

Solution 3: Random, Unannounced on-board Drug and Alcohol test using hair specimens

For comprehensive details regarding this Solution, please contact ARTION D&A at +30 210 260 1475 or via email at info@artiondna.com

View a brief overview here:

1.3.1 Description

Step 1: The vessel is provided with the Drug and Alcohol testing kit. Additionally, the Company/vessel is provided with the relevant instructions (collection & mailing) and the Custody form. The Company initiates the Drug and Alcohol Test through collector or Company Superintendent.

Step 2: The samples are dispatched to Omega Laboratories for the Drugs & Alcohol test. The Certifications of this Laboratory is attached to this introduction (see attachment Omega Laboratories Certifications).

1.3.2 Analysis methods

Omega Laboratories uses the following techniques: Immunoassay (ELISA, ISAP), Chromatography (GC or LC), Mass Spectrometry (MS or MS/MS).

The analysis includes a proprietary specimen wash method, which has been approved by multiple accrediting agencies as an effective means for removing external contamination. Unlike other longer washes, Omega's proprietary wash method does not inadvertently remove metabolites, which can lead to false negatives. The method has obtained FDA 510(k) clearance.

1.3.3 Cut-offs

Hair Drug Classes (4+Ext Opi up to 8 panel)	Screening pg/mg	Confirmation pg/mg
Amphetamines	500	500
Methamphetamine / MDMA	500	
Methamphetamine / Ecstasy (MDMA)		500
MDA		50
Cocaine / Metabolite	500	
Cocaine		500
Benzoylegonine / Cocaethylene		50
Norcocaine		50
ortho / meta / para-Hydroxycocaine		2
Marijuana (Carboxy THC)	1	
Carboxy-THC		0.10
Opiates	200	
Codeine / Morphine		200

Heroin Metabolite (6-MAM)		200
Phencyclidine	300	300
Extended Opiates	200	
Hydrocodone / Oxycodone		200
Hydromorphone / Oxymorphone		200
Fentanyl/Metabolites	40	
Fentanyl		20
Norfentanyl		4
Panel Available without THC		
Panel Available with EtG	5	5

Hair Drug Classes (10 up to 18 panel)	Screening pg/mg	Confirmation pg/mg
Amphetamines	300	500
Methamphetamines	500	
Methamphetamine / Ecstasy (MDMA)		500
MDA		50
Barbiturates	200	
Phenobarbital / Secobarbital		1000
Pentobarbital / Amobarbital		1000
Butalbital		1000
Benzodiazepines	100	
Alprazolam / Nordiazepam		100
Clonazepam / Oxazepam		100
Diazepam / Temazepam		100
Lorazepam		100
Buprenorphine/Metabolites	40	
Buprenorphine / Norbuprenorphine		40
Cocaine/Metabolites	500	
Cocaine		500
Benzoylecggonine / Cocaethylene		50
Norcocaine		50
ortho / meta / para-Hydroxycocaine		2
Fentanyl/Metabolites	40	
Fentanyl		20
Norfentanyl		4
Marijuana (THC/Carboxy THC)	50	
Carboxy-THC		0.10
Methadone/Metabolites	200	
Methadone		200
EDDP		50
Opiates	200	
Codeine / Morphine		200
Heroin Metabolite (6-MAM)		200
Extended Opiates	200	
Hydrocodone / Oxycodone		200
Hydromorphone / Oxymorphone		200
Phencyclidine	300	300
Tramadol	40	40
Ketamine/Metabolite	500	
Ketamine		500
Norketamine		50

Meperidine/Metabolites	40	
Meperidine		40
Normeperidine		16
Propoxyphene	8	40
Zolpidem	40	40
Methcathinone	8	500
Panel Available with EtG	5	5

1.3.4 Drugs, substances and metabolites detected

Amphetamines
Methamphetamine / MDMA
Methamphetamine / Ecstasy (MDMA)
MDA
Cocaine / Metabolite
Marijuana (Carboxy THC)
Opiates
Phencyclidine
Extended Opiates
Fentanyl/Metabolites
EtG

1.3.5 Handling of Negative Samples (Screening Test).

All samples are sent to Omega Laboratories for analysis based on the attached certifications (see attachment Omega Laboratories Certifications) to:

- Determine if the samples are adequate for analysis. If the specimens are invalid for any reason the Operator is informed accordingly.
- Analyse the samples and provide the D&A test results, within 8-10 working days after the day of delivery to the Laboratory.

1.3.6 Handling of non-negative samples (Confirmation Test).

For all samples found non-negative:

- A questionnaire to be filled with the history of the donor is required.
- A second rich sample is required. The sample is sent to Green Biotech, without additional charges for analysis.
- The results are examined by the MRO and the final result is provided to the Operator.

The results are delivered 2-6 working days after the receipt of the samples by the Laboratories.

The role of the MRO is a procedural requirement by OCIMF ensuring a legally defensible result. In case of non-negative (positive) result Artion will suggest the Operator with all necessary MRO solutions.

**For comprehensive details regarding this Solution, please contact ARTION D&A
at +30 210 260 1475 or via email at info@artiondna.com**