 2,5,7,22,23, and 40 from the clasp end). Without specifying the remainder.

Should the client/owner need to know the identification of every pearl, laboratories will offer the following subject to every pearl being removed from the strand or item of jewellery, or more time being allowed for the examination of already loose pearls.

Every pearl will be **individually** examined and

Subsequently reported as: natural pearl or cultured pearl using known criteria, e.g., classic natural pearl structures – with the temporary exception of the unusual “white centre” structure that has yet to be evaluated, classic micro-radiographic bead cultured pearl structures, classic non-bead cultured pearl micro-radiographic structures (see Figure 1). Where none of these characteristics prevail, the result would be **undetermined**.

3)

Strands of pearls/bunches/hanks that are **all under 3 mm** in size.

“Pearls” that are generally under 2-3mm in size present unusual identification problems due to their very small size and the volume in which they are normally presented for examination (hanks and necklaces of multiple stands often numbering in the thousands of “pearls”). In addition, a mixture of natural and non-bead cultured pearls are very often present as well as pearls that do not readily reveal any features that may be used for identification. It may therefore not be practical and/or economically viable to identify every pearl as natural or cultured, even if this is the desire of the client.

In these circumstances laboratories will offer the following **report wording**

Reported as: **Seed Pearls** noting that seed pearls may be either natural or cultured.

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