



Technical Proposal for the
State of Arkansas
Department of Finance & Administration (DFA)-
Division of Racing Commission



Bid Solicitation:

Bid # SP-19-0057

Drug Testing Service, Veterinary
Arkansas Racing Commission
May 16, 2019 at 02:00 PM (CST)



ALS Group USA, Corp
3337 Michelson Dr., Suite CN750
Irvine, CA 92612
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Office of State Procurement
1509 West Seventh Street, Room 300
Little Rock, Arkansas 72201-4222
Attention: Judy Shirley, Procurement Officer

Re: Bid #SP-19-0057 - Drug Testing Service, Veterinary

Dear Evaluation Committee,

ALS-Truesdail is pleased to submit this proposal for the continuation of support as the Official Equine Drug Testing Laboratory for the Arkansas Racing Commission. It has been a privilege to faithfully serve the commission for 13 years, as well as successfully increase the depth of the testing throughout the contract period.

Through rigorous quality control parameters, technical prowess, and prominence within the industry, ALS-Truesdail has been able to serve the commission by developing lower and more robust testing limits and requirements.

ALS-Truesdail is the largest and one of the most notable commercial testing laboratories providing equine and canine testing in the United States, with competitive service offerings that include:

- Diverse certifications: ISO/IEC 17025, ILAC-G7, and RMTC accreditation
- State-of-the-art equipment and an excellent professional staff (AORC professional and affiliates)
- Well documented internal and external QA programs
- Ongoing research initiatives to improve and develop new methods
- Ph.D. level staff for providing program management, expert testimony, and advice
- Customer service incentives including on-site availability and remote trainings

ALS-Truesdail offers the best value to meet the Commission's objectives set forth in this solicitation, and we look forward to continuing our successful and prosperous partnership.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Anthony J. Fontana'.

Anthony J. Fontana, Ph.D.
Technical Services Manager-Senior, Environmental
Truesdail Laboratories / Irvine, CA



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3. Executive Summary

With a longstanding and renowned equine drug testing program, ALS-Truesdail has optimized a convenient turnkey solution along with robust quality systems and impeccable customer service to provide a broad range of solutions to meet your testing needs.

An overview of the significant amenities provided include:

- All routine samples are screened within 72 hours or 3 business days after sample receipt and additional five (5) days for confirmatory analysis.
- Samples from qualifying or trial races will be given priority status for screening and confirmation
- Perform testing on a variety of matrices: blood, urine, hair, confiscated materials, and human urine
- Supplementary hair analysis for long-term detection of certain banned substances
- 52 combined years of AORC affiliation amongst staff members
- Advice and instruction from PhD-level technical staff
- Available for onsite training of track personnel for the collection, storage, and shipment of samples. Proactive communication and management with the Commission on positive results and any suspicious findings
- Available for race track or Commission meeting presentations and training on different aspects of equine drug testing.
- Over 79 years of equine drug testing experience and industry involvement
- Available to assist commission or race track veterinarian with research or investigation study samples analysis.
- Equine expert trainings: PhD-level expertise develop training materials for key staff and stakeholders, designed to assist the Commission with communication of complex technical issues, and provide an approach to ensure animal welfare and safety is maintained at the highest level.

4. 2.0 Requirements

5. 2.3 Prospective Contractor Qualifications

5.1 2.3.A Prospective Contractor's Experience

ALS-Truesdail has over 79 years of equine drug testing experience and industry involvement.

5.2 2.3.B Right to request references or proof of experience

ALS-Truesdail is willing to provide any references or proof of experience the Racing Commission requires prior to Anticipation to Award. See Sections 23 and 24 for references and a list of our present and past clients.

5.3 Demonstrated ability to test for a wide variety of substances.

ALS-Truesdail offers to test a variety wide variety of substances and the analytical data obtained using HRMS screening may be reprocessed at a later time for drugs that were not suspect at the time the original screening was done. This allows for reprocessing of older sample data for newly identified drugs or emerging threats once identified. For more details see Section 8.1 Standard post-race screening analysis.

ALS-Truesdail offers an extensive screening list that meets or exceeds the guidelines provided in the American Graded Stakes Committee's Drug Testing Protocol. Equine samples are tested for drugs, medications, and metabolites at or below threshold levels on the ARCI Controlled Therapeutic Medication Schedule for Horses and the American Graded Stakes Committee Drug Testing List (TOBA).

ALS-Truesdail is committed to continually expanding our drug testing menu and have a dedicated full-time R&D chemist who is responsible for new drug validation and method development to keep ALS-Truesdail current with all new emerging drug threats. For more details see Section 5.8.7.

5.4 Experienced in analyzing equine urine and blood specimens

ALS-Truesdail has extensive laboratory experience and personnel in analyzing equine urine and blood specimens. For more details of our experience see Sections 5.6, 5.7, 5.8.

5.5 Breadth of knowledge in preparation of reports on analyzed samples wherein substances do not exceed permissible levels

ALS-Truesdail has extensive knowledge in preparation of reports on equine urine and blood samples. For more details of our experience see Sections 5.6, 5.7, 5.8.



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5.6 Laboratory Experience

Dr. Roger W. Truesdail founded the laboratory in 1931, as an organization devoted to independent testing, consulting, inspection, research activities, and expert testimony. It remained as a family-owned operation until July 31, 2018 when Truesdail became part of the ALS Group USA global network of quality laboratories..

ALS Truesdail employs over 40 scientists, engineers, technicians, and support staff, and occupies a 17,000-square foot facility located in Irvine, California.

The laboratory supports both government and industry in multiple scientific and technical disciplines, including but not limited to:

- Drug analyses
- Drinking water and wastewater analyses
- General chemistry
- Product Certification to Drinking Water Standards
- Microbiology
- Nutritional Supplement Testing

5.7 Forensic Aspects of Animal Toxicology

Equine drug testing began in 1939, and ALS-Truesdail has provided continuous service since. Over the previous 79 years equine saliva, urine, blood, and, more recently, hair, has been analyzed on hundreds of thousands of samples.

ALS-Truesdail currently supports animal drug testing for the states of Arkansas, Delaware, Idaho, Maryland, Nebraska, Nevada, New Jersey, Oregon, Washington, Wyoming, Iowa and the countries of Mexico, Panama and Trinidad & Tobago as well as the National Steeplechase Association. Testing is also done for special events and races in Puerto Rico and Columbia. ALS-Truesdail provides split-sample testing for nearly every racing jurisdiction in the United States, as well as several foreign countries.

An overview of major laboratory changes and contract acquisitions within the drug testing sector is described below in Figure B.4-3.



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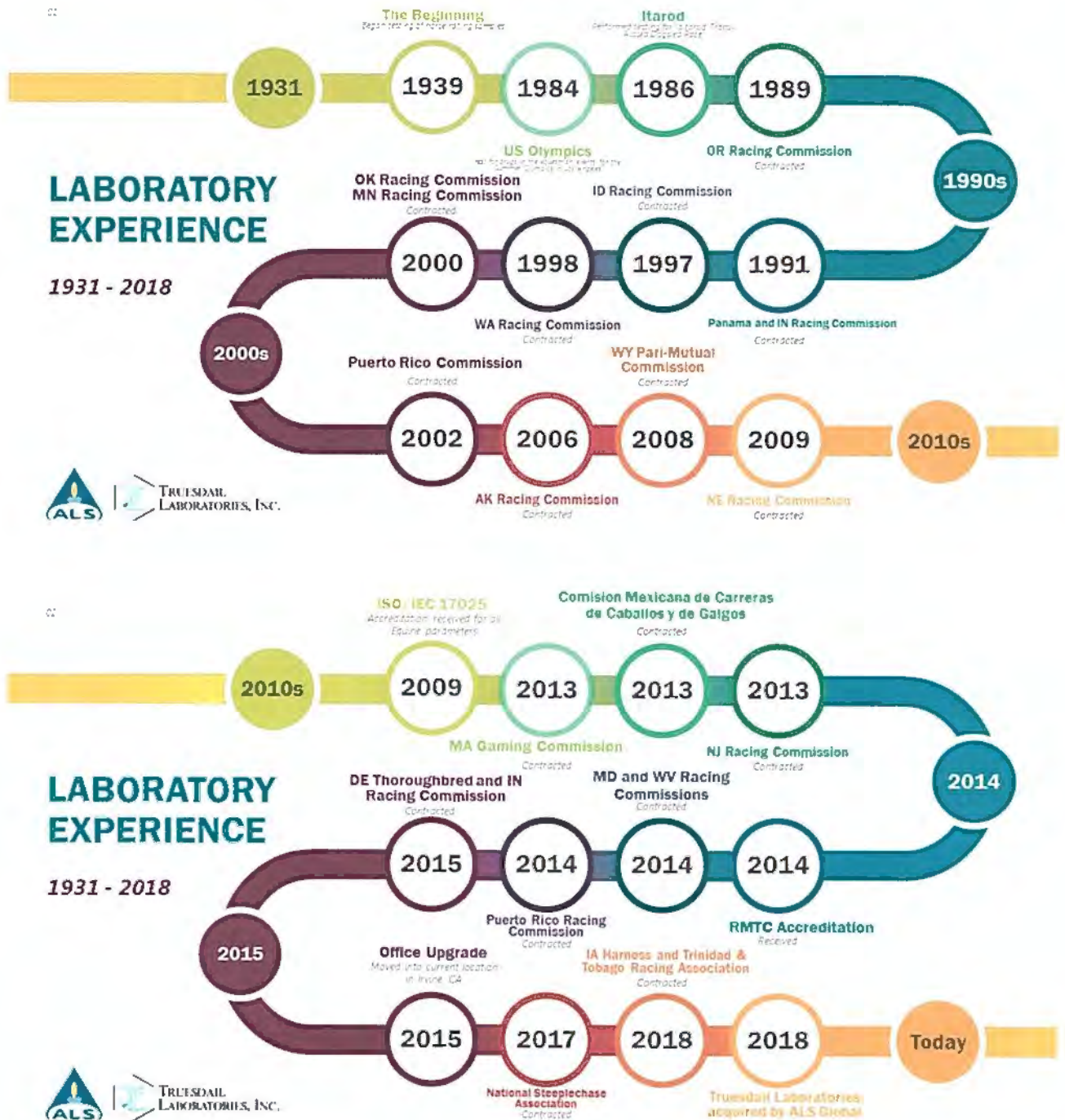
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Figure B.4-3: Truesdail Drug Testing Laboratory Timeline



The research and development efforts of ALS-Truesdail over the past 30 years is found in Section 5.8.7.

SP-19-0057 Drug Testing Service, Veterinary

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5.8 Organizational Support and Experience

Location

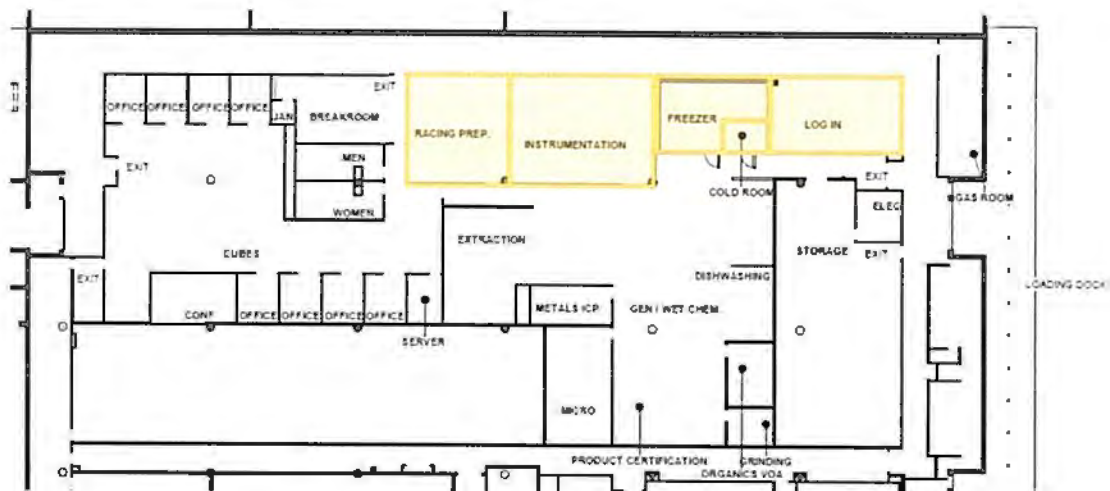
5.8.1 Laboratory Facilities

ALS-Truesdail occupies a 17,000 square-foot facility, located in a large mixed-use commercial development campus. Access to the complex is monitored by security cameras to provide added security with 24/7 security patrols of the entire complex. The campus has convenient access to transportation routes - Interstates 5 and 405, Newport (55) Freeway, 261 Toll Road, Orange County Airport, and local train station for Amtrak and Los Angeles Metro railroad lines. The location is ideal for rapid and easy shipment and receipt of samples from racing commissions.

The Drug Testing Laboratory at ALS-Truesdail is a secured facility with controlled access. The two (2) drug testing laboratories are secured with electronic locks that require coded key cards. Key cards allowing access are restricted to the drug testing staff, the Facilities Manager and executive management. There is 500 square feet of dedicated walk-in freezer and walk-in cooler (Cold Room) for drug sample storage.

The facility complies with OSHA, the State of California and local fire and safety requirements and has met all the ISO/IEC 17025 and RMTC requirements.

A floor plan of the Laboratory is provided on the following page with the Drug Testing Department highlighted in yellow.



Laboratory Floorplan, Highlighted Racing Laboratories, Cold Storage, and Login

5.8.2 Specimen Sample Storage

ALS-Truesdail confirms that it has the capacity to store all of the Department's specimens with secure limited access which is dedicated to the racing chemistry sample storage

Original sample containers remain in a locked, temperature-controlled storage unit after an aliquot is removed for analysis. One (1) storage unit is, 2,600 cubic foot freezer for storage of urine. The temperature is monitored daily and maintained at approximately $-15\pm 5^{\circ}\text{C}$. After sixty (60) days, negative samples are discarded.

Blood samples are stored in a walk-in refrigerator (600 ft³) maintained at $5\pm 2^{\circ}\text{C}$. Positive blood samples are centrifuged and all remaining plasma/serum is removed and stored as frozen plasma/serum. Positive samples will be stored in the freezer until written authorization is given by the Commission to dispose of the physical sample.



Cold Storage Space: Freezer (Left) and Refrigerator and Freezer Entry (Right)

5.8.3 Laboratory Equipment

ALS-Truesdail possesses and maintains all the equipment required for the Commission's scope of work. Multiple instruments are on-line for liquid-liquid and solid-phase extractions (SPE) of samples as listed below. Listed below is a summary of the major instrumentation utilized in-house.

Quantity	Instrumentation
2	UHPLC / HRMS
1	LC/MS/MS system
1	LC/MS/MS system with an Ion trap.
1	GC/MS system
1	HPLC system
2	TCO ₂ analyzers
2	ELISA plate readers



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In addition to our Drug Testing Laboratory, there are other laboratories within ALS-Truesdail. These labs have equipment which duplicates the Drug Testing Lab's and, therefore, are available as backup. The available equipment includes:

- GC/MS systems - five (5) systems that serve as backup to the Drug Testing systems.
- LC/MS systems - the four (4) in Drug Testing are dedicated to equine testing and backup each other.
- HPLC systems - three (3) HPLC systems are available as backup in other departments with UV detectors.
- ELISA plate readers - three (3) readers with two (2) ELISA plate pipettors provide backup for immunoassay testing.
- TCO₂ testing has two (2) instruments to provide capacity and redundancy.

As a final contingency in the event of a major disaster, ALS-Truesdail has a close working relationship with both Texas A&M University's Equine Testing Laboratory and New York State's Laboratory. In the event of a total disaster, samples would be subcontracted to these RMTC accredited labs.

5.8.4 Management Overview

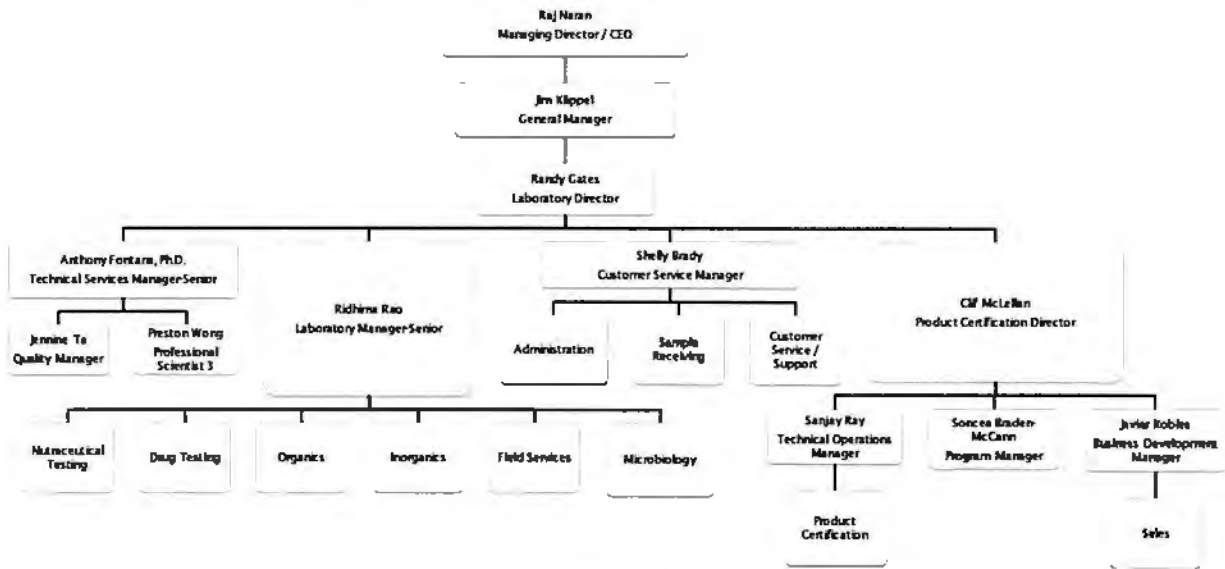
- ALS-Truesdail will provide preliminary reports of analytical testing for routine samples within three (3) business days and confirmatory testing completed within five (5) business days after sample receipt.
- ALS-Truesdail will provide all goods and services and meet or exceed all of the requirements requested in this solicitation.
- ALS-Truesdail will provide training and education to the horsemen, stewards or other race track staff on laboratory drug testing processes, emerging drug threats and numerous related topics.
- Supplies for each designated track will arrive prior to the start of each meet and training will be provided for chain of custody documentation, labeling and shipping of samples.
- Samples will be shipped by an approved courier and each sample will be logged into our LIMS prior to beginning the analysis processes.
- Blood and urine samples will be screened for therapeutic medications and prohibited substances using UHPLC/HRMS instrumentation. The proposed Equine Drug Testing Program meets or exceeds the guidelines provided in the American Graded Stakes Committee's Drug Testing Protocol. Equine samples are tested for drugs, medications, and metabolites at or below threshold levels on the ARCI Controlled Therapeutic Medication Schedule for Horses and the American Graded Stakes Committee Drug Testing List (TOBA).
- Drug Confirmations will be analyzed by liquid chromatography coupled to triple quadrupole mass spectrometry (LC/MS/MS), though a few compounds may still be confirmed by gas chromatography/mass spectrometry (GC/MS).
- Additionally, blood samples are tested for Total Carbon Dioxide (TCO₂) by ion selective electrodes and Cobalt by inductively coupled plasma mass spectroscopy (ICP/MS).
- Out of Competition samples will be tested to the state's scope of analysis which includes EPO/DPO screening and a screening of the blood for prohibited substances using UHPLC/HRMS instrumentation.
- Hair testing for Beta-Agonists drugs will be analyzed by liquid chromatography coupled to triple quadrupole mass spectrometry (LC/MS/MS).
- ALS-Truesdail will provide expert testimony and experience with the pharmacology of the medication drug positives.



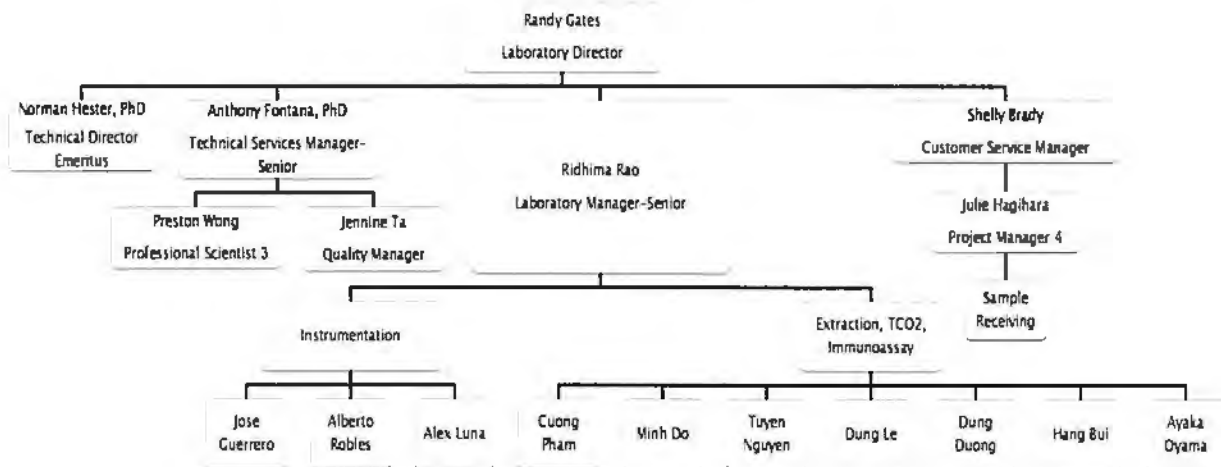
5.8.5 Organization Charts

The corporate organizational charts of ALS Limited, ALS-Truesdail and Drug Testing organization chart and resumes of the Drug Testing staff are provided below.

ALS-TRUESDAIL - COMPANY ORGANIZATION CHART



ALS-TRUESDAIL - DRUG TESTING ORGANIZATION CHART





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5.8.6 Resumes

Laboratory Director RANDY GATES

Education: B.S., Accounting, Western Governors University

Experience: *Truesdail Laboratories, Inc.*

July 2018-Present

Laboratory Director

Responsible for the day to day management of the business unit to achieve growth and profit in line with the budget and strategic plan. Responsible for all Occupational Safety and Health Administration, strategic planning, new employee inductions, and resources.

Truesdail Laboratories, Inc.

Chief Operations Officer: Chair of the executive management group, which is accountable to CEO for the delivery of CEO's overall goals and objectives. Oversees the Department Management Team. Responsible for the maximization of the competitiveness, sustainability, and profitability of the business operations. Compiles and delivers the weekly operations status report to the Truesdail Board of Directors.

2013 - 2018

Truesdail Laboratories, Inc.

2007 - 2013

Controller: Served as Manager of the Accounting and Human Resources Department. Responsibilities included Accounts Payable, Accounts Receivable, Payroll, Building Maintenance and Web Development. Prepared and presented the year-end financial reports to the Board of Directors. Responsible for the approval and processing of all new and terminated employees. Responsible for conducting Safety Orientations for all new hires. Designed and maintained an Emergency Action Plan.

Reference: John Wayne, Delaware Racing Commission (302) 994-2521 ext. 8970



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**Technical
Services
Manager-
Senior**

ANTHONY FONTANA, PH.D.

Education:

Ph.D., Agricultural and Environmental Chemistry, University of California, Davis, CA

B.S., Biochemistry, University of California, Riverside, CA

Experience:

Truesdail Laboratories, Inc.

Technical Director / Technical Services Manager-Senior: Oversees all day-to-day laboratory activities; research and procurement of instrumentation, oversight of senior management, specialized areas of testing, proposal and bid preparation, and develops standard operating procedures. Oversees Quality Assurance to develop and maintain systems to ensure quality, accreditations, technical audits, equipment calibration, training records and incident management. Provides senior program and project management, manpower planning, obtains outside certifications, and interacts with regulatory agencies. Reviews technical data packages and reports. 2014-Present

Silliker, Inc.

Technical Director of Chemistry: Provided scientific, application, and technical support to clients by assisting with technical issues, interpretation of laboratory data, and providing consulting. Managed Chemistry Department and supported the growth of the chemistry business with development and implementation of new services/ technologies, process optimization, and new method transfers. Chemistry technical resource liaison for Key Accounts and Sales. Provide technical review of marketing communication for scientific correctness. 2008-2014

Decagon Devices, Inc.

Senior Research Scientist: Conducted basic research and collaborated with researchers in new technology development. Led a team in new instrument/product development and testing. Developed and wrote calibration protocols. Provided scientific, application, and technical support to customers in area of water relations to food, cosmetic and pharmaceutical for safety and shelf-life. 1997-2008

Thermalytics, Inc.

Senior Scientist: Principal Investigator for the Department of Energy, Phase I, Small Business Innovation Research project. Developed microcalorimetry for a number of commercial applications. 1994-1997

**Scientific
Affiliations:**

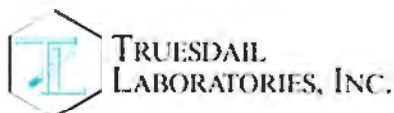
Institute of Food Technologists (IFT), Member
American Association for the Advancement of Science (AAAS), Member
American Chemical Society (ACS), Member
Association of Official Analytical Chemists (AOAC) International, Member

Publications:

Over 40 papers and presentations in the area of environmental and nutritional analysis, and analytical methods development. Author of 7 book chapter and editor on 2 books.

References:

John Wayne, Delaware Racing Commission (302) 994-2521 ext. 8970
Judith Nason, New Jersey Racing Commission (609) 292-0613



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**Technical
Director
Emeritus**

NORMAN HESTER, Ph.D.

Education:

M.S. and Ph.D., Chemistry, University of California, Riverside
Post-doctoral, Statewide Air Pollution Research Center, University of California, Riverside, CA
B.S., Chemistry, California State University, Long Beach, CA

Experience:

Truesdail Laboratories, Inc.

Technical Director Emeritus: Part of Company Management Team providing direction on scientific issues. Oversees research and development, evaluates new technology. Coordinated accreditation activities, prepares and/or reviews operating procedures, assists with the recruiting and training of scientific staff, prepares technical proposals, reviews technical data and reports, provides expert witness testimony in the areas of drug detection and identification. Provides technical guidance to company clients. 2014-Present

Technical Director: Oversees all laboratory activities; manages specialized areas of testing, proposal and bid preparation, and develops standard operating procedures. Provides senior program and project management, manpower planning, obtains outside certifications, and interacts with regulatory agencies. Reviews technical data packages and reports. Provides expert witness testimony in the areas of drug detection and identification. 1983-2014

Occidental Research Corporation

Head of Research: Lead research effort in the area of shale oil development. Characterized gross and trace contaminants, directed studies in product upgrading and improvement, investigated ground water contamination and evaluated trace pollutants in solid wastes. Coordinated government permitting and regulatory activities. 1980-1983

Rockwell International: Environ. Monitoring and Service Center

Program Manager: In various contracts for analytical methods development for trace organic and organic metallic determinations. 1977-1980

United States EPA, Las Vegas, NV:

Program and project manager: On various environmental field measurement programs. 1974-1977

**Scientific
Affiliations:**

American Chemical Society, Member
Association of Official Racing Chemists (AORC), Affiliate Member

Publications:

27 papers and presentations in the area of environmental and organic analysis, and analytical methods development.

References:

Dr. Joseph Lokanc, Arkansas State Racing Commission (501) 682-1467
Doug Moore, Washington Horse Racing Commission (360) 459-6462



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**Laboratory Manager-
Senior**

RIDHIMA RAO

Education:

M.S., Forensic Science, Sam Houston State University, Huntsville, TX

M.S., Life Sciences, Mumbai University, Mumbai, India

B.S., Life Sciences, St. Xaviers College, Mumbai, India

Experience:

Truesdail Laboratories, Inc.

Laboratory Manager-Senior: Ms. Rao oversees the day-to-day operations of the Drug Testing Department as well as reviews data prior to release. She specializes in HPLC and LC-MS/MS operations and drug specific analytical techniques employing immunoassay technology (ELISA). April 2018 - Present

Senior Chemist: Ms. Rao specializes in HPLC and LC-MS/MS operations and drug specific analytical techniques employing immunoassay technology (ELISA). She also oversees method development and reviews data prior to release. 2017 - April 2018

Origen Laboratories

Certifying Scientist: Assisted in LC-MS/MS method validation for new analytes as part of a team project. Infusion and optimization of new analytes for expansion of existing drug confirmation panels. Responsible for initial review and final certification of data from LC-MS/MS using MultiQuant™.

Alere Toxicology

Analyst II: Method development using LC-MS/MS for quantification of drugs in urine and oral fluids. Assisted in explanation of results for clients. Quality Assurance / Quality Control. Developed standard operating protocols (SOPs) for laboratory procedures. 2009 - 2015

**Instrumentation and
Training**

SCIEX Triple Quad™ 4500 MS with Shimadzu LC 20AD HPLC

API 4000 LC-MS/MS System (AB SciEx) and 3200 Q Trap LC-MS/MS System (MDS XSCIEX) (Applied Biosystems)

Olympus AU640e Chemistry Immunoanalyzer

SCIEX Triple Quad™ 5500 with ExionLC™

Memberships

California Association of Toxicologists - Associate Member

Society of Forensic Toxicologists - Associate Member

References:

Anthony Fontana, Ph.D., ALS-Truesdail (714) 730-6239

Iain T. Rowe-Mitchell, Sciex (650) 436-2834



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Project Manager 4

JULIE HAGIHARA

Education:

B.A., General Biology, Revelle College,
University of California, San Diego, CA

Experience:

Truesdail Laboratories, Inc.

Project Manager 4 and Racing Chemist: She is responsible for the generation, review and submittal of preliminary and final results reports, the preparation of data litigation packages, shipping out supplies, receiving samples and all client communication. April 2018 - present

Drug Testing Laboratory Operations Manager and Racing Chemist: She is responsible for overseeing all aspects of the Drug Testing Laboratory's operations including sample preparation, QA, sample extraction, and communicating with clients. Primary duties include, writing reports, sending results, record keeping, preparation of data packets, shipping and receiving of supplies, annual reports to the AORC, TLC interpretation, and training and supervision of personnel. Ms. Hagihara is also one of our backup GC/MS and LC/MS analysts. 1992 - April 2018

VA Hospital, San Diego, CA.

Laboratory Technician 1990 - 1991

**Scientific
Affiliations:**

Association of Official Racing Chemists (AORC) Professional Member, 1997 - present

**Instrumentation and
Training:**

HP 5890/5971 GC/MS / Chris Natrass.

Finnigan ITS40 GC/MS / Chris Natrass

Agilent 6890N/5973 GC/MS / Don Kawachi

Thermo-Finnegan LCQ Deca LC/MS / Kristie Nakamura

Thermo Exactive Plus/ Dale Park

References:

Mike Hopkins, Maryland State Racing Commission (410) 296-9682

Dr. Stacey Katler, Oregon Racing Commission (971) 673-0207



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Professional Scientist 3 PRESTON WONG

Education:

M.S., Forensic Science, Sam Houston State University, Huntsville, TX

B.S., Biology, University of Texas at Dallas, Dallas, TX

B.S., Criminal Justice Studies, University of Texas at Dallas, Dallas, TX

Experience:

Truesdail Laboratories, Inc.

Professional Scientist 3: Mr. Wong is responsible for the analysis of blood and urine samples by LC/MS; confirmation of drugs and direct instrumental screening of drugs specializes in HPLC and LC-MS/MS operations. 2017 - Present

Gulfstream Diagnostics

LC-MS/MS Operator/Certifying Scientist: Analyzed LC-MS/MS data for 95 analytes. Prepared calibrators and controls for multiple panels and completed data validation. Complied and analyzed data in Excel spreadsheets for stability studies as well as cross instrument validation. 2017

Origen Laboratories

Senior Toxicologist/LC-MS/MS Operator/Certifying Scientist: Analyzed LC-MS/MS data for 59 analytes. Aided in sample preparation and basic instrument maintenance. Streamlined quantitation methods, sample re-extraction workflow, and secondary peer-review protocols. Analyzed medication compliance, method development, and validated data. 2016

Alere Toxicology / Capital Toxicology

Senior Toxicologist/LC-MS/MS Operator/Certifying Scientist: Designed, created, and simplified the calibration curve, quality controls and internal standard incorporating over 40 analytes and 33 deuterated internal standards. Proficient in sample preparation, instrument preparation and basic maintenance, and data analysis/reporting. 2009 - 2015.

Instrumentation and

API 4000 LC-MS/MS System (AB SciEx)

Training:

Thermo Exactive / Himani Vaishnav

SCIEX Triple Quad™ 5500 with ExionLC™

Publications:

Muscle: An Alternative Post-Mortem Specimen for Drug Screening by Enzyme Linked Immunosorbent Assay. *Wong, Kerrigan, Smith, Moffat, Gordon, Lemos. SOFT - 2008.*

PCP and Drug Impaired Driving in San Francisco, California. *Gordon, Wong, Lemos. AAFS - 2009.*

Driving Under the Influence of Methamphetamine in the City & County of San Francisco, California. *Lemos, Gordon, Wong. AAFS - 2009.*

Determination of Endogenous Gamma-Hydroxybutyrate (GHB) Concentrations in Hair Using LC/MS/MS. *Wong, Stout, Kerrigan. 2009.*

References:

Anthony Fontana, Ph.D., ALS-Truesdail (714) 730-6239
Iain T. Rowe-Mitchell, Sciex (650) 436-2834



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Quality Manager

JENNINE TA

Education:

B.S., Biochemistry, California State University, Fullerton CA

Experience:

Truesdail Laboratories, Inc.

Quality Manager: Responsible for company QA activities. Performs internal audits to ensure conformance with ISO/IEC 17025, ISO 65, and state DPHS requirements. Oversees performance evaluation testing. Coordinates with external auditors. Reviews Level IV data packages. Issues corrective action requests and reviews responses. Participates in management reviews on QA activities. 2018 - Present

SC Laboratory

Laboratory Manager: Responsible for work flow of lab assistants and data analysts. Review and revise standard operating procedures. 2017-2018

Truesdail Laboratories, Inc.

Analyst: Performed soil, wastewater, storm water and drinking water testing according to EPA/SM methods. Operated and maintained Dionex DX600 ion chromatography and spectrophotometric instrumentation such as Thermo Scientific Genesys UV-VIS 10S and Shimadzu TOC-VWS. Analyzed data and reviewed/revised standard operating procedures for the Wet Chemistry and Ion Chromatography sections of the lab. 2017-2014

Reference:

Anthony Fontana, Ph.D., ALS-Truesdail (714) 730-6239



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**Customer Services
Manager**

MARCHEAL "SHELLY" BRADY

Education:

A.S., Business Administration, Irvine Valley College, Irvine, CA
 Environmental and Engineering Studies, University of California, Irvine, CA.

Experience:

2014-present *Truesdail Laboratories, Inc.*

Customer Services Manager: Responsible for overseeing the Project Managers, insuring clients requested turn-around times are met, serves as a mediator between the client and project management, accounting, field services, and laboratory staff. Additionally, she is responsible for managing the contracts and purchase orders for Truesdail's Analytical Services Laboratory, Drug Testing Laboratory and Product Certification Department. Talks to clients, problem solves, and brings major issues to the technical director's attention.

2012-2014 Project Manager: Responsible for all aspects of project management, including but not limited to, scheduling with clients for sample containers and pick-up, coordinating with group leaders for analyses, and assists with report generation and templates for individual reports. Proofreads reports and double check that the QC reported is reviewed with raw data. Talks to clients, problem solves, and brings major issues to the lab manager's attention.

2006-2012 *Sierra Analytical Labs, Inc. Laguna Hills, CA*

Administration: Responsible for all client correspondence and satisfaction. Tracking status of in-house projects. Communication with Department Manager regarding importance of special projects and the related samples, technical capabilities, and status of client samples. Laboratory report generation, electronic data deliverables generation, client correspondence, data entry, customer service, and office support.

1996-2006 *Environmental Support Technologies, Irvine, CA*

Office Administrator / Project Coordinator: Responsible for all client correspondence. Prepared Site Health and Safety Plans for each project. Prepared analytical reports. Performed site investigations and obtained and review regulatory documents for Phase I Site Investigations and prepared those reports.

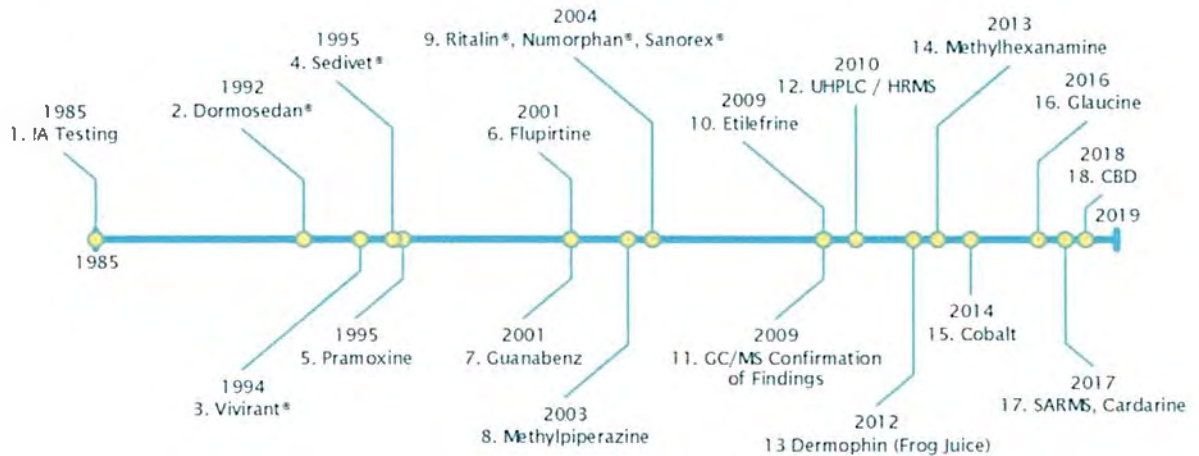
Reference: Anthony Fontana, Ph.D., ALS-Truesdail (714) 730-6239

The resumes of the remaining staff that are not listed above are available upon request.



5.8.7 Research and Development

ALS-Truesdail boasts an animated history at the forefront of drug testing research and development spanning over the past 35 years. A timeline of accomplishments is viewed below.



ALS Truesdail was the first laboratory to develop the following methods and analytical strategies:

1. Routinely utilize immunoassay (IA) testing in race samples (1985).
2. Identify and confirm the presence of the sedative/analgesic detomidine (Dormosedan*) as its metabolite (1992).
3. Identify and confirm the presence of the bicyclic antidepressant viloxazine (Vivirant*) (1994).
4. Identify and confirm the presence of the sedative romifidine (Sedivet*) in an equine sample (1995).
5. Identify and confirm the presence of the local anesthetic pramoxine (1995).
6. Identify and confirm the presence of flupirtine (an analgesic not approved by the FDA) (2001).
7. Identify and confirm by GC/MS the presence of guanabenz in an equine urine sample (2001).
8. Confirmed the presence of methylpiperazine. Although this is not a new drug, it has never been confirmed before in the U.S. (2003).
9. The first to report all of the following drugs: methylphenidate (Ritalin®), oxymorphone (Numorphan®) and mazindol (Sanorex®) (2004).
10. Identified and confirmed the presence of the stimulant etilefrine (2009).
11. First commercial laboratory to obtain and use GC/MS for confirmation of all analytical findings (2009).

12. Official Analytical Methods: Participants in the Testing Integrity Program (TIP) provide standard analytical procedures that are peer reviewed by other laboratories and then made available to all racing organizations on the TIP internet website. ALS-Truesdail Laboratories has provided more analytical methods via TIP than any other commercial laboratory and nearly as many as the leading university lab. For more information see the TIP web site at <http://www.testingintegrityprogram.org/> (2010).
13. One of only a few labs that detected and confirmed the presence of dermorphin in race day samples. ALS-Truesdail was the first lab to demonstrate that the comprehensive UHPLC / HRMS technology we developed for screening could detect dermorphin (2013).
14. First lab to report methylhexanamine in an equine urine sample. Subsequently, ARCI added methylhexanamine as a Class I drug to their "Uniform Classification Guidelines for Foreign Substances" as of December 2013.
15. First lab in the US to report the use of cobalt in race day samples (2014).
16. ALS-Truesdail validated that we readily identify Glaucine using our routine screening methods with both spiked urine and blood samples immediately after the reported Glaucine positive finding in New York. ALS-Truesdail's development program was the first to successfully identify and distinguish environmental contamination versus administration. This research was presented at the 2016 ICRAV conference in Montevideo, Uruguay. We have already confirmed the presence of Glaucine in some post-race samples (2016).
17. To identify and confirm the presence of the selective androgen receptor modulators (SARMs), GW 501 516 (Cardarine) (2017).

Most recently, validation of the identification of cannabidiol (CBD) in plasma (2018). Due to the reported use of CBD oils for pain and inflammation use in horses (2018).

5.8.8 Industry Involvement

ALS-Truesdail maintains a close relationship with all Racing Commissions customers. These relationships benefit the commissions through the provision of expert scientific and technical interpretation of results from the PhD-level scientists.

Dr. Fontana presents on equine drug testing at individual Racing Commission meetings, as well as at race tracks for stewards and horsemen, with the goal to be a scientific and expert resource to all aspects of the Commission.

Dr. Fontana is also a member of the RMTC Drug Classification Subcommittee, which assists in the development of the Controlled Therapeutic Substances (CTS) list. The CTS list was created by the Association of Racing Commissioners International (RCI) to assist veterinarians in the medical treatment of racehorse.

In 2016, Dr. Fontana was selected as a member of the RMTC task force on the usage of Glaucine, accidental or otherwise, as a performance enhancer and to address potential environmental sources. Dr. Fontana was
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selected to the RMTC Glaucine Task Force as a result of Truesdail's development in bringing Glaucine testing into its routine screening program and for developing an approach to verify intentional administration of Glaucine versus findings related to environmental contamination.

Dr. Fontana joined forces with several other RMTC laboratory directors from competitive laboratories and State-ran university laboratories to standardize testing protocols for equine hair drug testing. This working group of laboratory directors is tasked to collaborate on a single methodology for the preparation and analysis of hair samples from both the AQHA and RMTC.

Dr. Fontana assists Racing Regulatory Veterinarians and Stewards to interpret the laboratory findings. He conducts searches to identify research articles on administration studies which include pharmacokinetic and pharmacodynamics information concerning the drug of interest. These research papers give information on the rates of absorption and elimination and gives insight to the mechanism of the drug and its potential to effect performance.

5.8.9 Knowledge of Equine Chemistry

We have many years of experience of equine chemistry to assist and advise the Commission on technical matters. See Section 5.8.6 for the list of our personnel.

5.8.10 Value-Added Services

ALS-Truesdail values service offerings that have a tangible positive impact for our customers. In addition to a rigorous QA/QC program, continuous research and development improvement, and a tenured staff, the value-added services below assist to differentiate our services from the rest.

Reliable and responsive customer assistance

ALS-Truesdail responds rapidly and responsibly to requests for assistance regarding interpretation of test results, new tests, and clearance issues. The staff listed above as expert witnesses are also available to assist with interpretation of results and legal case preparation.

ALS-Truesdail will assist and provide testing to trainers and / or veterinarians to ensure that the medication given is within the threshold levels especially during the adoption phase of the threshold drug.

Continuous improvement in adding advances to the target analyte listing

ALS-Truesdail prioritizes continuous advancement within the industry. Examples include the following:

- In 2017 the Texas A&M Drug Testing Laboratory confirmed positives for a previously unidentified drug called Nomifensine. Within three weeks, ALS-Truesdail confirmed detection of Nomifensine.
- Equine hair testing. The testing of equine hair for long-term detection of banned substances is an emerging technology under review by the Quarter Horse racing industry.

Maintaining several pathways for substance identification and emerging threats

ALS-Truesdail staff maintains an excellent and open communication with state Veterinarians, Stewards, and Commission Executive Directors to identify emerging threats and reports of possible banned substance use at the track. Attendance at the RMTC Scientific Advisory Committee (SAC) meeting which includes discussion



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among Laboratory Directors, Chemists, and practicing Veterinarians concerning new and emerging drugs and compounds. Additionally, attendance and participation at international conferences such as AORC and ICRAV exposes ALS-Truesdail to worldwide threats to horse racing.

Leveraging Technical Expertise

Due to ALS-Truesdail's activity in the human nutritional supplement industry, current information on all emerging human drugs are also added to the equine drug screening list for identification in horse sports.

Dr. Fontana assists Racing Regulatory Veterinarians and Stewards to interpret the laboratory findings. By performing consistent literature searches on administration studies of pharmacokinetic and pharmacodynamics the rates of absorption and elimination is better understood at a laboratory level, giving insight to the mechanism of the drug and its potential to effect performance.

5.9 2.3.C Accreditations / Certifications

ALS-Truesdail is fully accredited to ISO/IEC 17025 for all parameters required by the Commission's testing programs and for the equipment used for the testing since 2009. In addition to the ISO-17025, the laboratory is also accredited to ILAC-G7 Requirements and Operating Criteria for Horseracing Laboratories. Accreditation from Racing Medication and Testing Consortium (RMTC) was received in 2014. A copy of our certificates and scopes of accreditation are provided on the pages that follow.

ALS-Truesdail's most recent quality assessment took place October 8-9, 2018, with an on-site inspection conducted by ANSI-ASQ National Accreditation Board (ANAB). The auditor's assessment summary included:

"Truesdail Laboratories Quality Management and Technical staff have demonstrated overall good laboratory practice and competency in the field of testing to the specific methods listed on their scope of accreditation and to ISO/IEC 17025:2005. The laboratory is recommended for accreditation to ISO/IEC 17025:2005 and ILAC G7 upon successful resolution of the noncompliance issued during this visit. Congratulations on a job well done."

ALS-Truesdail's ISO/IEC 17025 Accreditation has been renewed and is valid until December 1st, 2019. The most recent RMTC assessment took place in September 2015 with all findings satisfactorily accepted.

There has been no occurrence of any accreditation being suspended, revoked, or otherwise sanctioned in ALS-Truesdail's 87-year history. A detailed description of our Quality Assurance program is in section 7.2.

A copy of ALS-Truesdail's current ISO 17025 accreditation is provided below:

Please note that there are several laboratories which have accreditations to ISO 17025 and RMTC approvals, however the Scope of Accreditation for the vast majority of these labs is for only equine samples. Our ISO 17025 Scope has, since we first obtained it, included testing of both canine and equine samples as well as other types of evidence materials that may be submitted. See Note 2 on the enclosed ANAB certificate:



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CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board
 500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Truesdail Laboratories, Inc.
3337 Michelson Drive, Suite CN-750
Irvine, CA 92612

has been assessed by ANAB
 and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1408
 Certificate Number


 ANAB Approval

Certificate Valid: 12/20/2017 - 12/01/2019
 Version No. 004 Issued: 12/20/2017



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-LAF Communiqué dated April 2017).



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ANSI-ASQ National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 AND
ALL RELEVANT ELEMENTS OF ILAC-G7:02/2016 FOR
HORSE RACING TEST LABORATORIES

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Michael Ngo Phone: 714-730-6239
mngo@truesdail.com www.truesdail.com

TESTING

Valid to: December 01, 2019

Certificate Number: AT-1408

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
ELISA	In-House Methods and Manufacturer's Instructions ILAC-G7:02/2016 ¹	Biological Material ²	Immunoassay Kits and Reader
TCO ₂	In-House Methods and Manufacturer's Instructions ILAC-G7:02/2016 ¹	Biological Material ²	Direct CO ₂ Reading Instrument
Specific Gravity	In-House Methods and Manufacturer's Instructions ILAC-G7:02/2016 ¹	Biological Material ²	Refractometer
Liquid Chromatography, Various Detectors	In-House Methods ILAC-G7:02/2016 ¹	Biological Material ²	HPLC
Instrumental Screen	In-House Methods ILAC-G7:02/2016 ¹	Biological Material ²	GC/MS
Instrumental Screen	In-House Methods ILAC-G7:02/2016 ¹	Biological Material ²	LC/MS
Drug Confirmation	In-house Methods ILAC-G7:02/2016 ¹	Biological Material ²	GC/MS LC/MS
Trace Metals	In-House Methods and Manufacturer's Instructions ILAC-G7:02/2016 ¹	Biological Material ² Cannabis and Cannabis Products	ICP-OES ICP/MS

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Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials; or Product Tested	Key Equipment or Technology
pH	In-House Methods and Manufacturer's Instructions ILAC-G7.02/2016 ¹	Biological Material ²	pH Meter
ELISA	In-House Methods and Manufacturer's Instructions	Nutritional Supplements	Immunoassay Kits and Reader
Liquid Chromatography, Various Detectors	In-House Methods	Nutritional Supplements	HPLC
Instrumental Screen	In-House Methods	Nutritional Supplements	GC/MS
Instrumental Screen	In-House Methods	Nutritional Supplements	LC/MS
Confirmation of Chemical Identity	In-house Methods	Nutritional Supplements	GC/MS LC/MS
Lead	CPSC 16 CFR 1303 Lead in Paint CPSC-CH-E1003-09	Children's Products	ICP-OES ICP/MS
Lead and other Heavy Metals	CPSC Standard Operating Procedures for Determining Lead and its Availability in Children's Metal Jewelry CPSC-CH-E1001-08.1 CPSC-CH-E1002-08.1 16 CFR 1303; ASTM E1613 ASTM E1645	Children's Metal Jewelry	ICP-OES ICP/MS
Lead and other Heavy Metals	CPSC Standard Operating Procedures for Determining Lead and its Availability CPSC-CH-E1001-08.1 CPSC-CH-E1002-08.1 16 CFR 1303; ASTM E1613 ASTM E1645; ANSI Z66.1 ASTM D3630	Textiles, Toys, Juvenile Products and Child Care Products including Packaging	ICP-OES ICP/MS
Phthalates	CPSC-CH-C1001-09.3	Textiles, Toys, Juvenile Products and Child Care Products including Packaging	GC/MS

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Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials, or Product Tested	Key Equipment or Technology
Lead and other Metals	NSF/ANSI 61 & 372, EPA Methods, In-House Methods	Plumbing Products	ICP-OES ICP/MS
Organics	NSF/ANSI 61, EPA Methods, In house Methods	Plumbing Products	GC/MS LC/MS HPLC
Anions, Cations, Hexavalent Chromium, Inorganics	NSF/ANSI 61, EPA Methods	Plumbing Products	Ion Chromatograph, Spectrophotometer
Fungus Resistance Testing	MIL-STD-810 Method 508 RTCA/DO-160 Section 13	Rubber, Plastic and Metal Components	Fungus Chamber
Potency, Cannabinoids	In-House Methods	Cannabis and Cannabis Products	HPLC
Residual Solvents	In-House Method	Cannabis and Cannabis Products	GC FID/MS
Terpenes	In-House Method	Cannabis and Cannabis Products	GC FID/MS
Moisture	Loss on Drying/Karl Fisher	Cannabis and Cannabis Products	Oven/Titrator
Water Activity	In-House Method	Cannabis and Cannabis Products	Hygrometer

Notes:

- 1 This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1408.
- 2 Testing for performance enhancing or performance altering drugs in urine, blood, or other fluid or tissue from Horses, Dogs, Camels, Sheep, Cattle, other domestic animals, or Humans and various feed supplements, seized materials, or syringe contents as requested.
- 3 ILAC-G7:02/2016 Accreditation Requirements and Operating Criteria for Horseracing Laboratories


Vice President

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A copy of ALS-Truesdail's current RMTC accreditation is provided below:

SP-19-0057 Drug Testing Service, Veterinary

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THIS CERTIFICATE RECOGNIZES THAT

Truesdail Laboratories

HAS BEEN AWARDED RMTC LABORATORY ACCREDITATION

AWARDED THIS 1ST DAY OF MAY, 2014

Alex Widdrop, Chair RMTC Board

5.10 2.3.D Compliance with the American Graded Stakes (AGS) Drug Testing Protocol

ALS-Truesdail confirms all samples will be compliant with the American Graded Stakes (AGS) Drug Testing Protocol and the Arkansas State Racing Commission rules.

6. 2.4 General Contractor Requirements

6.1 2.4.A Licenses, Permits and Accreditations / Certifications

ALS-Truesdail confirms to maintain all licenses, permits and accreditations / certifications that are required to perform this contract.

6.2 2.4.B Official Price Sheet

ALS-Truesdail confirms to test for drugs indicated on the Official Price Sheet.

6.3 2.4.C Collection Kit Supplies

ALS-Truesdail confirms to providing the drug testing collection kits for both racing locations.

6.4 2.4.D Cost of the Collection Kit Supplies

ALS-Truesdail confirms to bearing all the cost for the supplies necessary for collection of samples and the cost is included in the cost of the tests.

6.5 2.4.E Cost of Expendable Supplies

ALS-Truesdail confirms to provide all expendable drug testing supplies for onsite collection and transportation of urine and blood specimens.

6.6 2.4.F Universal Precautions for collecting and handling all specimens

ALS-Truesdail confirms to use universal precautions for collecting and handling all specimens according to OSHA.

6.6.1 Sample Management and Retention

Chain-of-custody procedures have withstood all legal challenges in our more than 79 years of performing race testing. A chain-of-custody form is submitted to the racetrack for the set of samples on each race date to be completed by the veterinarian. The completed form is returned to ALS-Truesdail with the samples and our staff maintains a copy.

ALS-Truesdail's Standard Operating Procedures are performed with the security of the samples firmly in mind.

- Each shipping container is sealed with a security seal and keyed padlock.
- Upon laboratory arrival, all seals are checked, samples are organized in numerical order, and then logged into the LIMS.
- Sample seals are broken and an aliquot is removed from the original container for the required analyses.
- Each sample is then resealed with security tape, initialed, and dated by the individual removing the test portions.
- Subsequent removal of test portions for confirmatory analyses is also accompanied by this procedure.

Original sample containers remain in a locked, temperature-controlled storage unit after portions are removed for analysis.

ALS-Truesdail will initiate within 24 hours of receipt the screening analysis with the exception of TCO₂ analysis which will be started upon arrival.

From sample receipt to the issuance of the final report, all Commission primary blood samples will be retained in ALS-Truesdail's secured refrigerator and all Commission primary urine samples will be retained in ALS-Truesdail's secured freezer. Detailed information regarding Truesdail's secured facility and storage is provided in Section 5.8.1. Negative (passed) samples will be retained for no less than sixty (60) days. Positive (failed) samples will be retained in a frozen condition until the Commission authorizes disposal. ALS-Truesdail understands that the Commission must authorize the disposal of passed and suspicious samples.

6.7 2.4.G Notification of Abnormal or adulterated results

ALS-Truesdail confirms to provide notification of any abnormal or adulterated results to the Commission either by phone and/or email within twenty-four (24) hours of receipt of the sample.

6.8 2.4.H Confidentiality

ALS-Truesdail confirms that it will maintain security over all records, reports and related materials and shall release such information with the written consent of the Commission.



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ALS-Truesdail confirms that it will not release or send any sample or portion of any sample to any other laboratory or person without the written consent of the Commission, by order of a Court or as may otherwise be required by the State.

6.8.1 Data Management

ALS-Truesdail understands that all data generated from the Commission is the property of the State and may not be distributed to other sources without the express written consent of the Commission.

6.9 2.4.1 Confidentiality Violations

ALS-Truesdail confirms that a breach in confidentiality of the testing results, data, or related materials will be in violation of the confidentiality agreement and the contract may be terminated, suspended, debarment from the State of Arkansas and criminal prosecution by the State Attorney General's office.

7. 2.5 Laboratory Testing Requirements

7.1 2.5.A ISO 10725-1999 Requirements

ALS-Truesdail commits to follow current guidelines in the American National Standard General Requirements for Competence of Testing and Calibration Laboratories #ISO 17025-1999 plus Animal Drug Testing Supplement. See ISO 17025 certificate in section 5.9

7.2 2.5.B Laboratory Proficiency Testing Scores

ALS-Truesdail commits to provide the Commission the results of proficiency results throughout the duration of this contract. See below in section 7.2.2 for a detailed description of our Quality Assurance Program and our recent proficiency test results.

7.2.1 Quality Assurance

7.2.2 External Quality Assurance Programs

ALS-Truesdail performed a 97% proficiency rate on the most recent RMTC and AORC proficiency testing samples in 2017-2018. The AORC Proficiency program sends eight (8) samples and the RMTC EQAP program annually sends two (2) sets of ten (10) samples. Details of these programs and certificates are given below. Additionally, in 2017, the states of Maryland and Oregon sent double blind samples to verify ALS-Truesdail's proficiency at screening samples and detecting drugs and we have passed all samples at 100%. As ALS-



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Truesdail consistently performs well in the EQAP program, in October of 2018, RMTC requested the laboratory to pre-screen the blank plasma and urine matrices for the detection of low level drug contamination.

RMTC EQAP program Round 5 in April 2017 ALS-Truesdail scored 100% on this round of proficiency evaluations.

AORC Proficiency testing in 2017 ALS-Truesdail scored 100% on this round of proficiency evaluations.

RMTC EQAP program Round 6 in December 2017 ALS-Truesdail scored 100% on this round of proficiency evaluations.

RMTC EQAP program Round 7 in June 2018 ALS-Truesdail scored 100% on this round of proficiency evaluations.

AORC Proficiency testing in 2018 ALS-Truesdail scored 100% on this round of proficiency evaluations.

RMTC EQAP program Round 8 in December 2018 ALS-Truesdail scored 82% on this round of proficiency evaluations. ALS-Truesdail did not detect two drugs in this round of proficiency evaluation samples; however, of the two drugs not detected, four other RMTC laboratories did not detect one of them and three RMTC laboratories did not detect the other drug. ALS-Truesdail has opened Corrective Action Responses and conducted investigations to identify the root cause. The completed investigation and Corrective Action Report has been submitted to the RMTC Horse Testing Laboratory Committee for review.

7.2.3 Association of Official Racing Chemists (AORC) Program

ALS-Truesdail receives P.E. samples from the AORC. Our most recent certification of acceptable performance from this blind P.E. sample set for the past two years follows.



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Association of Official Racing Chemists

This Document Certifies that

Truesdail Laboratories, California, USA

has participated in the 2017 Proficiency Testing Program,
and has successfully isolated and identified the required number of unknown
urine and plasma specimens, in accordance with the Association's requirements.


David Batty
Chairman, Proficiency Testing Committee


Charles Russo
President, AORC





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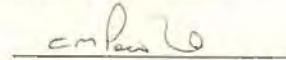
Association of Official Racing Chemists

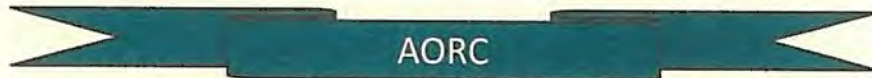
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Truesdail Laboratories, California, USA

has participated in the 2018 Proficiency Testing Program,
and has successfully isolated and identified the required number of unknown
urine specimens, in accordance with the Association's requirements.


David Batty
Chairman, Proficiency Testing Committee


Clive Pearce
President, AORC



7.2.4 Racing Medication and Testing Consortium (RMTC)

Maintaining RMTC accreditation requires the labs to participate in their External Quality Assurance Program (EQAP) and analyze two (2) sets of proficiency samples annually. The EQAP is intended to demonstrate laboratory capabilities for screening a multitude of drugs and metabolites across classes of drugs that are of regulatory concern to the horse racing industry. ALS-Truesdail continues to perform extremely well in this program designed to determine whether a laboratory can routinely detect drugs at concentrations that are of concern to regulatory authorities.

In addition to accreditation activities, ALS-Truesdail has participated in other RMTC sponsored activities to benefit the racing community. In 2012, ALS-Truesdail was one of six labs asked to participate in a teleconference on the issues of detection and confirmation of the drug dermorphin. In 2013 and 2014, ALS-Truesdail was an active participant in the working group evaluating the issues surrounding the development of recommendations for regulations to control the use of cobalt. In 2014, ALS-Truesdail representatives were added to RMTC's Scientific Advisory Committee (SAC), and we continue to participate in the SAC on an ongoing basis. In 2016, ALS-Truesdail was part of the RMTC Glaucine Task Force and was the first lab to identify additional plant alkaloids to aid in the identification of direct administration of glaucine versus exposure from wood shavings. This research work was presented at the 2016 ICRAV meeting in Montevideo,

Uruguay. In 2018, ALS-Truesdail is part of the RMTC Hair Testing Committee to establish an industry standard methodology for the preparation and identification of clenbuterol in hair.

ALS-Truesdail commits to provide all results and corrective action plans as required to the Commission for any external quality assurance program that the laboratory participates in.

7.2.5 Internal Blind Program

ALS-Truesdail commits to routine performance of analysis of internal blind samples of substances of regulatory interest at relevant concentrations. A detailed description of the program is in Section 7.2.4.

7.2.6 Internal Quality Assurance Programs

Internal QC Procedure Summary

ALS-Truesdail's Quality Assurance program is multifaceted approach to ensure the quality and integrity of the results. The program establishes policies and procedures to monitor the quality of all aspects of the testing process from analyst training, methods, standard materials, instrumentation maintenance, control charts and evaluation of data. Below are listed some of the major components of the Quality Assurance program;

- Annual Conflict of Interest and Ethics training. Employees are mandated to report any situations that may be viewed as a potential conflict of interest or ethics violation.
- All analyst must complete the four step of training prior to analyzing any client samples. Competency is proven through repeatable demonstrations of acceptable results and verified annually.
- All drug standards, solvents, and supplies are purchase through approved vendors. All primary drug standards must be purchased from an ISO/IEC 17034 approved supplier.
- Equipment and instruments are verified by third party calibration service. Mass spectrometers are at a minimum verified by the manufacturer annually. Measuring equipment and standards are calibrated at periodic interval on the basis of stability, purpose, and degree of usage.
- Incoming chemicals and supplies are inspected before entering the laboratory. All chemicals and standards are logged and give a unique laboratory ID for traceability during testing.
- All analytical methods are in ALS-Truesdail's Standard Operating Procedures and are reviewed every two years. Documents both internal and external are controlled by the Quality Department.
- Quality assurance samples such as blanks, duplicates, matrix-matched spike control positive, matrix control negative samples are run with each batch of samples.
- Internal standards, typically deuterated standards of common drugs, are added to every sample prior to screening. Recovery of the internal standard demonstrates that the extraction and preparation process is functioning properly.
- Control chart are produced from laboratory control samples and are reviewed with each batch for trend analysis to verify the system are in control and that there is no high or low bias in the data.

- External Proficiency Testing program participation. ALS-Truesdail participated in both AORC and RMTC EQAP proficiency programs as described above.
- Internal Blind Proficiency Testing program includes weekly spiked urine and blood samples that are analyzed along with routine race-day samples. Samples are spiked at or near regulatory threshold levels to verify detection during the screening process. All failures are processed through out Corrective Action Response program to identify the failure and implement a correction to prevent future occurrences.
- Inter-laboratory comparison exchange program is described below in Section 7.2.6 and is independent verification that the screening process is robust.

7.2.7 Quality Manager

ALS-Truesdail's Quality Manager is Jennine Ta who reports to our Technical Services Manager-Senior, Dr. Anthony Fontana. Resumes are included in Section 5.8.6.

7.2.8 Interlaboratory Exchange Program

ALS-Truesdail has initiated and manages a sample exchange program with both the University of Illinois and Texas A&M Drug Testing Laboratories for independent verification of results. Both are RMTC accredited laboratories. These split exchanged blood and urine samples are blind and used to verify that screening processes are robust for all drugs at the TOBA threshold levels.

7.3 2.5.C Confirmation Results of all medication violations

ALS-Truesdail commits to provide the Commission the confirmation results of all medication violations using GC/MS, LC/MS, or Tandem/MS techniques of HPLC for Phenylbutazone (PBZ) / Oxyphenbutazone quantitation. For more details see section 8.2.

7.4 2.5.D Screening Analysis Results of Confiscated Materials

ALS-Truesdail commits to provide the Commission the screening analysis results of confiscated materials. For more details see section 8.2.11.

8. 2.6 Laboratory Screening Methods

8.1 2.6.A Standard Post-Race Screening Analysis

ALS-Truesdail confirms to screening and quantifying specific drugs listed on the Controlled Therapeutic Schedule and other drugs and medications prohibited by the rules and regulations of the Arkansas Racing Commission and the ARCI Uniform Model Rules for all samples using the Thoroughbred Owners and Breeders Association (TOBA) industry testing standards. A detailed description of our methodology follows.

ALS-Truesdail screens both blood and urine post-race samples using ultra high performance liquid chromatography coupled with high resolution mass spectrometry (UHPLC/HRMS). The UHPLC/HRMS instrumentation is the optimal choice, as it provides an order-of-magnitude greater sensitivity as compared to historical methodologies like thin-layer chromatography (TLC) and ELISA tests. In addition to the significant increase in sensitivity, there two significant advantages that high-resolution mass instruments offer:

1. No special configuration is required to obtain high sensitivity and selectivity.
 - a. Since special programming is not required for high-resolution mass instruments, many drugs may be added to the sequencing target analyte list without compromising sensitivity or selectivity.
 - b. By utilizing this technology, a targeted screening of several hundred drugs per sample is achieved as compared to fewer than half as many when analyzing using a quadrupole mass spectrometry.
2. Analytical data obtained using HRMS screening may be reprocessed at a later time for drugs that were not suspect at the time the original screening was done.
 - a. This allows for reprocessing of older sample data for newly identified drugs or emerging threats once identified.

8.1.1 Blood and Urine Samples

Blood and urine samples are screened for therapeutic medications and prohibited substances using UHPLC/HRMS instrumentation. The proposed Equine Drug Testing Program meets or exceeds the guidelines provided in the American Graded Stakes Committee's Drug Testing Protocol. Equine samples are tested for drugs, medications, and metabolites at or below threshold levels on the ARCI Controlled Therapeutic Medication Schedule for Horses and the American Graded Stakes Committee Drug Testing List (TOBA). The ARCI and TOBA lists include drugs and medications from all classes of drugs which includes; opioids, steroids/corticosteroids, NSAIDs, bronchodilators, tranquilizers, stimulants, etc.

Additionally, blood samples are tested for Total Carbon Dioxide (TCO₂) by ion selective electrodes and Cobalt by inductively coupled plasma mass spectroscopy (ICP/MS). ALS-Truesdail was the first U.S. lab to document the abuse of cobalt in samples collected in 2012, and was the first racing lab in the U.S. to have this methodology approved under the ISO/IEC 17025 accreditation. Since its initial identification, concern for the abuse of cobalt has become a worldwide issue. Should the Commission introduce arsenic or iron testing into its program, ALS-Truesdail has the capability to perform that in-house.

Canine urine samples are screened for therapeutic medications and prohibited substances using UHPLC/HRMS instrumentation. The proposed Canine Drug Testing Program are tested for drugs, medications, and metabolites in the American Graded Stakes Committee Drug Testing List (TOBA). The ARCI

and TOBA lists include drugs and medications from all classes of drugs which includes; opioids, steroids/corticosteroids, NSAIDs, bronchodilators, tranquilizers, stimulants, etc.

8.1.2 Confirmations

Blood and urine samples found to be suspect according to the UHPLC/HRMS are then subjected to further testing for identity and quantitation. Most confirmations are analyzed utilizing liquid chromatography coupled to triple quadrupole mass spectrometry (LC/MS/MS), though a few compounds may still be confirmed by gas chromatography/mass spectrometry (GC/MS).

8.1.3 Preparation of Samples for HRMS Screening

Liquid/liquid extractions are used to isolate both acid/neutral and basic fractions from blood samples. The flow chart for HRMS screening of blood samples is shown in **Figure B.4-1**. A separate blood extraction technique is also performed to identify dimethylsulfoxide (DMSO) and several other compounds that are not captured with the liquid/liquid technique. DMSO is used as a therapeutic drug to relieve swelling and has an established threshold level.

Solid Phase Extraction (SPE) is used to isolate drugs from urine specimens. Two fractions are collected: (1) a basic drugs fraction and (2) an acid/neutral fraction. Since many drugs are excreted in urine as drug conjugates, urine samples are subjected to enzyme hydrolysis prior to SPE extraction. The urine specimens will undergo an ion pair liquid/liquid extraction in addition to the solid phase extraction. The flow chart for direct instrumental screening of urine samples is shown in **Figure B.4-1**.

If a tentative identification is made by the UHPLC/HRMS, the analyst will review the full complement of information produced by the run to make sure a suspect compound has been determined. If the suspect has a regulatory threshold, determination will also be made of estimated level. If a sample is declared suspect, then a new portion of the suspected blood and/or urine will be taken, prepared, and analyzed to produce a full confirmation package as described in 8.2.



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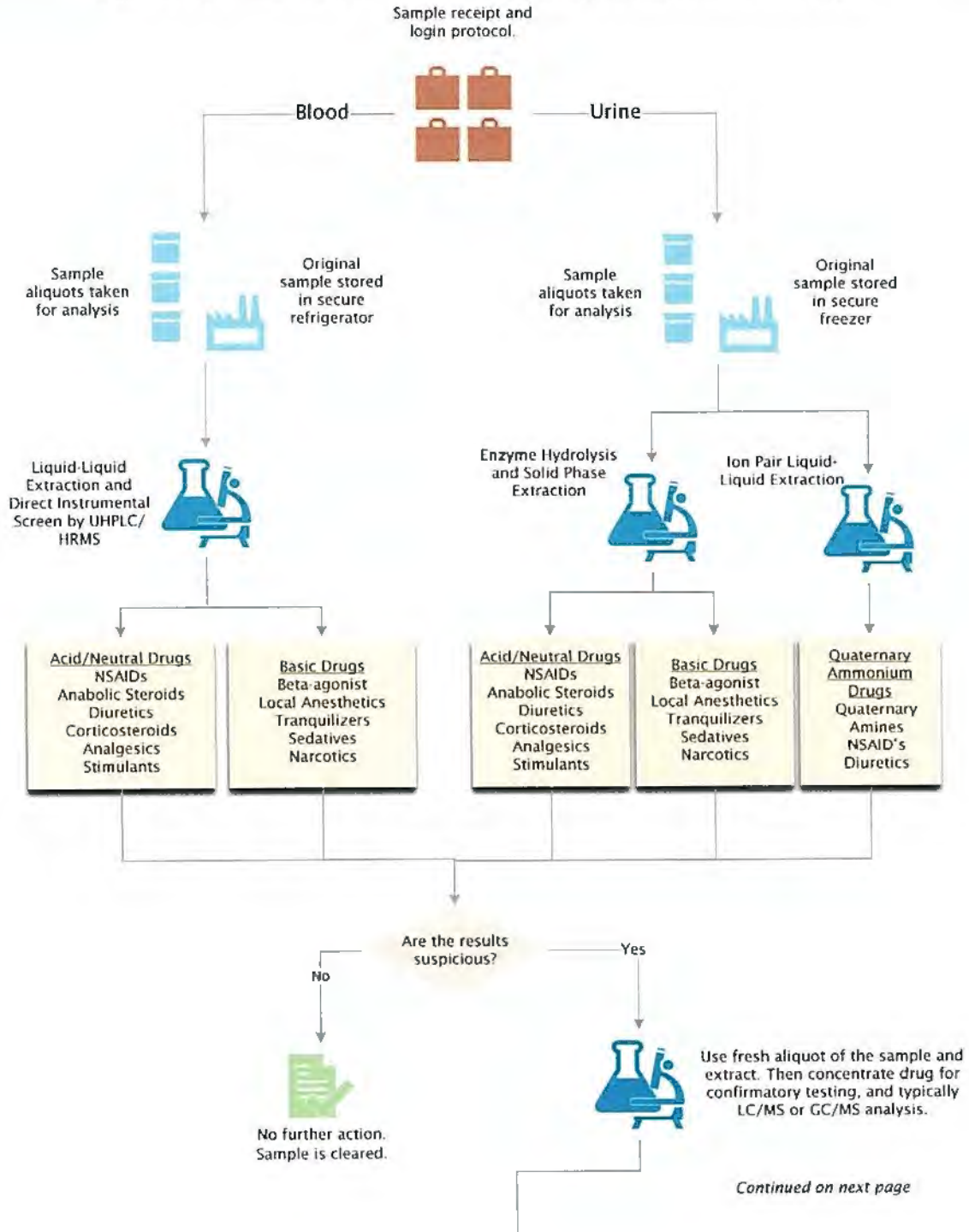
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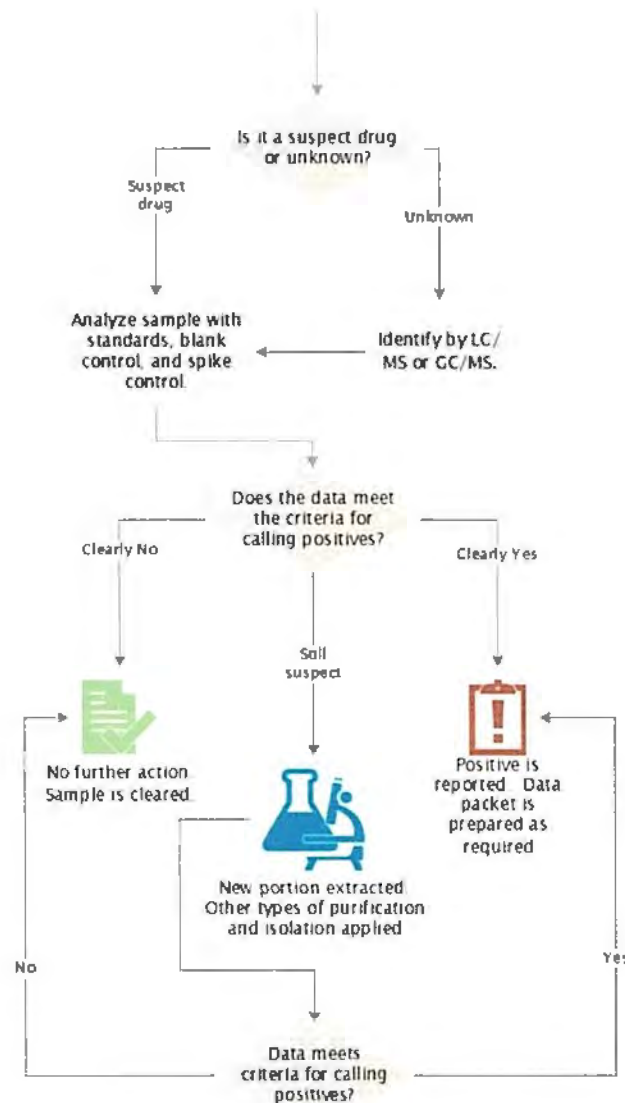
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Figure B.4-1 -- Flow Chart for Direct Instrumental Analysis of Blood and Urine





8.1.4 Immunoassay Testing

Although immunoassay testing has decreased importance and no immunoassays are proposed within the scope of post-race sampling, ELISA testing will be used for EPO/DPO testing for blood samples. EPO/DPO ELISA kits are utilized for blood doping agents manufactured by R&D Systems and may be used to screen out-of-competition samples. These kits have good cross reactivity for both EPO and DPO. An outline of the screening protocol is found in Figure B.4-2.



B.4-2 Flow Chart for EPO/DPO Screening



8.2 2.6.B Drug Confirmation Methodology

The goal of drug confirmation test is to provide incontrovertible identification of the detected substance. Confirmation by LC/MS or GC/MS requires three stages:

- (1) Sample extraction
- (2) LC/MS or GC/MS analysis
- (3) Interpretation of results

A flow chart for confirmation testing has been included in Figure B.4-1.

A fresh aliquot from the original suspect sample is extracted for confirmations. The amount of sample material used in the preparation depends on the apparent concentration of the drug as estimated by the screening procedure. The sample preparation may include the following steps alone or in combination: solid-phase extraction, enzymatic hydrolysis, and liquid/liquid extraction. An extraction procedure is chosen depending on the type of drug and the nature of the sample. The goal of the extraction procedure is to concentrate and purify the drug.

When confirmation testing is done, the sample is run in duplicate along with positive and negative matrix control samples. If the sample volume is insufficient, only one aliquot is run. Quantitation is achieved by analyzing a minimum of five (5) control samples spiked with the drug or metabolite at different levels with appropriate blanks to construct a calibration curve. Response factors for the drug are determined and used to calculate quantitative levels of the drug in suspect specimens.

8.2.1 Out of Competition (OOC) Testing

8.2.2 Out of Competition Methodology

The Commission may have out-of-competition samples tested to produce information that may enhance the ability of the commission to enforce its medication and anti-doping rules. For out-of-competition testing for detection of androgenic or anabolic agents, testing is screened using the UHPLC/HRMS methodology applied to routine screening of blood samples from the track. Confirmation of out of competition samples screened by UHPLC/HRMS is the same as described above for routine race-day samples. The other major drugs may include therapeutic anabolic steroids, penalty class one drugs, and more recently, compounds such as clenbuterol and other beta-agonists.

Additional testing for erythropoietin (EPO) and darbepoetin (Aransep, DPO) and cobalt can be added to the Out of Competition samples.

EPO/DPO ELISA kits are utilized for blood doping agents manufactured by R&D Systems to screen out-of-competition samples. These kits have good cross reactivity for both EPO and DPO. An outline of the screening protocol is found in Figure B.4-2.

Confirmation of blood doping agents is done employing an enzyme process that reproducibly breaks down the huge blood doping agent molecule into multiple smaller molecules, which are in turn confirmed by LC/MS/MS. The protocol has been published by the Pennsylvania equine drug testing laboratory who will be the subcontractor for these confirmations.

8.2.3 Total Carbon Dioxide (TCO₂) Testing

Samples submitted to ALS-Truesdail requiring TCO₂ analysis will be analyzed within 120 hours from the collection time. ALS-Truesdail is committed to promptly notifying the Commission of any samples excluded from analysis due to sample age or other reasons. Two separate blood tubes for TCO₂ are key for accurate and reliable analysis.

8.2.4 Hair Testing

The testing of equine hair to determine long-term detection of certain banned substances is an emerging technology currently under review for implantation by the Quarter Horse racing industry. Discussions were held at both the American Association of Equine Practitioners annual convention and the Global Symposium on Racing and Gaming. The purpose of these discussions is to establish common testing protocols and work towards uniform results amongst the various testing laboratories. ALS-Truesdail is pleased to announce that in we are participating in these discussions and have provided input towards the harmonized hair testing protocol.

In February 2016, three (3) ALS-Truesdail chemists attended the Equine Hair Analysis Workshop sponsored by the RMTTC at U.C. Davis. This workshop included training in hair sample preparation, extraction, and



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LC/MS analysis for clenbuterol and certain steroid esters such as testosterone. ALS-Truesdail has validated the hair testing methods from the RMTC training course. We recently purchased a new SPEX®SamplePrep Geno/Grinder 2010® for the purpose of high throughput hair sample homogenization. ALS-Truesdail has analyzed hair samples for several of the commissions we serve.

8.2.5 Preparation of Hair Samples for Direct Instrumental Screening

Using scissors and tweezers that have been cleaned with Methanol, a lock of hair will be removed from the container and subsequently rinsed under deionized water. The cleaned hair will then be blotted dry using clean paper towels and placed in a 40°C oven to dry completely (~40 minutes). Once dried, the lock of hair is cut down to very small pieces into a clean labeled container. Using scissors, the hair will be cut down to very small pieces (about 2-4mm). With clean tweezers, a portion of the cut hair is then transferred to a bead mill homogenization vial. The hair is pulverized into a powder form. The pulverized hair sample is now ready for extraction and direct instrumental screening.

8.2.6 Direct Instrumental Screening for Clenbuterol and other Beta-Agonists

After being pulverized, an aliquot of the hair sample is incubated in an acid solution in order to disrupt the drugs from the hair. Following incubation, the pH of the hair sample is adjusted and the hair extracted using a liquid/liquid extraction with Methyl-tert-Butyl-Ether (MTBE). The eluates are dried, re-dissolved in a mobile phase solution and analyzed by liquid chromatography/mass spectrometry. Control negative and spiked positive clenbuterol hair samples are also analyzed. The lower limit of quantitation for this method is approximately 1.0 pg/mg of hair. The screen includes clenbuterol and other common beta agonists. We are continuously enhancing our ability to screen hair samples by adding more beta-agonists to our screening method.

8.2.7 Direct Instrumental Screening for Androgenic Anabolic Steroid Esters I (optional)

After being pulverized, the hair samples are incubated in a solution of phosphate buffer in order to extract the steroids from the hair. Following incubation, the sample is extracted using either a liquid/liquid extraction or solid phase extraction technique. The eluates are dried, re-dissolved in a mobile phase solution and analyzed by liquid chromatography/mass spectrometry. The identity of each steroid ester is determined by the peak retention time as compared to a standard.

The direct instrumental screening for androgenic anabolic steroid esters I is not part of our current hair testing, but can be added as an optional test if the Commission decides to test for it.

8.2.8 Inductively Coupled Plasma / Mass Spectroscopy

ALS-Truesdail was the first U.S. lab to document the abuse of cobalt in samples collected in 2012. Since this initial finding, concern for the abuse of cobalt has become a worldwide issue.

Technology employed to test for cobalt and arsenic is Inductively Coupled Plasma to Mass Spectroscopy (ICP/MS). This is the most sensitive technology available for routine testing of metals at trace levels. It is routinely used for testing of environmental pollution and clinical analysis. ALS-Truesdail has two (2) ICP/MS systems in-house. The methodology employed for testing is a protocol for testing of metals in blood developed by the instrument manufacturer (Agilent).

Blood serum samples are diluted with the analytical matrix solvent and injected directly into the ICP/MS. Samples are run concurrent with spiked serum samples (multipoint calibration) and second source spike and spike duplicate samples (MS and MSD) for quality control.

Calibration and control samples are prepared from NIST traceable materials.

ALS-Truesdail has participated in the round robin testing of cobalt plasma samples sponsored by the RMTC and has participated in a round robin study with Pennsylvania Racing Laboratory. In 2014 ALS-Truesdail submitted our procedure for the testing of metals in biological samples (blood and urine) to evaluate by our accreditation body and now have this testing covered under the scope of our ISO/IEC 17025 and ILAC G-7 accreditations.

The validated method approved on our ISO/IEC 17025 scope also allows ALS-Truesdail to analyze for total arsenic in urine as required. Please refer to our certificate from the ANSI National Accreditation Board (ANAB) in Section 6.1.

8.2.9 Samples Derived from Horses Working for Release from Veterinarian's List or from Qualifying Races

ALS-Truesdail confirms that the blood and/or urine samples shall be subject to complete screening consistent with analyses performed on post-race samples as described in Section 8.1. All suspicious findings are subject to confirmatory analysis consistent with Section 8.2.

8.2.10 Information and Confiscated Material Samples

Analysis on informational or confiscated material sample submissions by the Commission will be performed in a similar manner to all other sample submissions.

8.2.11 Substances / Unknowns Testing

Our protocols for testing of containers meet or exceed the requirements of RMTC's "Protocol for Verification of Label Ingredients" and RMTC's "Unknown Sample Protocol".

8.2.12 Inspection of the Laboratory

ALS-Truesdail welcomes inspection of its facility during regular business hours by a Commission representative.

8.2.13 Technical Changes to Scope of Testing

ALS-Truesdail understands that it may not amend the scope of testing for any sample(s) without first securing permission from the Commission. Further, should the Commission request changes to its standard scope of testing, ALS-Truesdail will absorb those costs associated with method validation for substances that have thresholds established by the ARCI. Should a threshold not be established, the Commission will bear any associated costs for method validation. For other requests of change of scope made by the Commission, ALS-Truesdail and the Commission will set an agreed-upon price and establish that adequate funding exists prior to the commencement method development and validation.

8.2.14 Pooling of Samples

ALS-Truesdail confirms that there will be no pooling of urine or blood samples.

8.3 2.6.C Correction or Revisions

ALS-Truesdail confirms that any errors, omissions or other deficiencies in its deliverables and laboratory services will be corrected or revised without additional compensation to the Commission.

9. Laboratory Service Reporting (Test Results)

ALS-Truesdail confirms to a screening report to the Commission within 72 hours or three (3) business days and additional five (5) business days for confirmatory analysis. Any communications regarding the analysis shall be between the Commission and the Laboratory.

Written reports specifying the findings will be sent if requested. A complete litigation packet of the test results will be provided upon request seven (7) business days after the request is made.

In some instances, unusual drug substances may be found on screening and initial confirmation testing that are very difficult to positively identify by standard testing techniques. In these instances, the laboratory will require additional time and possibly apply other testing methodologies. In such cases, the Commission's designate will be notified prior to the end of the confirmation period.

Should ALS-Truesdail not be able to provide screening or confirmation analysis results as scheduled, Commission personnel will be notified of the delay.

9.1 2.7.B Screening Results Email Distribution List

ALS-Truesdail confirms that it shall email within five (5) business days after notification of screening sample the confirmatory analysis results to only the designated Commission personnel stated in the IFB.

9.2 2.7.C Confirmatory Results Email Distribution List

ALS-Truesdail confirms that it shall email only the designated Commission personnel stated in the IFB the screening results.

9.3 2.7.D Authorized Receipts of Results

ALS-Truesdail confirms that it shall email only the designated Commission personnel stated in the IFB the test results.

9.4 2.7.E Written Report of the Results

ALS-Truesdail confirms that it shall prepare and provide a written report of the results of each test performed by the laboratory.

9.5 2.7.F Pharmacological and Analytical Profile of Medication Violations included in the reports

ALS-Truesdail confirms that it shall include written pharmacological and analytical profile of all medication violations for review by the Commission.

9.6 2.7.G Laboratory Quarterly Reports

ALS-Truesdail confirms that it shall provide laboratory quarterly reports at the reporting timelines listed in the IFB.

9.7 2.7.H Laboratory Reports

ALS-Truesdail confirms that the laboratory reports shall include the following:

- Date the specimen was taken and tested
- The result(s) and conclusion(s) drawn from the analysis
- Reports must include an affidavit signed before a notary public, or by the duly qualified expert conducting the test or under whose supervision or direction the test and analysis have been performed.
- The interpretation of the data must include the level of drug content as measured in nanograms or other measurement that is consistent with the measurement of the threshold drug.

9.8 2.7.I Report Format

ALS-Truesdail confirms that the report format will be understood by a layperson.

10. 2.8 Sample Collection Kits and Materials

10.1 2.8.A-B Collection Supplies

ALS-Truesdail will provide the Commission meet or exceed the necessary supplies for the collection, labeling, processing, storage, and shipping of samples at no additional cost to the Commission.

10.2 2.8.D Collection Containers and Materials

ALS-Truesdail will provide the Commission the necessary supplies for the collection, labeling, processing, storage, and shipping of samples. The sample collection supplies to be provided are:

- 12.5-mL or 10-mL blood collection tubes depending on the Commission's preferences.
- Blood collection needles of 20-gauge (1) inch, 20-gauge (1.5) inch, 19-gauge (1) inch, 19-gauge (1.5) inch, 18-gauge (1.5) inch or 18-gauge (1) inch depending on the Commission's preferences.
- New 32oz. sealed plastic cup with lid for sample collection
- New 4oz. factory-sealed sterile plastic cups with lids (one (1) for the sample and one (1) for the split sample).
- Numbered and/or barcoded sample labels for identification and security of urine and blood samples after collection.
- Security tape for sealing of urine cups and blood tubes after collection.
- Chain of custody forms.
- Insulated shipping containers adequate to maintain samples at not more than four (4) °C for forty-eight (48) hours.
- Padlocks for shipping containers.
- Cup holders, blue ice block, etc.
- Shipping labels
- Sharp containers

10.3 Shipping of Supplies

The laboratory will ensure that adequate supplies (containers, seals, etc.) are always available and will be shipped to the various tracks well in advance of the race days, and no less than 72 hours prior to the beginning of race meets). Containers and other supplies are generally shipped 1-2 weeks in advance of any meet to the responsible parties at the designated tracks or as otherwise required by the Commission.

11. 2.9 Equine Collection Kits (Oaklawn Location)

ALS-Truesdail will provide the supplies listed in Section 2.9 of the IFB. See Attachment 1 Shipping Cooler Instructions for Equine Samples for detailed information about the cooler, chain of custody form, sample cards, blood tubes and sealing tape.

12. 2.10 Canine Collection Kits (Southland Greyhound Park Location)

ALS-Truesdail will provide the supplies listed in Section 2.10 of the IFB. See Attachment 1 Shipping Cooler Instructions for Canine Samples for detailed information about the cooler, chain of custody form, sample cards and sealing tape.

13. 2.11 Staff

13.1 List of Employees who are Members of the Association of Racing Chemists (AORC)

Few laboratories have a staff with similar depth and level of expertise – ALS-Truesdail prides itself in having the experience, competency, and education level to provide differentiation in the level of service and support. The table below annotates ALS-Truesdail's drug testing staff alongside AORC tenure for review.

Staff Member	Title	Years of Testing Experience	AORC Membership	AORC Years
Dr. Norman Hester	Technical Director Emeritus	34	Affiliate	28
Dr. Anthony Fontana	Technical Services Manager-Senior	20	Affiliate	4
Ms. Julie Hagihara	Project Manager 4	27	Professional	22

Staff Member	Title	Years of Testing Experience	AORC Membership	AORC Years
Ms. Ridhima Rao M.S.	Laboratory Manager-Senior	8	Applied	NA
Mr. Preston Wong M.S.	Professional Scientist 3	8	Applied	NA
Ms. Jennine Ta	Quality Manager	4	NA	NA

13.2 Key Contacts and Succession Plan

The four (4) primary contacts with the Commission will be Dr. Anthony Fontana, Ms. Ridhima Rao, Ms. Julie Hagihara, and Dr. Norman Hester. Itemized responsibilities include:

- Ms. Julie Hagihara: Routine issues (reports, containers, turn-around and general logistics)
- Ms. Ridhima Rao: Overall operations of the Drug Testing Laboratory
- Dr. Anthony Fontana: Technical direction of the Drug Testing Laboratory, data review, testimony, and interpretation of results
- Dr. Norman Hester: Pharmacology and special testing

Home and/or cell phone numbers of these staff will be administered as requested after contract award. The Commission will be notified if there are any changes to its senior staff, personnel, testing procedures or security controls in writing.

Dr. Hester backs up Dr. Fontana with data review, testimony, interpretation of results and laboratory technical direction. Dr. Fontana backs up Dr. Hester for issues of pharmacology and special testing. Ms. Shelly Brady backs up Ms. Hagihara with reporting and logistics. Mr. Alex Luna backs up Ms. Ridhima Rao with the operations of the laboratory.

In the event of a sudden loss of a key staff member, cross-trained staff will cover the responsibility of continued workflow.

Please see Section 5.8.6 for the resumes of our key personnel and organizational chart.

14. 2.12 Training

14.1 2.12.A Two (2) day Training

ALS-Truesdail shall provide a minimum of two (2) day training at no additional cost to the Commission as related to specimen collection and shipment.

14.2 2.12.C Onsite Training

ALS-Truesdail shall provide the training at the specified track locations listed in the IFB.

14.3 2.12.D Training Itinerary

ALS-Truesdail shall provide at a minimum the training on sample collection, sample processing, storage and shipping as required by the Commission locations. Additional training will be provided if needed to ensure the sample integrity and chain of custody.

15. 2.13 Tech Support

15.1 2.13.A Tech Support for Testing and Services

ALS-Truesdail shall provide qualified, certified/licensed and trained personnel and certified/licensed facilities tech support for medical laboratory diagnostic testing and services as required by ISO 17025.

15.2 2.13.B State-wide Support

ALS-Truesdail shall provide state-wide support within one (1) business day of initial call. We shall provide a toll-free assistance line or allow for collect calls to be accepted Monday through Friday, five (5) days a week.

16. 2.14 Transition Period

ALS-Truesdail shall be available to work with the previous Contractor during a three (3) week transition period.

17. 2.15 Testimony (Legal Proceeding) Provision

17.1 2.15.A Data Package

ALS-Truesdail shall provide litigation data package when requested by the Commission for legal proceedings.

17.2 2.15.B Forensic Expert Testimony

ALS-Truesdail is experienced in providing expert witness testimony regarding drug positives, laboratory chain of custody practices, and good laboratory practices.

The following senior staff members are available to serve as expert witnesses. All are Chemists as determined by their affiliation with the Association of Official Racing Chemists (AORC) as professional members or affiliates.

Dr. Anthony Fontana, Technical Services Manager-Senior, oversees the day-to-day laboratory operations, research and development projects, and Quality Management Systems. He provides final technical review of all drug confirmation data reports, oversight of outside certifications and accreditations, and interacts with regulatory agencies. Dr. Fontana's laboratory management experience permits him to testify as an expert witness in all litigation cases.

Ms. Julie Hagihara, Project Manager 4, is a professional member of the Association of Racing Chemists and has been called upon to provide testimony relative to laboratory practices in most areas of testing, quality assurance/quality control and chain of custody documentation.

Ms. Ridhima Rao, Laboratory Manager, has her Masters in Forensic Science with over 8 years of analytical drug testing experience using LC-MS/MS instrumentation. Ms. Rao's oversees the management of the laboratory operation and assists with the processing and final review of the LC-MS/MS data.

Mr. Preston Wong, Professional Chemist 3, has his Masters in Forensic Science – Toxicology and over 8 years' experience in clinical drug testing laboratories. Mr. Wong is responsible for new drug validation and method development to keep ALS-Truesdail current with all new emerging drug threats.

18. 2.16 Ordering / Website Availability

18.1 2.16.A Website

ALS-Truesdail will provide on the website supply ordering system, scheduling pick-up services, test results and providing reporting data to the Commission. There will be a unique username and password to access the Commission test results.

18.2 2.16.B Order by Phone, Fax or Electronic delivery method

ALS-Truesdail will accept orders by phone, fax or electronic delivery method.

18.3 2.16.C Website Security

ALS-Truesdail will provide a user friendly with easy access website that will have security systems maintained to ensure the integrity of the data and provide security from cyber-attacks.

18.4 2.16.D Cost of orders, supplies and delivery

ALS-Truesdail shall bear the entire cost of all orders, shipping and delivery as required by this IFB.

19. 2.17 Delivery: FOB Destination

ALS-Truesdail will comply with the delivery within five (5) working days after receipt of the order.

20. 2.18 Transportation

ALS-Truesdail will comply with the delivery within five (5) working days after receipt of the order.

20.1 2.18.A-B Transportation of Samples

ALS-Truesdail uses overnight shippers/couriers that provide well-documented records of shipments that serves in evidentiary hearings. Typical cooler deliveries occur Tuesday through Friday, but alternative arrangements can be made. We mainly use Federal Express, but use of UPS or air cargo for courier services is an option.

The preparation and delivery of the samples to the Commission staff is free of charge. Commission personnel at the racetrack will perform the sealing and labeling of samples. Commission personnel complete custody slips to begin the chain of custody. In addition to Commission-approved sealing tape, each shipping container should be sealed with a wire security seal and keyed padlock. Shipping cooler instructions are provided in Attachment 1 and 2.

21. 2.19 Acceptance Standards

ALS-Truesdail will comply with inspection and acceptance/rejection of sample kits/supplies made within thirty (30) days of Commission receipt.

22. 2.20 Performance Standards

ALS-Truesdail will comply with the performance standards set forth with the Commission and understands that the state has the right to modify, add or delete Performance Standards throughout the term of the contract.

ALS-Truesdail acknowledges that all changes made to the Performance Standard will become an official part of the contract and failure to meet the Performance Standard will result in the assessment of damages.

ALS-Truesdail acknowledges that when the Performance Standard is not met we will have the opportunity to defend and respond to the insufficiency.

ALS-Truesdail understands that any compensation owed to the Commission ALS-Truesdail will follow the direction of the Commission regarding the required compensation process.

ALS-Truesdail acknowledges the Performance Standards set forth in the IFB for invoicing, reporting and supplies.



23. References

Below are three (3) references that we provide goods and services within the past five (5) years that meet the minimum qualifications in IFB section 1. In Section I are listed state agencies we have or have had recent contracts with and the name of a contact person.

New Jersey

Contract: Laboratory Testing Services for Equine and Human Drug Testing
Period: 2013-2022
Services: Testing of equine urine and blood samples and human urine samples using immunoassay methodology and a comprehensive direct instrumental analysis using AB Sciex 4000 Q Trap triple-quad LC/MS/MS or Orbitrap (UHPLC / HRMS). Quantitative analyses of blood are performed for TCO₂ and permitted medications. Confirmation testing on suspects is also performed. Comprehensive out of competition testing program of bloods including cobalt testing by ICP-MS.
Agency: New Jersey Racing Commission
Contact: Judith Nason, Acting Executive Director
Address: P.O. Box 088
Trenton, NJ 08625
Telephone: (609) 292-0613
E-mail: judith.nason@njoag.gov
Alt. Contact: Dr. Kathleen Picciano
Email: kathleen.picciano@njoag.gov

Delaware

Contract: Equine Drug Testing Services
Reference: 2015-2019
Period: April 13, 2015, through April 12, 2020
Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed
Agency: Delaware Thoroughbred Racing Commission
Contact: John F. Wayne, Executive Director
Address: 777 Delaware Park Boulevard,
Wilmington, DE 19804
Telephone: 302-994-2521 ext. 8970
E-mail: john.wayne@state.de.us
Alt. Contact: Tony Langford
Email: tony.langford@state.de.us



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Maryland

Contract: Laboratory Testing Services for Equine Drug Testing
Reference: DLLR-FY2014-007
Period: February 2014 through June 2019

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses of blood are performed for TCO₂ and Cobalt. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed.

Agency: Maryland Racing Commission
Contact: Mike Hopkins, Executive Director
Address: 300 E. Towsontowne Boulevard
Towson, Maryland 21286
Telephone: (410) 296-9682
E-mail: mike.hopkins@maryland.gov
Alt. Contact: Doreen Munday
Email: doreen.munday@maryland.gov

24. List of Current or Prior State Contracts

ALS-Truesdail maintains a long professional relationship with the racing community. Listed below are the state agencies we have or have had recent contracts with and the name of a contact person.

New Jersey

Contract: Laboratory Testing Services for Equine and Human Drug Testing
Period: 2013-2022

Services: Testing of equine urine and blood samples and human urine samples using immunoassay methodology and a comprehensive direct instrumental analysis using AB Sciex 4000 Q Trap triple-quad LC/MS/MS or Orbitrap (UHPLC / HRMS). Quantitative analyses of blood are performed for TCO₂ and permitted medications. Confirmation testing on suspects is also performed. Comprehensive out of competition testing program of bloods including cobalt testing by ICP-MS.

Agency: New Jersey Racing Commission
Contact: Judith Nason, Acting Executive Director
Address: P.O. Box 088
Trenton, NJ 08625
Telephone: (609) 292-0613
E-mail: judith.nason@njoag.gov
Alt. Contact: Dr. Kathleen Picciano
Email: kathleen.picciano@njoag.gov



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Maryland

Contract: Laboratory Testing Services for Equine Drug Testing
Reference: DLLR-FY2014-007
Period: February 2014 through June 2019

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses of blood are performed for TCO₂ and Cobalt. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed.

Agency: Maryland Racing Commission
Contact: Mike Hopkins, Executive Director
Address: 300 E. Towsontowne Boulevard
Towson, Maryland 21286
Telephone: (410) 296-9682
E-mail: mike.hopkins@maryland.gov

Alt. Contact: Doreen Munday
Email: doreen.munday@maryland.gov

Delaware

Contract: Equine Drug Testing Services
Reference: 2015-2019
Period: April 13, 2015, through April 12, 2020

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed

Agency: Delaware Thoroughbred Racing Commission
Contact: John F. Wayne, Executive Director
Address: 777 Delaware Park Boulevard,
Wilmington, DE 19804
Telephone: 302-994-2521 ext. 8970
E-mail: John.wayne@state.de.us

Alt. Contact: James Lages
Email: james.lages@state.de.us



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Arkansas

Contract: Equine and Canine Drug Testing Services
Reference: 4600026006
Period: From July 1, 2012 to June 30, 2013 (plus six one-year options)
Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by Orbitrap UHPLC / HRMS or gas chromatography / mass spectrometry (GC/MS), high performance liquid chromatography, thin-layer chromatography and immunoassay methodology. Testing of canine urine samples using a comprehensive direct instrumental analysis by Orbitrap UHPLC / HRMS or gas chromatography / mass spectrometry (GC/MS). Quantitative analyses of blood are performed for TCO₂ and permitted medications. Confirmation testing on suspects is also performed.
Agency: **Arkansas Racing Commission**
Contact: Dr. Joseph Lokanc, DVM
Address: 515 West 7th Street, Suite 505
Little Rock, AR 72203
Telephone: 501 682-1467
E-mail: Joseph.Lokanc@dfa.arkansas.gov
Alt. Contact: Smokey Campbell, Manager
Email: smokeycampbell43@me.com

Washington

Contract: Laboratory Testing Services, Equine Drug Testing
Reference: WHRC-EHT2017
Period: January 1, 2016 to December 31, 2018 (with two one-year options)
Testing equine urine using immunoassay methodology and confirmation testing on suspects. Testing of equine blood samples using a comprehensive direct instrumental analysis by the Orbitrap™ UHPLC / HRMS and quantitative analyses of blood for TCO₂ and permitted medications. Confirmation testing on suspects and cobalt testing by ICP / MS are also performed.
Services:
Agency: **Washington Racing Commission**
Contact: Doug Moore
Address: 6326 Martin Way E., Suite 209
Olympia, Washington 98516
Telephone: (360) 459-6462
E-mail: doug.moore@whrc.state.wa.us
Alt. Contact: Dr. Ron Friedman
Email: ron.friedmandvm@whrc.state.wa.us



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Oregon

Contract: Laboratory Services for Equine Urine and Blood Testing
Reference: DASPS-2675-16
Period: From November 10, 2011 to November 9, 2015 (plus seven one-year extensions).
Services: Testing equine urine using immunoassay methodology and confirmation testing on suspects. Testing of equine blood samples with a comprehensive direct instrumental analysis using Orbitrap UHPLC / HRMS and quantitative analyses of blood for permitted medications. Confirmation testing on suspects is also performed.
Agency: Oregon Racing Commission
Contact: Dr. Stacy Katler
Address: 800 N.E. Oregon St. #11, Suite 310
Portland, Oregon 97232
Telephone: (971) 673-0207
E-mail: stacy.katler@oregon.gov
Alt. Contact: Jack McGrail
Email: jack.mcgrail@oregon.gov

Trinidad & Tobago

Contract: Equine Drug Testing Services
Period: July 1, 2018, through June 30, 2019 (renewed yearly)
Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed
Agency: Trinidad & Tobago Racing Authority
Contact: Josette McDavid
Address: Santa Rosa Racing Facility
Santa Rosa Park
Churchill Roosevelt Highway
O'Meara Road, Arima
P.O. Box 79, PORT OF SPAIN
Republic of Trinidad and Tobago
Telephone: 868-646-2004
E-mail: JMcDavid@gov.tt
Alt. Contact: David Kangaloo
Email: drdkang@gmail.com



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Nebraska

Contract: Equine Testing Services

Reference: 80751 04

Period: February 21, 2018-February 22, 2021 (plus a one-year option)

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses for permitted medications and confirmation testing on suspects are also performed.

Agency: **Nebraska State Racing Commission**

Contact: Tom Sage, Executive Director

Address: 5903 Walker Avenue
Lincoln, Nebraska 68507
C.P. 01210

Telephone: (402) 471-4155

E-mail: tom.Sage@nebraska.gov

Alt. Contact: Cortney Martin

Email: cortney.martin@nebraska.gov

Wyoming

Contract: Laboratory Testing Services, Equine Drug Testing

Period: February 1, 2016 to October 31, 2019

Services: Testing equine urine using immunoassay methodology and confirmation testing on suspects. Testing of equine blood samples using a comprehensive direct instrumental analysis by the Orbitrap™ UHPLC / HRMS and quantitative analyses of blood for TCO₂ and permitted medications. Confirmation testing on suspects is also performed.

Agency: **Wyoming Pari-Mutual Commission**

Contact: Mr. Charlie Moore, Executive Director

Address: 951 Werner Court, Suite 335
Casper, Wyoming 82601

Telephone: (307) 265-4015

E-mail: charles.moore@wyo.gov

Alt. Contact: Dr. Daniel Erickson

Email: erickson.daniel@gmail.com



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Mexico

Contract: Laboratory Testing Services for Equine Drug Testing

Period: 2013-2018 (renewed yearly)

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap™ (UHPLC / HRMS) and immunoassay methodology. Also, quantitative analyses of permitted medications and confirmation testing on suspects are performed.

Agency: **Comision Mexicana de Carreras de Caballos y de Galgos, A.C.**

Contact: MVZ Guadalupe Zarinana Leguizamo

Address: Vasco de Quiroga No. 3200, 1o. piso
Mexico, D.F.

C.P. 01210

Telephone: 011-52-55-53870636

E-mail: lupita.zarinana@cmccgac.com.mx

Alt. Contact Dr. Rafael Lopez

Email: elopez@cie.com.mx

National Steeplechase

Contract: Laboratory Testing Services for Equine Drug Testing

Period: Open (renewed yearly)

Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap™ (UHPLC / HRMS) and immunoassay methodology. Also, quantitative analyses of permitted medications and confirmation testing on suspects are performed.

Agency: **National Steeplechase Association**

Contact: Peter McGivney

Address: 400 Fair Hill Drive
Elkton, MD 21921

Telephone: 410-392-0700

E-mail: petermcgivney@nationalsteeplechase.com

Alt. Contact Nancy Dougherty

Email: nancydougherty@nationalsteeplechase.com



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Idaho

Contract: Laboratory Services, Detection of Prohibited Substances in Blood Samples
Reference: ISP-19-139
Period: February 2019-February 2020
Services: Testing of equine blood samples using a comprehensive direct instrumental analysis by Orbitrap UHPLC / HRMS, high performance liquid chromatography and immunoassay methodology. Quantitative analyses of blood for permitted medications. Confirmation testing on suspects is also performed.

Agency: Idaho Racing Commission
Contact: Ardie Noyes
Address: 700 S. Stratford Drive,
Meridian, ID 83642
Telephone: 208-884-7080
E-mail: ardie.noyes@isp.idaho.gov
Alt. Contact: Dave Wheeler
Email: davewheeler8029@hotmail.com

Iowa

Contract: Laboratory Services, Detection of Prohibited Substances in Blood Samples
Reference: N/A
Period: Open, renewed yearly
Services: Testing of equine blood samples using a comprehensive direct instrumental analysis by Orbitrap UHPLC / HRMS, high performance liquid chromatography and immunoassay methodology. Quantitative analyses of blood for permitted medications. Confirmation testing on suspects is also performed.

Agency: Iowa Harness Horse Association
Contact: Mark Mintun
Address: 2185 272nd Drive
Bedford, IA 50833
Telephone: 641-236-6558
E-mail: mwmintun@gmail.com
Alt. Contact: Jim Reese
Email: iowaharnesshorseassociation@gmail.com



Nevada

Contract: Drug Testing - Horses and Mules
Period: Open, renewed yearly
Services: Testing of urine and blood from horses and mules by a comprehensive direct instrumental analysis using Orbitrap™ (UHPLC / HRMS) and immunoassay methodology. Testing includes confirmations on suspect samples.
Agency: Nevada State Gaming Control Board
Contact: Richard W. Scott, D.V.M
Address: 8425 Log Cabin Way
Las Vegas, Nevada 89143
Telephone: (702) 739-8781
E-mail: lasrscott@aol.com

Massachusetts

Contract: Laboratory Testing Services for Equine Drug Testing
Reference: MGC-2012-Equine
Period: 2013-2016
Services: Testing of equine urine and blood samples using a comprehensive direct instrumental analysis by our Orbitrap (UHPLC / HRMS) and immunoassay methodology. Quantitative analyses for permitted medications and TCO₂. Confirmation testing on suspects are also performed.
Agency: The Massachusetts Gaming Commission
Contact: Dr. Alexandra Lightbown, Director of Racing
Address: 101 Federal Street, 23rd Floor
Boston, MA 02110
Telephone: (617) 979-8421
E-mail: Alexandra.Lightbown@MassMail.State.MA.US

West Virginia

Contract: Laboratory Testing Services, Equine Drug Testing
Period: August 1, 2014 to July 31, 2015
Testing equine urine using immunoassay methodology and confirmation testing on suspects. Testing of equine blood samples using a comprehensive direct instrumental analysis by the Orbitrap™ UHPLC / HRMS and quantitative analyses of blood for TCO₂ and permitted medications. Confirmation testing on suspects is also performed.
Services:
Agency: West Virginia Racing Commission
Contact: Mr. Joe Moore, Executive Director
Address: 900 Pennsylvania Avenue
Charleston, West Virginia 25362
Telephone: (304) 558-2150
E-mail: joe.k.moore@wv.gov



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Indiana

Contract: Equine Drug Testing Services
Reference: 10-3 and 15-03
Period: From March 17, 2010 to March 16, 2012 (plus one two-year option) and March 20, 2015 to May 12, 2015
Services: Testing equine urine and blood samples through direct instrumental analyses, immunoassay methodology and confirmation testing on suspects. Quantitative analyses of blood samples for permitted medications are also performed
Agency: Indiana Horse Racing Commission
Contact: Deena Pitman, Assistant Executive Director
Address: 1302 N. Meridian St., Suite 175
Indianapolis, Indiana 46202
Telephone: (317) 233-3119
E-mail: Dpitman@hrc.in.gov

Puerto Rico

Contract: Laboratory Services for Equine Urine and Blood Testing
Period: July 1, 2014 - June 30, 2015
Services: Testing of urine and blood with a comprehensive direct instrumental analysis using Obritrapp™ UHPLC / HRMS. Confirmation of samples is also included.
Agency: Puerto Rico Horse Racing Industry and Sports Administration
Contact: Monica Andreu Martinez
Address: P.O. Box 29156
65th Infantry Station
Rio Piedras, Puerto Rico 00929
Telephone: (287) 768-2005
E-mail: andream@adh.qubierno.pr



Attachment 1 Shipping Cooler Instructions for Equine Samples

1. The coolers will arrive in boxes and will come locked with a padlock, but please discard the boxes after arrival and we would appreciate it if you do not ship the coolers back in those boxes.



Cooler Inserts

2. When placing the samples back into the cooler please place the urine jars into the cardboard box that contains plastic dividers. The box can hold 20 urine jars. Stack the foam holder on top of the box.



Cooler with urine jars



3. Place blood tubes securely into the foam holder.



Blood Tubes

4. Put blood tubes into the front of the cooler.



Blood tubes and urine jars

5. Place blue ice on the side of the cooler.



Secured cooler for transport



- Securely place 10 additional urine jars into the foam holder and place it on top of the cardboard box.



- Close cooler tightly. Fasten the hasp of the cooler. Place the plastic, numbered, wired security tag around the hasp on the outside of the cooler and close tightly. Make sure the number of the security tag is noted on the chain of custody form.

DAIL LAB



Outside of cooler with plastic security tag affixed

- Place the padlock around the hasp of the cooler and lock the padlock.



Outside of cooler with plastic security tag & padlock attached



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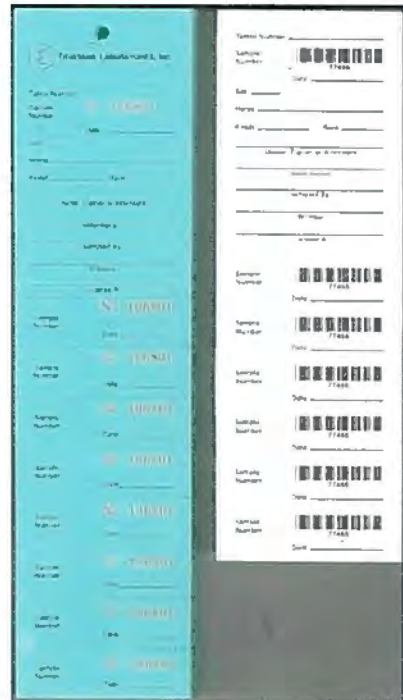
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- Affix the self-adhesive Fed Ex air bill on to the luggage tag. Place luggage tag around the handle of the cooler and remove the adhesive backing



Airbill affixed to cooler

- Write all the appropriate information onto each sample id tag. Write the race date onto each of the peel-off tag and use one peel-off tag for each sample container.



Sample ID tags



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11. Security tape should be placed so the sample number is seen through the tape



Please take 3 blood tubes per sample.
Ship the two blood tubes to the laboratory.



Please note: Urine container, blood tube and security tape may differ.



12. Please mark on the chain of custody form in the sex column the sex of the horse by the following notations.
(H=male, colt. F=filly, mare. G=Gelding)
13. For TCO2 please mark "TCO2" on the top of the chain of custody form



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Chain-of-Custody Form

Race Track: _____ Race Date: _____

Sample No.	Sex	Sample Type		Medications		Collected By	Sealed By	Supervisor
		Urine	Blood	Bute	Lasix			

Veterinarian/Commission Representative: _____ Date: _____
Security Seal #: _____ Sealed By: _____ Date: _____
Samples Secured and Locked By: _____ Date: _____
Carrier Service: _____ Date: _____
Samples Received By: _____ Date: _____

Phone: (714) 730-6239 · FAX: (714) 730-6462 · www.alsglobal.com · Email: julie.hagihara@alsglobal.com



Attachment 2 Shipping Cooler Instructions for Canine Samples

1. The coolers will arrive in boxes and will come locked with a padlock, but please discard the boxes after arrival and we would appreciate it if you do not ship the coolers back in those boxes.



Cooler Inserts

2. When placing the samples back into the cooler please place the urine jars securely inside the foam holder. Stack each foam holder on top of each other.



Cooler with urine jars

3. Place cardboard on top of the urine jars to secure it during transit



Secured cooler for transport



4. Close cooler tightly. Fasten the hasp of the cooler. Place the plastic, numbered, wired security tag around the hasp on the outside of the cooler and close tightly. Make sure the number of the security tag is noted on the chain of custody form.

DAIL LAB.



Outside of cooler with plastic security tag affixed

5. Place the padlock around the hasp of the cooler and lock the padlock.



Outside of cooler with plastic security tag & padlock attached

6. Affix the self-adhesive Fed Ex air bill on to the luggage tag. Place luggage tag around the handle of the cooler and remove the adhesive backing



Airbill affixed to cooler



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7. Write all the appropriate information onto each sample id tag. Write the race date onto each of the peel-off tag and use one peel-off tag for each sample container.



Sample ID tags

8. Security tape should be placed so the sample number is seen through the tape



9. Please mark on the chain of custody form in the sex column the sex of the animal by the following notations. (H=male or F=female)



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TRUESDAIL
LABORATORIES, INC.

3337 MICHELSON DRIVE, SUITE CN750 IRVINE, CALIFORNIA 92612



Chain-of-Custody Form

Race Track: _____ Race Date: _____

Sample No.	Sex	Sample Type		Medications		Collected By	Sealed By	Supervisor
		Urine	Blood	Bute	Lasix			

Vetennanan/Commission Representative: _____ Date: _____
 Security Seal #: _____ Sealed By: _____ Date: _____
 Samples Secured and Locked By: _____ Date: _____
 Carrier Service: _____ Date: _____
 Samples Received By: _____ Date: _____

Phone: (714) 730-6239 · FAX: (714) 730-6462 · www.alsglobal.com · Email: julie.hagihara@alsglobal.com



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DbA ALS-Truesdail Laboratories

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Attachment A Bid Response Packet SP-0057

BID RESPONSE PACKET
SP-19-0057

BID SIGNATURE PAGE

Type or Print the following information.


PROSPECTIVE CONTRACTOR'S INFORMATION				
Company:	ALS Group USA, Corp			
Address:	3337 Michelson Dr., Suite CN750			
City:	Irvine	State:	CA	Zip Code: 92612
Business Designation:	<input type="checkbox"/> Individual <input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietorship <input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Public Service Corp <input type="checkbox"/> Nonprofit	
Minority and Women-Owned Designation*:	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> African American	<input type="checkbox"/> American Indian <input type="checkbox"/> Hispanic American	<input type="checkbox"/> Asian American <input type="checkbox"/> Pacific Islander American	<input type="checkbox"/> Service Disabled Veteran <input type="checkbox"/> Women-Owned
	AR Certification #: _____		* See <i>Minority and Women-Owned Business Policy</i>	

PROSPECTIVE CONTRACTOR CONTACT INFORMATION			
Provide contact information to be used for bid solicitation related matters.			
Contact Person:	Anthony Fontana, PhD	Title:	Technical Services Manager-Senior
Phone:	714-730-6239	Alternate Phone:	949-355-2735
Email:	anthony.fontana@alsglobal.com		

CONFIRMATION OF REDACTED COPY
<input type="checkbox"/> YES, a redacted copy of submission documents is enclosed. <input checked="" type="checkbox"/> NO, a redacted copy of submission documents is <u>not</u> enclosed. I understand a full copy of non-redacted submission documents will be released if requested. <i>Note: If a redacted copy of the submission documents is not provided with Prospective Contractor's response packet, and neither box is checked, a copy of the non-redacted documents, with the exception of financial data (other than pricing), will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA). See Bid Solicitation for additional information.</i>
ILLEGAL IMMIGRANT CONFIRMATION
By signing and submitting a response to this <i>Bid Solicitation</i> , a Prospective Contractor agrees and certifies that they do not employ or contract with illegal immigrants. If selected, the Prospective Contractor certifies that they will not employ or contract with illegal immigrants during the aggregate term of a contract.
ISRAEL BOYCOTT RESTRICTION CONFIRMATION
By checking the box below, a Prospective Contractor agrees and certifies that they do not boycott Israel, and if selected, will not boycott Israel during the aggregate term of the contract.
<input checked="" type="checkbox"/> Prospective Contractor does not and will not boycott Israel.

An official authorized to bind the Prospective Contractor to a resultant contract must sign below.

The signature below signifies agreement that any exception that conflicts with a Requirement of this *Bid Solicitation* will cause the Prospective Contractor's bid to be rejected:

Authorized Signature:  Title: Laboratory Director
Use Ink Only

Printed/Typed Name: Randy L. Gates Date: 05/10/19

OFFICIAL BID PRICE SHEET

DRUG TESTING SERVICES - VETERINARY				
OAKLAWN PARK - HOT SPRINGS, AR - EQUINE				
Item	Description	Estimated Annual Quantity	Cost per each Test	Estimated Extended Total Cost
1	Milkshake TC02*	570	\$10.00	\$5,700.00
2	Super Test	1,200	\$98.00	\$117,600.00
3	Super Test (TOBA)	100	\$98.00	\$9,800.00
4	Cobalt	300	\$25.00	\$7,500.00
5	EPO	150	\$15.00	\$2,250.00
6	Equine Hair Testing	500	\$80.00	\$40,000.00
7	Out of Competition Testing	500	\$98.00	\$49,000.00
OAKLAWN PARK -TOTAL				\$231,850.00

SOUTHLAND PARK - WEST MEMPHIS, AR - CANINE				
Item	Description	Estimated Annual Quantity	Cost per each Test	Estimated Extended Total Cost
1	Urine Testing	6,200	\$40.00	\$248,000.00
SOUTHLAND PARK - TOTAL				\$248,000.00

ESTIMATED ANNUAL GRAND TOTAL	\$479,850.00
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Per IFB item 2.13:

Tech Support Number: 714-730-6239 ALS-Truesdail will accept collect calls.

Per IFB item 2.17:

The agency requests delivery of supplies within five (5) calendar days after receipt of the order. If this delivery date cannot be met, the Prospective Contractor **must** state below the alternate number of days required to begin the service and/or place the supplies in the ordering agency's designated location. Failure to state the alternate delivery time obligates the Contractor to complete delivery by the agency's requested date. Extended delivery dates may be considered when in the best interest of the State.

Alternate Delivery: _____ Days after receipt of order.



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Attachment B ALS-Truesdail Equal Opportunity Policy



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3. Equal Employment Opportunity

3.1 Equal Employment Opportunity

No qualified disabled person shall, on the basis of a disability, be subject to discrimination in employment. With respect to employment, a "qualified disabled person" is a disabled person who, with or without reasonable accommodation, can perform the essential functions of the job in question.

The Company provides equal employment opportunity to qualified persons without regard to race, color, religion, creed, sex, sexual orientation, gender identity, national origin, age, veteran status, or any other category protected by law. Our policy relates to all phases of employment, including, but not limited to, recruitment, placement, promotion, training, demotion, transfer, layoff, recall, terminations, rate of pay, employee benefits, and participation in all Company-sponsored employee activities.



No ALS facility or department shall discriminate between individuals on the basis of sex or other protected class, by paying wages at a rate less than the rate paid to individuals of the opposite sex for work which requires equal skill, experience, effort, responsibility, and which is performed under similar working conditions.

3.2 Diversity Policy

ALS is committed to ensuring that gender is not a factor in determining pay, employment conditions, promotions and any other aspect of working life at ALS. The Diversity Policy contains further information on the approach to gender diversity in all our businesses globally. Our gender equity performance as a company is tracked and monitored by the ALS Board.



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The Diversity Policy is based on the following six principles:



Treat others with respect, value differences and maintain privacy.



Value diversity and it will bring opportunities to enhance our businesses.



Women and minority cultural groups will not be disadvantaged in gaining employment and accessing benefits and privileges that other persons in the company enjoy.



Transparency will be exercised in all recruitment decisions from board level to entry level.



Workforce composition statistics will be reviewed annually to determine if there are any areas that warrant an increased focus on diversity.



Public reporting of progress against ALS's diversity objectives.



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Attachment C Grant Disclosure Form

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SOCIAL SECURITY NUMBER: _____ FEDERAL ID NUMBER: 76 --0606679 SUBCONTRACTOR: Yes No SUBCONTRACTOR NAME: _____
 TAXPAYER ID #: -- -- OR 76 --0606679

TAXPAYER ID NAME: ALS Group USA, Corp IS THIS FOR: Goods? Services? Both?

YOUR LAST NAME: _____ FIRST NAME: _____ M.I.: _____

ADDRESS: 3337 Michelson Dr., Suite CN 750

CITY: Irvine STATE: CA ZIP CODE: 92612 COUNTRY: US

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS *

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former: member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (√)		Name of Position of Job Held <small>[senator, representative, name of board/ commission, data entry, etc.]</small>	For How Long?		What is the person(s) name and how are they related to you? <small>[i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.]</small>	
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Relation
General Assembly							
Constitutional Officer							
State Board or Commission Member							
State Employee							

None of the above applies

FOR AN ENTITY (BUSINESS) *

Indicate below if any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (√)		Name of Position of Job Held <small>[senator, representative, name of board/commission, data entry, etc.]</small>	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?		
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								

None of the above applies

*NOTE: PLEASE LIST ADDITIONAL DISCLOSURES ON SEPARATE SHEET OF PAPER IF MORE SPACE IS NEEDED

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

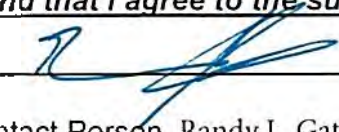
1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.

2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM** completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

I certify under penalty of perjury, to the best of my knowledge and belief, all of the above information is true and correct and that I agree to the subcontractor disclosure conditions stated herein.

Signature  Title Laboratory Director Date 05/10/19
 Entity Contact Person Randy L. Gates Title Laboratory Director Phone No. 714-730-6239

AGENCY USE ONLY

Agency Number _____ Agency Name _____ Agency Contact Person _____ Contact Phone No. _____ Contract or Grant No. _____

FORMS AVAILABLE FROM OFFICE OF DISCLOSURE AND REVIEW (501) 682-5407