# DRUG TESTING BUSINESS SUCCESS


# Product Specific Procedures

## HLTPAT005 Collect specimens for drugs of abuse testing

**AS/NZS4308 & AS4760**

**Certified Drug & Alcohol Screening Officer Course**

MTO GROUP

## Contents

## Introduction

The products and procedures included below have been selected to achieve consistency with student specific requirements. The practical assignments can be completed using the below equipment or other equipment as directed by your Trainer / Assessor.

Procedure items covered in this component of the course are:

- Urine testing procedure & product specific information.
- Oral fluid testing procedure & product specific information.
- Breath alcohol testing.
- Chain of custody for the above.

## 1.0 Oral fluid testing procedures & product instructions.

For the purposes of this certified course the preferred oral fluid drug test product to be used is the Drager DrugCheck 3000.

Every drug testing product will have its own manufacturer instructions or product insert. It is important to review the manufacturers information before using any drug testing product. The manufacturers information provides the foundation for a specific workplace procedure using that product.

Below is the Drug Testing Business Success specific procedure for saliva drug testing. Students are encouraged to review both the manufacturers insert and the procedures which accompany it.

## Oral Fluid (Saliva) Testing Procedure:

| | |
|---|---|
| **EQUIPMENT:** | **Drager DrugCheck 3000** |
| **TASK:** | **DRUG TESTING** |
| **PERFORMED BY:** | **ACCREDITED TECHNICIAN** |
| **WHEN PERFORMED:** | **ON REQUEST** |
| **TIME ALLOCATED PER TEST:** | **10 - 15 MINUTES** |

- Protective (latex) gloves **must be** worn throughout the entire drug testing process. All oral specimens should be handled as potentially infectious so effective handling and disposal methods should be established.
- Drager DrugCheck 3000 test devices should be stored at room temperature of between 4 and 25 Celsius. **Do not freeze.** It is important to maintain this temperature range when transporting devices to and from test sites and whilst onsite. Do not open test pouch until test is to be performed.
- Do not use the test device beyond the expiration date indicated on the kit. Test device kits **must not** be used if the package is ripped or torn. Expired or torn kit/s should be returned to your Operations Manager.
- Prepare a waste disposal bag.
- Greet and explain general testing procedure to the test subject.
- Complete all relevant details on the test record form.Photographic identification of each test subject is desirable but not mandatory. In some cases it may be necessary for the site contact to identify each test subject.
- Should a subject refuse to sign their consent to the collection and analysis of a saliva sample you should advise them of their obligations under their company's AOD policy. You **must not** commence the testing process unless a consent signature is obtained. The client representative (contact) **must be** advised of the employee's refusal to undertake the test.
- It is important that you ensure that each test subject has not consumed any food or drink, or tobacco product in the **10 minutes** prior to testing. Should this have occurred you **must** wait 10 minutes before commencing test.
- Remove the test device from the sealed pouch.
- Carefully separate the saliva collector from the test kit and display it to the test subject.
- Explain to the subject how to actively swab the collector inside the mouth to provide a sample and point out the pink adequacy indicator. (A demonstration of how to do this is recommended.)
- Hand the collector to the test subject and ask them to commence sample collection.
- Maintain observation of the collection during this time and correct the technique being used if required (no chewing, sucking or rough movements of the collector).
- Approximately 15 seconds later ask the test subject to display the collector and confirm whether the pink adequcy indicator is now white. If not yet white, continue collection for another 5-10 seconds or until pink line is no longer visible.
- Once the sample has been collected successfully extend the test kit towards the test subject and ask them to place the collector into the funnel/tube.
- Now proceed with next steps as required for the Drager DrugCheck3000. Refer to the manufacturers instructions and/or proceed as below:

a) Push the collector firmly down into the test kit funnel until it breaks into the internal ampule. A twisting motion whilst pushing down may assist.

b) Ensure the collector is fully inserted then observe the pink indicator ring below. Commence shaking the test kit for approximately 15 seconds and then check whether the pink colouring has largely disappeared, turned white. (A small amount of pink remaining after 15 seconds will not affect the result).

c) Place the test kit on an even surface and commence the "incubation period".

   i. 60 seconds further wait time = "sensitive" mode for maximum detection of THC (15ng/mL).

   ii. 10 seconds further wait time = "fast" mode for normal detection of THC (25ng/mL).

d) Drug Testing Business Success recommends technicians use "fast" mode due to the capability of the product and reduced risk of THC detection being below reportable levels at the laboratory when samples are confirmed.

e) Once the desired timeframe has elapsed break off the blue plastic seal to expose the results window.

f) Press the test kit forcefully downwards to the limit stop then tap the base of the kit onto the table surface gently. Saliva will shortly be visible flowing up the test strips. (If the saliva does not flow in one or both strips tap the kit again onto the table surface to remove potential obstructions / air pockets). **Timing of the test commences now**.

- Monitor progress of the saliva along the test strips and ensure the control lines are indicated.
- Read the results at **5 minutes** or in the case of a negative result as soon as all test lines and control lines are visible.
- **Do not read results** after a period of 10 minutes has elapsed.
- **Technicians are reminded that a non-negative / presumptive positive result requires total absence of a test line. An extremely faint or broken line is still negative and is not indicative of recent use of drugs.**

**INTERPRETING TEST RESULTS**

**Negative Results:**

For each drug test line - red coloured lines should be observed. One line will appear at control region (C). A line will also appear against the specific drug abbreviation (e.g. COC, MET, AMP, THC and OPI plus BZO if 6 panel kit used) in the test region.

**Do not compare** the colour intensity of one line to another. A **faint** red line for a specific test is still considered **a negative result.**

**Presumptive Positive Results:**

When the control line is visible in control region (C) and a line **does not** appear against a specific drug abbreviation in the test region the result is deemed a **Presumptive Positive** for that particular drug type.

**Invalid Results:**

Where no line appears in the control (C) region, the **test is invalid** regardless of the results that appear in the test regions. When the test is invalid **repeat the test using a new device.**

**Refer to example images on following pages from the manufacturer's instructions.**

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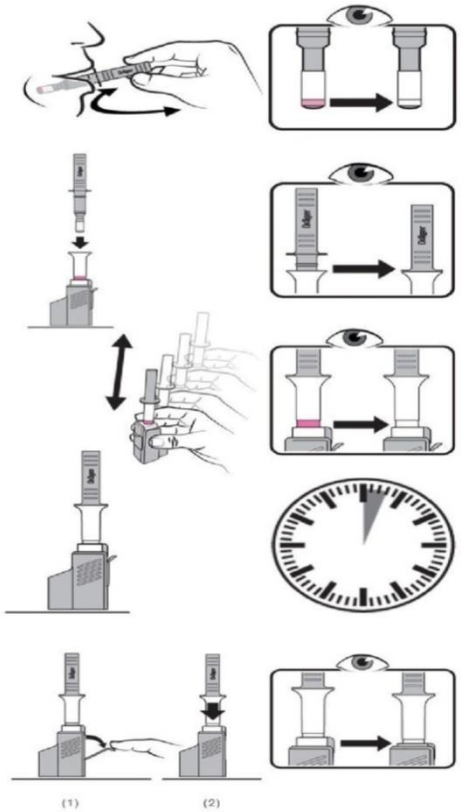
# Manufacturer's Product Instruction – Drager DrugCheck

## Dräger DrugCheck® 3000
## Simple. Safe. Sound.
### Quick start guide

The DräggerDrugcheck® 3000 is a quick and compact oral fluid drug test kit for easy and unambiguous drug detection on the spot. Using the disposable kit, you test people for cocaine, opiates, amphetamine, methamphetamine, and cannabis simultaneously.
This short guide will take you through each step of performing the test.

### Step-By Step Instructions

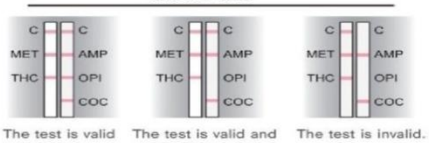
1. Remove the swab from the test cassette and give it to the test person. Have the person move the swab around in their mouth, underneath the tongue and in the cheek pouches for approx. 15 seconds to gather oral fluid. Do not suck or chew on the swab! Do this until the swab's mouthpiece loses its colour.
2. Insert the swab back into the test cassette. Press it hard into the funnel-shaped test opening as far as it will go, in order to break the vial containing the buffer liquid inside the test cassette. There must not be a gap between the swab and the test cassette.
3. Shake the test kit until the red indicator ring at the swab's mouthpiece has lost all its colour.
4. A brief pause is now required to incubate the sample. Place the test kit on a level surface or hold it upright. For maximum detection for THC (sensitive 15ng/mL), it is necessary incubate for 60 seconds. For just a quick detection of THC (fast 25ng/mL), wait 10 seconds. See the manufacturer's instructions for more details on the thresholds in ng/ml for all substances.
5. After the waiting period, break the safety tab and peel it off down-wards completely (fig. 1). Forcefully press down on the sample collector until the top half of the kit reaches the limit stopper as far as it will go (fig. 2). Negative results can be read after the control line and test lines appear. Positive results should be read at 5 minutes from test commencement.




**CONTROL AND TEST LINES**

| Control line (C) | Test line for drug | Result |
|---|---|---|
| No control line | No test line | Invalid test |
| No control line | Test line appears | Invalid test |
| Control line appears | Test line appears | Negative test |
| Control line appears | No test line | Positive test |

**EXAMPLES**



## 2.0 Urine Testing Procedure:

**Preparation of the Test Area**

- Ensure you have a suitable location such as a private room to conduct the test. furniture should include a table or desk and two chairs.
- Bathroom access must be available, ideally in close proximity to the testing room that is selected.
- Prevent dilution or adulteration of samples. Preparation here will include removing access to water sources (use tape or plastic wraps if necessary) and add blue dye to the toilet bowl/cistern.

**Equipment Required**

- Permanent record system (A test record form unless a single document isused for both chain of custody form and test record form)
- Stationery as needed
- An under pad (absorbent mat) is recommended
- Urine test cup (**Wondfo T-cup is provided in your practical kit)**
- Watch or timer
- Gloves for yourself (You may choose to use a fresh pair of gloves for each collection with a new donor)
- One large biohazard bag for disposal

Additionally, for a non-negative/presumptive positive test you will need:

- Chain of custody form
- 2x urine specimen tubes/containers (or 3 if a third is required)
- 1x biohazard bags for the filled specimen containers.
- 2x tamper evident security seals (or 3 if a third is required).
- 1x laboratory specimen box & security seal.
- A chain of custody bag.
- A lockable refrigerator or esky to place the sample in while waiting for courier pick up (or alternatively a secure or supervised location).
- Courier bag or mailbag if required for transport to the laboratory.

**CONDUCTING A URINE DRUG SCREENING TEST–ASSESSMENT PROCEDURE**

Below procedure is indicative of the typical chronological order of events. In practice the exact order of the steps may vary depending upon test kits used, design of the test record form and other factors.

1. Greet the donor and advise they are about to undergo a urine drug test.
2. Confirm identity unequivocally, ideally with photo ID or via a manager/supervisor.
3. Complete the relevant sections of the Test Record Form including donor details.
4. Depending upon the drug policy and procedure you may ask the donor whether they have consumed any prescription or over the counter medications, or illicit drugs in the past several days.
5. Obtain a signed consent. (Should a subject refuse to sign consent and thus undergo a test you may advise them that this action MAY be considered a breach of their employer's AOD policy and some policy/procedures will consider this refusal "positive" result. Continued non co-operation may require you to refer the subject to the Company contact)
6. Prepare to collect the sample by putting on gloves.
7. Check the urine drug test packet for evidence of damage.
8. Record relevant drug test kit details on Test Record Form including batch number and expiry date.
9. Open the drug test package and check the contents also to ensure there is no damage of loss of integrity of the kit.
10. Explain to the donor that they need to provide a urine sample to quantity required as per the indicator line on the cup.
11. Escort donor to the toilet and ensure they wash their hands.
12. Individual privacy should be allowed and you do not have to observe the donor urinating into the cup.
13. Retrieve the urine test cup from the donor which now contains the specimen.
14. When the donor returns sit them down and place the test cup on the under pad.
15. Activate the urine test cup to commence flow of urine into the testing chamber.
16. Check the temperature indicator which for a urine sample should be between 33-38 degrees Celsius. If temperature suggests the sample may have been adulterated or substituted, ask the donor to provide another sample. Keep the original sample. If the new sample provided is still suspected of being adulterated or substituted proceed to send both samples to the laboratory for confirmation.

17. Check the adulterants are within the normal range. If not, ask the donor to provide another sample. Keep the original sample. If the new sample provided is still abnormal proceed to send both samples to the laboratory for confirmation.
18. For a valid test the urine must fully absorb along the test strips and a line should appear in the “C” area to indicate the control level has been reached.
19. If the Control line is not evident then the test is invalid and should be conducted again using a new Wondfo T-cup drug test kit and a new specimen collection.
20. Peel off the paper covering the test strips.
21. Wait the time allocated by the manufacturer of the device prior to reading the result from the test strips and note the results on the test record form. In the case of the Wondfo T-cup urine test cup this wait time is 5 minutes.
22. If all results are negative advice the donor the test is complete and they may continue with their duties.
23. If any drug type produces a non-negative/presumptive positive then the chain of custody process should be commenced with specimens being prepared for transport to a laboratory for confirmation testing.
24. For negative test results empty the urine specimen into the toilet and dispose of the cup in the biohazard disposal bag.
25. Under no circumstance should a urine cup be re-used.

## Manufacturer’s Product Instructions – Wondfo T-cup

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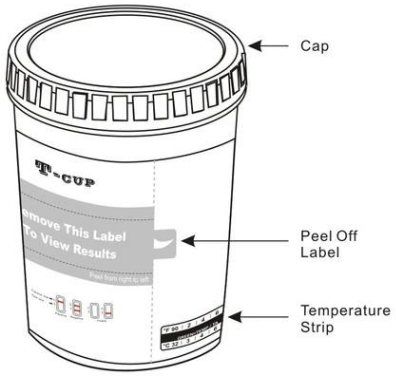
# Procedure Card

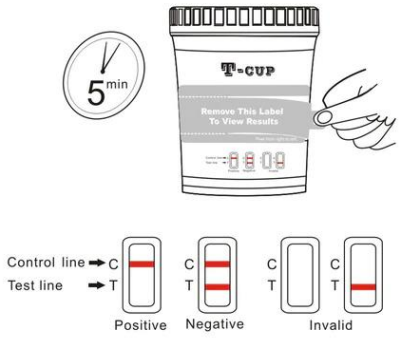



**1** The donors collect his/her urine samples.

*Note:*
*The minimum sample volume is 25mL (See the Minimum Fill Volume scale on the cup label).*


**2** Recap the cup and place the test T-cup on a flat surface,observing the temperature strip attached on the cup.


**3** Wait for 5 minutes, remove the label and read the result.
**Do not read results after 5 minutes.**



## PRINCIPLE

**DRUGS-OF-ABUSE TESTS:**

Wondfo One Step Multi-Drug Urine T-Cup (+Adulteration) is a competitive immunoassay that is used to screen for the presence of drugs of abuse in urine. It is chromatographic absorbent device in which drugs or drug metabolites in a sample competitively combined to a limited number of antibody-dye conjugate binding sites.

When the absorbent end of the test device is immersed into the urine sample, the urine is absorbed into the device by capillary action, mixes with the antibody-dye conjugate, and flows across the pre-coated membrane.

When sample drug level is at or above the detection limit of the test, the drug in the sample binds to the antibody-dye conjugate preventing the antibody-dye conjugate from binding to the drug-protein pre-coated in the test region (T). This prevents the development of a distinct colored band in the test region indicating a potentially positive result.

When sample drug level is zero or below the detection limit of the test, antibody-dye conjugate binds to the drug-protein pre-coated in the test region (T) of the device. This produces a colored test line that, regardless of its intensity, indicates a negative result.

To serve as a procedure control, a colored line will appear on the control region (C), if the test has been performed properly.

**ADULTERATION CONTROL:**

In general, all seven tests are based on the chemical reactions of the indicator reagents on the pads with components in the urine sample effecting color changes. Results are obtained by comparing the color on each of the test pads with the corresponding pad on the color chart

**Creatinine**: Testing for sample dilution. In this assay, creatinine reacts with a creatinine indicator in an alkaline condition to form a purplish-brown color complex. The concentration of creatinine is directly proportional to the color intensity of the test pad.

**Glutaraldehyde**: Testing for the presence of exogenous aldehyde. In this assay, the aldehyde group on the glutaraldehyde reacts with an indicator to form a pink/purple color complex.

**Nitrite**: Testing for the presence of exogenous nitrite. Nitrite reacts with an aromatic amine to form a diazonium compound in an acid medium. The diazonium compound in turn couples with an indicator to produce a pink-red/purple color.

**Oxidants**: Testing for presence of oxidizing reagents. In this reaction, a color indicator reacts with bleach to forms a blue-green color complex, and with other oxidizing compounds such as hydrogen peroxide, ferricyanide, persulfate, or pyridinium chloro- chromate to form a blue color complex. Other colors may indicate the presence of other oxidants.

**pH**: Testing for the presence of acidic or alkaline adulterant. This test is based on the well-known double pH indicator method that gives distinguishable colors over wide pH range. The colors range from orange (low pH) to yellow and green to blue (high pH).

**Specific Gravity**: Testing for sample dilution. This test is based on the apparent pKa change of certain pretreated polyelectrolytes in relation to the ionic concentration. In the presence of an indicator, the colors range from dark blue or blue-green in urine of low ionic concentration to green and yellow in urine of higher ionic concentration.

**Pyridium Chlorochromate:** Testing for the presence of chromate in urine. In this test, the presence of chromate forms a blue-green color complex.

## WARNINGS AND PRECAUTIONS

- This kit is for external use only. Do not swallow.
- All specimens should be treated as biohazards.
- Discard after first use. Each test cannot be used more than once.
- Do not use test kit beyond expiration date.
- Do not use the kit if the pouch is punctured or not well sealed.
- Keep out of the reach of children.
- All specimens and used-devices have infectious risks. The disposal process must follow the local infectious disposal law or laboratory rule.

## STORAGE AND STABILITY

1. The test devices should be stored at 4ºC~30ºC.
2. The unopened test devices are stable until the expiration date printed on the package.
3. Keep away from direct sunlight, moisture and heat.
4. The Test Device should be used within 1 hour once opened.
5. **DO NOT FREEZE.**

## MATERIALS

### Materials provided

1. Individual sealed pouches, each containing:
   - T-cup
   - Desiccant pouch
   (The desiccant is for storage purposes only, and is not used in the test procedures)
2. Leaflet with instructions for use

### Materials Required But Not Provided

- Timer
- External controls

## SPECIMEN COLLECTION AND PREPARATION

- Wash your hands with soap and warm water. Open the sealed pouch and remove the urine test T-cup.
- The donors collect their urine samples. Open the cap of the cup and urinate directly into the test cup. The sample volume should be higher than the minimum urine level. Re-cap the cup.

## TEST PROCEDURE

Test must be in room temperature (10ºC to 30ºC).

1. After the urine has been collected, re-cap the cup and place the test T-cup on a flat surface.
2. Peel the label from right to left and read the result within 5 minutes. **Do not read results after 10 minutes**.

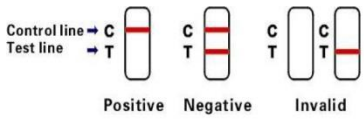
## INTERPRATATION OF RESULTS

**Positive (+)**
A rose-pink band is visible in each control region. No color band appears in the appropriate test region. It indicates a positive result for the corresponding drug of that specific test zone.

**Negative (-)**
A rose-pink band is visible in each control region and the appropriate test region. It indicates that the concentration of the corresponding drug of that specific test zone is zero or below the detection limit of the test.

**Invalid**
No visible band at all or there is a visible band only in the test region but not in the control region. Another test should be run to re-evaluate the specimen. Please contact the distributor or the store, where you bought the product, with the lot number.

**Note:** There is no meaning with line color intensity or width.




## QUALITY CONTROL

Though there is an internal procedural control line in the control region of test device, the use of external controls is strongly recommended as good laboratory testing practice to confirm the test procedure and to verify proper test performance. Positive and negative controls should give the expected results. When testing the positive and negative controls, the same assay procedure should be adopted.

## LIMITATIONS

1. This test procedure, precautions and interpretation of results for this test must be followed when testing.
2. This test has been developed for testing urine samples only. The performance of this test using other specimens has not been substantiated.
3. Adulterated urine samples may produce erroneous results. Strong oxidizing agents such as bleach (hypochlorite) can oxidize drug analyses. If a sample is suspected of being adulterated, obtain a new sample.
4 This test is a qualitative screening assay. It is not designed to determine the quantitative concentration of drugs or the level of intoxication.
5. It is possible that technical or procedural errors, as well as other interfering substances in the urine specimen may cause erroneous results.
6. A negative result may not necessarily indicate drug-free urine. Negative results can be obtained when drug is present but below the cut-off level of the test.
7. The test result does not distinguish between drugs of abuse and certain medicines.
8. A positive result might be obtained from certain foods or food supplements.
9. Do not mix reagent of different lots.

## PERFORMANCE CHARACTERISTICS

**ADULTERATION CONTROL:**

***Expected Results***

**Creatinine**: Daily creatinine excretion, related to muscle mass of the human body, is usually constant. The DOT guideline states that urine specimens with creatinine levels of less than 20 mg/dl are indications of adulteration. Although these ranges are affected by age, sex, diet, muscle mass and local population distribution[2], sample with creatinine level of lower than 20 mg/dl should be considered adulterated.

**Glutaraldehyde:** Glutaraldehyde is not a natural component of human urine and it should not be present in normal urine. The presence of glutaraldehyde in the urine sample indicates the possibility of adulteration. However, false positive may result when ketone bodies are presence in urine. Ketone bodies may appear in urine when a person is in ketoacidosis, starvation or other metabolic abnormalities.

**Nitrite**: Although nitrite is not a normal component of urine, nitrite levels

of up to 3.6 mg/dl may be found in some urine specimens due to urinary tract infections, bacterial contamination or improper storage. In this adulteration control, nitrite level above 7.5 mg/dl is considered abnormal.

**Oxidants**: The presence of Bleach and other oxidizing reagents in the urine is indicative of adulteration since oxidizing reagents are not normal constituents of urine. Other oxidizing reagents include Hydrogen Peroxide, Ferricyanide, Persulfate, Pyridinium Chlorochromate…etc.

**pH**: Normal urine pH ranges from 4.5 to 8.0. Values below pH 4.0 or above pH 9.0 are indicative of adulteration.

**Specific Gravity**: Random urine may vary in specific gravity from 1.003 - 1.030. Normal adults with normal diets and normal fluid intake will have an average urine specific gravity of 1.016 - 1.022. Elevated urine specific gravity value may be obtained in the presence of moderate quantities of protein. DOT guidelines state that a urine specimen with specific gravity level of less than 1.003 is an indication of adulteration. Specific gravity and creatinine values should be considered together to provide a better picture of whether the sample is adulterated.

**ALCOHOL TEST:**

**Negative (-)**
Almost no color change on test pad in comparison with the back-ground of the provided colored chart. The
negative result indicates that the concentration of ethyl alcohol in urine is less than 0.04%.

**Preliminary positive (+)**
A distinct color developed all over the pad. The positive result indicates that the concentration of ethyl alcohol
in urine is 0.04% or higher.

**Approximate Alcohol Concentration**

| 0.0mg/100ml | 40 mg/100ml (0.04%) | 80mg/100ml (0.08%) | 200mg/100ml (0.2%) |
|---|---|---|---|

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## Analytical Specificity

To test the specificity of the test, the test device was used to test various drugs, drug metabolites and other components that are likely to be present in urine, All the components were added to drug-free normal human urine. These concentrations (ng/mL) below also represent the limits of detection for the specified drugs or metabolites.

| **Amphetamine(AMP)** | **ng/mL** |
|---|---|
| d-Amphetamine | 1,000 |
| d.l-Amphetamine | 3,000 |
| l-Amphetamine | 50,000 |
| (+/-) 3,4-methylenedioxyamphetamine | 5,000 |
| Phentermine | 3,000 |
| | |
| **Barbiturates(BAR)** | **ng/mL** |
| Secobarbital | 300 |
| Amobarbital | 300 |
| Alphenol | 150 |
| Aprobarbital | 200 |
| Butabarbital | 75 |
| Butathal | 100 |
| Butalbital | 2,500 |
| Cyclopentobarbital | 600 |
| Pentobarbital | 300 |
| Phenobarbital | 100 |
| | |
| **Barbiturates(BAR200)** | **ng/mL** |
| Secobarbital | 200 |
| Amobarbital | 200 |
| Alphenol | 100 |
| Aprobarbital | 150 |
| Butabarbital | 50 |
| Butathal | 75 |
| Butalbital | 1,700 |
| Cyclopentobarbital | 400 |
| Pentobarbital | 200 |
| Phenobarbital | 75 |
| | |
| **Benzodiazepines(BZO)** | **ng/mL** |
| Oxazepam | 300 |
| Alprazolam | 200 |
| a-Hydroxyalprazolam | 1,500 |
| Bromazepam | 1,500 |
| Chlordiazepoxide | 1,500 |
| Clonazepam HCl | 800 |
| Clobazam | 100 |
| Clonazepam | 800 |
| Clorazepate dipotassium | 200 |
| Delorazepam | 1,500 |
| Desalkylflurazepam | 400 |
| Diazepam | 200 |
| Estazolam | 2,500 |
| Flunitrazepam | 400 |
| D,L-Lorazepam | 1,500 |
| Midazolam | 12,500 |
| Nitrazepam | 100 |
| Norchlordiazepoxide | 200 |
| Nordiazepam | 400 |
| Temazepam | 100 |
| Trazolam | 2,500 |
| | |
| **Benzodiazepines(BZO100)** | **ng/mL** |
| Oxazepam | 100 |
| Alprazolam | 75 |
| a-Hydroxyalprazolam | 500 |
| Bromazepam | 500 |
| Chlordiazepoxide | 500 |
| Clonazepam HCl | 300 |
| Clobazam | 35 |
| Clonazepam | 300 |
| Clorazepate dipotassium | 75 |
| Delorazepam | 500 |
| Desalkylflurazepam | 150 |
| Diazepam | 75 |
| Estazolam | 800 |
| Flunitrazepam | 150 |
| D,L-Lorazepam | 500 |
| Midazolam | 4200 |
| Nitrazepam | 35 |
| Norchlordiazepoxide | 75 |
| Nordiazepam | 150 |
| Temazepam | 35 |
| Trazolam | 800 |
| | |
| **Cocaine(COC)** | **ng/mL** |
| Benzoylecgonine | 300 |
| Cocaine HCl | 750 |
| Cocaethylene | 12,500 |
| Ecgonine | 32,000 |
| | |
| **Marijuana(THC)** | **ng/mL** |
| 11-nor-∆9-THC-9-COOH | 50 |
| 11-nor-∆8-THC-9-COOH | 30 |
| 11-hydroxy-∆9-Tetrahydrocannabinol | 2,500 |
| ∆8- Tetrahydrocannabinol | 7,500 |
| ∆9- Tetrahydrocannabinol | 10,000 |
| Cannabinol | 10,000 |
| Cannabidiol | 100,000 |
| | |
| **Marijuana(THC25)** | **ng/mL** |
| 11-nor-∆9-THC-9-COOH | 25 |
| 11-nor-∆8-THC-9-COOH | 15 |
| 11-hydroxy-∆9-Tetrahydrocannabinol | 1250 |
| ∆8- Tetrahydrocannabinol | 3750 |
| ∆9- Tetrahydrocannabinol | 5000 |
| Cannabinol | 5000 |
| Cannabidiol | 50000 |
| | |
| **Methamphetamine(MET)** | **ng/mL** |
| D(+)-Methamphetamine | 1000 |
| D-Amphetamine | 50,000 |
| Chloroquine | 50,000 |
| (+/-)-Ephedrine | 50,000 |
| (-)-Methamphetamine | 25,000 |
| (+/-)3,4-methylenedioxumethamphetamine(MDMA) | 2000 |
| b-Phenylethylamine | 50,000 |
| Trimethobenzamide | 10,000 |
| | |
| **Methylenedioxymethamphetamine(MDMA)** | **ng/mL** |
| 3,4-Methylenedioxymethamphetamine HCl(MDMA) | 500 |
| 3,4-Methylenedioxyamphetamine HCl | 3,000 |
| 3,4-Methylenedioxyethylamphetamine | 300 |
| | |
| **Morphine(MOP)** | **ng/mL** |
| Morphine | 300 |
| Codeine | 300 |
| Ethyl Morphine | 300 |
| Hydrocodone | 5,000 |
| Hydromorphone | 5,000 |
| Morphinie-3-b-d-glucuronide | 1,000 |
| Thebaine | 30,000 |

| Methadone(MTD) | ng/mL |
|---|---|
| Methadone | 300 |
| Doxylamine | 50,000 |
| | |
| **Opiate(OPI)** | **ng/mL** |
| Morphine | 2,000 |
| Codeine | 2,000 |
| Ethylmorphine | 5,000 |
| Hydrocodone | 12,500 |
| Hydromorphine | 5,000 |
| Levorphanol | 75,000 |
| s-Monoacetylmorphine | 5,000 |
| Morphine 3-b-D-glucuronide | 2,000 |
| Norcodeine | 12,500 |
| Normorphone | 50,000 |
| Oxycodone | 25,000 |
| Oxymorphine | 25,000 |
| Procaine | 150,000 |
| Thebaine | 100,000 |

## 3.0 Breath testing procedure & equipment

## Breath Testing Procedure:

Refer to product and procedure information in the Alcohol Breath Testing Training Powerpoint

## 4.0 Chain of Custody Procedures

Chain of custody procedures require additional equipment for collection and transport of a sample to a laboratory and a chain of custody form.

## Packaging Oral Fluid Sample for Laboratory Testing:

For the purposes of this certified course the preferred oral fluid drug testing confirmation equipment to be used is Quantisal.

Below is the Drug Testing Business Success specific chain of custody procedure for oral fluid drug testing.

| | |
|---|---|
| **EQUIPMENT:** | **QUANTISAL CONFIRMATION KIT** |
| **TASK:** | **CHAIN OF CUSTODY** |
| **PERFORMED BY:** | **ACCREDITED TECHNICIAN** |
| **WHEN PERFORMED:** | **FOLLOWING NON-NEGATIVE RESULT** |
| **ALLOTED TIME:** | **10-15 MINUTES** |

Once an unconfirmed positive initial test result has occurred the following steps **must** be complied with to ensure the integrity of the test sample.

- **Advise** the nominated Client representative of the unconfirmed positive result briefly and proceed with this procedure (Telephone is preferred and keep it brief. Further discussion can be conducted with the Client representative after Chain of Custody is completed).
- Explain the Chain of Custody process to the test subject. **Do not offer any comments or opinions regarding the test result**.
- DO NOT LEAVE THE TEST SUBJECT UNATTENDED ONCE YOU HAVE COMMENCED THE BELOW PROCEDURE UNTIL IT IS COMPLETE.
- Ensure the subject has not had any food or drink for 10 minutes prior to this collection.
- Open a Quantisal drug confirmation kit containing two collectors, two collection tubes (both containing buffer solution), evidence/biohazard bag, two 'chain of custody' seals, two identifier labels and a white chain of custody bag. Confirmation kits should be maintained at room temperature of between 2 and 25 Celsius.
- Consumables are to be checked to ensure expiry dates are valid. If the consumables are out of date replace with a new kit with a valid expiry date. Expired consumables must be returned to your Operations Manager

- Open both collector packets at the top exposing the collector stems. Request the subject to take hold of both collectors and gently insert the swab pads inside their mouth, below the tongue. Wait until the volume adequacy indicator turns blue on both collectors. This collection process may take an extended period of time in some cases due to nervous test subjects and/or factors affecting saliva production such as recent drug or medication use.
- **The subject must not chew or suck on the collector pads.**
- Once the blue adequacy indicator is observed in each collector, request the subject place each collector, pad first, into the collection tubes containing the buffer solution. Ensure the collector is completely submersed in the solution and replace the caps. These samples will now be referred to as **primary sample A and secondary sample B.**
- The date, time, test record number and subject's date of birth must be noted on the donor identifier labels and placed over existing labels on both the primary and secondary collection tubes.
- Request the subject to date and initial both red security seals and place them over the top of the lids on both collection tubes. This process ensures that the samples cannot be tampered with. Complete each security seal with all required information.
- The Chain of Custody form (form DTBS 006) should now be completed using the State code and the test record number as the subject's identification. The identification number (chain of custody number) on the white colored chain of custody bag must be recorded along with the security seal numbers on the chain of custody form. Request the subject to sign the Chain of Custody form.
- Both collection tubes must now be placed into the front pouch of the evidence/biohazard bag containing the absorbent pad which should now be sealed. The Chain of Custody form can now be placed into the back pouch of the same bag. Photograph the chain of custody form prior to sealing or if duplicate chain of custody booklet is in use ensure one copy is retained.
- The evidence/biohazard bag should now be placed into the white chain of custody bag and sealed in the presence of the subject.
- Remove the label with the identification number from the chain of custody bag and attach to the subject's test record form.
- Using a priority paid mail envelope or courier service the chain of custody bag must be forwarded to a NATA accredited laboratory for confirmation.
- If a chain of custody sample is unable to be sent to the laboratory due to an overnight / weekend initial test the sample MUST be refrigerated.
- All testing perishables must be removed from site when you leave.

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**LABORATORY INORMATION**

**VIC/TAS SAMPLES**

**URGENT**

Racing Analytical Services

Attention: Victoria McCombe

400 Epsom Road

Flemington VIC 3031

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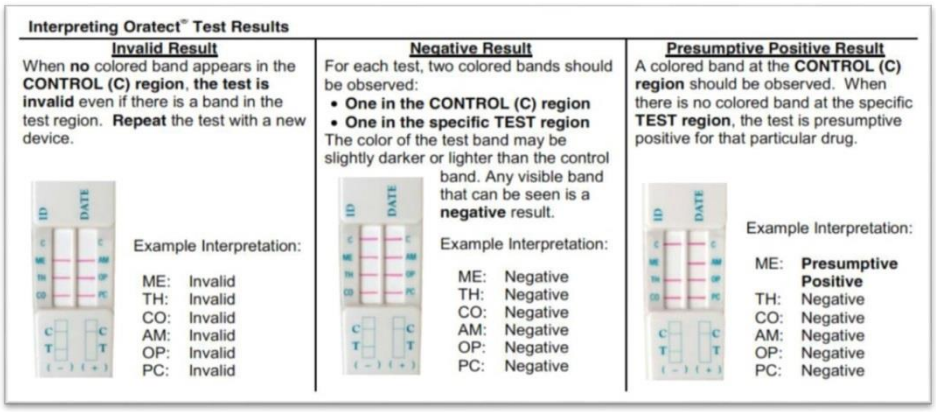
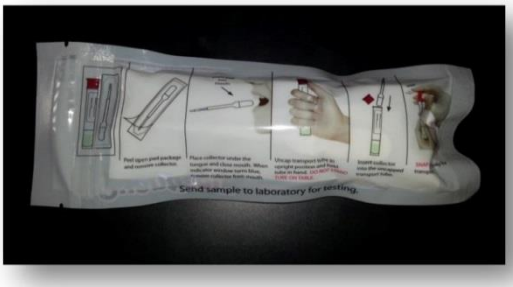
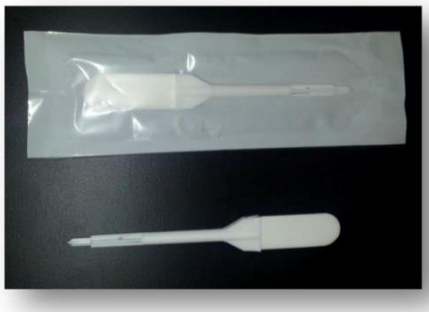
Below is a photographic guide to the chain of custody process for oral fluid.




## CHAIN OF CUSTODY PROCESS




Quantisal confirmation kit which comprises 2 collection tubes with buffer solution and 2 saliva collection devices



Saliva collection devices must stay under tongue until the volume adequacy indicator turns blue.

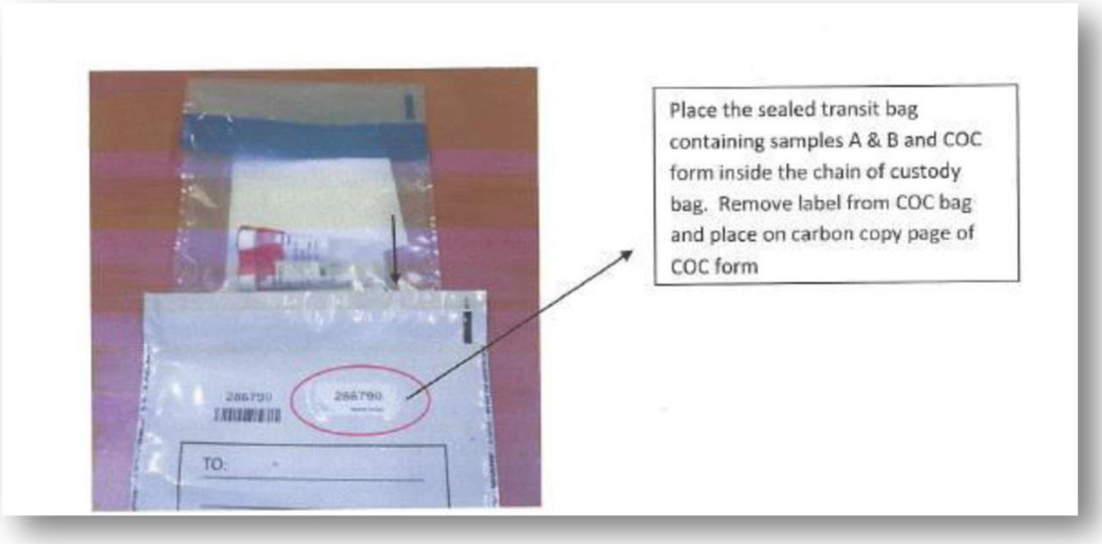
Collection tubes with buffer solution. Insert collection device into each tube and push red cap down until it snaps in place.

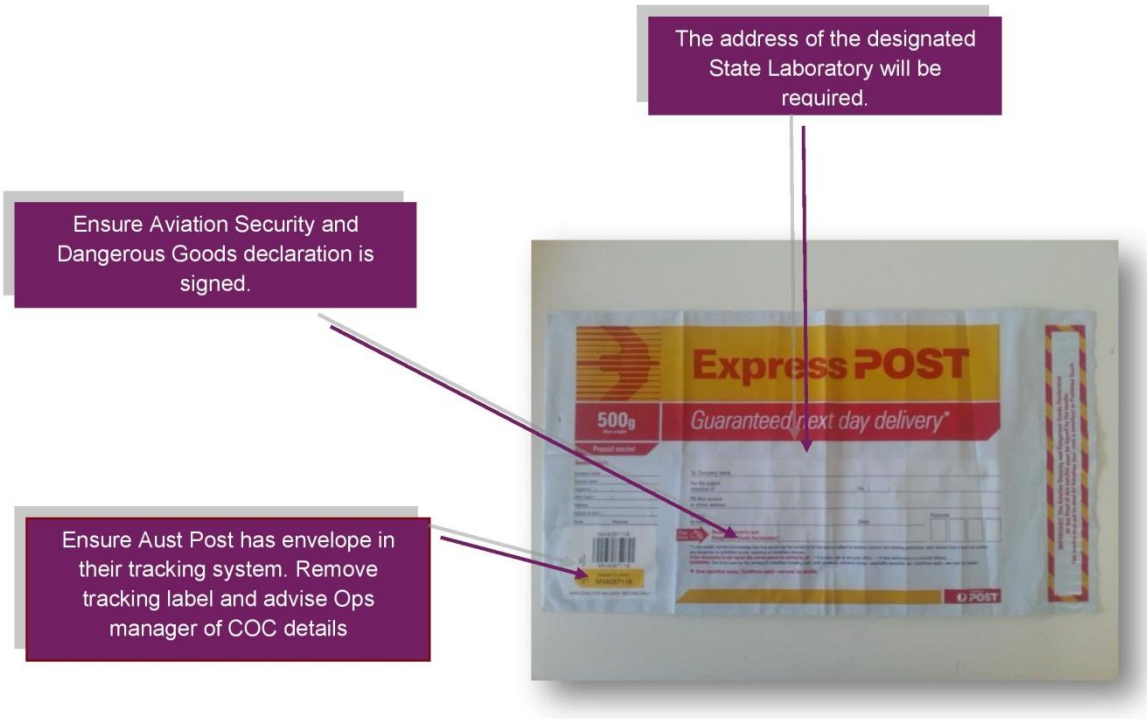
Example of identification labels for placement on collection tubes as Primary sample A and Secondary sample B



Initial and date red labels. Once the collection labels are placed on each tube place red label over the lids with the centre of red label on lid


Both collection tubes should now be placed in the pouch of the transit/evidence bag containing the absorbent pad. The chain of custody form should be placed in the secondary pouch and sealed.



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# Packaging Urine Sample for Laboratory Confirmation Procedure:

For the purposes of this certified course the preferred urine drug testing confirmation equipment to be used is a Urine Laboratory Confirmation Kit.

Below is the Drug Testing Business Success specific chain of custody procedure for urine drug testing.

**CHAIN OF CUSTODY – PREPARING URINE TO SEND TO A LABORATORY FOR CONFIRMATION**

1. Advise the donor that the test has returned a non- result and that negative specimens must be sent to a laboratory for confirmation.
2. The chain of custody kit provided includes three specimen tubes/containers, a collector cup (not needed for this procedure unless a further collection of urine is needed in addition to the Wonfo T-cup initial collection), four security chain of custody seals, a biohazard bag and a chain of custody bag.
3. Decant half of the original specimen into one container and another half into the second container. (If you need a third sample to comply with specific policy or procedure requirements and need greater quantity of urine provide ask the donor to a further sample.)
4. The quantity of each specimen should ideally be at least 20-25ml. Absolute minimum is 5ml each specimen (this is approximately half of the specimen tubes provided with the course materials)
5. Tighten the lids securely to avoid spillage.
6. Complete the required details on the labels for each specimen container. These labels should include the test record number, date of birth, date and time of collection. Ask the donor to sign and date the 2 security seals (or 3 if using a third specimen).
7. Place a security seal on each container. Record the security seal reference numbers or letters on the relevant section of the chain of custody form.
8. Place both (or all three) of the specimen tubes/containers into the biohazard bag provided.
9. The Chain of Custody form should now be completed using the test record number (from the initial test documentation) as the subject's identification. For the purposes of this course use the reference DTS002014.
10. The chain of custody number on the chain of custody bag must be recorded along with the security seal numbers on the chain of custody form.

11. Review the chain of custody form to ensure all relevant sections are now complete, including the tick beside the GCMS analysis requests once the specimens are for urinalysis.
12. Ensure the donor has assigned the declaration and consent section. This outlines that the specimens are being referred for laboratory confirmation.
13. Ensure you as the collector have signed the certification section.
14. Place the completed chain of custody form into the biohazard bag provided which includes a second pouch in the same bag containing the urine specimen tubes/containers.
15. Dispose of the initial urine test cup in the disposal bag followed by your gloves.
16. Fold up the biohazard bag and seal. No security seal is required due to the tamper proof nature of the seal.
17. Place both (or all three) samples in the laboratory specimen box. Use a third (or fourth) security seal across the opening if required. A box seal is not essential.
18. Place the box inside the chain of custody bag and seal.
19. Proceed to follow the relevant policy and procedure of the testing location, client or employer. This may include contacting a nominated person to manage the donor through the remainder of the process.
20. Store the laboratory samples in a locked or supervised refrigerator until a courier arrives to pick them up or keep them in an esky if you need to transport them from a remote location. Ensure they are not exposed to heat and stored at low temperatures.
21. Send to the laboratory via a courier approved to transport biological specimens or by mail following IATA650 packaging Guidelines (this procedure complies with all IATA requirements). Alternatively, if you have a laboratory nearby you can deliver it yourself.
22. You can use one courier or mail bag for multiple donor specimens inside their boxes.
23. Turnaround time for laboratory confirmation will usually be 24 to 48 hours from when specimens are received by that laboratory.
24. Review the chain of custody form to ensure all relevant sections are now complete, including the tick beside the LCMS analysis requests once the specimens are saliva.

Note:

A Positive confirmed by the Laboratory verifies the presence of a drug metabolite. This does not determine the level of impairment or extent the donor is affected by the drug.

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# Sample Testing Record form and Chain of Custody Forms:

## TEST RECORD FORM

**TEST RECORD No.**

Subject Name: Photo ID Non Photo ID

Position/Title: Date of Birth:

Sample Type: Oral Fluid: Yes No Breath: Yes No Urine: Yes No

Has the Test Subject consumed food/drink/cigarettes or taken any thing orally within the last 10 minutes?

Yes No

**SUBJECT CERTIFICATION / CONSENT / DECLARATION**

I consent to the collection and testing of my specimen for the drug types detailed above, using on-site equipment / test devices or an accredited laboratory if required for confirmatory testing. I understand the test is being performed as part of the Company/Site Drug and Alcohol Policy applicable. I authorize the release of the result to the nominated Company representative. Further, I certify that the information supplied on this record is true and correct.

Signature of Test Subject: Date:

**(SAMPLE CAN NOW BE COLLECTED)**

Test Type: Random Cause/Suspicion Return to Work

Incident Pre-Employment

Date of Collection:
Time of Collection:

Client Name: Subject ID Type: (Driver Licence/Employee Card/Manager etc)

Site Location: Subject ID No.: (If applicable)

Technician's Name: Technician's Signature:

**Results:**

Time of Result: Electronic Test ID Number (if applicable):

**Key:** **N**=Negative **P**= Presumptive positive result/ confirmatory testing **NA** = Not Applicable

| C° Temperature | | Colour/Adulterants | | | Creatinine Value mg/dl | |
|---|---|---|---|---|---|---|
| | **THC** | **M** | **O** | **COC** | **AMP** | **ALCOHOL%** |
| **Initial Test Result** | | | | | | |
| **Drug Class** | **SYNTHETICS** | **B** | **Other-Insert Details** | | | |
| **Initial Test Result** | | | | | | |

In the case of a Presumptive Positive – Insert any relevant comments:

**Chain of Custody No:** **Security Seal No:** **(1)** **(2)**

Company/Site Representative signature when notified of Presumptive Positive:

| | |
|---|---|
| Consumable Batch No: | Consumable Expiry Date: |
| Electronic Device ID (Serial Number): | Alcohol Device ID: |

All Information disclosed and recorded on this testing record remains strictly confidential between the person tested, the testing Technician and in the case of an Presumptive Positive Result, any laboratory conducting further testing as required. The only exception being for information required by the nominated Company/Site Representative, for the purpose of recording the test.

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# CHAIN OF CUSTODY FORM
# REQUEST FOR LABORATORY ANALYSIS

Donor's Testing Record Number: _____ ☐ Male ☐ Female
Date of Birth: _____

Donor on any current medication: ☐ Yes ☐ No If yes, provide relevant details: _____

_____

**Initial Test Results:** N=Negative, P=Presumptive Positive

| Methamphetamine | Amphetamine | THC | Cocaine | Opiates |
|---|---|---|---|---|
| | | | | |

| Other / Specify | | | |
|---|---|---|---|
| | LCMS confirmation (oral fluid) | ☐ Yes | ☐ No |
| | GCMS confirmation (urine/alcohol) | ☐ Yes | ☐ No |

Specimen Type: _____ (Oral Fluid/Urine) Chain of Custody Number: _____

Security Seal No: (1) _____ (2) _____ (3) _____

**Donor's Certification:** I certify that the specimen identified on this form was provided by me and given to the collector. Further, I certify that the specimen container was sealed in my presence and placed in a tamper proof chain of custody bag and that the information provided on this form and the label are correct. I consent to analysis of the specimens for drugs and the release of these results to my employer or authorised representative.

Signature of Donor: _____ Date: _____

**IDENTITY OF DONOR VERIFIED BY:**

☐ Photo ID ☐ Non Photo ID

ID Type: _____
(Driver Licence/Employee card/Manager/Supervisor etc)
ID Number: _____
(If applicable)

**REQUESTING AUTHORITY**

Contact: _____
Company: _____
Telephone: _____
Email: _____

Collection Site Location: (Street/Suburb/State): _____
Date/Time of Collection: _____
Collectors Comments: _____

**Collector Certification:** I certify that the specimen identified on this form was provided to me by the donor identified on this form. It bears the same identification as set forth above and has been collected in accordance with the instructions provided.

Collector Name: _____ Signature: _____

Initial Test Device: Brand/Code _____ Batch No: _____ Expiry Date: _____

**NOTE: THIS ORIGINAL DOCUMENT MUST ACCOMPANY THE SPECIMEN(S) WHEN DISPATCHED FOR LABORATORY TESTING AND BE SEALED INSIDE THE SPECIMEN BAG.**

| CHAIN-OF-CUSTODY (Laboratory use only) | | | | |
|---|---|---|---|---|
| Received by (Print) | Signature | Date/Time Received | Seal Intact | Labels Match |
| | | | ☐ Yes ☐ No | ☐ Yes ☐ No |
| | | | ☐ Yes ☐ No | ☐ Yes ☐ No |