Picture Process Maps (PPM)

Jewelry and Stone Testing

February 2025

PURPOSE AND TABLE OF CONTENTS

PURPOSE

This Picture Process Map (PPM) provides a clear, step-by-step guide on testing gold, silver, and stone for element composition. It ensures that products are accurately identified and sorted into appropriate categories, such as gold, silver, scraps, or fashion jewelry. Following this process will help Team Members improve their efficiency and maintain consistency in handling and processing jewelry items.

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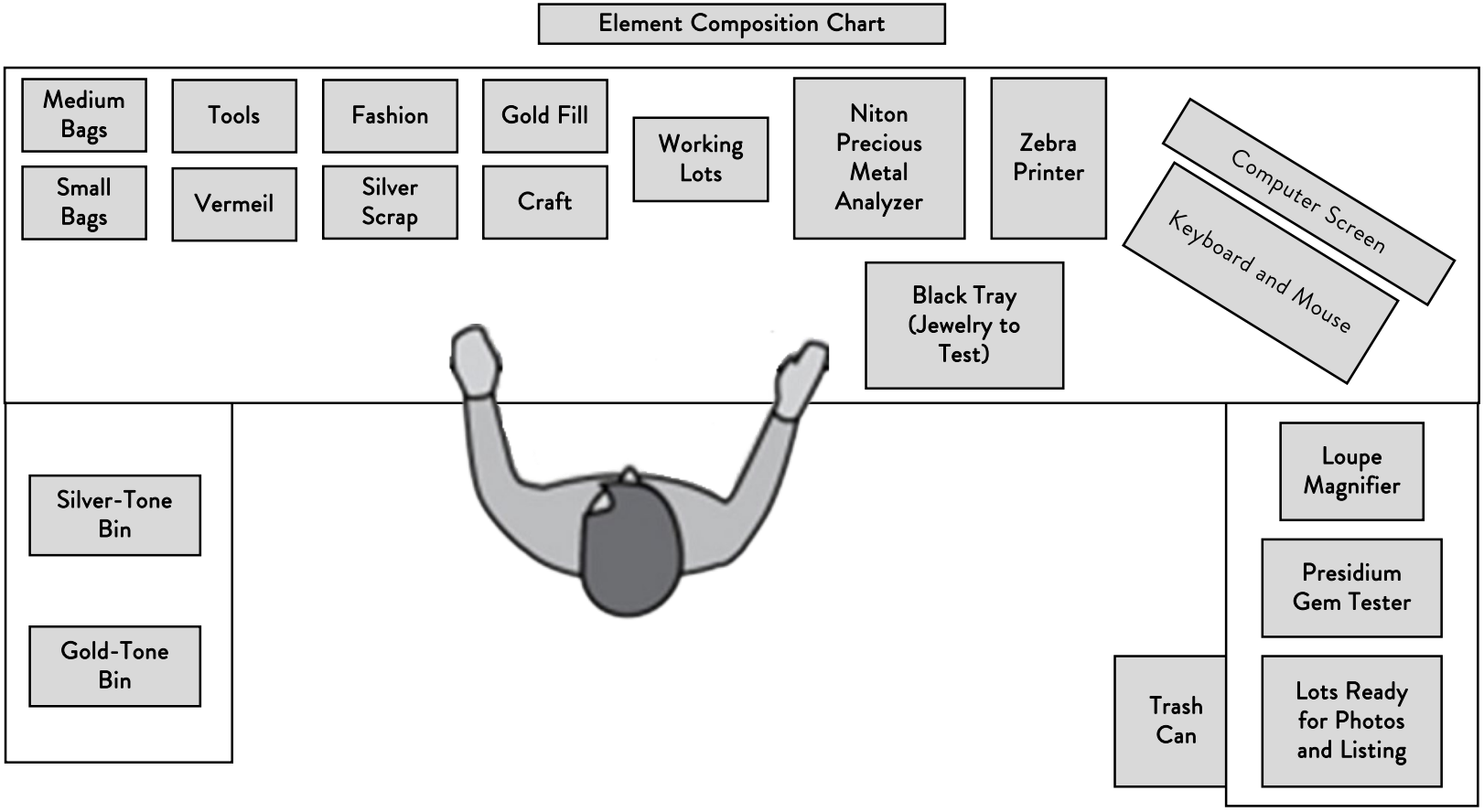
REQUIRED TOOLS AND MATERIALS

You will need the following:

- ❑ Zebra Label Printer
- ❑ Clear small and medium bags
- ❑ Niton DXL Precious Metal Analyzer
- ❑ Presidium Gem Tester II
- ❑ Plastic containers for jewelry lots
- ❑ Black velvet tray
- ❑ Jewelry scraper
- ❑ Clear stackable containers
- ❑ Black marker
- ❑ Loupe magnifier
- ❑ Computer

WORKSTATION

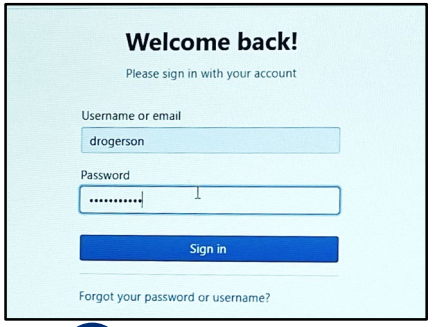
Below is an illustration of the Jewelry tester's workstation. Remember, keeping your workstation clean and organized is essential to a productive workflow.



PRINTING LABELS IN UPRIGHT LABS

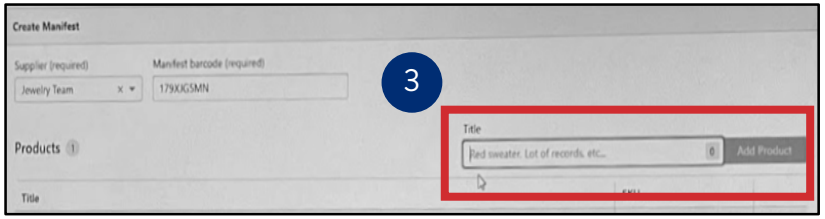
NOTE: You need to print 50 labels at a time throughout your shift. The goal is to make 200 lots per 8-hour shift. However, the number of lots you will produce is dependent on the amount of items our department receives from Retail.

1. Log in to your Upright account using your credentials.

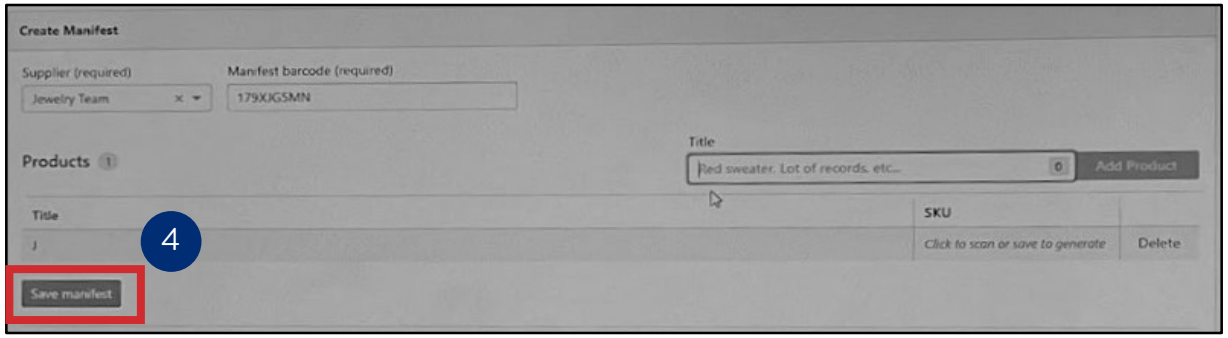


2. Click **Products**.

3. Type **'J'** in the **Title** search bar. Click **Add Product**.

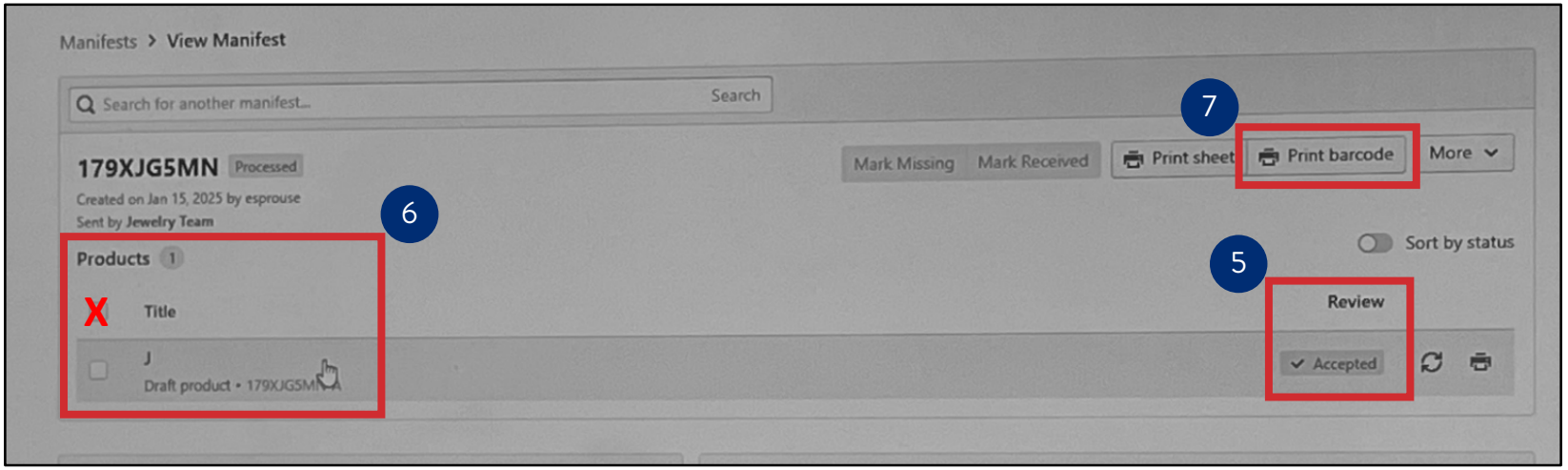


4. The 'J' will appear under the Title column. Click **Save Manifest**.



PRINTING LABELS IN UPRIGHT LABS *(CONT.)*

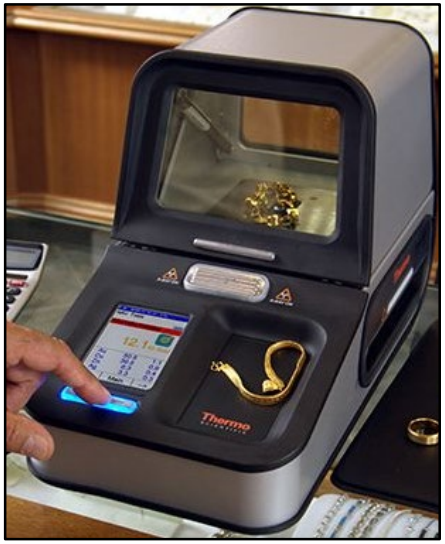
5. Click **Accept.** The **Accepted icon** will appear in the **Review** section.
6. Select the checkbox below **Products**. Click Print barcode.
7. All barcode stickers will be printed from the barcode maker.



JEWELRY TESTING WORKFLOW

1. The Power Sorting Rrunner will bring you products to be tested.
2. Separate the gold and silver products into two bins.
3. Prepare 50 lot bags on the table. The small 4x6 bags are most commonly used.
4. Place the barcode sticker at the top of the bag.
5. Place the products in the black tray.
6. Test each of the products using the Niton machine. Ensure the item is placed in the center of the sensor, and test the chain and clasp separately.

NOTE: If you are sure that it is Fashion, Vermeil, Gold-toned, or Silver-toned, put it in the correct bin without testing. Some signs that you can look for are if the product looks cheap, is made of plastic material, is lighter, or is rusty.



7. Once it is inside the Niton machine, close it and press the blue button.
8. The screen above the blue button will show the element composition of the product.
9. Use the element composition and marking chart (pg. 7) to identify whether the product is gold or silver. If the product contains gemstones, use the Presidium Gem Tester (pg. 8).

JEWELRY TESTING WORKFLOW *(CONT.)*

Below are the element composition and marking charts for gold and silver.

GOLD PURITY LEVELS

US Markings	EU Hallmarks	Element Composition
8K	333	33.3% Au, 66.7% Alloy *
9K	375	37.5% Au
10K	417	41.7% Au
12K	500	50% Au
14K	583	58.33% Au
18K	625	75% Au
20K	833	83.33% Au
22K	916	91.67% Au
24K	999	99.9% Au

Common elements mixed with gold and silver are:

Au- Gold	Fe- Iron	Pd- Palladium
Ag- Silver	Al- Aluminum	Rh- Rhodium
Cu- Copper	Ni- Nickel	Ge- Germanium
Zn- Zinc	Pt- Platinum	Sn- Tin

SILVER PURITY LEVELS

Markings	Element Composition
800	80% Ag
850	85% Ag
925	92.5% Ag
950	95% Ag
999	99.9% ag

*Alloy is a mixture of multiple elements, typically metals, where at least one element is from the periodic table, combined to create a new material.

IMPORTANT: Use your loupe magnifier to identify if the metal has any markings, such as 14K, 18K, 850, 925, 14K GF, or the maker for silver products.

JEWELRY TESTING WORKFLOW *(CONT.)*

Use the Presidium Gem Tester II to determine if the gemstone is real. Press the thermal probe pen on the center of the stone.

NOTE: Search the internet if you are not sure what the stone is. Use the colors as descriptors and select the best match.

JEWELRY TESTING WORKFLOW *(CONT.)*

10. If the product is not gold or silver, put it in one of the following categories:

    - **Fashion Jewelry** — Jewelry made of less expensive materials such as base metals, plastic, or glass.

    - **Silver 800-850 lots to process** — These are for silver products that will be best sold together with other silver products. They are sold as lots.

    - **Gold-fill grab bags** — These are composed of a solid layer of gold bonded to another metal, such as silver or copper.

    - **Craft scrap bags** — These are pieces of fashion jewelry that can be used for crafting.


Fashion


800-850 lots to process


Craft scrap bags


Gold fill grab bags

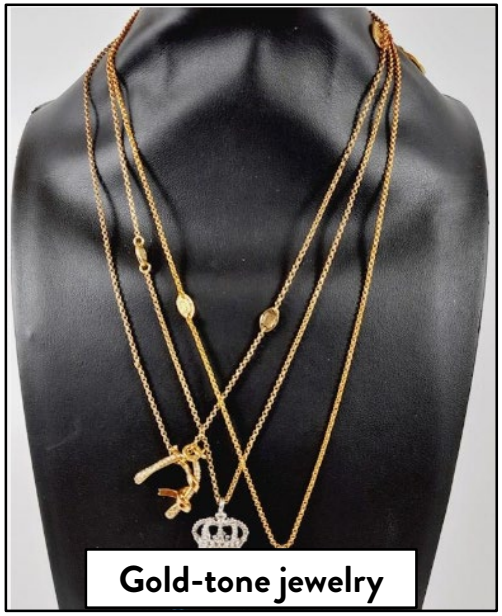
JEWELRY TESTING WORKFLOW *(CONT.)*

- **Silver or Gold scrap bags** — These are broken or incomplete silver or gold products that are sold with other scraps as a lot.
- **Vermeil scrap bags** — A type of jewelry that is made of sterling silver and coated with a layer of gold.
- **Silver-tone jewelry** — Jewelry that is coated with silver or silver plated but is not made of sterling silver.
- **Gold-tone jewelry** — Jewelry that looks like gold and is made from a base metal with a gold finish.


Silver or gold scrap bags


Vermeil scrap bags


Silver-tone jewelry


Gold-tone jewelry

ADDITIONAL GUIDELINES

- It is best practice to prepare the next 50 bags with barcodes before going on your 15-minute or lunch break.
- If the product is in a bag when it comes from Power Sorting, return the item to the same bag after testing.
- When examining the items on the black tray, remove the products you know are Fashion, mixed metals, Gold- or Silver-toned first, testing only what is necessary to maximize your time.

END-OF-SHIFT PROCEDURES

1. Stop testing products by **4:00 PM**.
2. Write the item descriptions on the plastic bags and place them in the photography/listing bins.
3. Begin looking for lots you can make in preparation for the following day.
4. Place the lots in the clear Working Lots bin next to the Niton machine.