Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Flagstaff MS4 Grab	15-4636/151071	WW	11.03.15/1441	11.03.15/1506

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
15-4636	Total Coliform	**2419.6**	1.0	MPN	SM 9223 B	-
15-4636	*E.coli*	**387.3**	1.0	MPN	SM 9223 B	-
151071	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Reviewed By: _____
Spencer Ropte
Laboratory Technician

Nortest Analytical
Laboratory ID AZ0420

Report Printed: 11/23/2015

ANALYTICAL REPORT

November 10, 2015

Nortest

Sample Delivery Group:	L798818
Samples Received:	11/05/2015
Project Number:	
Description:	

Report To: Scott Bajer and Spencer Ropte
2400 E. Huntington Dr.
Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE

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151071 L798818-01 WW

Collected by	Collected date/time	Received date/time
	11/03/15 14:41	11/05/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827071	1	11/06/15 10:21	11/07/15 12:53	KMP

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/07/2015 12:53	WG827071
Acenaphthene	ND		0.00100	1	11/07/2015 12:53	WG827071
Acenaphthylene	ND		0.00100	1	11/07/2015 12:53	WG827071
Benzo(a)anthracene	ND		0.00100	1	11/07/2015 12:53	WG827071
Benzo(a)pyrene	ND		0.00100	1	11/07/2015 12:53	WG827071
Benzo(b)fluoranthene	ND		0.00100	1	11/07/2015 12:53	WG827071
Benzo(g,h,i)perylene	ND		0.00100	1	11/07/2015 12:53	WG827071
Benzo(k)fluoranthene	ND		0.00100	1	11/07/2015 12:53	WG827071
Chrysene	ND		0.00100	1	11/07/2015 12:53	WG827071
Dibenz(a,h)anthracene	ND		0.00100	1	11/07/2015 12:53	WG827071
Fluoranthene	ND		0.00100	1	11/07/2015 12:53	WG827071
Fluorene	ND		0.00100	1	11/07/2015 12:53	WG827071
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/07/2015 12:53	WG827071
Naphthalene	ND		0.00100	1	11/07/2015 12:53	WG827071
Phenanthrene	ND		0.00100	1	11/07/2015 12:53	WG827071
Pyrene	ND		0.00100	1	11/07/2015 12:53	WG827071
(S) Nitrobenzene-d5	*99.0*		*21.9-134*		*11/07/2015 12:53*	WG827071
(S) 2-Fluorobiphenyl	*86.1*		*37.9-123*		*11/07/2015 12:53*	WG827071
(S) p-Terphenyl-d14	*73.6*		*34.6-131*		*11/07/2015 12:53*	WG827071

Method Blank (MB)

(MB) 11/07/15 02:31

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*96.3*		*21.9-134*
(S) 2-Fluorobiphenyl	*90.9*		*37.9-123*
(S) p-Terphenyl d14	*97.1*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00445	0.00439	89.1	87.7	48.2-121			1.52	20
Acenaphthylene	0.00500	0.00454	0.00445	90.7	89.1	47.6-120			1.83	20
Anthracene	0.00500	0.00460	0.00446	92.0	89.2	52.6-121			3.09	20
Benzo(a)anthracene	0.00500	0.00516	0.00476	103	95.3	50.7-122			8.02	20
Benzo(b)fluoranthene	0.00500	0.00488	0.00471	97.6	94.1	47.2-130			3.59	20
Benzo(k)fluoranthene	0.00500	0.00445	0.00404	88.9	80.9	48.7-124			9.46	20
Benzo(g,h,i)perylene	0.00500	0.00462	0.00425	92.5	84.9	46.4-129			8.52	20
Benzo(a)pyrene	0.00500	0.00497	0.00459	99.3	91.8	51.9-121			7.89	20
Chrysene	0.00500	0.00452	0.00435	90.3	86.9	49.2-129			3.80	20
Dibenz(a,h)anthracene	0.00500	0.00463	0.00416	92.6	83.2	44.4-134			10.7	20
Fluoranthene	0.00500	0.00466	0.00442	93.2	88.4	53.2-124			5.29	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00456	0.00436	91.2	87.2	51.3-120			4.56	20
Naphthalene	0.00500	0.00441	0.00435	88.2	87.0	43.8-111			1.40	20
Phenanthrene	0.00500	0.00453	0.00438	90.6	87.7	52.5-120			3.30	20
Pyrene	0.00500	0.00478	0.00449	95.5	89.8	53.5-140			6.13	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00455	0.00419	91.0	83.8	44.2-128			8.30	20
(S) Nitrobenzene-d5				*93.9*	*91.3*	*21.9-134*				
(S) 2-Fluorobiphenyl				*88.6*	*85.8*	*37.9-123*				
(S) p-Terphenyl-d14				*88.6*	*85.4*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1106_03-1

11/07/2015 01:29

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1106_03-1	152820	93054	157177	161586	168174
Upper Limit		306000	186000	314000	323000	336000
Lower Limit		76400	46500	78600	80800	84100
LCS R3091546-1 WG827071 1x	1106_04	146914	88846	149149	147496	154223
LCSD R3091546-2 WG827071 1x	1106_05	152678	92282	153585	151734	158761
BLANK R3091546-3 WG827071 1x	1106_06	137486	83034	135530	131508	137231
L798818-01 WG827071 1x	1106_36	147880	89421	149325	150811	158572

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [14] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

75818 D055

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE ____ OF ____

CLIENT: Arizona Game + Fish Dept	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ 85086
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: DATE:

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	PAH (2 bottles)	Lead - QT	SAMPLE / COOLER TEMPERATURE: / LABORATORY IDENTIFICATION
AZGFD-FLAGGRAB	11/3/15	14:41	Flagstaff MS4 Grab	2		X	X							X	X	151071 01

RELINQUISHED BY (SIGNATURE): Nora Clark — PRINT NAME: Nora Clark, Spencer Rice
RECEIVED BY (SIGNATURE): [signature] — PRINT NAME: Spencer Rice — DATE / TIME: 11/3/15 15:06
[signature] — 2=G — 11/5/15 09:00

COMMENTS: Please email results to: nclark@azgfd.gov
6436713522243
☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME: ☐ STANDARD ☐ OTHER (SPECIFY) ____

3.1 µ°

346 FRONT - 2006
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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game + Fish Dept	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ 85086
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	REQUESTED ANALYSES: PAH (2 bottles)	E.coli - QT										LABORATORY IDENTIFICATION
AZGFD-FLAGGRAB	11/3/15	14:41	Flagstaff MS4 Grab	3		X	X								X	X										151071
																										in@1535 out@11/5 1103
																										SB 11/5 ~~1535~~ SB
																										15-~~2~~ 4636
																										Results
																										TC EC
																										2419.6 387.3

SAMPLE / COOLER TEMPERATURE:

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
Nora Clark	Nora Clark	[signature]	[signature]	11/3/15 15:06
[signature]	[signature]			

COMMENTS: Please email results to: nclark@azgfd.gov

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Flagstaff Composite MS4	151107/15-4812/F15-1988	WW	11.15.15/2458	11.15.15/1015

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
15-4812	Total Coliform	**>2419.6**	1.0	MPN	SM 9223 B	-
15-4812	*E.coli*	**>2419.6**	1.0	MPN	SM 9223 B	-
F15-1988	Fecal Coliform	**TNTC**	1	CFU	SM 9222 D	-
151107	BOD	**57**	2	mg/L	SM 5210 B	-
151107	Turbidity	**110**	0.1	NTU	SM 2130 B	-
151107	TSS	**185**	1	mg/L	SM 2540 D	-
151107	TDS	**222**	1	mg/L	SM 2540 C	-
151107	Nitrate-Nitrite	**0.108**	0.100	mg/L	SM 4500 NO3 F	-
151107	Chloride	**81.6**	1.00	mg/L	EPA 300.0	-
151107	Sulfate	**<5.00**	5.00	mg/L	EPA 300.0	-
151107	COD	**178**	10.0	mg/L	EPA 410.4	-
151107	Arsenic	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151107	Barium	**0.0846**	0.00500	mg/L	EPA 200.7	-
151107	Cadmium	**<0.0200**	0.00200	mg/L	EPA 200.7	-
151107	Calcium	**13.7**	1.00	mg/L	EPA 200.7	-
151107	Chromium	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151107	Copper	**0.0220**	0.0100	mg/L	EPA 200.7	-
151107	Lead	**0.00685**	0.00500	mg/L	EPA 200.7	-

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151107	Nickel	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151107	Selenium	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151107	Silver	**<0.00500**	0.00500	mg/L	EPA 200.7	-
151107	Sodium	**55.0**	1.00	mg/L	EPA 200.7	-
151107	Zinc	**0.151**	0.0500	mg/L	EPA 200.7	-
151107	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Quality Control

Analyte	Sample	Result	Units	Spiked Level	% Recovery/ RPD/ Std Dev	Recovery/RPD Limits	Notes/ Qualifiers
TDS	Blank	<1	mg/L	---	---	---	---
TDS	Duplicate	465	mg/L	472	99%	10%	---
TSS	Blank	<1	mg/L	---	---	---	---
TSS	Duplicate	1	mg/L	1	100%	10%	---

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 27, 2015

Nortest

Sample Delivery Group:	L801868
Samples Received:	11/18/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304

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151107 L801868-01 WW

Collected by	Collected date/time	Received date/time
	11/15/15 23:59	11/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG830440	1	11/20/15 15:56	11/22/15 16:53	WBD
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG830124	1	11/19/15 21:45	11/21/15 09:00	KMP
Wet Chemistry by Method 300.0	WG830628	1	11/21/15 16:43	11/21/15 16:43	NJM
Wet Chemistry by Method 353.2	WG831737	1	11/26/15 10:18	11/26/15 10:18	JAL
Wet Chemistry by Method 410.4	WG830317	1	11/20/15 08:36	11/20/15 11:59	JER

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	81.6		1.00	1	11/21/2015 16:43	WG830628
Sulfate	ND		5.00	1	11/21/2015 16:43	WG830628

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.108		0.100	1	11/26/2015 10:18	WG831737

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	178		10.0	1	11/20/2015 11:59	WG830317

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	11/22/2015 16:53	WG830440
Barium	0.0846		0.00500	1	11/22/2015 16:53	WG830440
Cadmium	ND		0.00200	1	11/22/2015 16:53	WG830440
Calcium	13.7		1.00	1	11/22/2015 16:53	WG830440
Chromium	ND		0.0100	1	11/22/2015 16:53	WG830440
Copper	0.0220		0.0100	1	11/22/2015 16:53	WG830440
Lead	0.00685		0.00500	1	11/22/2015 16:53	WG830440
Nickel	ND		0.0100	1	11/22/2015 16:53	WG830440
Selenium	ND		0.0100	1	11/22/2015 16:53	WG830440
Silver	ND		0.00500	1	11/22/2015 16:53	WG830440
Sodium	55.0		1.00	1	11/22/2015 16:53	WG830440
Zinc	0.151		0.0500	1	11/22/2015 16:53	WG830440

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/21/2015 09:00	WG830124
Acenaphthene	ND		0.00100	1	11/21/2015 09:00	WG830124
Acenaphthylene	ND		0.00100	1	11/21/2015 09:00	WG830124
Benzo(a)anthracene	ND		0.00100	1	11/21/2015 09:00	WG830124
Benzo(a)pyrene	ND		0.00100	1	11/21/2015 09:00	WG830124
Benzo(b)fluoranthene	ND		0.00100	1	11/21/2015 09:00	WG830124
Benzo(g,h,i)perylene	ND		0.00100	1	11/21/2015 09:00	WG830124
Benzo(k)fluoranthene	ND		0.00100	1	11/21/2015 09:00	WG830124
Chrysene	ND		0.00100	1	11/21/2015 09:00	WG830124
Dibenz(a,h)anthracene	ND		0.00100	1	11/21/2015 09:00	WG830124
Fluoranthene	ND		0.00100	1	11/21/2015 09:00	WG830124
Fluorene	ND		0.00100	1	11/21/2015 09:00	WG830124
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/21/2015 09:00	WG830124
Naphthalene	ND		0.00100	1	11/21/2015 09:00	WG830124
Phenanthrene	ND		0.00100	1	11/21/2015 09:00	WG830124
Pyrene	ND		0.00100	1	11/21/2015 09:00	WG830124
(S) Nitrobenzene-d5	*102*		*21.9-134*		*11/21/2015 09:00*	WG830124
(S) 2-Fluorobiphenyl	*78.7*		*37.9-123*		*11/21/2015 09:00*	WG830124
(S) p-Terphenyl-d14	*70.2*		*34.6-131*		*11/21/2015 09:00*	WG830124

Method Blank (MB)

(MB) 11/21/15 08:51

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Chloride	ND		1.00
Sulfate	ND		5.00

L801846-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/21/15 12:38 • (DUP) 11/21/15 12:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2.96	2.92	1	1		20
Sulfate	4.09	4.07	1	0		20

L801861-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/21/15 15:02 • (DUP) 11/21/15 15:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10.8	10.8	1	0		20
Sulfate	37.0	37.0	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/21/15 09:05 • (LCSD) 11/21/15 09:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	39.8	39.8	100	99	90-110			0	20
Sulfate	40.0	40.8	40.9	102	102	90-110			0	20

L801471-02 Original Sample (OS) • Matrix Spike (MS)

(OS) 11/21/15 10:42 • (MS) 11/21/15 10:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	ND	0.000	0	1	80-120	M2

L801851-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/21/15 14:04 • (MS) 11/21/15 14:19 • (MSD) 11/21/15 14:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	5.00	272	760	760	98	97	10	80-120			0	20
Sulfate	5.00	387	840	837	91	90	10	80-120			0	20

Method Blank (MB)

(MB) 11/26/15 09:48

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Nitrate-Nitrite	ND		0.100

L801726-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/26/15 09:55 • (DUP) 11/26/15 09:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.439	0.419	1	5.00		20

L801805-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/26/15 10:15 • (DUP) 11/26/15 10:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/26/15 09:51 • (LCSD) 11/26/15 09:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	5.00	4.48	5.02	90.0	100	90.0-110			12.0	20

L801733-04 Original Sample (OS) • Matrix Spike (MS)

(OS) 11/26/15 09:58 • (MS) 11/26/15 09:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	5.00	1.82	6.60	96.0	1	90.0-110	

L801868-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/26/15 10:18 • (MS) 11/26/15 10:19 • (MSD) 11/26/15 10:20

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Nitrate-Nitrite	5.00	0.108	4.63	4.72	90.0	92.0	1	90.0-110			2.00	20

Method Blank (MB)

(MB) 11/20/15 11 54

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
COD	ND		10.0

L801820-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/20/15 11 57 • (DUP) 11/20/15 11:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
COD	36.6	36.6	1	0.000		5

L801822-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/20/15 11:58 • (DUP) 11/20/15 11:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
COD	39 1	39 0	1	0.256		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/20/15 11:55 • (LCSD) 11/20/15 11:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	241	241	99.6	99 6	90 0-110			0.000	5

L801845-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/20/15 11 58 • (MS) 11/20/15 11:58 • (MSD) 11/20/15 11:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	82.6	496	496	103	103	1	90 0-110			0 000	5

Method Blank (MB)

(MB) 11/22/15 15:30

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Arsenic	ND		0.0100
Barium	ND		0.00500
Cadmium	ND		0.00200
Calcium	ND		1.00
Chromium	ND		0.0100
Copper	ND		0.0100
Lead	ND		0.00500
Nickel	ND		0.0100
Selenium	ND		0.0100
Silver	ND		0.00500
Sodium	ND		1.00
Zinc	ND		0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/22/15 15:33 • (LCSD) 11/22/15 15:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	1.04	1.02	104	102	85-115			2	20
Barium	1.00	1.03	1.01	103	101	85-115			2	20
Cadmium	1.00	1.03	1.01	103	101	85-115			2	20
Calcium	10.0	10.0	9.80	100	98	85-115			2	20
Chromium	1.00	1.05	1.03	105	103	85-115			2	20
Copper	1.00	1.02	0.992	102	99	85-115			2	20
Lead	1.00	1.04	1.02	104	102	85-115			2	20
Nickel	1.00	1.03	1.01	103	101	85-115			1	20
Selenium	1.00	1.07	1.04	107	104	85-115			2	20
Silver	1.00	1.05	1.02	105	102	85-115			2	20
Sodium	10.0	10.1	9.84	101	98	85-115			2	20
Zinc	1.00	1.00	0.983	100	98	85-115			2	20

L799234-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 15:39 • (MS) 11/22/15 15:45 • (MSD) 11/22/15 15:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Arsenic	1.00	0.00309	1.04	1.09	104	108	1	75-125			4	20
Barium	1.00	0.0345	1.06	1.09	102	106	1	75-125			4	20
Cadmium	1.00	ND	1.03	1.07	103	107	1	75-125			4	20
Calcium	10.0	28.8	39.3	39.5	105	107	1	75-125			1	20
Chromium	1.00	0.000990	1.04	1.08	104	108	1	75-125			4	20
Copper	1.00	ND	1.02	1.06	102	106	1	75-125			3	20
Lead	1.00	ND	1.04	1.08	104	108	1	75-125			4	20
Nickel	1.00	0.00194	1.03	1.07	103	106	1	75-125			4	20
Selenium	1.00	0.00589	1.07	1.11	106	111	1	75-125			4	20
Silver	1.00	ND	1.04	1.08	104	108	1	75-125			4	20
Sodium	10.0	6.27	16.2	16.5	99	103	1	75-125			2	20
Zinc	1.00	0.00475	0.994	1.03	99	103	1	75-125			4	20

L801866-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 17:06 • (MS) 11/22/15 17:09 • (MSD) 11/22/15 17:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Arsenic	1.00	0.00243	1.03	1.02	103	102	1	75-125			0	20
Barium	1.00	0.00513	1.02	1.02	102	101	1	75-125			0	20
Cadmium	1.00	ND	1.02	1.02	102	102	1	75-125			0	20
Calcium	10.0	2.11	11.9	11.9	98	98	1	75-125			0	20
Chromium	1.00	0.0105	1.05	1.05	104	104	1	75-125			0	20
Copper	1.00	0.00226	1.01	1.00	100	100	1	75-125			0	20
Lead	1.00	0.00161	1.02	1.03	102	103	1	75-125			1	20
Nickel	1.00	0.000481	1.02	1.02	102	102	1	75-125			0	20
Selenium	1.00	0.00133	1.05	1.04	104	104	1	75-125			0	20
Silver	1.00	ND	1.03	1.03	103	103	1	75-125			0	20
Sodium	10.0	0.347	10.1	10.1	98	98	1	75-125			0	20
Zinc	1.00	0.347	1.32	1.33	98	98	1	75-125			0	20

Method Blank (MB)

(MB) 11/21/15 01:04

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*81.1*		*21.9-134*
(S) 2-Fluorobiphenyl	*78.3*		*37.9-123*
(S) p-Terphenyl-d14	*75.8*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/21/15 00:22 • (LCSD) 11/21/15 00:43

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00417	0.00427	83.4	85.5	48.2-121			2.46	20
Acenaphthylene	0.00500	0.00428	0.00437	85.7	87.4	47.6-120			2.00	20
Anthracene	0.00500	0.00415	0.00422	83.0	84.3	52.6-121			1.58	20
Benzo(a)anthracene	0.00500	0.00424	0.00440	84.8	88.1	50.7-122			3.78	20
Benzo(b)fluoranthene	0.00500	0.00430	0.00443	86.1	88.6	47.2-130			2.93	20
Benzo(k)fluoranthene	0.00500	0.00422	0.00440	84.4	88.0	48.7-124			4.27	20
Benzo(g,h,i)perylene	0.00500	0.00449	0.00457	89.8	91.5	46.4-129			1.84	20
Benzo(a)pyrene	0.00500	0.00434	0.00444	86.8	88.8	51.9-121			2.38	20
Chrysene	0.00500	0.00441	0.00454	88.3	90.8	49.2-129			2.85	20
Dibenz(a,h)anthracene	0.00500	0.00440	0.00450	88.0	90.0	44.4-134			2.33	20
Fluoranthene	0.00500	0.00419	0.00430	83.8	86.0	53.2-124			2.61	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/21/15 00:22 • (LCSD) 11/21/15 00:43

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00399	0.00418	79.8	83.6	51.3-120			4.64	20
Naphthalene	0.00500	0.00435	0.00456	87.0	91.2	43.8-111			4.78	20
Phenanthrene	0.00500	0.00417	0.00422	83.4	84.4	52.5-120			1.19	20
Pyrene	0.00500	0.00419	0.00433	83.8	86.6	53.5-140			3.27	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00441	0.00462	88.2	92.4	44.2-128			4.59	20
(S) Nitrobenzene-d5				*86.0*	*88.2*	*21.9-134*				
(S) 2-Fluorobiphenyl				*80.7*	*84.6*	*37.9-123*				
(S) p-Terphenyl-d14				*79.8*	*80.7*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1120_03-1

11/20/2015 22:58

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1120_03-1	97986	59887	108158	112231	116365
Upper Limit		196000	120000	216000	224000	233000
Lower Limit		49000	29900	54100	56100	58200
LCS R3095007-1 WG830124 1x	1120_07	95864	60903	107115	110979	115693
LCSD R3095007-2 WG830124 1x	1120_08	94767	59326	105465	109900	113265
BLANK R3095007-3 WG830124 1x	1120_09	93554	58456	104537	106641	111386
L801868-01 WG830124 1x	1120_32	81267	50549	93675	104684	114325

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
[2] Tc
[3] Ss
[4] Cn
[5] Sr
[6] Qc
[7] Is
[8] Gl
[9] Al
[10] Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [**] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

L801868

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: AZ Game + Fish Dept.	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: _____ DATE: _____

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	E coli QT*	Fecal coliform*	BOD*	COD	Sulfates	Turbidity	NO2 + NO3*	TSS	TDS	PAH 8310	Chloride	Sodium Calcium	*Metals-Set A+B	LABORATORY IDENTIFICATION
AZGFD-FLAGMACH	11-15-15	2458	Flagstaff Composite MS4	13	X		X								X	X	X	X	X	X	X	X	X	X	X	X	X	151107 -01
																												*Metals set A = Ba, Cr, Cu, Pb, Ni, Zn
																												*Metals set B = As, Cd, Ag, Se
																												QT - 15-4812
																												Fecal - F15-1958

SAMPLE / COOLER TEMPERATURE:

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
Nora Clark	Nora Clark	[signature]	Scott Bajer	11/17/15 1015
		[signature]	Ryan Jones	11/18/15 0900

COMMENTS:
Please email results to nclark@azgfd.gov
* H3
Nortest will do: E Coli, Fecal, BOD, TSS, TDS, Turb, Cl, Ca
ok

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

TOll

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

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6436713 52221

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Flagstaff, Arizona 86004-8934
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RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: AZ Game + Fish Dept.	ADDRESS: 5000 Co. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: _____ DATE: _____

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLET TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	E coli QT*	Fecal coliform*	BOD*	COD	Turbidity	NO2 / NO3*	TSS	TDS	PAH 8310	Chloride	Sodium	Calcium	*Metals-Set A+B	SAMPLE / COOLER TEMPERATURE: / LABORATORY IDENTIFICATION
AZGFD-FLAGMACH	11-15-15	2458	Flagstaff Composite MS4	13	X		X								X	X	X	X	X	X	X	X	X	X	X	X	X	151107
																												*Metals set A = Ba, Cr, Cu, Pb, Ni, Zn
																												*Metals set B = As, Cd, Ag, Se
																												QT - 15-4812 i@ 10:
																												Fecal - F15-1988

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
Nora Clark	Nora Clark	[signature]	Scott Bajer	11/17/15 1015

COMMENTS
Please email results to nclark@azgfd.gov
* H3
Nontest will do: E Coli, Fecal, BOD, TSS, TDS, Turb,d

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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LEGEND
Technical Services, Inc.
www.legend-group.com

17631 North 25th Avenue • Phoenix, AZ 85023
P (602) 324-6100 • F (602) 324-6101

20 January 2016

Scott Bajer
Nortest Analytical
2400 E. Huntington Drive
Flagstaff, AZ 86004-8934

RE: Arizona Game & Fish Dept.

Laboratory Work Order No.: 6010845

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 01/12/16 08:29.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Barbara Frank

Barbara Frank
Client Services Representative
(602) 324-6100

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
AGFD-Flagmach (Flagstaff Machine) 160007	6010845-01	Storm Water	Composite	01/07/16 09:18	01/12/16 08:29

Sample Condition Upon Receipt:

Temperature: 3.10 C

All samples were received in acceptable condition unless noted otherwise in the case narrative.

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.

QA/QC Criteria: All analyses met method requirements unless otherwise qualified.

Certifications: AZ(PHX)0004, AZ(TUC)OOO4, AIHA#102982, CDC ELITE Member.

Accreditation is applicable only to the test methods specified on each scope of accreditation held by LEGEND.

Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.
All samples were analyzed on a "wet" basis unless designated as "dry weight".

AGFD-Flagmach (Flagstaff Machine) 160007 (6010845-01) Storm Water (Composite) Sampled: 01/07/16 09:18
Received: 01/12/16 08:29

Legend Technical Services of Arizona, Inc.

Total Metals

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	<0.0002	0.0002	mg/L	1	B6A1291	01/18/16 09:27	01/18/16 14:07	EPA 245.1	

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6A1291 - EPA 245.1/245.2 Prep										
Blank (B6A1291-BLK1)				*Prepared & Analyzed: 01/18/16*						
Mercury	<0.0002	0.0002	mg/L							
LCS (B6A1291-BS1)				*Prepared & Analyzed: 01/18/16*						
Mercury	0.00101	0.0002	mg/L	0.00100		101	85-115			
LCS Dup (B6A1291-BSD1)				*Prepared & Analyzed: 01/18/16*						
Mercury	0.00100	0.0002	mg/L	0.00100		100	85-115	1	20	
Matrix Spike (B6A1291-MS1)		**Source: 6010888-01**		*Prepared & Analyzed: 01/18/16*						
Mercury	0.00102	0.0002	mg/L	0.00100	<0.0002	102	70-130			
Matrix Spike (B6A1291-MS2)		**Source: 6011036-01**		*Prepared & Analyzed: 01/18/16*						
Mercury	0.00100	0.0002	mg/L	0.00100	<0.0002	100	70-130			
Matrix Spike Dup (B6A1291-MSD1)		**Source: 6010888-01**		*Prepared & Analyzed: 01/18/16*						
Mercury	0.00103	0.0002	mg/L	0.00100	<0.0002	103	70-130	1	20	
Matrix Spike Dup (B6A1291-MSD2)		**Source: 6011036-01**		*Prepared & Analyzed: 01/18/16*						
Mercury	0.00100	0.0002	mg/L	0.00100	<0.0002	100	70-130	0	20	

Notes and Definitions

BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

U010845

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

CLIENT: Arizona Game + Fish Dept	ADDRESS: Phoenix AZ
CONTACT PERSON: Nora Clark	
TELEPHONE: 928-245-8792	PROJECT: Stormwater -ADOT
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ — DATE

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: X-Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	REQUESTED ANALYSES: Hg	LABORATORY IDENTIFICATION
AGFD-Flaymach	1/7/15	918	Flagstaff Machine	1	X		X		1					X	160007
	1/7/16														
	SC 1/12/16														

SAMPLE / COOLER TEMPERATURE:

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME	COMMENTS
[signature]	Michael Ingraldi	[signature]	Scott Bajer	1/7/16 1004	
		Camir			3.1C
	Camir	SC	Scanran	1/12/16 829	pnv

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

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White — Laboratory; Yellow — Work File; Pink — Client

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Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Sedona MS4 Composite	151074/F15-1912/15-4647	WW	11.03.15/1635	11.04.15/0922

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
15-4647	Total Coliform	**>2419.6**	1.0	MPN	SM 9223 B	-
15-4647	*E.coli*	**107.6**	1.0	MPN	SM 9223 B	-
F15-1912	Fecal Coliform	**TNTC**	1	CFU	SM 9222 D	-
151074	BOD	**12**	2	mg/L	SM 5210 B	-
151074	Turbidity	**53.0**	0.1	NTU	SM 2130 B	-
151074	TSS	**118**	1	mg/L	SM 2540 D	-
151074	TDS	**44**	1	mg/L	SM 2540 C	-
151074	Nitrate	**0.63**	0.10	mg/L	SM 4500 NO3 D	-
151074	Nitrite	**<0.20**	0.20	mg/L	Calculation	-
151074	Chloride	**6.89**	1.00	mg/L	EPA 300.0	-
151074	Sulfate	**<5.00**	5.00	mg/L	EPA 300.0	-
151074	COD	**290**	10.0	mg/L	EPA 410.4	-
151074	Mercury	**<0.000200**	0.000200	mg/L	EPA 245.1	-
151074	Arsenic	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151074	Barium	**0.119**	0.00500	mg/L	EPA 200.7	-
151074	Cadmium	**<0.00200**	0.00200	mg/L	EPA 200.7	-
151074	Calcium	**35.8**	1.00	mg/L	EPA 200.7	-
151074	Chromium	**<0.0100**	0.0100	mg/L	EPA 200.7	-

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151074	Copper	**0.0377**	0.0100	mg/L	EPA 200.7	-
151074	Lead	**0.00851**	0.00500	mg/L	EPA 200.7	-
151074	Nickel	**0.0158**	0.0100	mg/L	EPA 200.7	-
151074	Selenium	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151074	Silver	**<0.00500**	0.00500	mg/L	EPA 200.7	-
151074	Sodium	**3.29**	1.00	mg/L	EPA 200.7	-
151074	Zinc	**0.316**	0.0500	mg/L	EPA 200.7	-
151073	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Quality Control

Analyte	Sample	Result	Units	Spiked Level	% Recovery/ RPD/ Std Dev	Recovery/RPD Limits	Notes/ Qualifiers
TDS	Blank	<1	mg/L	---	---	---	---
TDS	Duplicate	211	mg/L	215	98%	10%	---
TSS	Blank	1	mg/L	---	---	---	---
TSS	Duplicate	1	mg/L	1	100%	10%	---
Nitrate	Blank	0.35	mg/L	---	---	---	---
Nitrate	Spike	43.5	mg/L	49.8	87%	10%	
Nitrate	Duplicate	38	mg/L	39	97%	10%	---

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 13, 2015

Nortest

Sample Delivery Group:	L798815
Samples Received:	11/05/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

151074 L798815-01 WW			Collected by	Collected date/time 11/03/15 16:35	Received date/time 11/05/15 09:00
Method	**Batch**	**Dilution**	**Preparation date/time**	**Analysis date/time**	**Analysis Analyst**
Mercury by Method 245.1	WG827548	1	11/09/15 11:15	11/10/15 11:56	BRJ
Metals (ICP) by Method 200.7	WG827468	1	11/08/15 15:58	11/09/15 12:09	CCE
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827071	1	11/06/15 10:21	11/07/15 12:11	KMP
Wet Chemistry by Method 2130 B-2011	WG826938	1	11/05/15 15:00	11/05/15 15:00	SJM
Wet Chemistry by Method 300.0	WG827520	1	11/10/15 22:33	11/10/15 22:33	DJD
Wet Chemistry by Method 353.2	WG828005	1	11/11/15 15:11	11/11/15 15:11	ASK
Wet Chemistry by Method 410.4	WG827742	1	11/09/15 13:10	11/09/15 15:32	JER

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Wet Chemistry by Method 2130 B-2011

Analyte	Result NTU	Qualifier	Dilution	Analysis date / time	Batch
Turbidity	53.0		1	11/05/2015 15:00	WG826938

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.89		1.00	1	11/10/2015 22:33	WG827520
Sulfate	ND		5.00	1	11/10/2015 22:33	WG827520

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.396		0.100	1	11/11/2015 15:11	WG828005

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	290		10.0	1	11/09/2015 15:32	WG827742

Mercury by Method 245.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	11/10/2015 11:56	WG827548

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	11/09/2015 12:09	WG827468
Barium	0.119		0.00500	1	11/09/2015 12:09	WG827468
Cadmium	ND		0.00200	1	11/09/2015 12:09	WG827468
Calcium	35.8		1.00	1	11/09/2015 12:09	WG827468
Chromium	ND		0.0100	1	11/09/2015 12:09	WG827468
Copper	0.0377		0.0100	1	11/09/2015 12:09	WG827468
Lead	0.00851		0.00500	1	11/09/2015 12:09	WG827468
Nickel	0.0158		0.0100	1	11/09/2015 12:09	WG827468
Selenium	ND		0.0100	1	11/09/2015 12:09	WG827468
Silver	ND		0.00500	1	11/09/2015 12:09	WG827468
Sodium	3.29		1.00	1	11/09/2015 12:09	WG827468
Zinc	0.316		0.0500	1	11/09/2015 12:09	WG827468

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/07/2015 12:11	WG827071
Acenaphthene	ND		0.00100	1	11/07/2015 12:11	WG827071
Acenaphthylene	ND		0.00100	1	11/07/2015 12:11	WG827071
Benzo(a)anthracene	ND		0.00100	1	11/07/2015 12:11	WG827071
Benzo(a)pyrene	ND		0.00100	1	11/07/2015 12:11	WG827071
Benzo(b)fluoranthene	ND		0.00100	1	11/07/2015 12:11	WG827071
Benzo(g,h,i)perylene	ND		0.00100	1	11/07/2015 12:11	WG827071
Benzo(k)fluoranthene	ND		0.00100	1	11/07/2015 12:11	WG827071
Chrysene	ND		0.00100	1	11/07/2015 12:11	WG827071
Dibenz(a,h)anthracene	ND		0.00100	1	11/07/2015 12:11	WG827071
Fluoranthene	ND		0.00100	1	11/07/2015 12:11	WG827071

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Fluorene	ND		0.00100	1	11/07/2015 12:11	WG827071
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/07/2015 12:11	WG827071
Naphthalene	ND		0.00100	1	11/07/2015 12:11	WG827071
Phenanthrene	ND		0.00100	1	11/07/2015 12:11	WG827071
Pyrene	ND		0.00100	1	11/07/2015 12:11	WG827071
(S) Nitrobenzene-d5	*91.0*		*21.9-134*		*11/07/2015 12:11*	WG827071
(S) 2-Fluorobiphenyl	*83.0*		*37.9-123*		*11/07/2015 12:11*	WG827071
(S) p-Terphenyl-d14	*72.4*		*34.6-131*		*11/07/2015 12:11*	WG827071

Method Blank (MB)

(MB) 11/05/15 15:00

Analyte	MB Result	MB Qualifier	MB RDL
	NTU		NTU
Turbidity	ND		0.100

L798815-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/05/15 15:00 • (DUP) 11/05/15 15:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	NTU	NTU		%		%
Turbidity	53.0	52.7	1	0.568		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/05/15 15:00 • (LCSD) 11/05/15 15:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	NTU	NTU	NTU	%	%	%			%	%
Turbidity	40.0	36.8	36.7	92.0	91.8	90.0-110			0.272	20

Method Blank (MB)

(MB) 11/10/15 18:42

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Chloride	ND		1.00
Sulfate	ND		5.00

L797938-02 Original Sample (OS) • Duplicate (DUP)

(OS) 11/10/15 19:54 • (DUP) 11/10/15 20:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	206	206	5	0		20

L799262-03 Original Sample (OS) • Duplicate (DUP)

(OS) 11/11/15 01:55 • (DUP) 11/11/15 02:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	586	582	20	1		20

L799262-03 Original Sample (OS) • Duplicate (DUP)

(OS) 11/11/15 11:00 • (DUP) 11/11/15 11:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	1.94	1.93	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 09:34 • (LCSD) 11/11/15 09:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	39.4	39.5	99	99	90-110			0	20
Sulfate	40.0	40.5	40.5	101	101	90-110			0	20

L798419-01 Original Sample (OS) • Matrix Spike (MS)

(OS) 11/10/15 21:06 • (MS) 11/10/15 21:21

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	41.5	85.6	88	1	80-120	

L798820-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/11/15 10:03 • (MS) 11/11/15 10:17 • (MSD) 11/11/15 10:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfate	1.00	1370	3760	3770	96	96	50	80-120			0	20

Method Blank (MB)

(MB) 11/11/15 14:41

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Nitrate-Nitrite	ND		0.100

L798419-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/11/15 14:47 • (DUP) 11/11/15 14:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Nitrate-Nitrite	ND	ND	1	0.000		20

L798802-05 Original Sample (OS) • Duplicate (DUP)

(OS) 11/11/15 15:08 • (DUP) 11/11/15 15:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Nitrate-Nitrite	2.61	2.59	1	1.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 14:44 • (LCSD) 11/11/15 14:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Nitrate-Nitrite	5.00	4.75	5.08	95.0	102	90.0-110			7.00	20

L798715-05 Original Sample (OS) • Matrix Spike (MS)

(OS) 11/11/15 14:58 • (MS) 11/11/15 14:59

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	mg/l	mg/l	mg/l	%		%	
Nitrate-Nitrite	5.00	0.0360	4.91	97.0	1	90.0-110	

L798898-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/11/15 15:13 • (MS) 11/11/15 15:14 • (MSD) 11/11/15 15:15

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Nitrate-Nitrite	5.00	0.0440	4.51	4.54	89.0	90.0	1	90.0-110	M2		1.00	20

Method Blank (MB)

(MB) 11/09/15 15:30

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
COD	ND		10.0

L798437-01 Original Sample (OS) • Duplicate (DUP)

(OS) 11/09/15 15:31 • (DUP) 11/09/15 15:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
COD	29.6	29.6	1	0.000		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/09/15 15:30 • (LCSD) 11/09/15 15:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	240	239	99.2	98.8	90.0-110			0.418	5

L798437-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/09/15 15:31 • (MS) 11/09/15 15:31 • (MSD) 11/09/15 15:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	29.6	437	437	102	102	1	90.0-110			0.000	5

Method Blank (MB)

(MB) 11/10/15 11:39

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Mercury	ND		0.000200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/10/15 11:45 • (LCSD) 11/10/15 11:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.00285	0.00287	95	96	85-115			1	20

L799469-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/10/15 11:50 • (MS) 11/10/15 11:52 • (MSD) 11/10/15 11:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.00000212	0.00288	0.00285	96	95	1	70-130			1	20

Method Blank (MB)

(MB) 11/09/15 11:33

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Arsenic	ND		0.0100
Barium	ND		0.00500
Cadmium	ND		0.00200
Calcium	ND		1.00
Chromium	ND		0.0100
Copper	ND		0.0100
Lead	ND		0.00500
Nickel	ND		0.0100
Selenium	ND		0.0100
Silver	ND		0.00500
Sodium	ND		1.00
Zinc	ND		0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/09/15 11:36 • (LCSD) 11/09/15 11:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	1.05	1.07	105	107	85-115			2	20
Barium	1.00	1.03	1.04	103	104	85-115			1	20
Cadmium	1.00	1.04	1.05	104	105	85-115			1	20
Calcium	10.0	9.96	9.99	100	100	85-115			0	20
Chromium	1.00	1.06	1.07	106	107	85-115			1	20
Copper	1.00	1.05	1.05	105	105	85-115			0	20
Lead	1.00	1.01	1.03	101	103	85-115			2	20
Nickel	1.00	1.00	1.02	100	102	85-115			2	20
Selenium	1.00	1.06	1.09	106	109	85-115			2	20
Silver	1.00	1.03	1.04	103	104	85-115			1	20
Sodium	10.0	9.98	10.2	100	102	85-115			2	20
Zinc	1.00	0.997	1.02	100	102	85-115			2	20

L798740-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/09/15 11:42 • (MS) 11/09/15 11:48 • (MSD) 11/09/15 11:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Arsenic	1.00	0.00515	1.12	1.10	112	110	1	75-125			2	20
Barium	1.00	0.0466	1.06	1.04	102	100	1	75-125			2	20
Cadmium	1.00	0.000139	1.08	1.06	108	106	1	75-125			2	20
Calcium	10.0	56.7	73.4	73.2	168	165	1	75-125	M3	M3	0	20
Chromium	1.00	0.00135	1.06	1.04	106	104	1	75-125			2	20
Copper	1.00	ND	1.06	1.05	106	105	1	75-125			1	20
Lead	1.00	ND	1.04	1.02	104	102	1	75-125			2	20
Nickel	1.00	0.0120	1.07	1.05	106	104	1	75-125			2	20
Selenium	1.00	0.00106	1.15	1.13	115	113	1	75-125			2	20
Silver	1.00	0.000729	1.08	1.05	108	105	1	75-125			2	20
Sodium	10.0	224	234	234	99	94	1	75-125			0	20
Zinc	1.00	0.00252	1.02	0.997	101	99	1	75-125			2	20

L799497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/09/15 12:56 • (MS) 11/09/15 12:58 • (MSD) 11/09/15 13:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Arsenic	1.00	0.00280	1.08	1.02	108	102	1	75-125			5	20
Barium	1.00	0.00533	1.07	1.01	106	100	1	75-125			5	20
Cadmium	1.00	ND	1.06	1.00	106	100	1	75-125			6	20
Calcium	10.0	3.85	13.9	13.3	100	94	1	75-125			4	20
Chromium	1.00	0.000851	1.09	1.03	109	103	1	75-125			6	20
Copper	1.00	ND	1.07	1.02	107	102	1	75-125			5	20
Lead	1.00	ND	1.05	0.991	105	99	1	75-125			5	20
Nickel	1.00	0.000262	1.04	0.983	104	98	1	75-125			6	20
Selenium	1.00	ND	1.10	1.04	110	104	1	75-125			6	20
Silver	1.00	0.000247	1.05	0.992	105	99	1	75-125			6	20
Sodium	10.0	1.70	11.9	11.3	102	96	1	75-125			5	20
Zinc	1.00	0.0414	1.07	1.01	103	97	1	75-125			5	20

Method Blank (MB)

(MB) 11/07/15 02:31

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*96.3*		*21.9-134*
(S) 2-Fluorobiphenyl	*90.9*		*37.9-123*
(S) p-Terphenyl d14	*97.1*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00445	0.00439	89.1	87.7	48.2-121			1.52	20
Acenaphthylene	0.00500	0.00454	0.00445	90.7	89.1	47.6-120			1.83	20
Anthracene	0.00500	0.00460	0.00446	92.0	89.2	52.6-121			3.09	20
Benzo(a)anthracene	0.00500	0.00516	0.00476	103	95.3	50.7-122			8.02	20
Benzo(b)fluoranthene	0.00500	0.00488	0.00471	97.6	94.1	47.2-130			3.59	20
Benzo(k)fluoranthene	0.00500	0.00445	0.00404	88.9	80.9	48.7-124			9.46	20
Benzo(g,h,i)perylene	0.00500	0.00462	0.00425	92.5	84.9	46.4-129			8.52	20
Benzo(a)pyrene	0.00500	0.00497	0.00459	99.3	91.8	51.9-121			7.89	20
Chrysene	0.00500	0.00452	0.00435	90.3	86.9	49.2-129			3.80	20
Dibenz(a,h)anthracene	0.00500	0.00463	0.00416	92.6	83.2	44.4-134			10.7	20
Fluoranthene	0.00500	0.00466	0.00442	93.2	88.4	53.2-124			5.29	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00456	0.00436	91.2	87.2	51.3-120			4.56	20
Naphthalene	0.00500	0.00441	0.00435	88.2	87.0	43.8-111			1.40	20
Phenanthrene	0.00500	0.00453	0.00438	90.6	87.7	52.5-120			3.30	20
Pyrene	0.00500	0.00478	0.00449	95.5	89.8	53.5-140			6.13	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00455	0.00419	91.0	83.8	44.2-128			8.30	20
(S) Nitrobenzene-d5				*93.9*	*91.3*	*21.9-134*				
(S) 2-Fluorobiphenyl				*88.6*	*85.8*	*37.9-123*				
(S) p-Terphenyl-d14				*88.6*	*85.4*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1106_03-1

11/07/2015 01:29

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1106_03-1	152820	93054	157177	161586	168174
Upper Limit		306000	186000	314000	323000	336000
Lower Limit		76400	46500	78600	80800	84100
LCS R3091546-1 WG827071 1x	1106_04	146914	88846	149149	147496	154223
LCSD R3091546-2 WG827071 1x	1106_05	152678	92282	153585	151734	158761
BLANK R3091546-3 WG827071 1x	1106_06	137486	83034	135530	131508	137231
L798815-01 WG827071 1x	1106_34	145724	87929	146411	149229	159392

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
[2] Tc
[3] Ss
[4] Cn
[5] Sr
[6] Qc
[7] Is
[8] Gl
[9] Al
[10] Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [14] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

798815

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUS D057

PAGE ____ OF ____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: DATE:

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	E. coli - QT	Fecal coliform	Nitrate	Turbidity	Sulfate	Nitrite	chloride	COD & BOD, TDS, TSS	PAH (2 bottles)	*Metals	SAMPLE / COOLER TEMPERATURE:	LABORATORY IDENTIFICATION
AZGFD-SEDMACH	11-3-2015	1635	Sedona MS4 composite	13	X		X							X	X	X	X	X	X	X	X	X	X		*Metals = Ba, Cr, Cu, Pb, Ni, Zn, As, Cd, Ag, Se, Hg, Sodium, Calcium
				7																					
																									151074

01

02

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
Nora Clark	Nora Clark		Stephen Rupp	11-4-15/0422
	Stephen Rupp			
			14847635 2243	11/5/15 09:00

COMMENTS: Please email results directly to: nclark@azgfd.gov
NORTEST: BOD, TSS, TDS, NO_3, FECAL, E. COLI QT

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) ____

White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

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Flagstaff, Arizona 86004-8934
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RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ 8
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: Nora Clark

PRINT NAME: Nora Clark

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: Stormwater

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	E. coli - QT	Fecal coliform	Nitrate	Turbidity	Sulfate	Nitrite	chloride	COD	BOD, TDS, TSS	PAH (2 bottles)	* Metals	LABORATORY IDENTIFICATION
AZGFD-SEDMACH	11-3-2015	1635	Sedona MS4 composite	13	X		X								X	X	X	X	X	X	X	X	X	X		* Metals = Ba, Cr, Cu, Pb, Ni, Zn, As, Cd, Ag, Se, Hg, Sodium, Calcium
QT - 15-4647			RESULTS																							~~4636~~
IN @ 1030			TC >2419.6																							~~1535~~ 5B1115
OUT @ 1118			EC 547.5																							~~452~~ 1103
																										1510
FECAL - FIS-1412			RESULT																							
IN @			INTC																							~~TC~~ ~~EC~~
OUT @																										~~2419.6~~ ~~387.3~~

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
Nora Clark	Nora Clark		Spencer Rupp	11-4-15 / 0922
	Spencer Rupp			

COMMENTS
Please email results directly to:
nclark@azgfd.gov
Nortest: BOD, TSS, TDS, NO3
FECAL, E. COLI QT

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

White — Laboratory; Yellow — Work File; Pink — Client
ALL WORK SUBJECT TO STANDARD TERMS AND

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. Failure to pay **within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Sedona MS4 Grab	**15-4646/151073**	**WW**	**11.03.15/1620**	**11.04.15/0922**

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
15-4646	Total Coliform	**>2419.6**	1.0	MPN	SM 9223 B	-
15-4646	*E.coli*	**107.6**	1.0	MPN	SM 9223 B	-
151073	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 10, 2015

Nortest

Sample Delivery Group:	L798817
Samples Received:	11/05/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE.

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151073 L798817-01 WW			Collected by	Collected date/time 11/03/15 16:20	Received date/time 11/05/15 09:00
Method	**Batch**	**Dilution**	**Preparation date/time**	**Analysis date/time**	**Analysis Analyst**
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827071	1	11/06/15 10:21	11/07/15 12:32	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/07/2015 12:32	WG827071
Acenaphthene	ND		0.00100	1	11/07/2015 12:32	WG827071
Acenaphthylene	ND		0.00100	1	11/07/2015 12:32	WG827071
Benzo(a)anthracene	ND		0.00100	1	11/07/2015 12:32	WG827071
Benzo(a)pyrene	ND		0.00100	1	11/07/2015 12:32	WG827071
Benzo(b)fluoranthene	ND		0.00100	1	11/07/2015 12:32	WG827071
Benzo(g,h,i)perylene	ND		0.00100	1	11/07/2015 12:32	WG827071
Benzo(k)fluoranthene	ND		0.00100	1	11/07/2015 12:32	WG827071
Chrysene	ND		0.00100	1	11/07/2015 12:32	WG827071
Dibenz(a,h)anthracene	ND		0.00100	1	11/07/2015 12:32	WG827071
Fluoranthene	ND		0.00100	1	11/07/2015 12:32	WG827071
Fluorene	ND		0.00100	1	11/07/2015 12:32	WG827071
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/07/2015 12:32	WG827071
Naphthalene	ND		0.00100	1	11/07/2015 12:32	WG827071
Phenanthrene	ND		0.00100	1	11/07/2015 12:32	WG827071
Pyrene	ND		0.00100	1	11/07/2015 12:32	WG827071
(S) Nitrobenzene-d5	*102*		*21.9-134*		*11/07/2015 12:32*	WG827071
(S) 2-Fluorobiphenyl	*87.9*		*37.9-123*		*11/07/2015 12:32*	WG827071
(S) p-Terphenyl-d14	*60.4*		*34.6-131*		*11/07/2015 12:32*	WG827071

Method Blank (MB)

(MB) 11/07/15 02:31

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*96.3*		*21.9-134*
(S) 2-Fluorobiphenyl	*90.9*		*37.9-123*
(S) p-Terphenyl d14	*97.1*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00445	0.00439	89.1	87.7	48.2-121			1.52	20
Acenaphthylene	0.00500	0.00454	0.00445	90.7	89.1	47.6-120			1.83	20
Anthracene	0.00500	0.00460	0.00446	92.0	89.2	52.6-121			3.09	20
Benzo(a)anthracene	0.00500	0.00516	0.00476	103	95.3	50.7-122			8.02	20
Benzo(b)fluoranthene	0.00500	0.00488	0.00471	97.6	94.1	47.2-130			3.59	20
Benzo(k)fluoranthene	0.00500	0.00445	0.00404	88.9	80.9	48.7-124			9.46	20
Benzo(g,h,i)perylene	0.00500	0.00462	0.00425	92.5	84.9	46.4-129			8.52	20
Benzo(a)pyrene	0.00500	0.00497	0.00459	99.3	91.8	51.9-121			7.89	20
Chrysene	0.00500	0.00452	0.00435	90.3	86.9	49.2-129			3.80	20
Dibenz(a,h)anthracene	0.00500	0.00463	0.00416	92.6	83.2	44.4-134			10.7	20
Fluoranthene	0.00500	0.00466	0.00442	93.2	88.4	53.2-124			5.29	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 01:50 • (LCSD) 11/07/15 02:10

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00456	0.00436	91.2	87.2	51.3-120			4.56	20
Naphthalene	0.00500	0.00441	0.00435	88.2	87.0	43.8-111			1.40	20
Phenanthrene	0.00500	0.00453	0.00438	90.6	87.7	52.5-120			3.30	20
Pyrene	0.00500	0.00478	0.00449	95.5	89.8	53.5-140			6.13	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00455	0.00419	91.0	83.8	44.2-128			8.30	20
(S) Nitrobenzene-d5				*93.9*	*91.3*	*21.9-134*				
(S) 2-Fluorobiphenyl				*88.6*	*85.8*	*37.9-123*				
(S) p-Terphenyl-d14				*88.6*	*85.4*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1106_03-1

11/07/2015 01:29

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1106_03-1	152820	93054	157177	161586	168174
Upper Limit		306000	186000	314000	323000	336000
Lower Limit		76400	46500	78600	80800	84100
LCS R3091546-1 WG827071 1x	1106_04	146914	88846	149149	147496	154223
LCSD R3091546-2 WG827071 1x	1106_05	152678	92282	153585	151734	158761
BLANK R3091546-3 WG827071 1x	1106_06	137486	83034	135530	131508	137231
L798817-01 WG827071 1x	1106_35	146203	88070	148563	152865	158033

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [**] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

79 8817

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

D056

PAGE ____ OF ____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ 8
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ | DATE

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	REQUESTED ANALYSES: PAH (2 bottles)	Ecoli - QT										LABORATORY IDENTIFICATION
AZGFD-SEDGRAB	11/3/15	1620	Sedona MS4 Grab	3		X	X								X	X										151073 01
				2																						
				4																						QT
																										15-4646
																										IN @
																										OUT @
																										RESULTS

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME	COMMENTS
Nora Clark	Nora Clark	[signature]	Stanley Tom	11-4-15/0922	Please email results to: nclark@azgfd.gov
					Nortest - QT
					6431271357243
					☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
		[signature]	2=Co	11/5/15 0920	SAMPLE PROCESS TURNAROUND TIME: ☐ STANDARD ☐ OTHER (SPECIFY)

3.1 M3

346 FRONT - 2006
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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

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2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ 8
TELEPHONE: 928 245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: Nora Clark
PRINT NAME: Nora Clark

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	PAH (2 bottles)	Fecal - QT										LABORATORY IDENTIFICATION
AZGFD-SEDGRAB	11/3/15	1620	Sedona 1154 Grab	3		X	X								X	X										151073
																										QT 4646
																										15-~~4646~~ ~~4636~~
			15-4646																							IN @ ~~1530~~ ~~1535~~ SB 1030
			Result																							OUT @ ~~11/5 1103~~ SB
			TC EC																							RESULTS
			>2419.6 107.6																							TC EC
																										~~2419.6~~ SB ~~387.3~~ 11/5

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME	COMMENTS
Nora Clark	Nora Clark	[signature]	Spencer Rowe	11-4-15/0972	Please email results to: nclark@azgfd.gov
					Nortest - QT

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

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White — Laboratory; Yellow — Work File; Pink — Client
ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-54402-1
TestAmerica Sample Delivery Group: PHXMACH
Client Project/Site: Arizona Game and Fish Department

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
11/24/2015 8:14:57 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Qualifiers

General Chemistry

Qualifier	Qualifier Description
K1	The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/L. Any reported result is an estimated value.
K5	The dilution water D.O. depletion was > 0.2 mg/L.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Job ID: 550-54402-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-54402-1

Comments
No additional comments.

Receipt
The sample was received on 11/16/2015 9:42 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

General Chemistry
Method(s) SM 5210B: All dilutions tested for the following sample under depleted with a depletion value of less than 2.0 mg/LAZGFD-PHXMACH (550-54402-1) and (550-54402-A-1 DU). Data is calculated using the highest sample dilution and reported as less than result, although this result may be biased low. Sample data is qualified with a K1 flag.

Method(s) SM 5210B: The method blank result associated with analytical batch 78172 was higher than the method required limit of 0.2 mg/L. Associated samples results were either non-detect or 10 times greater than the amount found in the method blank. Sample data is reported and qualified with a K5 flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-54402-1	AZGFD-PHXMACH	Water	11/15/15 23:30	11/16/15 09:42

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Client Sample ID: AZGFD-PHXMACH — Lab Sample ID: 550-54402-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Biochemical Oxygen Demand	<7.66	K1	5.0		mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Client Sample ID: AZGFD-PHXMACH

Lab Sample ID: 550-54402-1

Date Collected: 11/15/15 23:30
Date Received: 11/16/15 09:42

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<7.66	K1	5.0		mg/L			11/17/15 16:53	1

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: MB 550-78172/1
Matrix: Water
Analysis Batch: 78172

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND	K5	5.0		mg/L			11/17/15 16:53	1

Lab Sample ID: LCS 550-78172/2
Matrix: Water
Analysis Batch: 78172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	187	K5	mg/L		94	84.6 - 115.4		

Lab Sample ID: 550-54402-1 DU
Matrix: Water
Analysis Batch: 78172

Client Sample ID: AZGFD-PHXMACH
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	<7.66	K1		<7.36	K1 K5	mg/L				NC	20

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

General Chemistry

Analysis Batch: 78172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-54402-1	AZGFD-PHXMACH	Total/NA	Water	SM 5210B	
550-54402-1 DU	AZGFD-PHXMACH	Total/NA	Water	SM 5210B	
LCS 550-78172/2	Lab Control Sample	Total/NA	Water	SM 5210B	
MB 550-78172/1	Method Blank	Total/NA	Water	SM 5210B	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Client Sample ID: AZGFD-PHXMACH

Date Collected: 11/15/15 23:30
Date Received: 11/16/15 09:42

Lab Sample ID: 550-54402-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	78172		BCB	TAL PHX
					(Start)	11/17/15 16:53		
					(End)	11/23/15 14:44		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Laboratory: TestAmerica Phoenix

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-54402-1
SDG: PHXMACH

Method	Method Description	Protocol	Laboratory
SM 5210B	BOD, 5-Day	SM	TAL PHX

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

097322

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

11/24/2015

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: AZ Game and Fish Dept.	Project Manager: Nora Clark	Site Contact:	Date:
Address: 5000 W. Carefree Hwy	Tel/Fax: 928-245-8792	Lab Contact:	Carrier:
City/State/Zip: Phoenix, AZ 85086	Analysis Turnaround Time		
Phone:	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below _____		
Project Name:	☐ 2 weeks		
Site: AZGFD-PHXMACH	☐ 1 week		
P O #	☐ 2 days		
	☐ 1 day		

COC No: _____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	BOD	Sample Specific Notes: 54402
AZGFD-PHXMACH	11-15-15	1130pm	C		1			X	

550-54402 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: 2.0°C | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Renee Wilcox	AZGFD	7AM/11-16-15	Pam Lemon	AZGFD	11/16/15 7AM
Pam Lemon	AZGFD	11/16/15 9:42A			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	11/16/15 9:42

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-54402-1
SDG Number: PHXMACH

Login Number: 54402
List Number: 1
Creator: Stimson, Stephanie

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

LEGEND
Technical Services, Inc.
www.legend-group.com

17631 North 25th Avenue • Phoenix, AZ 85023
P (602) 324-6100 • F (602) 324-6101

04 December 2015

Nora Clark
Arizona Game & Fish Deptartment
5000 W. Carefree Highway
Phoenix, AZ 85086

RE: Stormwater Monitoring

Laboratory Work Order No.: 5111260

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 11/16/15 10:18.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Kristi-Lee McFarlin
Client Services Representative
(602) 324-6100

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
AZGFD-PHX MACH	5111260-01	Storm Water	Grab	11/15/15 11:30	11/16/15 10:18

Sample Condition Upon Receipt:

Temperature: 2.00 C

All samples were received in acceptable condition unless noted otherwise in the case narrative.

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.

QA/QC Criteria: All analyses met method requirements unless otherwise qualified.

Certifications: AZ(PHX)0004, AZ(TUC)OOO4, AIHA#102982, CDC ELITE Member.

Accreditation is applicable only to the test methods specified on each scope of accreditation held by LEGEND.

Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.
All samples were analyzed on a "wet" basis unless designated as "dry weight".

Notified Nora Clark of ECQ result via email on 11/17/2015 KM
Notified Nora Clark of Fecal result via email 11/17/15 KM
Client requested to add Chloride to work order 11/17/15 KM

AZGFD-PHX MACH (5111260-01) Storm Water (Grab) Sampled: 11/15/15 11:30 Received: 11/16/15 10:18

Legend Technical Services of Arizona, Inc.

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Microbiology									
E. coli, MPN (WW-Colilert)	**980**	1	MPN/100 mL	1	B5K1233	11/16/15 16:30	11/16/15 16:30	SM 9223B	H3
Fecal Coliforms, MF	**108000**	1000	CFU/100 mL	1000	B5K1309	11/16/15 16:40	11/16/15 16:40	SM 9222D	H3
Total Metals									
Arsenic	<0.0010	0.0010	mg/L	1	B5K1227	11/17/15 08:50	11/23/15 14:22	EPA 200.8	
Barium	**0.05**	0.01	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Cadmium	**0.0001**	0.0001	mg/L	1	B5K1227	11/17/15 08:50	11/23/15 14:22	EPA 200.8	
Calcium	**16**	1	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Chromium	<0.005	0.005	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Copper	**0.039**	0.010	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Lead	**0.0025**	0.0010	mg/L	1	B5K1227	11/17/15 08:50	11/23/15 14:22	EPA 200.8	
Mercury	<0.0002	0.0002	mg/L	1	B5K1348	11/20/15 09:39	11/20/15 16:13	EPA 245.1	
Nickel	<0.02	0.02	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Selenium	<0.0020	0.0020	mg/L	1	B5K1227	11/17/15 08:50	11/23/15 14:22	EPA 200.8	
Silver	**0.0061**	0.0001	mg/L	1	B5K1227	11/17/15 08:50	11/23/15 14:22	EPA 200.8	
Sodium	**9**	1	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Zinc	**0.10**	0.02	mg/L	1	B5K1228	11/17/15 08:50	11/19/15 17:23	EPA 200.7	
Inorganic Chemistry									
Chemical Oxygen Demand	**125**	20	mg/L	1	B5K1252	11/17/15 10:15	11/17/15 13:33	EPA 410.4	M2
Chloride	**6.00**	5.00	mg/L	1	B5K1277	11/18/15 14:55	11/18/15 14:55	SM 4500 Cl B	
Nitrate as N	**0.98**	0.20	mg/L	1	[CALC]	11/24/15 10:56	11/24/15 10:56	Calculation	
Nitrate + Nitrite as N	**0.98**	0.20	mg/L	1	B5K1417	11/24/15 10:56	11/24/15 10:56	SM 4500 NO3 F	
Nitrite as N	<0.10	0.10	mg/L	1	B5K1214	11/16/15 16:15	11/16/15 16:15	SM 4500 NO2 B	
Sulfate	**14.3**	5.0	mg/L	1	B5K1211	11/16/15 10:08	11/16/15 10:08	EPA 300.0	
Total Dissolved Solids	**117**	1	mg/L	1	B5K1284	11/18/15 15:20	11/18/15 15:20	SM 2540 C	
Total Suspended Solids	**44**	1	mg/L	1	B5K1187	11/16/15 11:35	11/16/15 11:35	SM 2540 D	
Turbidity	**36.8**	2.00	NTU	2	B5K1216	11/16/15 14:40	11/16/15 14:40	EPA 180.1	D2

AZGFD-PHX MACH (5111260-01) Storm Water (Grab) Sampled: 11/15/15 11:30 Received: 11/16/15 10:18

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			ESC AZ0612						
8310									
Acenaphthene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Acenaphthylene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Anthracene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Benzo(a)anthracene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Benzo(a)pyrene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Benzo(b)fluoranthene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Benzo(g,h,i)perylene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Benzo(k)fluoranthene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Chrysene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Dibenz(a,h)anthracene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Fluoranthene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Fluorene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Indeno(1,2,3-cd)pyrene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Naphthalene	ND	0.00100	mg/l	1	WG830123		11/20/15 11:34	8310	
Phenanthrene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	
Pyrene	ND	0.000100	mg/l	1	WG830123		11/20/15 11:34	8310	

Microbiology - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1233 - micro_prep										
Blank (B5K1233-BLK1)				*Prepared & Analyzed: 11/16/15*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL							
Duplicate (B5K1233-DUP1)	**Source: 5111259-02**			*Prepared & Analyzed: 11/16/15*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL		<1				100	
Duplicate (B5K1233-DUP2)	**Source: 5111269-01**			*Prepared & Analyzed: 11/16/15*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL		<1				100	
Batch B5K1309 - micro_prep										
Blank (B5K1309-BLK1)				*Prepared & Analyzed: 11/16/15*						
Fecal Coliforms, MF	<1	1	CFU/100 mL							

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1227 - EPA 200.8										
Blank (B5K1227-BLK1)				*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	<0.0010	0.0010	mg/L							
Cadmium	<0.0001	0.0001	mg/L							
Lead	<0.0010	0.0010	mg/L							
Selenium	<0.0020	0.0020	mg/L							
Silver	<0.0001	0.0001	mg/L							
LCS (B5K1227-BS1)				*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0236	0.0010	mg/L	0.0250		94	85-115			
Cadmium	0.0246	0.0001	mg/L	0.0250		99	85-115			
Lead	0.0257	0.0010	mg/L	0.0250		103	85-115			
Selenium	0.0242	0.0020	mg/L	0.0250		97	85-115			
Silver	0.0253	0.0001	mg/L	0.0250		101	85-115			
LCS Dup (B5K1227-BSD1)				*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0227	0.0010	mg/L	0.0250		91	85-115	4	20	
Cadmium	0.0246	0.0001	mg/L	0.0250		98	85-115	0.2	20	
Lead	0.0260	0.0010	mg/L	0.0250		104	85-115	1	20	
Selenium	0.0235	0.0020	mg/L	0.0250		94	85-115	3	20	
Silver	0.0245	0.0001	mg/L	0.0250		98	85-115	3	20	
Matrix Spike (B5K1227-MS2)		**Source: 5111411-01**		*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0320	0.0010	mg/L	0.0250	0.0078	97	70-130			
Cadmium	0.0245	0.0001	mg/L	0.0250	<0.0001	98	70-130			
Lead	0.0271	0.0010	mg/L	0.0250	0.0001	108	70-130			
Selenium	0.0257	0.0020	mg/L	0.0250	0.0013	98	70-130			
Silver	0.0210	0.0001	mg/L	0.0250	<0.0001	84	70-130			
Matrix Spike (B5K1227-MS3)		**Source: 5111152-01**		*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0525	0.0020	mg/L	0.0500	0.0009	103	70-130			
Cadmium	0.0504	0.0002	mg/L	0.0500	<0.0002	101	70-130			
Lead	0.0547	0.0020	mg/L	0.0500	0.0002	109	70-130			
Selenium	0.0532	0.0040	mg/L	0.0500	0.0020	102	70-130			
Silver	0.0456	0.0002	mg/L	0.0500	<0.0002	91	70-130			

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1227 - EPA 200.8										
Matrix Spike Dup (B5K1227-MSD2)		**Source: 5111411-01**		*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0329	0.0010	mg/L	0.0250	0.0078	100	70-130	3	20	
Cadmium	0.0246	0.0001	mg/L	0.0250	<0.0001	98	70-130	0.5	20	
Lead	0.0272	0.0010	mg/L	0.0250	0.0001	108	70-130	0.4	20	
Selenium	0.0253	0.0020	mg/L	0.0250	0.0013	96	70-130	2	20	
Silver	0.0211	0.0001	mg/L	0.0250	<0.0001	84	70-130	0.4	20	
Matrix Spike Dup (B5K1227-MSD3)		**Source: 5111152-01**		*Prepared: 11/17/15 Analyzed: 11/23/15*						
Arsenic	0.0526	0.0020	mg/L	0.0500	0.0009	103	70-130	0.3	20	
Cadmium	0.0512	0.0002	mg/L	0.0500	<0.0002	102	70-130	2	20	
Lead	0.0533	0.0020	mg/L	0.0500	0.0002	106	70-130	3	20	
Selenium	0.0526	0.0040	mg/L	0.0500	0.0020	101	70-130	1	20	
Silver	0.0443	0.0002	mg/L	0.0500	<0.0002	89	70-130	3	20	
Batch B5K1228 - EPA 200.7										
Blank (B5K1228-BLK1)				*Prepared: 11/17/15 Analyzed: 11/19/15*						
Barium	<0.01	0.01	mg/L							
Calcium	<1	1	mg/L							
Chromium	<0.005	0.005	mg/L							
Copper	<0.010	0.010	mg/L							
Nickel	<0.02	0.02	mg/L							
Sodium	<1	1	mg/L							
Zinc	<0.02	0.02	mg/L							
LCS (B5K1228-BS1)				*Prepared: 11/17/15 Analyzed: 11/19/15*						
Barium	1.01	0.01	mg/L	1.00		101	85-115			
Calcium	21	1	mg/L	20.0		103	85-115			
Chromium	0.519	0.005	mg/L	0.500		104	85-115			
Copper	1.02	0.010	mg/L	1.00		102	85-115			
Nickel	1.03	0.02	mg/L	1.00		103	85-115			
Sodium	20	1	mg/L	20.0		98	85-115			
Zinc	1.06	0.02	mg/L	1.00		106	85-115			

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1228 - EPA 200.7										
LCS Dup (B5K1228-BSD1)				*Prepared: 11/17/15 Analyzed: 11/19/15*						
Barium	0.99	0.01	mg/L	1.00		99	85-115	1	20	
Calcium	20	1	mg/L	20.0		102	85-115	0.9	20	
Chromium	0.511	0.005	mg/L	0.500		102	85-115	1	20	
Copper	1.01	0.010	mg/L	1.00		101	85-115	2	20	
Nickel	1.02	0.02	mg/L	1.00		102	85-115	2	20	
Sodium	20	1	mg/L	20.0		99	85-115	0.9	20	
Zinc	1.05	0.02	mg/L	1.00		105	85-115	1	20	
Matrix Spike (B5K1228-MS2)		**Source: 5111411-01**		*Prepared: 11/17/15 Analyzed: 11/19/15*						
Barium	1.05	0.01	mg/L	1.00	0.07	98	70-130			
Calcium	90	1	mg/L	20.0	68	108	70-130			
Chromium	0.520	0.005	mg/L	0.500	0.0004	104	70-130			
Copper	1.02	0.010	mg/L	1.00	0.002	102	70-130			
Nickel	1.03	0.02	mg/L	1.00	0.009	102	70-130			
Sodium	181	1	mg/L	20.0	158	114	70-130			
Zinc	1.08	0.02	mg/L	1.00	<0.02	108	70-130			
Matrix Spike (B5K1228-MS3)		**Source: 5111152-01**		*Prepared: 11/17/15 Analyzed: 11/20/15*						
Barium	1.94	0.02	mg/L	2.00	0.10	92	70-130			
Calcium	128	2	mg/L	40.0	85	107	70-130			
Chromium	1.01	0.010	mg/L	1.00	0.001	101	70-130			
Copper	1.97	0.020	mg/L	2.00	0.003	98	70-130			
Nickel	2.02	0.04	mg/L	2.00	0.006	101	70-130			
Sodium	348	2	mg/L	40.0	302	116	70-130			
Zinc	2.13	0.04	mg/L	2.00	0.05	104	70-130			
Matrix Spike Dup (B5K1228-MSD2)		**Source: 5111411-01**		*Prepared: 11/17/15 Analyzed: 11/19/15*						
Barium	1.04	0.01	mg/L	1.00	0.07	96	70-130	2	20	
Calcium	88	1	mg/L	20.0	68	100	70-130	2	20	
Chromium	0.517	0.005	mg/L	0.500	0.0004	103	70-130	0.6	20	
Copper	1.01	0.010	mg/L	1.00	0.002	101	70-130	1	20	
Nickel	1.02	0.02	mg/L	1.00	0.009	101	70-130	0.5	20	
Sodium	174	1	mg/L	20.0	158	80	70-130	4	20	
Zinc	1.07	0.02	mg/L	1.00	<0.02	107	70-130	0.3	20	

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1228 - EPA 200.7										
Matrix Spike Dup (B5K1228-MSD3)		**Source: 5111152-01**		*Prepared: 11/17/15 Analyzed: 11/20/15*						
Barium	1.93	0.02	mg/L	2.00	0.10	91	70-130	0.8	20	
Calcium	125	2	mg/L	40.0	85	102	70-130	2	20	
Chromium	0.996	0.010	mg/L	1.00	0.001	99	70-130	1	20	
Copper	1.92	0.020	mg/L	2.00	0.003	96	70-130	2	20	
Nickel	1.99	0.04	mg/L	2.00	0.006	99	70-130	1	20	
Sodium	343	2	mg/L	40.0	302	102	70-130	2	20	
Zinc	2.10	0.04	mg/L	2.00	0.05	103	70-130	1	20	
Batch B5K1348 - EPA 245.1/245.2 Prep										
Blank (B5K1348-BLK1)				*Prepared & Analyzed: 11/20/15*						
Mercury	<0.0002	0.0002	mg/L							
LCS (B5K1348-BS1)				*Prepared & Analyzed: 11/20/15*						
Mercury	0.00100	0.0002	mg/L	0.00100		100	85-115			
LCS Dup (B5K1348-BSD1)				*Prepared & Analyzed: 11/20/15*						
Mercury	0.00101	0.0002	mg/L	0.00100		101	85-115	1	20	
Matrix Spike (B5K1348-MS1)		**Source: 5111202-01**		*Prepared & Analyzed: 11/20/15*						
Mercury	0.00106	0.0002	mg/L	0.00100	<0.0002	106	70-130			
Matrix Spike (B5K1348-MS2)		**Source: 5111412-01**		*Prepared & Analyzed: 11/20/15*						
Mercury	0.00105	0.0002	mg/L	0.00100	<0.0002	105	70-130			
Matrix Spike Dup (B5K1348-MSD1)		**Source: 5111202-01**		*Prepared & Analyzed: 11/20/15*						
Mercury	0.00105	0.0002	mg/L	0.00100	<0.0002	105	70-130	0.9	20	

Total Metals - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1348 - EPA 245.1/245.2 Prep										
Matrix Spike Dup (B5K1348-MSD2)		**Source: 5111412-01**		*Prepared & Analyzed: 11/20/15*						
Mercury	0.00105	0.0002	mg/L	0.00100	<0.0002	105	70-130	0	20	

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1187 - NO PREP										
Blank (B5K1187-BLK1)				*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	<1	1	mg/L							
Duplicate (B5K1187-DUP1)		**Source: 5111008-02**		*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	<1	1	mg/L		0				5	
Duplicate (B5K1187-DUP2)		**Source: 5111015-02**		*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	5330	1	mg/L		5340			0.2	5	
Duplicate (B5K1187-DUP3)		**Source: 5111132-01**		*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	218	1	mg/L		248			13	5	R9
Duplicate (B5K1187-DUP4)		**Source: 5111173-01**		*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	<1	1	mg/L		1			200	5	R9
Duplicate (B5K1187-DUP5)		**Source: 5111253-01**		*Prepared & Analyzed: 11/16/15*						
Total Suspended Solids	200	1	mg/L		214			7	5	R9
Batch B5K1211 - NO PREP										
Blank (B5K1211-BLK1)				*Prepared & Analyzed: 11/16/15*						
Sulfate	<5.0	5.0	mg/L							
LCS (B5K1211-BS1)				*Prepared & Analyzed: 11/16/15*						
Sulfate	19.9	5.0	mg/L	20.0		100	90-110			
LCS Dup (B5K1211-BSD1)				*Prepared & Analyzed: 11/16/15*						
Sulfate	19.9	5.0	mg/L	20.0		100	90-110	0	20	

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1211 - NO PREP										
Matrix Spike (B5K1211-MS1)		**Source: 5111202-01**		*Prepared & Analyzed: 11/16/15*						
Sulfate	61.5		mg/L	20.0	40.8	104	90-110			
Matrix Spike Dup (B5K1211-MSD1)		**Source: 5111202-01**		*Prepared & Analyzed: 11/16/15*						
Sulfate	61.1		mg/L	20.0	40.8	102	90-110	0.7	20	
Batch B5K1214 - NO PREP										
Blank (B5K1214-BLK1)				*Prepared & Analyzed: 11/16/15*						
Nitrite as N	<0.10	0.10	mg/L							
LCS (B5K1214-BS1)				*Prepared & Analyzed: 11/16/15*						
Nitrite as N	0.205	0.10	mg/L	0.200		102	80-120			
LCS Dup (B5K1214-BSD1)				*Prepared & Analyzed: 11/16/15*						
Nitrite as N	0.204	0.10	mg/L	0.200		102	80-120	0.5	20	
Matrix Spike (B5K1214-MS1)		**Source: 5111319-01**		*Prepared & Analyzed: 11/16/15*						
Nitrite as N	0.202	0.10	mg/L	0.200	0.003	100	80-120			
Matrix Spike Dup (B5K1214-MSD1)		**Source: 5111319-01**		*Prepared & Analyzed: 11/16/15*						
Nitrite as N	0.202	0.10	mg/L	0.200	0.003	100	80-120	0	20	
Batch B5K1216 - NO PREP										
Blank (B5K1216-BLK1)				*Prepared & Analyzed: 11/16/15*						
Turbidity	<1.00	1.00	NTU							

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1216 - NO PREP										
Duplicate (B5K1216-DUP1)		**Source: 5111260-01**		*Prepared & Analyzed: 11/16/15*						
Turbidity	36.0	4.00	NTU		36.8			2	5	D2
Batch B5K1252 - NO PREP										
Blank (B5K1252-BLK1)				*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	<20	20	mg/L							
Blank (B5K1252-BLK2)				*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	<20	20	mg/L							
LCS (B5K1252-BS1)				*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	191	20	mg/L	200		96	90-110			
LCS Dup (B5K1252-BSD1)				*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	189	20	mg/L	200		94	90-110	1	20	
Matrix Spike (B5K1252-MS1)		**Source: 5110904-01**		*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	474	20	mg/L	200	353	61	90-110			M2
Matrix Spike (B5K1252-MS2)		**Source: 5111260-01**		*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	293	20	mg/L	200	125	84	90-110			M2
Matrix Spike Dup (B5K1252-MSD1)		**Source: 5110904-01**		*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	476	20	mg/L	200	353	62	90-110	0.4	20	M2
Matrix Spike Dup (B5K1252-MSD2)		**Source: 5111260-01**		*Prepared & Analyzed: 11/17/15*						
Chemical Oxygen Demand	294	20	mg/L	200	125	85	90-110	0.5	20	M2

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1277 - NO PREP										
Blank (B5K1277-BLK1)				*Prepared & Analyzed: 11/18/15*						
Chloride	<5.00	5.00	mg/L							
LCS (B5K1277-BS1)				*Prepared & Analyzed: 11/18/15*						
Chloride	21.0	5.00	mg/L	20.0		105	80-120			
LCS Dup (B5K1277-BSD1)				*Prepared & Analyzed: 11/18/15*						
Chloride	21.0	5.00	mg/L	20.0		105	80-120	0	20	
Matrix Spike (B5K1277-MS1)		**Source: 5111430-02**		*Prepared & Analyzed: 11/18/15*						
Chloride	142	10.0	mg/L	40.0	94.0	120	80-120			
Matrix Spike Dup (B5K1277-MSD1)		**Source: 5111430-02**		*Prepared & Analyzed: 11/18/15*						
Chloride	138	10.0	mg/L	40.0	94.0	110	80-120	3	20	
Batch B5K1284 - NO PREP										
Blank (B5K1284-BLK1)				*Prepared & Analyzed: 11/18/15*						
Total Dissolved Solids	<1	1	mg/L							
Duplicate (B5K1284-DUP1)		**Source: 5111260-01**		*Prepared & Analyzed: 11/18/15*						
Total Dissolved Solids	115	1	mg/L		117			2	5	
Batch B5K1417 - NO PREP										
Blank (B5K1417-BLK1)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1417 - NO PREP										
Blank (B5K1417-BLK2)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							
Blank (B5K1417-BLK3)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							
Blank (B5K1417-BLK4)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							
Blank (B5K1417-BLK5)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							
Blank (B5K1417-BLK6)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	<0.20	0.20	mg/L							
LCS (B5K1417-BS1)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.6	0.20	mg/L	10.0		106	90-110			
LCS (B5K1417-BS2)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.6	0.20	mg/L	10.0		106	90-110			
LCS (B5K1417-BS3)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.5	0.20	mg/L	10.0		105	90-110			
LCS Dup (B5K1417-BSD1)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.6	0.20	mg/L	10.0		106	90-110	0	20	
LCS Dup (B5K1417-BSD2)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.6	0.20	mg/L	10.0		106	90-110	0	20	

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1417 - NO PREP										
LCS Dup (B5K1417-BSD3)				*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.5	0.20	mg/L	10.0		105	90-110	0	20	
Matrix Spike (B5K1417-MS1)		**Source: 5111399-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	12.9	0.20	mg/L	10.0	2.23	107	80-120			
Matrix Spike (B5K1417-MS2)		**Source: 5111400-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	11.2	0.20	mg/L	10.0	0.60	106	80-120			
Matrix Spike (B5K1417-MS3)		**Source: 5111401-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	11.7	0.20	mg/L	10.0	1.12	106	80-120			
Matrix Spike (B5K1417-MS4)		**Source: 5111413-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	12.0	0.20	mg/L	10.0	1.43	106	80-120			
Matrix Spike (B5K1417-MS5)		**Source: 5111540-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	10.8	0.20	mg/L	10.0	0.22	106	80-120			
Matrix Spike (B5K1417-MS6)		**Source: 5111616-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	13.0	0.20	mg/L	10.0	2.33	107	80-120			
Matrix Spike Dup (B5K1417-MSD1)		**Source: 5111399-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	13.1	0.20	mg/L	10.0	2.23	109	80-120	2	20	
Matrix Spike Dup (B5K1417-MSD2)		**Source: 5111400-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	11.6	0.20	mg/L	10.0	0.60	110	80-120	4	20	
Matrix Spike Dup (B5K1417-MSD3)		**Source: 5111401-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	11.9	0.20	mg/L	10.0	1.12	108	80-120	2	20	

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5K1417 - NO PREP										
Matrix Spike Dup (B5K1417-MSD4)		**Source: 5111413-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	12.4	0.20	mg/L	10.0	1.43	110	80-120	3	20	
Matrix Spike Dup (B5K1417-MSD5)		**Source: 5111540-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	11.0	0.20	mg/L	10.0	0.22	108	80-120	2	20	
Matrix Spike Dup (B5K1417-MSD6)		**Source: 5111616-01**		*Prepared & Analyzed: 11/24/15*						
Nitrate + Nitrite as N	13.1	0.20	mg/L	10.0	2.33	108	80-120	0.8	20	

Notes and Definitions

R9	Sample RPD exceeded the laboratory acceptance limit.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
H3	Sample was received and /or anlaysis was requested past holding time.
D2	Sample required dilution due to high concentration of target analyte.
BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Legend Technical Services of Arizona, Inc.

PO Number: 5111260

SUBCONTRACT ORDER
5111260

SENDING LABORATORY:

Legend Technical Services of Arizona, Inc.
17631 North 25th Avenue
Phoenix, AZ 85023
Phone: 602-324-6100
Fax: 602-324-6101
Project Manager: Kristi-Lee McFarlin

RECEIVING LABORATORY:

ESC Lab Sciences
12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone :(800) 767-5859
Fax: (615) 758-5859

Analysis	Due	Expires	Sample Type circle one	Sample Comments
Sample ID: 5111260-01	**Water**	**Sampled: 11/15/15 11:30**	**Grab Composite**	**N/A**
8310-Subcontract	11/25/15 09:00	11/22/15 11:30		

Containers Supplied:
02_1000mL Amber Glass Cool to 4° C (C)
02_1000mL Amber Glass Cool to 4° C (D)

Released By (Print & Sign)	Date	Time	Received By (Print & Sign)	Date	Time
Kristi McFarlin X	11/17/15	1010	Emily Vinuska X	11/17/15	1010
X					

Page 1 of 1

Laboratory Sample ID: 5111260

CHAIN OF CUSTODY RECORD

LEGEND Technical Services, Inc. www.legend-group.com

☑ 17631 N. 25th Avenue • Phoenix, AZ 85023 • (602) 324-6100 • Fax (602) 324-6101
☐ 4585 S. Palo Verde Rd, Ste 423 • Tucson, AZ 85714 • (520) 327-1234 • Fax (520) 327-0518

Page 1 of 1

Please Print Clearly

CLIENT INFORMATION

Client Name	Report Mailing Address	City	State	Zip	Phone	Email Address
AZ Game and Fish Dept.	5000 W. Carefree Hwy	Phoenix	AZ	85086	(928) 245-8792	nclark@azgfd.gov

Project Name	Project Number	Contact Name	Purchase Order No.
AZGFD- PHXMACH		Nora Clark	

EDD ☐ Email Results ☐ Special Detection Limits ☐

SAMPLE TYPE CODES: DW=Drinking Water; WW=Wastewater; SW=Surface Water; GW=Groundwater; O=Other stormwater; S=Soil/Solid; T=Travel Blank; F=Food; G=Sludge/Biosolids

TURN AROUND TIME: Laboratory Authorization Required for Rush; ☐ Standard 7-10 Day; ☐ Other

REQUESTED ANALYSES

Client's Sample Identification	Sample Date	Sample Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ✓ (Lab Use Only)	E. Coli/QT	Fecal Coliform	COD	Turbidity	NO3	TSS/TDS	Sulfate	NO2	Metals # see below	8310	LAB NO.
AZGFD-PHXMACH	11-15-15	1130pm	AZGFD-PHXMACH	✓	✓		✓	10	✓	X	X		X	X	X	X	X	X	+	01

CORRECTION MADE BY CLIENT OR COURIER PRIOR TO SAMPLE RECEIPT AT LEGEND 11/16/15

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions: Metals # = Na, Ca, Hg, Ba, Cr, Cu, Pb, Ni, Zn, As, Cd, Ag, Se
~~Used nitrogen pkg #5 in project. 11/16/15 #~~ RW 11/17/15

SAMPLE CONDITION UPON RECEIPT (Lab Use)

No. of Containers	10	
Temperature	2.0	°C
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

	RELINQUISHED BY		SAMPLES RECEIVED BY	
①	Sampler Signature: Renee Wilcox; Printed Name: Renee Wilcox	Date 11-16-15 Time 7AM	Signature: Pam Kenney; Printed Name: PAM KENNEY	Date 11-16-15 Time 7AM ②
③	Signature: Pam Kenney; Printed Name: PAM KENNEY	Date 11/16/15 Time 10:15	Signature: Hward; Printed Name: Hward	Date 11/16/15 Time 10:15 ④
⑤	Signature: ; Printed Name:	Date: Time:	Signature: ; Printed Name:	Date: Time: ⑥

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (12/14)

ECQ & Fecal OK Past hold per Nora.
Added 8310 per Nora. RW 11/17/15

LEGEND
Technical Services, Inc.
www.legend-group.com

17631 North 25th Avenue • Phoenix, AZ 85023
P (602) 324-6100 • F (602) 324-6101

01 February 2016

Nora Clark
Arizona Game & Fish Deptartment
5000 W. Carefree Highway
Phoenix, AZ 85086

RE: Stormwater Monitoring

Laboratory Work Order No.: 6010335

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 01/06/16 08:20.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Kristi-Lee McFarlin
Client Services Representative
(602) 324-6100

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
AZGFD (Phx Grab)	6010335-01	Storm Water	Grab	01/05/16 16:52	01/06/16 08:20

Sample Condition Upon Receipt:

Temperature: 2.60 C

All samples were received in acceptable condition unless noted otherwise in the case narrative.

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.

QA/QC Criteria: All analyses met method requirements unless otherwise qualified.

Certifications: AZ(PHX)0004, AZ(TUC)OOO4, AIHA#102982, CDC ELITE Member.

Accreditation is applicable only to the test methods specified on each scope of accreditation held by LEGEND.

Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.
All samples were analyzed on a "wet" basis unless designated as "dry weight".

Notified client of high MPN result via email on 1/7/16 KM

AZGFD (Phx Grab) (6010335-01) Storm Water (Grab) Sampled: 01/05/16 16:52 Received: 01/06/16 08:20

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Legend Technical Services of Arizona, Inc.						
Microbiology									
E. coli, MPN (WW-Colilert)	**440**	1	MPN/100 mL	1	B6A0957	01/06/16 13:25	01/06/16 13:25	SM 9223B	H3
			ESC AZ0612						
8270 C-SIM									
1-Methylnaphthalene	ND	0.000250	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
2-Chloronaphthalene	ND	0.000250	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
2-Methylnaphthalene	ND	0.000250	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Acenaphthene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Acenaphthylene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Anthracene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Benzo(a)anthracene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Benzo(a)pyrene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Benzo(b)fluoranthene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Benzo(g,h,i)perylene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Benzo(k)fluoranthene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Chrysene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Dibenz(a,h)anthracene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Fluoranthene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Fluorene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Indeno(1,2,3-cd)pyrene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Naphthalene	ND	0.000250	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Phenanthrene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	
Pyrene	ND	0.0000500	mg/l	1	WG840464		01/12/16 10:32	8270 C-SIM	

Microbiology - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6A0957 - micro_prep										
Blank (B6A0957-BLK1)				*Prepared & Analyzed: 01/06/16*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL							
Duplicate (B6A0957-DUP1)		**Source: 6010379-01**		*Prepared & Analyzed: 01/06/16*						
E. coli, MPN (WW-Colilert)	3	1	MPN/100 mL		1			102	100	R2
Duplicate (B6A0957-DUP2)		**Source: 6010384-01**		*Prepared & Analyzed: 01/06/16*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL		<1				100	

Notes and Definitions

R2	RPD/RSD exceeded the laboratory control limit.
H3	Sample was received and /or anlaysis was requested past holding time.
BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Legend Technical Services of Arizona, Inc. **PO Number:** 6010335

SUBCONTRACT ORDER
6010335

SENDING LABORATORY:

Legend Technical Services of Arizona, Inc.
17631 North 25th Avenue
Phoenix, AZ 85023
Phone: 602-324-6100
Fax: 602-324-6101
Project Manager: Kristi-Lee McFarlin

RECEIVING LABORATORY:

ESC Lab Sciences
12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone :(800) 767-5859
Fax: (615) 758-5859

Analysis	Due	Expires	Sample Type (circle one)	Sample Comments
Sample ID: 6010335-01	**Water**	**Sampled: 01/05/16 16:52**	**Grab Composite N/A**	
8310-Subcontract	01/15/16 09:00	01/12/16 16:52		
Containers Supplied:				
02_1000mL Amber Glass Cool to 4° C (A)				
02_1000mL Amber Glass Cool to 4° C (B)				

Stephanie Curran X SC 1/6/16 1020 Emily Vanaskey 1/6/16 1020
Released By (Print & Sign) Date Time Received By (Print & Sign) Date Time

X
Released By (Print & Sign) Date Time Received By (Print & Sign) Date Time

Page 1 of 1

Laboratory Sample ID: 6010335

CHAIN OF CUSTODY RECORD

LEGEND Technical Services, Inc.
www.legend-group.com

☐ 17631 N. 25th Avenue • Phoenix, AZ 85023 • (602) 324-6100 • Fax (602) 324-6101
☐ 4585 S. Palo Verde Rd, Ste 423 • Tucson, AZ 85714 • (520) 327-1234 • Fax (520) 327-0518

Page 1 of 1

Please Print Clearly

CLIENT INFORMATION

Client Name	Report Mailing Address	City	State	Zip	Phone	Email Address
AZ Game and Fish Dept.	5000 W. Carefree Hwy	Phoenix	AZ	85086	(928) 245-8792	NClark@azgfd.gov

Project Name	Project Number	Contact Name	Purchase Order No.	
Phx Grab - Skunk Creek		Nora Clark		EDD ☐ Email Results ☐ Special Detection Limits ☐

SAMPLE TYPE CODES: DW=Drinking Water; WW=Wastewater; SW=Surface Water; GW=Groundwater; O=Other O-Stormwater; S=Soil/Solid; T=Travel Blank; F=Food; G=Sludge/Biosolids

TURN AROUND TIME: Laboratory Authorization Required for Rush; ☐ Standard 7-10 Day; ☐ Other _____

REQUESTED ANALYSES

Client's Sample Identification	Sample Date	Sample Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ✓ (Lab Use Only!)	PAH 8310	ECQ	LAB NO.
AZGFD	1/5/16	4:52pm	Phx Grab		X		X	3		2	1	01

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions: OK past hold per nora SC 1/6/16

SAMPLE CONDITION UPON RECEIPT (Lab Use)		
No. of Containers	3	
Temperature	2.6 °C	
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

	RELINQUISHED BY		SAMPLES RECEIVED BY		
①	Sampler Signature: Renee Wilcox; Sampler Printed Name: Renee Wilcox	Date 1-5-16 Time 5PM	Signature: Kari S. Ogren; Printed Name: Kari S Ogren	Date 1/5/16 Time 5:30 PM	②
③	Signature: Kari S. Ogren; Printed Name: Kari S. Ogren	Date 1/6/16 Time 820	Signature: SC; Printed Name: Scurran	Date 1/6/16 Time 820	④
⑤	Signature: ; Printed Name:	Date: Time:	Signature: ; Printed Name:	Date: Time:	⑥

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (12/14)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-55860-1
TestAmerica Sample Delivery Group: TucGrab
Client Project/Site: ADOT Stormwater Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
12/23/2015 11:19:06 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Qualifiers

Biology

Qualifier	Qualifier Description
H3	Sample was received and/ or analysis requested past holding time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-55860-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-55860-1

Comments
No additional comments.

Receipt
The sample was received on 12/14/2015 4:35 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Receipt Exceptions

The following sample was received outside of the holding time for the 9223B analysis: TucGrab (550-55860-1).

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Biology
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with Prep Batch 80048.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-55860-1	TucGrab	Water	12/11/15 23:40	12/14/15 16:35

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Client Sample ID: TucGrab — Lab Sample ID: 550-55860-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.059		0.050		ug/L	1		8310	Total/NA
Benzo[b]fluoranthene	0.13		0.10		ug/L	1		8310	Total/NA
Benzo[k]fluoranthene	0.058		0.050		ug/L	1		8310	Total/NA
Fluoranthene	0.20		0.10		ug/L	1		8310	Total/NA
Phenanthrene	0.19		0.10		ug/L	1		8310	Total/NA
Escherichia coli	110	H3	1.0		MPN/100mL	1		9223B	Total/NA
Coliform, Total	>2419.6	H3	1.0		MPN/100mL	1		9223B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Client Sample ID: TucGrab

Date Collected: 12/11/15 23:40
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55860-1

Matrix: Water

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 23:08	1
Acenaphthylene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 23:08	1
Anthracene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 23:08	1
Benzo[a]anthracene	ND		0.20		ug/L		12/16/15 09:20	12/18/15 23:08	1
Benzo[a]pyrene	**0.059**		0.050		ug/L		12/16/15 09:20	12/18/15 23:08	1
Benzo[b]fluoranthene	**0.13**		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Benzo[k]fluoranthene	**0.058**		0.050		ug/L		12/16/15 09:20	12/18/15 23:08	1
Chrysene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Fluoranthene	**0.20**		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Fluorene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Naphthalene	ND		0.50		ug/L		12/16/15 09:20	12/18/15 23:08	1
Phenanthrene	**0.19**		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1
Pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*84*		*27 - 101*	*12/16/15 09:20*	*12/18/15 23:08*	*1*

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	**110**	**H3**	1.0		MPN/100mL			12/14/15 18:15	1
Coliform, Total	**>2419.6**	**H3**	1.0		MPN/100mL			12/14/15 18:15	1

Surrogate Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Method: 8310 - PAHs (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PTP1 (27-101)**							
550-55860-1	TucGrab	84							
LCS 550-80048/2-A	Lab Control Sample	73							
LCSD 550-80048/3-A	Lab Control Sample Dup	72							
MB 550-80048/1-A	Method Blank	79							

Surrogate Legend

PTP = p-Terphenyl

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 550-80048/1-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 80048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 20:23	1
Acenaphthylene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 20:23	1
Anthracene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[a]anthracene	ND		0.20		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[a]pyrene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[b]fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[k]fluoranthene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Chrysene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Fluorene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Naphthalene	ND		0.50		ug/L		12/16/15 09:20	12/18/15 20:23	1
Phenanthrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*79*		*27 - 101*	*12/16/15 09:20*	*12/18/15 20:23*	*1*

Lab Sample ID: LCS 550-80048/2-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 80048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.50	1.99		ug/L		80	25 - 149
Acenaphthylene	5.00	3.63		ug/L		73	58 - 112
Anthracene	0.250	0.209		ug/L		83	10 - 150
Benzo[a]anthracene	0.250	0.218		ug/L		87	43 - 141
Benzo[a]pyrene	0.250	0.211		ug/L		84	37 - 144
Benzo[b]fluoranthene	0.500	0.417		ug/L		83	57 - 129
Benzo[g,h,i]perylene	0.500	0.414		ug/L		83	15 - 150
Benzo[k]fluoranthene	0.250	0.206		ug/L		83	54 - 130
Chrysene	0.250	0.224		ug/L		90	52 - 142
Dibenz(a,h)anthracene	0.500	0.409		ug/L		82	15 - 121
Fluoranthene	0.500	0.415		ug/L		83	50 - 127
Fluorene	0.500	0.400		ug/L		80	46 - 123
Indeno[1,2,3-cd]pyrene	0.250	0.220		ug/L		88	24 - 150
Naphthalene	2.50	1.88		ug/L		75	35 - 101
Phenanthrene	0.250	0.212		ug/L		85	58 - 124
Pyrene	0.250	0.188		ug/L		75	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*73*		*27 - 101*

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: LCSD 550-80048/3-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 80048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.50	1.96		ug/L		78	25 - 149	1	35
Acenaphthylene	5.00	4.42		ug/L		88	58 - 112	19	35
Anthracene	0.250	0.206		ug/L		83	10 - 150	1	35
Benzo[a]anthracene	0.250	0.220		ug/L		88	43 - 141	1	35
Benzo[a]pyrene	0.250	0.211		ug/L		84	37 - 144	0	35
Benzo[b]fluoranthene	0.500	0.417		ug/L		83	57 - 129	0	35
Benzo[g,h,i]perylene	0.500	0.428		ug/L		86	15 - 150	3	35
Benzo[k]fluoranthene	0.250	0.208		ug/L		83	54 - 130	1	35
Chrysene	0.250	0.226		ug/L		90	52 - 142	1	35
Dibenz(a,h)anthracene	0.500	0.412		ug/L		82	15 - 121	1	35
Fluoranthene	0.500	0.418		ug/L		84	50 - 127	1	35
Fluorene	0.500	0.395		ug/L		79	46 - 123	1	35
Indeno[1,2,3-cd]pyrene	0.250	0.227		ug/L		91	24 - 150	3	35
Naphthalene	2.50	1.88		ug/L		75	35 - 101	0	35
Phenanthrene	0.250	0.216		ug/L		86	58 - 124	2	28
Pyrene	0.250	0.197		ug/L		79	11 - 150	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*72*		*27 - 101*

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Lab Sample ID: MB 550-79941/1
Matrix: Water
Analysis Batch: 79941

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<1.0		1.0		MPN/100mL			12/14/15 18:15	1
Coliform, Total	<1.0		1.0		MPN/100mL			12/14/15 18:15	1

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

HPLC/IC

Prep Batch: 80048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55860-1	TucGrab	Total/NA	Water	3510C	
LCS 550-80048/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 550-80048/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 550-80048/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 80282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55860-1	TucGrab	Total/NA	Water	8310	80048
LCS 550-80048/2-A	Lab Control Sample	Total/NA	Water	8310	80048
LCSD 550-80048/3-A	Lab Control Sample Dup	Total/NA	Water	8310	80048
MB 550-80048/1-A	Method Blank	Total/NA	Water	8310	80048

Biology

Analysis Batch: 79941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55860-1	TucGrab	Total/NA	Water	9223B	
MB 550-79941/1	Method Blank	Total/NA	Water	9223B	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Client Sample ID: TucGrab

Date Collected: 12/11/15 23:40
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55860-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			80048	12/16/15 09:20	JNC	TAL PHX
Total/NA	Analysis	8310		1	80282	12/18/15 23:08	JGM	TAL PHX
Total/NA	Analysis	9223B		1	79941		NRH	TAL PHX
					(Start)	12/14/15 18:15		
					(End)	12/15/15 15:15		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55860-1
SDG: TucGrab

Method	Method Description	Protocol	Laboratory
8310	PAHs (HPLC)	SW846	TAL PHX
9223B	Total Coliforms and E. coli by Colilert - QT	SM	TAL PHX

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

550 – 55860

097371

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Lora Clark	Site Contact:	Date: 11Dec15	COC No:
Company Name: AZ Game + Fish Dept	Tel/Fax: 9258458792	Lab Contact:	Carrier:	____ of ____ COCs
Address: 5000 W Carefree Hwy	Analysis Turnaround Time			Sampler:
City/State/Zip: Phx AZ 85086	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 7258458792	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: ADOT Stormwater Monitoring	☐ 1 week			
Site: Tuc Grab	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	E. Coli /QT	PAH 8310	Sample Specific Notes:
Tuc Grab –01	11Dec15	2340	G		3			X	X	email results to nclark@azgfd.gov

550-55860 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: 0.1 | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AZGFD	1330 14Dec15	[signature]	TA	12/14/15 13:30
[signature]	TA	12/14/15 16:55	[signature]		
			Received in Laboratory by: [signature]	TA	12/14/15 16:35

12/23/2015

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-55860-1
SDG Number: TucGrab

Login Number: 55860
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-55867-1
TestAmerica Sample Delivery Group: TucMach
Client Project/Site: Arizona Game and Fish Department

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
12/22/2015 9:53:48 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-55867-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-55867-1

Comments
No additional comments.

Receipt
The sample was received on 12/14/2015 4:35 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Metals
Method(s) 200.8 LL: The continuing calibration blank (CCB) for analytical batch 80256 contained selenium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-55867-1	TucMach	Water	12/12/15 10:00	12/14/15 16:35

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Client Sample ID: TucMach — Lab Sample ID: 550-55867-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.052		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.064		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.27		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00026		0.00010		mg/L	1		200.8 LL	Total/NA
Selenium	0.00049		0.00010		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Client Sample ID: TucMach

Date Collected: 12/12/15 10:00
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55867-1

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.052**		0.010		mg/L		12/16/15 09:32	12/17/15 13:47	1
Chromium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:47	1
Copper	**0.064**		0.010		mg/L		12/16/15 09:32	12/17/15 13:47	1
Lead	ND		0.015		mg/L		12/16/15 09:32	12/17/15 13:47	1
Nickel	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:47	1
Zinc	**0.27**		0.050		mg/L		12/16/15 09:32	12/17/15 13:47	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0012**		0.00050		mg/L		12/15/15 13:16	12/17/15 11:40	1
Cadmium	**0.00026**		0.00010		mg/L		12/15/15 13:16	12/17/15 11:40	1
Selenium	**0.00049**		0.00010		mg/L		12/15/15 13:16	12/21/15 12:45	1
Silver	ND		0.00010		mg/L		12/15/15 13:16	12/17/15 11:40	1

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-80058/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Chromium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Copper	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Lead	ND		0.015		mg/L		12/16/15 09:32	12/17/15 13:02	1
Nickel	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Zinc	ND		0.050		mg/L		12/16/15 09:32	12/17/15 13:02	1

Lab Sample ID: LCS 550-80058/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.948		mg/L		95	85 - 115
Chromium	1.00	0.978		mg/L		98	85 - 115
Copper	1.00	0.937		mg/L		94	85 - 115
Lead	1.00	0.961		mg/L		96	85 - 115
Nickel	1.00	0.964		mg/L		96	85 - 115
Zinc	1.00	0.978		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-80058/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.978		mg/L		98	85 - 115	3	20
Chromium	1.00	1.01		mg/L		101	85 - 115	3	20
Copper	1.00	0.957		mg/L		96	85 - 115	2	20
Lead	1.00	1.00		mg/L		100	85 - 115	4	20
Nickel	1.00	0.999		mg/L		100	85 - 115	4	20
Zinc	1.00	1.09		mg/L		109	85 - 115	11	20

Lab Sample ID: 550-55674-I-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.064		1.00	1.02		mg/L		95	70 - 130
Chromium	ND		1.00	0.990		mg/L		99	70 - 130
Copper	ND		1.00	0.975		mg/L		97	70 - 130
Lead	ND		1.00	0.977		mg/L		98	70 - 130
Nickel	ND		1.00	0.964		mg/L		96	70 - 130
Zinc	ND		1.00	1.02		mg/L		101	70 - 130

Lab Sample ID: 550-55674-I-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.064		1.00	1.04		mg/L		98	70 - 130	3	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-55674-I-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		1.00	1.01		mg/L		101	70 - 130	2	20
Copper	ND		1.00	0.997		mg/L		99	70 - 130	2	20
Lead	ND		1.00	1.01		mg/L		101	70 - 130	3	20
Nickel	ND		1.00	0.986		mg/L		98	70 - 130	2	20
Zinc	ND		1.00	1.04		mg/L		103	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-80001/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00050		mg/L		12/15/15 13:16	12/17/15 11:15	1
Cadmium	ND		0.00010		mg/L		12/15/15 13:16	12/17/15 11:15	1
Selenium	ND		0.00010		mg/L		12/15/15 13:16	12/17/15 11:15	1
Silver	ND		0.00010		mg/L		12/15/15 13:16	12/17/15 11:15	1

Lab Sample ID: MB 550-80001/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80422 — **Prep Batch: 80001**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.00010		mg/L		12/15/15 13:16	12/21/15 12:33	1

Lab Sample ID: LCS 550-80001/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	85 - 115
Cadmium	0.100	0.104		mg/L		104	85 - 115
Selenium	0.100	0.105		mg/L		105	85 - 115
Silver	0.100	0.106		mg/L		106	85 - 115

Lab Sample ID: LCS 550-80001/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80422 — **Prep Batch: 80001**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0971		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-80001/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.105		mg/L		105	85 - 115	0	20
Cadmium	0.100	0.107		mg/L		107	85 - 115	3	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-80001/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.105		mg/L		105	85 - 115	0	20
Silver			0.100	0.110		mg/L		110	85 - 115	3	20

Lab Sample ID: LCSD 550-80001/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80422 — **Prep Batch: 80001**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.0933		mg/L		93	85 - 115	4	20

Lab Sample ID: 550-55786-C-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	0.00082		0.100	0.109		mg/L		108	70 - 130		
Cadmium	ND		0.100	0.102		mg/L		102	70 - 130		
Selenium	0.0028		0.100	0.109		mg/L		107	70 - 130		
Silver	0.00018		0.100	0.0986		mg/L		98	70 - 130		

Lab Sample ID: 550-55786-C-1-A MS ^T — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80422 — **Prep Batch: 80001**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Selenium	0.0024		0.100	0.100		mg/L		98	70 - 130		

Lab Sample ID: 550-55786-C-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80256 — **Prep Batch: 80001**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00082		0.100	0.108		mg/L		107	70 - 130	2	20
Cadmium	ND		0.100	0.100		mg/L		100	70 - 130	2	20
Selenium	0.0028		0.100	0.110		mg/L		107	70 - 130	0	20
Silver	0.00018		0.100	0.0964		mg/L		96	70 - 130	2	20

Lab Sample ID: 550-55786-C-1-B MSD ^T — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80422 — **Prep Batch: 80001**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.0024		0.100	0.101		mg/L		99	70 - 130	1	20

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Metals

Prep Batch: 80001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55786-C-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-55786-C-1-A MS ^T	Matrix Spike	Total/NA	Water	200.8	
550-55786-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	
550-55786-C-1-B MSD ^T	Matrix Spike Duplicate	Total/NA	Water	200.8	
550-55867-1	TucMach	Total/NA	Water	200.8	
LCS 550-80001/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-80001/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 550-80001/1-A	Method Blank	Total/NA	Water	200.8	

Prep Batch: 80058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55674-I-1-E MS	Matrix Spike	Total/NA	Water	200.7	
550-55674-I-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-55867-1	TucMach	Total/NA	Water	200.7	
LCS 550-80058/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-80058/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-80058/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 80221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55674-I-1-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	80058
550-55674-I-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	80058
550-55867-1	TucMach	Total/NA	Water	200.7 Rev 4.4	80058
LCS 550-80058/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	80058
LCSD 550-80058/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	80058
MB 550-80058/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	80058

Analysis Batch: 80256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55786-C-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	80001
550-55786-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	80001
550-55867-1	TucMach	Total/NA	Water	200.8 LL	80001
LCS 550-80001/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	80001
LCSD 550-80001/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	80001
MB 550-80001/1-A	Method Blank	Total/NA	Water	200.8 LL	80001

Analysis Batch: 80422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55786-C-1-A MS ^T	Matrix Spike	Total/NA	Water	200.8 LL	80001
550-55786-C-1-B MSD ^T	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	80001
550-55867-1	TucMach	Total/NA	Water	200.8 LL	80001
LCS 550-80001/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	80001
LCSD 550-80001/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	80001
MB 550-80001/1-A	Method Blank	Total/NA	Water	200.8 LL	80001

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Client Sample ID: TucMach

Date Collected: 12/12/15 10:00
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55867-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			80058	12/16/15 09:32	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	80221	12/17/15 13:47	AJC	TAL PHX
Total/NA	Prep	200.8			80001	12/15/15 13:16	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	80256	12/17/15 11:40	AJC	TAL PHX
Total/NA	Prep	200.8			80001	12/15/15 13:16	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	80422	12/21/15 12:45	TEK	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Laboratory: TestAmerica Phoenix

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: Arizona Game and Fish Department

TestAmerica Job ID: 550-55867-1
SDG: TucMach

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

550.55867

097372

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

12/22/2015

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Dora Clarin	Site Contact:	Date: 14 Dec 15	COC No:
Company Name: AZ Game + Fish Dept	Tel/Fax: 9282458792	Lab Contact:	Carrier:	____ of ____ COCs
Address: 5000 N Carefree Hwy	Analysis Turnaround Time			Sampler:
City/State/Zip: Phx AZ 85086	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 7282458792	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: ADOT Stormwater Monitoring	☐ 1 week			
Site: Tuc Mach	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	metals set A	metals set B	Sample Specific Notes:
Tuc Mach -01	12Dec15	1000	C		2			X	X	email results to inclarin@azgfd.gov
										metals A: Ba, Cr, Cu, Pb, Ni, Zn
										metals B: As, Cd, Ag, Se

550-55867 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: 0 | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AZGFD	14Dec15 1330	[signature]	TA	12/14/15 1330
[signature]	TA	12/14/15 16:35	[signature]		
			Received in Laboratory by: [signature]	TA	12/14/15 16:35

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-55867-1
SDG Number: TucMach

Login Number: 55867
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-56632-1
TestAmerica Sample Delivery Group: Tucson - Grant Rd.
Client Project/Site: ADOT Stormwater Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
1/14/2016 4:36:25 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

General Chemistry

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.

Biology

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
H3	Sample was received and/ or analysis requested past holding time.
D2	Sample required dilution due to high concentration of analyte.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-56632-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-56632-1

Comments
No additional comments.

Receipt
The sample was received on 1/5/2016 4:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3º C.

Receipt Exceptions

The following samples were received unpreserved and were preserved upon receipt to the laboratory: Sample Receiving post preserved unpreserved sample volume for metals analysis. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Biology
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient samples volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 550-81309.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-56632-1	TUCMACH	Water	01/04/16 14:30	01/05/16 16:00

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Client Sample ID: TUCMACH — Lab Sample ID: 550-56632-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.75		0.10		mg/L	1		300.0	Total/NA
Nitrite as N	0.10		0.10		mg/L	1		300.0	Total/NA
Chloride	20		2.0		mg/L	1		300.0	Total/NA
Sulfate	7.4		2.0		mg/L	1		300.0	Total/NA
Sodium	7.1		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	17		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Turbidity	52	D2	2.0		NTU	10		180.1	Total/NA
Total Dissolved Solids	130		20		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	40		10		mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	14		5.0		mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	100		20		mg/L	1		SM 5220D	Total/NA
Coliform, Fecal	690	D2 H3	10		CFU/100mL	10		SM 9222D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Client Sample ID: TUCMACH

Date Collected: 01/04/16 14:30
Date Received: 01/05/16 16:00

Lab Sample ID: 550-56632-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.75		0.10		mg/L			01/06/16 00:49	1
Nitrite as N	0.10		0.10		mg/L			01/06/16 00:49	1
Chloride	20		2.0		mg/L			01/06/16 00:49	1
Sulfate	7.4		2.0		mg/L			01/06/16 00:49	1

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.1		ug/L		01/07/16 20:41	01/12/16 06:49	1
Acenaphthylene	ND		1.1		ug/L		01/07/16 20:41	01/12/16 06:49	1
Anthracene	ND		0.054		ug/L		01/07/16 20:41	01/12/16 06:49	1
Benzo[a]anthracene	ND		0.22		ug/L		01/07/16 20:41	01/12/16 06:49	1
Benzo[a]pyrene	ND		0.054		ug/L		01/07/16 20:41	01/12/16 06:49	1
Benzo[b]fluoranthene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Benzo[g,h,i]perylene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Benzo[k]fluoranthene	ND		0.054		ug/L		01/07/16 20:41	01/12/16 06:49	1
Chrysene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Dibenz(a,h)anthracene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Fluoranthene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Fluorene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Indeno[1,2,3-cd]pyrene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Naphthalene	ND		0.54		ug/L		01/07/16 20:41	01/12/16 06:49	1
Phenanthrene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1
Pyrene	ND		0.11		ug/L		01/07/16 20:41	01/12/16 06:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*97*		*27 - 110*	*01/07/16 20:41*	*01/12/16 06:49*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	7.1		0.50		mg/L		01/07/16 10:19	01/08/16 16:02	1
Calcium	17		2.0		mg/L		01/07/16 10:19	01/08/16 16:02	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		01/06/16 13:30	01/12/16 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	52	D2	2.0		NTU			01/06/16 08:55	10
Total Dissolved Solids	130		20		mg/L			01/06/16 15:14	1
Total Suspended Solids	40		10		mg/L			01/07/16 12:50	1
Biochemical Oxygen Demand	14		5.0		mg/L			01/05/16 17:40	1
Chemical Oxygen Demand	100		20		mg/L		01/07/16 11:45	01/08/16 11:19	1

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<10	D1 H3	10		MPN/100mL			01/05/16 18:40	10
Coliform, Total	<10	D1 H3	10		MPN/100mL			01/05/16 18:40	10

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Client Sample ID: TUCMACH

Lab Sample ID: 550-56632-1

Date Collected: 01/04/16 14:30
Matrix: Water
Date Received: 01/05/16 16:00

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	690	D2 H3	10		CFU/100mL			01/05/16 18:45	10

Surrogate Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Method: 8310 - PAHs (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PTP1 (27-110)**							
550-56632-1	TUCMACH	97							
LCS 550-81309/2-A	Lab Control Sample	106							
LCSD 550-81309/3-A	Lab Control Sample Dup	100							
MB 550-81309/1-A	Method Blank	91							

Surrogate Legend

PTP = p-Terphenyl

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-81191/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			01/05/16 14:47	1
Nitrite as N	ND		0.10		mg/L			01/05/16 14:47	1
Chloride	ND		2.0		mg/L			01/05/16 14:47	1
Sulfate	ND		2.0		mg/L			01/05/16 14:47	1

Lab Sample ID: LCS 550-81191/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.15		mg/L		104	90 - 110
Nitrite as N	4.00	4.08		mg/L		102	90 - 110
Chloride	20.0	20.7		mg/L		104	90 - 110
Sulfate	20.0	20.7		mg/L		103	90 - 110

Lab Sample ID: LCSD 550-81191/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.16		mg/L		104	90 - 110	0	20
Nitrite as N	4.00	4.10		mg/L		103	90 - 110	1	20
Chloride	20.0	20.8		mg/L		104	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	1	20

Lab Sample ID: 550-56571-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.7		4.00	6.85		mg/L		105	80 - 120
Nitrite as N	ND		4.00	4.12		mg/L		103	80 - 120
Chloride	35		20.0	56.6		mg/L		109	80 - 120
Sulfate	31		20.0	51.8		mg/L		104	80 - 120

Lab Sample ID: 550-56571-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.7		4.00	6.87		mg/L		105	80 - 120	0	20
Nitrite as N	ND		4.00	4.16		mg/L		104	80 - 120	1	20
Chloride	35		20.0	56.6		mg/L		109	80 - 120	0	20
Sulfate	31		20.0	51.6		mg/L		103	80 - 120	0	20

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 550-81309/1-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Acenaphthylene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Anthracene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]anthracene	ND		0.20		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]pyrene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[b]fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[k]fluoranthene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Chrysene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluorene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Naphthalene	ND		0.50		ug/L		01/07/16 20:41	01/12/16 02:57	1
Phenanthrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*91*		*27 - 110*	*01/07/16 20:41*	*01/12/16 02:57*	*1*

Lab Sample ID: LCS 550-81309/2-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.50	2.10		ug/L		84	25 - 149
Acenaphthylene	5.00	4.26		ug/L		85	58 - 112
Anthracene	0.250	0.224		ug/L		90	10 - 150
Benzo[a]anthracene	0.250	0.235		ug/L		94	43 - 141
Benzo[a]pyrene	0.250	0.233		ug/L		93	37 - 144
Benzo[b]fluoranthene	0.500	0.470		ug/L		94	57 - 129
Benzo[g,h,i]perylene	0.500	0.456		ug/L		91	15 - 150
Benzo[k]fluoranthene	0.250	0.235		ug/L		94	54 - 130
Chrysene	0.250	0.249		ug/L		99	52 - 142
Dibenz(a,h)anthracene	0.500	0.463		ug/L		93	15 - 121
Fluoranthene	0.500	0.455		ug/L		91	50 - 127
Fluorene	0.500	0.434		ug/L		87	46 - 123
Indeno[1,2,3-cd]pyrene	0.250	0.226		ug/L		91	24 - 150
Naphthalene	2.50	1.99		ug/L		80	35 - 101
Phenanthrene	0.250	0.249		ug/L		100	58 - 124
Pyrene	0.250	0.284		ug/L		114	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*106*		*27 - 110*

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: LCSD 550-81309/3-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.50	2.14		ug/L		86	25 - 149	2	35
Acenaphthylene	5.00	4.70		ug/L		94	58 - 112	10	35
Anthracene	0.250	0.215		ug/L		86	10 - 150	4	35
Benzo[a]anthracene	0.250	0.226		ug/L		90	43 - 141	4	35
Benzo[a]pyrene	0.250	0.223		ug/L		89	37 - 144	4	35
Benzo[b]fluoranthene	0.500	0.444		ug/L		89	57 - 129	6	35
Benzo[g,h,i]perylene	0.500	0.441		ug/L		88	15 - 150	3	35
Benzo[k]fluoranthene	0.250	0.220		ug/L		88	54 - 130	6	35
Chrysene	0.250	0.235		ug/L		94	52 - 142	6	35
Dibenz(a,h)anthracene	0.500	0.440		ug/L		88	15 - 121	5	35
Fluoranthene	0.500	0.436		ug/L		87	50 - 127	4	35
Fluorene	0.500	0.390		ug/L		78	46 - 123	10	35
Indeno[1,2,3-cd]pyrene	0.250	0.214		ug/L		85	24 - 150	6	35
Naphthalene	2.50	1.79		ug/L		72	35 - 101	10	35
Phenanthrene	0.250	0.233		ug/L		93	58 - 124	7	28
Pyrene	0.250	0.270		ug/L		108	11 - 150	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*100*		*27 - 110*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-81246/1-A
Matrix: Water
Analysis Batch: 81427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		01/07/16 10:19	01/08/16 15:54	1
Calcium	ND		2.0		mg/L		01/07/16 10:19	01/08/16 15:54	1

Lab Sample ID: LCS 550-81246/2-A
Matrix: Water
Analysis Batch: 81427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	20.0	19.2		mg/L		96	85 - 115
Calcium	21.0	21.1		mg/L		100	85 - 115

Lab Sample ID: LCSD 550-81246/3-A
Matrix: Water
Analysis Batch: 81427

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	20.0	19.4		mg/L		97	85 - 115	1	20
Calcium	21.0	21.2		mg/L		101	85 - 115	1	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-56706-A-4-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81427 — **Prep Batch: 81246**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sodium	330	M3	20.0	340	M3	mg/L		72	70 - 130		
Calcium	60		21.0	79.2		mg/L		92	70 - 130		

Lab Sample ID: 550-56706-A-4-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81427 — **Prep Batch: 81246**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	330	M3	20.0	317	M3	mg/L		-43	70 - 130	7	20
Calcium	60		21.0	74.5		mg/L		70	70 - 130	6	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-81199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		01/06/16 13:30	01/12/16 12:25	1

Lab Sample ID: LCS 550-81199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.0105		mg/L		105	85 - 115		

Lab Sample ID: LCSD 550-81199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.0100	0.0111		mg/L		111	85 - 115	5	20

Lab Sample ID: 550-56630-G-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg	ND		0.0100	0.0101		mg/L		101	70 - 130		

Lab Sample ID: 550-56630-G-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.0110		mg/L		110	70 - 130	8	20

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 550-81156/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20		NTU			01/06/16 08:55	1

Lab Sample ID: LCS 550-81156/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Turbidity	20.0	19.0		NTU		95	90 - 110

Lab Sample ID: LCSD 550-81156/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Turbidity	20.0	19.7		NTU		99	90 - 110	4	20

Lab Sample ID: 550-56632-1 DU — **Client Sample ID: TUCMACH**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	52	D2	51.3	D2	NTU		1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-81207/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			01/06/16 15:14	1

Lab Sample ID: LCS 550-81207/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	956		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-81207/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	1000	986		mg/L		99	90 - 110	3	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 550-56025-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1700	D1		1750	D1	mg/L				2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 550-81273/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10		mg/L			01/07/16 12:50	1

Lab Sample ID: LCS 550-81273/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			200	194		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-81273/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids			200	190		mg/L		95	90 - 110	2	10

Lab Sample ID: 550-56637-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	97			90.0		mg/L				7	10

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: MB 550-81122/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		5.0		mg/L			01/05/16 17:40	1

Lab Sample ID: LCS 550-81122/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	198		mg/L		100	84.6 - 115.4		

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: 550-56545-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	650	D1		643	D1	mg/L				2	20

Method: SM 5220D - COD

Lab Sample ID: MB 550-81265/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20		mg/L		01/07/16 11:45	01/08/16 11:19	1

Lab Sample ID: LCS 550-81265/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			400	406		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-81265/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand			400	403		mg/L		101	90 - 110	1	20

Lab Sample ID: 550-56639-B-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	34		400	427		mg/L		98	80 - 120		

Lab Sample ID: 550-56639-B-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	34		400	424		mg/L		98	80 - 120	1	20

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Lab Sample ID: MB 550-81121/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<1.0		1.0		MPN/100mL			01/05/16 15:55	1
Coliform, Total	<1.0		1.0		MPN/100mL			01/05/16 15:55	1

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Lab Sample ID: MB 550-81136/1
Matrix: Water
Analysis Batch: 81136

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	<1.0		1.0		CFU/100mL			01/05/16 18:45	1

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

HPLC/IC

Analysis Batch: 81191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56571-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-56571-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-56632-1	TUCMACH	Total/NA	Water	300.0	
LCS 550-81191/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-81191/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-81191/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 81309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	3510C	
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 550-81309/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 81490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	8310	81309
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	8310	81309
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	8310	81309
MB 550-81309/1-A	Method Blank	Total/NA	Water	8310	81309

Metals

Prep Batch: 81199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56630-G-1-B MS	Matrix Spike	Total/NA	Water	245.1	
550-56630-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-56632-1	TUCMACH	Total/NA	Water	245.1	
LCS 550-81199/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-81199/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
MB 550-81199/1-A	Method Blank	Total/NA	Water	245.1	

Prep Batch: 81246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	200.7	
550-56706-A-4-A MS	Matrix Spike	Total/NA	Water	200.7	
550-56706-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
LCS 550-81246/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-81246/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-81246/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 81427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	200.7 Rev 4.4	81246
550-56706-A-4-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	81246
550-56706-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	81246
LCS 550-81246/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	81246
LCSD 550-81246/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	81246
MB 550-81246/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	81246

Metals (Continued)

Analysis Batch: 81571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56630-G-1-B MS	Matrix Spike	Total/NA	Water	245.1	81199
550-56630-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	81199
550-56632-1	TUCMACH	Total/NA	Water	245.1	81199
LCS 550-81199/2-A	Lab Control Sample	Total/NA	Water	245.1	81199
LCSD 550-81199/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	81199
MB 550-81199/1-A	Method Blank	Total/NA	Water	245.1	81199

General Chemistry

Analysis Batch: 81122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56545-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
550-56632-1	TUCMACH	Total/NA	Water	SM 5210B	
LCS 550-81122/2	Lab Control Sample	Total/NA	Water	SM 5210B	
MB 550-81122/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 81156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	180.1	
550-56632-1 DU	TUCMACH	Total/NA	Water	180.1	
LCS 550-81156/4	Lab Control Sample	Total/NA	Water	180.1	
LCSD 550-81156/5	Lab Control Sample Dup	Total/NA	Water	180.1	
MB 550-81156/3	Method Blank	Total/NA	Water	180.1	

Analysis Batch: 81207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56025-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-56632-1	TUCMACH	Total/NA	Water	SM 2540C	
LCS 550-81207/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-81207/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 550-81207/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 81265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	SM 5220	
550-56639-B-1-C MS	Matrix Spike	Total/NA	Water	SM 5220	
550-56639-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220	
LCS 550-81265/4-A	Lab Control Sample	Total/NA	Water	SM 5220	
LCSD 550-81265/5-A	Lab Control Sample Dup	Total/NA	Water	SM 5220	
MB 550-81265/3-A	Method Blank	Total/NA	Water	SM 5220	

Analysis Batch: 81273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	SM 2540D	
550-56637-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 550-81273/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 550-81273/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 550-81273/1	Method Blank	Total/NA	Water	SM 2540D	

General Chemistry (Continued)

Analysis Batch: 81275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	SM 5220D	81265
550-56639-B-1-C MS	Matrix Spike	Total/NA	Water	SM 5220D	81265
550-56639-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	81265
LCS 550-81265/4-A	Lab Control Sample	Total/NA	Water	SM 5220D	81265
LCSD 550-81265/5-A	Lab Control Sample Dup	Total/NA	Water	SM 5220D	81265
MB 550-81265/3-A	Method Blank	Total/NA	Water	SM 5220D	81265

Biology

Analysis Batch: 81121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-81121/1	Method Blank	Total/NA	Water	9223B	

Analysis Batch: 81134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	9223B	

Analysis Batch: 81136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-1	TUCMACH	Total/NA	Water	SM 9222D	
MB 550-81136/1	Method Blank	Total/NA	Water	SM 9222D	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Client Sample ID: TUCMACH

Date Collected: 01/04/16 14:30
Date Received: 01/05/16 16:00

Lab Sample ID: 550-56632-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	81191	01/06/16 00:49	AMR	TAL PHX
Total/NA	Prep	3510C			81309	01/07/16 20:41	HKT	TAL PHX
Total/NA	Analysis	8310		1	81490	01/12/16 06:49	A1C	TAL PHX
Total/NA	Prep	200.7			81246	01/07/16 10:19	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	81427	01/08/16 16:02	AJC	TAL PHX
Total/NA	Prep	245.1			81199	01/06/16 13:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	81571	01/12/16 12:43	JTG	TAL PHX
Total/NA	Analysis	180.1		10	81156	01/06/16 08:55	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	81207		ATH	TAL PHX
					(Start)	01/06/16 15:14		
					(End)	01/07/16 14:45		
Total/NA	Analysis	SM 2540D		1	81273		ATH	TAL PHX
					(Start)	01/07/16 12:50		
					(End)	01/11/16 12:51		
Total/NA	Analysis	SM 5210B		1	81122		BCB	TAL PHX
					(Start)	01/05/16 17:40		
					(End)	01/10/16 12:38		
Total/NA	Prep	SM 5220			81265	01/07/16 11:45	BCB	TAL PHX
Total/NA	Analysis	SM 5220D		1	81275	01/08/16 11:19	BCB	TAL PHX
Total/NA	Analysis	9223B		10	81134		NRH	TAL PHX
					(Start)	01/05/16 18:40		
					(End)	01/06/16 12:50		
Total/NA	Analysis	SM 9222D		10	81136		NRH	TAL PHX
					(Start)	01/05/16 18:45		
					(End)	01/06/16 16:50		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56632-1
SDG: Tucson - Grant Rd.

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
8310	PAHs (HPLC)	SW846	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
180.1	Turbidity, Nephelometric	MCAWW	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PHX
SM 5210B	BOD, 5-Day	SM	TAL PHX
SM 5220D	COD	SM	TAL PHX
9223B	Total Coliforms and E. coli by Colilert - QT	SM	TAL PHX
SM 9222D	Coliforms, Fecal (Membrane Filter)	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

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Chain of Custody Record

113911

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THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact
Company Name: AZ GAME & FISH DEPT
Address: 5000 W. CAREFREE HWY.
City/State/Zip: PHOENIX, AZ 85086
Phone: 928.245-8792
Fax:
Project Name: ADOT STORMWATER MONITORING
Site: TUCSON - GRANT RD.
PO#

Project Manager: NORA CLARK
Tel/Fax: 928.245-8792

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below _____
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Site Contact:
Lab Contact:

Date: 4 JAN. 2016
Carrier:

COC No: _____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	E-Coli	Fecal-Coli	BOD	COD	Turbidity	NO2	NO3	TSS	TDS	PAH-8310	Hg	Chlorine	Calcium *	Sodium	Sulfates	Sample Specific Notes:
TUCMACH	1-4-16	1430	COMP		8			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	550632

*IF ENOUGH WATER PLEASE DO Hg, CHLORINE, CALCIUM, SODIUM, SULFATES

550-56632 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

1.3

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lenny Abbott	AGFD	1-5-16/1345		TA	1/5/16 13:45
	TA	1/5/16 16:40		TA	1/5/16 16:00
			Received in Laboratory by:		

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-56632-1
SDG Number: Tucson - Grant Rd.

Login Number: 56632
List Number: 1
Creator: Stimson, Stephanie

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-55866-1
TestAmerica Sample Delivery Group: NogMach
Client Project/Site: ADOT Stormwater Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
12/18/2015 11:07:08 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Job ID: 550-55866-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-55866-1

Comments
No additional comments.

Receipt
The sample was received on 12/14/2015 4:35 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-55866-1	NogMach	Water	12/12/15 14:05	12/14/15 16:35

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Client Sample ID: NogMach — Lab Sample ID: 550-55866-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.050		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.036		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.11		0.050		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Client Sample ID: NogMach

Date Collected: 12/12/15 14:05
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55866-1

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.050**		0.010		mg/L		12/16/15 09:32	12/17/15 13:44	1
Chromium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:44	1
Copper	**0.036**		0.010		mg/L		12/16/15 09:32	12/17/15 13:44	1
Lead	ND		0.015		mg/L		12/16/15 09:32	12/17/15 13:44	1
Nickel	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:44	1
Zinc	**0.11**		0.050		mg/L		12/16/15 09:32	12/17/15 13:44	1

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-80058/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Chromium	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Copper	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Lead	ND		0.015		mg/L		12/16/15 09:32	12/17/15 13:02	1
Nickel	ND		0.010		mg/L		12/16/15 09:32	12/17/15 13:02	1
Zinc	ND		0.050		mg/L		12/16/15 09:32	12/17/15 13:02	1

Lab Sample ID: LCS 550-80058/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.948		mg/L		95	85 - 115
Chromium	1.00	0.978		mg/L		98	85 - 115
Copper	1.00	0.937		mg/L		94	85 - 115
Lead	1.00	0.961		mg/L		96	85 - 115
Nickel	1.00	0.964		mg/L		96	85 - 115
Zinc	1.00	0.978		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-80058/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.978		mg/L		98	85 - 115	3	20
Chromium	1.00	1.01		mg/L		101	85 - 115	3	20
Copper	1.00	0.957		mg/L		96	85 - 115	2	20
Lead	1.00	1.00		mg/L		100	85 - 115	4	20
Nickel	1.00	0.999		mg/L		100	85 - 115	4	20
Zinc	1.00	1.09		mg/L		109	85 - 115	11	20

Lab Sample ID: 550-55674-I-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.064		1.00	1.02		mg/L		95	70 - 130
Chromium	ND		1.00	0.990		mg/L		99	70 - 130
Copper	ND		1.00	0.975		mg/L		97	70 - 130
Lead	ND		1.00	0.977		mg/L		98	70 - 130
Nickel	ND		1.00	0.964		mg/L		96	70 - 130
Zinc	ND		1.00	1.02		mg/L		101	70 - 130

Lab Sample ID: 550-55674-I-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80221 — **Prep Batch: 80058**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.064		1.00	1.04		mg/L		98	70 - 130	3	20

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-55674-I-1-F MSD
Matrix: Water
Analysis Batch: 80221

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 80058

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		1.00	1.01		mg/L		101	70 - 130	2	20
Copper	ND		1.00	0.997		mg/L		99	70 - 130	2	20
Lead	ND		1.00	1.01		mg/L		101	70 - 130	3	20
Nickel	ND		1.00	0.986		mg/L		98	70 - 130	2	20
Zinc	ND		1.00	1.04		mg/L		103	70 - 130	3	20

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Metals

Prep Batch: 80058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55674-I-1-E MS	Matrix Spike	Total/NA	Water	200.7	
550-55674-I-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-55866-1	NogMach	Total/NA	Water	200.7	
LCS 550-80058/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-80058/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-80058/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 80221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55674-I-1-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	80058
550-55674-I-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	80058
550-55866-1	NogMach	Total/NA	Water	200.7 Rev 4.4	80058
LCS 550-80058/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	80058
LCSD 550-80058/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	80058
MB 550-80058/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	80058

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Client Sample ID: NogMach

Date Collected: 12/12/15 14:05
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55866-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			80058	12/16/15 09:32	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	80221	12/17/15 13:44	AJC	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Laboratory: TestAmerica Phoenix

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-55866-1
SDG: NogMach

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

550-55866

097370

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TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: AZ Game+Fish Dept	Project Manager: Nora Clark	Site Contact:	Date: 14Dec15
Address: 5000 W CareFree Hwy	Tel/Fax: 9282458792	Lab Contact:	Carrier:
City/State/Zip: Phx AZ 85086	Analysis Turnaround Time		
Phone: 7282458792	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below _____		
Project Name: ADOT Stormwater Monitoring	☐ 2 weeks		
Site: NogMach	☐ 1 week		
P O #	☐ 2 days		
	☐ 1 day		

COC No: _____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	metals A	Sample Specific Notes:
NogMach -01	12Dec	1405	C		1			X	metals A: Ba, Cr, Cu, Pb, Ni, Zn
									Email results to nclark@azgfd.gov

550-55866 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

0.1°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AZGFD	14Dec15 1330	[signature]	TA	12/14/15 13:30
[signature]	TA	12/14/15 16:35			
			Received in Laboratory by: [signature]	TA	12/14/15 16:35

12/18/2015

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-55866-1
SDG Number: NogMach

Login Number: 55866
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-56634-1
TestAmerica Sample Delivery Group: Nogales
Client Project/Site: ADOT Stormwater Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
1/14/2016 5:42:24 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Qualifiers

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

General Chemistry

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.

Biology

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
H3	Sample was received and/ or analysis requested past holding time.
D2	Sample required dilution due to high concentration of analyte.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-56634-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-56634-1

Comments
No additional comments.

Receipt
The sample was received on 1/5/2016 4:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Biology
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient samples volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 550-81309.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-56634-1	NOGMACH	Water	01/04/16 15:00	01/05/16 16:00

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Client Sample ID: NOGMACH — Lab Sample ID: 550-56634-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.60		0.10		mg/L	1		300.0	Total/NA
Chloride	2.2		2.0		mg/L	1		300.0	Total/NA
Sulfate	2.9		2.0		mg/L	1		300.0	Total/NA
Barium	0.13		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.068		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.025		0.015		mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.20		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	14		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0046		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00029		0.00010		mg/L	1		200.8 LL	Total/NA
Selenium	0.0011		0.00010		mg/L	1		200.8 LL	Total/NA
Turbidity	180	D2	2.0		NTU	10		180.1	Total/NA
Total Dissolved Solids	66		20		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	160		10		mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	14		5.0		mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	120		20		mg/L	1		SM 5220D	Total/NA
Coliform, Fecal	310	D2 H3	10		CFU/100mL	10		SM 9222D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Client Sample ID: NOGMACH

Date Collected: 01/04/16 15:00
Date Received: 01/05/16 16:00

Lab Sample ID: 550-56634-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.60**		0.10		mg/L			01/06/16 01:17	1
Nitrite as N	ND		0.10		mg/L			01/06/16 01:17	1
Chloride	**2.2**		2.0		mg/L			01/06/16 01:17	1
Sulfate	**2.9**		2.0		mg/L			01/06/16 01:17	1

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 10:08	1
Acenaphthylene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 10:08	1
Anthracene	ND		0.051		ug/L		01/07/16 20:41	01/12/16 10:08	1
Benzo[a]anthracene	ND		0.20		ug/L		01/07/16 20:41	01/12/16 10:08	1
Benzo[a]pyrene	ND		0.051		ug/L		01/07/16 20:41	01/12/16 10:08	1
Benzo[b]fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Benzo[k]fluoranthene	ND		0.051		ug/L		01/07/16 20:41	01/12/16 10:08	1
Chrysene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Fluorene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Naphthalene	ND		0.51		ug/L		01/07/16 20:41	01/12/16 10:08	1
Phenanthrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1
Pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*84*		*27 - 110*	*01/07/16 20:41*	*01/12/16 10:08*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.13**		0.010		mg/L		01/06/16 08:28	01/07/16 15:47	1
Chromium	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:47	1
Copper	**0.068**		0.010		mg/L		01/06/16 08:28	01/07/16 15:47	1
Lead	**0.025**		0.015		mg/L		01/06/16 08:28	01/07/16 15:47	1
Nickel	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:47	1
Zinc	**0.20**		0.050		mg/L		01/06/16 08:28	01/07/16 15:47	1
Sodium	**2.2**		0.50		mg/L		01/06/16 08:28	01/07/16 15:47	1
Calcium	**14**		2.0		mg/L		01/06/16 08:28	01/07/16 15:47	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0046**		0.00050		mg/L		01/06/16 07:34	01/12/16 11:43	1
Cadmium	**0.00029**		0.00010		mg/L		01/06/16 07:34	01/12/16 13:39	1
Selenium	**0.0011**		0.00010		mg/L		01/06/16 07:34	01/13/16 11:29	1
Silver	ND		0.00010		mg/L		01/06/16 07:34	01/12/16 13:39	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		01/06/16 13:30	01/12/16 12:44	1

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Client Sample ID: NOGMACH

Date Collected: 01/04/16 15:00
Date Received: 01/05/16 16:00

Lab Sample ID: 550-56634-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**180**	**D2**	2.0		NTU			01/06/16 08:55	10
Total Dissolved Solids	**66**		20		mg/L			01/06/16 15:14	1
Total Suspended Solids	**160**		10		mg/L			01/07/16 12:50	1
Biochemical Oxygen Demand	**14**		5.0		mg/L			01/05/16 17:40	1
Chemical Oxygen Demand	**120**		20		mg/L		01/07/16 11:45	01/08/16 11:19	1

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<10	D1 H3	10		MPN/100mL			01/05/16 18:40	10
Coliform, Total	<10	D1 H3	10		MPN/100mL			01/05/16 18:40	10

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	**310**	**D2 H3**	10		CFU/100mL			01/05/16 18:45	10

Surrogate Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Method: 8310 - PAHs (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PTP1 (27-110)**							
550-56634-1	NOGMACH	84							
LCS 550-81309/2-A	Lab Control Sample	106							
LCSD 550-81309/3-A	Lab Control Sample Dup	100							
MB 550-81309/1-A	Method Blank	91							

Surrogate Legend

PTP = p-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-81191/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			01/05/16 14:47	1
Nitrite as N	ND		0.10		mg/L			01/05/16 14:47	1
Chloride	ND		2.0		mg/L			01/05/16 14:47	1
Sulfate	ND		2.0		mg/L			01/05/16 14:47	1

Lab Sample ID: LCS 550-81191/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.15		mg/L		104	90 - 110
Nitrite as N	4.00	4.08		mg/L		102	90 - 110
Chloride	20.0	20.7		mg/L		104	90 - 110
Sulfate	20.0	20.7		mg/L		103	90 - 110

Lab Sample ID: LCSD 550-81191/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.16		mg/L		104	90 - 110	0	20
Nitrite as N	4.00	4.10		mg/L		103	90 - 110	1	20
Chloride	20.0	20.8		mg/L		104	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	1	20

Lab Sample ID: 550-56571-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.7		4.00	6.85		mg/L		105	80 - 120
Nitrite as N	ND		4.00	4.12		mg/L		103	80 - 120
Chloride	35		20.0	56.6		mg/L		109	80 - 120
Sulfate	31		20.0	51.8		mg/L		104	80 - 120

Lab Sample ID: 550-56571-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.7		4.00	6.87		mg/L		105	80 - 120	0	20
Nitrite as N	ND		4.00	4.16		mg/L		104	80 - 120	1	20
Chloride	35		20.0	56.6		mg/L		109	80 - 120	0	20
Sulfate	31		20.0	51.6		mg/L		103	80 - 120	0	20

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 550-81309/1-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Acenaphthylene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Anthracene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]anthracene	ND		0.20		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]pyrene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[b]fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[k]fluoranthene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Chrysene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluorene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Naphthalene	ND		0.50		ug/L		01/07/16 20:41	01/12/16 02:57	1
Phenanthrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*91*		*27 - 110*	*01/07/16 20:41*	*01/12/16 02:57*	*1*

Lab Sample ID: LCS 550-81309/2-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.50	2.10		ug/L		84	25 - 149
Acenaphthylene	5.00	4.26		ug/L		85	58 - 112
Anthracene	0.250	0.224		ug/L		90	10 - 150
Benzo[a]anthracene	0.250	0.235		ug/L		94	43 - 141
Benzo[a]pyrene	0.250	0.233		ug/L		93	37 - 144
Benzo[b]fluoranthene	0.500	0.470		ug/L		94	57 - 129
Benzo[g,h,i]perylene	0.500	0.456		ug/L		91	15 - 150
Benzo[k]fluoranthene	0.250	0.235		ug/L		94	54 - 130
Chrysene	0.250	0.249		ug/L		99	52 - 142
Dibenz(a,h)anthracene	0.500	0.463		ug/L		93	15 - 121
Fluoranthene	0.500	0.455		ug/L		91	50 - 127
Fluorene	0.500	0.434		ug/L		87	46 - 123
Indeno[1,2,3-cd]pyrene	0.250	0.226		ug/L		91	24 - 150
Naphthalene	2.50	1.99		ug/L		80	35 - 101
Phenanthrene	0.250	0.249		ug/L		100	58 - 124
Pyrene	0.250	0.284		ug/L		114	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*106*		*27 - 110*

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: LCSD 550-81309/3-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.50	2.14		ug/L		86	25 - 149	2	35
Acenaphthylene	5.00	4.70		ug/L		94	58 - 112	10	35
Anthracene	0.250	0.215		ug/L		86	10 - 150	4	35
Benzo[a]anthracene	0.250	0.226		ug/L		90	43 - 141	4	35
Benzo[a]pyrene	0.250	0.223		ug/L		89	37 - 144	4	35
Benzo[b]fluoranthene	0.500	0.444		ug/L		89	57 - 129	6	35
Benzo[g,h,i]perylene	0.500	0.441		ug/L		88	15 - 150	3	35
Benzo[k]fluoranthene	0.250	0.220		ug/L		88	54 - 130	6	35
Chrysene	0.250	0.235		ug/L		94	52 - 142	6	35
Dibenz(a,h)anthracene	0.500	0.440		ug/L		88	15 - 121	5	35
Fluoranthene	0.500	0.436		ug/L		87	50 - 127	4	35
Fluorene	0.500	0.390		ug/L		78	46 - 123	10	35
Indeno[1,2,3-cd]pyrene	0.250	0.214		ug/L		85	24 - 150	6	35
Naphthalene	2.50	1.79		ug/L		72	35 - 101	10	35
Phenanthrene	0.250	0.233		ug/L		93	58 - 124	7	28
Pyrene	0.250	0.270		ug/L		108	11 - 150	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*100*		*27 - 110*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-81150/1-A
Matrix: Water
Analysis Batch: 81316

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:22	1
Chromium	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:22	1
Copper	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:22	1
Lead	ND		0.015		mg/L		01/06/16 08:28	01/07/16 15:22	1
Nickel	ND		0.010		mg/L		01/06/16 08:28	01/07/16 15:22	1
Zinc	ND		0.050		mg/L		01/06/16 08:28	01/07/16 15:22	1
Sodium	ND		0.50		mg/L		01/06/16 08:28	01/07/16 15:22	1
Calcium	ND		2.0		mg/L		01/06/16 08:28	01/07/16 15:22	1

Lab Sample ID: LCS 550-81150/2-A
Matrix: Water
Analysis Batch: 81316

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.934		mg/L		93	85 - 115
Chromium	1.00	0.924		mg/L		92	85 - 115
Copper	1.00	0.911		mg/L		91	85 - 115
Lead	1.00	0.960		mg/L		96	85 - 115
Nickel	1.00	0.920		mg/L		92	85 - 115
Zinc	1.00	0.966		mg/L		97	85 - 115
Sodium	20.0	18.8		mg/L		94	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-81150/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81316 — **Prep Batch: 81150**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	21.0	19.9		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-81150/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81316 — **Prep Batch: 81150**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.932		mg/L		93	85 - 115	0	20
Chromium	1.00	0.922		mg/L		92	85 - 115	0	20
Copper	1.00	0.912		mg/L		91	85 - 115	0	20
Lead	1.00	0.945		mg/L		94	85 - 115	2	20
Nickel	1.00	0.922		mg/L		92	85 - 115	0	20
Zinc	1.00	0.962		mg/L		96	85 - 115	0	20
Sodium	20.0	19.2		mg/L		96	85 - 115	2	20
Calcium	21.0	20.1		mg/L		96	85 - 115	1	20

Lab Sample ID: 550-56622-F-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81316 — **Prep Batch: 81150**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.058		1.00	0.974		mg/L		92	70 - 130
Chromium	ND		1.00	0.910		mg/L		91	70 - 130
Copper	ND		1.00	0.939		mg/L		93	70 - 130
Lead	ND		1.00	0.923		mg/L		92	70 - 130
Nickel	ND		1.00	0.894		mg/L		89	70 - 130
Zinc	0.065		1.00	1.01		mg/L		95	70 - 130
Sodium	290	M3	20.0	296	M3	mg/L		36	70 - 130
Calcium	69	M2	21.0	86.3		mg/L		81	70 - 130

Lab Sample ID: 550-56622-F-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81316 — **Prep Batch: 81150**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.058		1.00	0.946		mg/L		89	70 - 130	3	20
Chromium	ND		1.00	0.885		mg/L		88	70 - 130	3	20
Copper	ND		1.00	0.914		mg/L		91	70 - 130	3	20
Lead	ND		1.00	0.902		mg/L		90	70 - 130	2	20
Nickel	ND		1.00	0.870		mg/L		87	70 - 130	3	20
Zinc	0.065		1.00	0.984		mg/L		92	70 - 130	3	20
Sodium	290	M3	20.0	278	M3	mg/L		-55	70 - 130	6	20
Calcium	69	M2	21.0	80.1	M2	mg/L		51	70 - 130	7	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-81141/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81562 — **Prep Batch: 81141**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00050		mg/L		01/06/16 07:34	01/12/16 11:19	1

Lab Sample ID: MB 550-81141/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81574 — **Prep Batch: 81141**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00010		mg/L		01/06/16 07:34	01/12/16 13:15	1
Silver	ND		0.00010		mg/L		01/06/16 07:34	01/12/16 13:15	1

Lab Sample ID: MB 550-81141/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81669 — **Prep Batch: 81141**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.00010		mg/L		01/06/16 07:34	01/13/16 11:05	1

Lab Sample ID: LCS 550-81141/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81562 — **Prep Batch: 81141**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0957		mg/L		96	85 - 115

Lab Sample ID: LCS 550-81141/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81574 — **Prep Batch: 81141**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.0964		mg/L		96	85 - 115
Silver	0.100	0.0956		mg/L		96	85 - 115

Lab Sample ID: LCS 550-81141/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81669 — **Prep Batch: 81141**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0994		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-81141/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81562 — **Prep Batch: 81141**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0955		mg/L		96	85 - 115	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-81141/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81574 — **Prep Batch: 81141**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium			0.100	0.0947		mg/L		95	85 - 115	2	20
Silver			0.100	0.0948		mg/L		95	85 - 115	1	20

Lab Sample ID: LCSD 550-81141/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81669 — **Prep Batch: 81141**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.0997		mg/L		100	85 - 115	0	20

Lab Sample ID: 550-56624-K-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81562 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND		0.100	0.0995		mg/L		99	70 - 130		

Lab Sample ID: 550-56624-K-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81574 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium	ND		0.100	0.0927		mg/L		93	70 - 130		
Silver	ND		0.100	0.0910		mg/L		91	70 - 130		

Lab Sample ID: 550-56624-K-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81669 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Selenium	0.00024		0.100	0.0984		mg/L		98	70 - 130		

Lab Sample ID: 550-56624-K-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81562 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.100	0.101		mg/L		101	70 - 130	2	20

Lab Sample ID: 550-56624-K-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81574 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.0945		mg/L		94	70 - 130	2	20
Silver	ND		0.100	0.0929		mg/L		93	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-56624-K-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81669 — **Prep Batch: 81141**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.00024		0.100	0.0987		mg/L		98	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-81199/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		01/06/16 13:30	01/12/16 12:25	1

Lab Sample ID: LCS 550-81199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.0100	0.0105		mg/L		105	85 - 115

Lab Sample ID: LCSD 550-81199/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.0100	0.0111		mg/L		111	85 - 115	5	20

Lab Sample ID: 550-56630-G-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		0.0100	0.0101		mg/L		101	70 - 130

Lab Sample ID: 550-56630-G-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81571 — **Prep Batch: 81199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.0110		mg/L		110	70 - 130	8	20

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 550-81156/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20		NTU			01/06/16 08:55	1

Method: 180.1 - Turbidity, Nephelometric (Continued)

Lab Sample ID: LCS 550-81156/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Turbidity			20.0	19.0		NTU		95	90 - 110		

Lab Sample ID: LCSD 550-81156/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Turbidity			20.0	19.7		NTU		99	90 - 110	4	20

Lab Sample ID: 550-56632-E-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81156

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Turbidity	52	D2		51.3	D2	NTU				1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-81207/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			01/06/16 15:14	1

Lab Sample ID: LCS 550-81207/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	956		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-81207/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	986		mg/L		99	90 - 110	3	10

Lab Sample ID: 550-56025-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81207

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1700	D1		1750	D1	mg/L				2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 550-81273/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10		mg/L			01/07/16 12:50	1

Lab Sample ID: LCS 550-81273/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	194		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-81273/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	200	190		mg/L		95	90 - 110	2	10

Lab Sample ID: 550-56637-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81273

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	97		90.0		mg/L		7	10

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: MB 550-81122/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		5.0		mg/L			01/05/16 17:40	1

Lab Sample ID: LCS 550-81122/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	198		mg/L		100	84.6 - 115.4

Lab Sample ID: 550-56545-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81122

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	650	D1	643	D1	mg/L		2	20

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Method: SM 5220D - COD

Lab Sample ID: MB 550-81265/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20		mg/L		01/07/16 11:45	01/08/16 11:19	1

Lab Sample ID: LCS 550-81265/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	400	406		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-81265/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	400	403		mg/L		101	90 - 110	1	20

Lab Sample ID: 550-56639-B-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	34		400	427		mg/L		98	80 - 120

Lab Sample ID: 550-56639-B-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81275 — **Prep Batch: 81265**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	34		400	424		mg/L		98	80 - 120	1	20

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Lab Sample ID: MB 550-81121/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<1.0		1.0		MPN/100mL			01/05/16 15:55	1
Coliform, Total	<1.0		1.0		MPN/100mL			01/05/16 15:55	1

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Lab Sample ID: MB 550-81136/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	<1.0		1.0		CFU/100mL			01/05/16 18:45	1

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

HPLC/IC

Analysis Batch: 81191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56571-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-56571-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-56634-1	NOGMACH	Total/NA	Water	300.0	
LCS 550-81191/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-81191/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-81191/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 81309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	3510C	
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 550-81309/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 81490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	8310	81309
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	8310	81309
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	8310	81309
MB 550-81309/1-A	Method Blank	Total/NA	Water	8310	81309

Metals

Prep Batch: 81141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56624-K-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-56624-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	
550-56634-1	NOGMACH	Total/NA	Water	200.8	
LCS 550-81141/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-81141/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 550-81141/1-A	Method Blank	Total/NA	Water	200.8	

Prep Batch: 81150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56622-F-1-B MS	Matrix Spike	Total/NA	Water	200.7	
550-56622-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-56634-1	NOGMACH	Total/NA	Water	200.7	
LCS 550-81150/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-81150/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-81150/1-A	Method Blank	Total/NA	Water	200.7	

Prep Batch: 81199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56630-G-1-B MS	Matrix Spike	Total/NA	Water	245.1	
550-56630-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-56634-1	NOGMACH	Total/NA	Water	245.1	
LCS 550-81199/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-81199/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
MB 550-81199/1-A	Method Blank	Total/NA	Water	245.1	

Metals (Continued)

Analysis Batch: 81316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56622-F-1-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	81150
550-56622-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	81150
550-56634-1	NOGMACH	Total/NA	Water	200.7 Rev 4.4	81150
LCS 550-81150/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	81150
LCSD 550-81150/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	81150
MB 550-81150/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	81150

Analysis Batch: 81562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56624-K-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	81141
550-56624-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	81141
550-56634-1	NOGMACH	Total/NA	Water	200.8 LL	81141
LCS 550-81141/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	81141
LCSD 550-81141/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	81141
MB 550-81141/1-A	Method Blank	Total/NA	Water	200.8 LL	81141

Analysis Batch: 81571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56630-G-1-B MS	Matrix Spike	Total/NA	Water	245.1	81199
550-56630-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	81199
550-56634-1	NOGMACH	Total/NA	Water	245.1	81199
LCS 550-81199/2-A	Lab Control Sample	Total/NA	Water	245.1	81199
LCSD 550-81199/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	81199
MB 550-81199/1-A	Method Blank	Total/NA	Water	245.1	81199

Analysis Batch: 81574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56624-K-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	81141
550-56624-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	81141
550-56634-1	NOGMACH	Total/NA	Water	200.8 LL	81141
LCS 550-81141/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	81141
LCSD 550-81141/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	81141
MB 550-81141/1-A	Method Blank	Total/NA	Water	200.8 LL	81141

Analysis Batch: 81669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56624-K-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	81141
550-56624-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	81141
550-56634-1	NOGMACH	Total/NA	Water	200.8 LL	81141
LCS 550-81141/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	81141
LCSD 550-81141/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	81141
MB 550-81141/1-A	Method Blank	Total/NA	Water	200.8 LL	81141

General Chemistry

Analysis Batch: 81122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56545-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
550-56634-1	NOGMACH	Total/NA	Water	SM 5210B	
LCS 550-81122/2	Lab Control Sample	Total/NA	Water	SM 5210B	

General Chemistry (Continued)

Analysis Batch: 81122 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-81122/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 81156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56632-E-1 DU	Duplicate	Total/NA	Water	180.1	
550-56634-1	NOGMACH	Total/NA	Water	180.1	
LCS 550-81156/4	Lab Control Sample	Total/NA	Water	180.1	
LCSD 550-81156/5	Lab Control Sample Dup	Total/NA	Water	180.1	
MB 550-81156/3	Method Blank	Total/NA	Water	180.1	

Analysis Batch: 81207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56025-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-56634-1	NOGMACH	Total/NA	Water	SM 2540C	
LCS 550-81207/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-81207/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 550-81207/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 81265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	SM 5220	
550-56639-B-1-C MS	Matrix Spike	Total/NA	Water	SM 5220	
550-56639-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220	
LCS 550-81265/4-A	Lab Control Sample	Total/NA	Water	SM 5220	
LCSD 550-81265/5-A	Lab Control Sample Dup	Total/NA	Water	SM 5220	
MB 550-81265/3-A	Method Blank	Total/NA	Water	SM 5220	

Analysis Batch: 81273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	SM 2540D	
550-56637-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 550-81273/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 550-81273/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 550-81273/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 81275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	SM 5220D	81265
550-56639-B-1-C MS	Matrix Spike	Total/NA	Water	SM 5220D	81265
550-56639-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	81265
LCS 550-81265/4-A	Lab Control Sample	Total/NA	Water	SM 5220D	81265
LCSD 550-81265/5-A	Lab Control Sample Dup	Total/NA	Water	SM 5220D	81265
MB 550-81265/3-A	Method Blank	Total/NA	Water	SM 5220D	81265

Biology

Analysis Batch: 81121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-81121/1	Method Blank	Total/NA	Water	9223B	

Biology (Continued)

Analysis Batch: 81134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	9223B	

Analysis Batch: 81136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56634-1	NOGMACH	Total/NA	Water	SM 9222D	
MB 550-81136/1	Method Blank	Total/NA	Water	SM 9222D	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Client Sample ID: NOGMACH

Date Collected: 01/04/16 15:00
Date Received: 01/05/16 16:00

Lab Sample ID: 550-56634-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	81191	01/06/16 01:17	AMR	TAL PHX
Total/NA	Prep	3510C			81309	01/07/16 20:41	HKT	TAL PHX
Total/NA	Analysis	8310		1	81490	01/12/16 10:08	A1C	TAL PHX
Total/NA	Prep	200.7			81150	01/06/16 08:28	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	81316	01/07/16 15:47	AJC	TAL PHX
Total/NA	Prep	200.8			81141	01/06/16 07:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	81562	01/12/16 11:43	TEK	TAL PHX
Total/NA	Prep	200.8			81141	01/06/16 07:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	81574	01/12/16 13:39	TEK	TAL PHX
Total/NA	Prep	200.8			81141	01/06/16 07:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	81669	01/13/16 11:29	TEK	TAL PHX
Total/NA	Prep	245.1			81199	01/06/16 13:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	81571	01/12/16 12:44	JTG	TAL PHX
Total/NA	Analysis	180.1		10	81156	01/06/16 08:55	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	81207		ATH	TAL PHX
					(Start)	01/06/16 15:14		
					(End)	01/07/16 14:45		
Total/NA	Analysis	SM 2540D		1	81273		ATH	TAL PHX
					(Start)	01/07/16 12:50		
					(End)	01/11/16 12:51		
Total/NA	Analysis	SM 5210B		1	81122		BCB	TAL PHX
					(Start)	01/05/16 17:40		
					(End)	01/10/16 12:38		
Total/NA	Prep	SM 5220			81265	01/07/16 11:45	BCB	TAL PHX
Total/NA	Analysis	SM 5220D		1	81275	01/08/16 11:19	BCB	TAL PHX
Total/NA	Analysis	9223B		10	81134		NRH	TAL PHX
					(Start)	01/05/16 18:40		
					(End)	01/06/16 12:50		
Total/NA	Analysis	SM 9222D		10	81136		NRH	TAL PHX
					(Start)	01/05/16 18:45		
					(End)	01/06/16 16:50		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56634-1
SDG: Nogales

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
8310	PAHs (HPLC)	SW846	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
180.1	Turbidity, Nephelometric	MCAWW	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PHX
SM 5210B	BOD, 5-Day	SM	TAL PHX
SM 5220D	COD	SM	TAL PHX
9223B	Total Coliforms and E. coli by Colilert - QT	SM	TAL PHX
SM 9222D	Coliforms, Fecal (Membrane Filter)	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

097474

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

1/14/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: AZ GAME & FISH DEPT.	Project Manager: NORA CLARK	Site Contact:	Date: 4 JAN. 2016
Address: 5000 W. CAREFREE HWY.	Tel/Fax: 928.245-8792	Lab Contact:	Carrier:
City/State/Zip: PHOENIX AZ 85086	Analysis Turnaround Time		
Phone: 928.245-8792	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below _____		
Project Name: ADOT STORMWATER MONITORING	☐ 2 weeks		
Site: NOGALES	☐ 1 week		
P O #	☐ 2 days		
	☐ 1 day		

COC No: _____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	E-coli	Fecal	BOD	COD	Turbidity	NO_2	NO_3	TSS	TDS	PAH-8310	Sodium	Calcium	Chloride	Sulfates	Mercury	Metals-Set A	Metals-Set B	Sample Specific Notes: 54634
NOGMACH	1-4-16	1500	COMP		10			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	METALS A - Be, Cr, Cu, Pb, Ni, Zn; METALS B → As, Cd, Az Se

550-56634 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

1.8

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Dennis Abbate	AGFD	1-5-16/1345		TA	1/5/16 13:45
	TA	1/5/16 16:00		TA	1/5/16 16:00
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-56634-1
SDG Number: Nogales

Login Number: 56634
List Number: 1
Creator: Stimson, Stephanie

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-56621-1
Client Project/Site: ADOT Stormwater Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
1/14/2016 4:24:12 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Qualifiers

Biology

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
H3	Sample was received and/ or analysis requested past holding time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-56621-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-56621-1

Comments
No additional comments.

Receipt
The sample was received on 1/5/2016 4:41 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Biology
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient samples volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 550-81309.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-56621-1	NOGGRAB	Water	01/04/16 14:55	01/05/16 16:41

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Client Sample ID: NOGGRAB — Lab Sample ID: 550-56621-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Escherichia coli	740	D1 H3	10		MPN/100mL	10		9223B	Total/NA
Coliform, Total	>24196.0	D1 H3	10		MPN/100mL	10		9223B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Client Sample ID: NOGGRAB

Date Collected: 01/04/16 14:55
Date Received: 01/05/16 16:41

Lab Sample ID: 550-56621-1

Matrix: Water

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 05:43	1
Acenaphthylene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 05:43	1
Anthracene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 05:43	1
Benzo[a]anthracene	ND		0.20		ug/L		01/07/16 20:41	01/12/16 05:43	1
Benzo[a]pyrene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 05:43	1
Benzo[b]fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Benzo[k]fluoranthene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 05:43	1
Chrysene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Fluorene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Naphthalene	ND		0.50		ug/L		01/07/16 20:41	01/12/16 05:43	1
Phenanthrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1
Pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*91*		*27 - 110*	*01/07/16 20:41*	*01/12/16 05:43*	*1*

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	**740**	**D1 H3**	10		MPN/100mL			01/05/16 17:30	10
Coliform, Total	**>24196.0**	**D1 H3**	10		MPN/100mL			01/05/16 17:30	10

Surrogate Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Method: 8310 - PAHs (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PTP1 (27-110)**							
550-56621-1	NOGGRAB	91							
LCS 550-81309/2-A	Lab Control Sample	106							
LCSD 550-81309/3-A	Lab Control Sample Dup	100							
MB 550-81309/1-A	Method Blank	91							

Surrogate Legend

PTP = p-Terphenyl

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 550-81309/1-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Acenaphthylene	ND		1.0		ug/L		01/07/16 20:41	01/12/16 02:57	1
Anthracene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]anthracene	ND		0.20		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[a]pyrene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[b]fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Benzo[k]fluoranthene	ND		0.050		ug/L		01/07/16 20:41	01/12/16 02:57	1
Chrysene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluoranthene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Fluorene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Naphthalene	ND		0.50		ug/L		01/07/16 20:41	01/12/16 02:57	1
Phenanthrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1
Pyrene	ND		0.10		ug/L		01/07/16 20:41	01/12/16 02:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*91*		*27 - 110*	*01/07/16 20:41*	*01/12/16 02:57*	*1*

Lab Sample ID: LCS 550-81309/2-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.50	2.10		ug/L		84	25 - 149
Acenaphthylene	5.00	4.26		ug/L		85	58 - 112
Anthracene	0.250	0.224		ug/L		90	10 - 150
Benzo[a]anthracene	0.250	0.235		ug/L		94	43 - 141
Benzo[a]pyrene	0.250	0.233		ug/L		93	37 - 144
Benzo[b]fluoranthene	0.500	0.470		ug/L		94	57 - 129
Benzo[g,h,i]perylene	0.500	0.456		ug/L		91	15 - 150
Benzo[k]fluoranthene	0.250	0.235		ug/L		94	54 - 130
Chrysene	0.250	0.249		ug/L		99	52 - 142
Dibenz(a,h)anthracene	0.500	0.463		ug/L		93	15 - 121
Fluoranthene	0.500	0.455		ug/L		91	50 - 127
Fluorene	0.500	0.434		ug/L		87	46 - 123
Indeno[1,2,3-cd]pyrene	0.250	0.226		ug/L		91	24 - 150
Naphthalene	2.50	1.99		ug/L		80	35 - 101
Phenanthrene	0.250	0.249		ug/L		100	58 - 124
Pyrene	0.250	0.284		ug/L		114	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*106*		*27 - 110*

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: LCSD 550-81309/3-A
Matrix: Water
Analysis Batch: 81490

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81309

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.50	2.14		ug/L		86	25 - 149	2	35
Acenaphthylene	5.00	4.70		ug/L		94	58 - 112	10	35
Anthracene	0.250	0.215		ug/L		86	10 - 150	4	35
Benzo[a]anthracene	0.250	0.226		ug/L		90	43 - 141	4	35
Benzo[a]pyrene	0.250	0.223		ug/L		89	37 - 144	4	35
Benzo[b]fluoranthene	0.500	0.444		ug/L		89	57 - 129	6	35
Benzo[g,h,i]perylene	0.500	0.441		ug/L		88	15 - 150	3	35
Benzo[k]fluoranthene	0.250	0.220		ug/L		88	54 - 130	6	35
Chrysene	0.250	0.235		ug/L		94	52 - 142	6	35
Dibenz(a,h)anthracene	0.500	0.440		ug/L		88	15 - 121	5	35
Fluoranthene	0.500	0.436		ug/L		87	50 - 127	4	35
Fluorene	0.500	0.390		ug/L		78	46 - 123	10	35
Indeno[1,2,3-cd]pyrene	0.250	0.214		ug/L		85	24 - 150	6	35
Naphthalene	2.50	1.79		ug/L		72	35 - 101	10	35
Phenanthrene	0.250	0.233		ug/L		93	58 - 124	7	28
Pyrene	0.250	0.270		ug/L		108	11 - 150	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*100*		*27 - 110*

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Lab Sample ID: MB 550-81121/1
Matrix: Water
Analysis Batch: 81121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<1.0		1.0		MPN/100mL			01/05/16 15:55	1
Coliform, Total	<1.0		1.0		MPN/100mL			01/05/16 15:55	1

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

HPLC/IC

Prep Batch: 81309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56621-1	NOGGRAB	Total/NA	Water	3510C	
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 550-81309/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 81490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56621-1	NOGGRAB	Total/NA	Water	8310	81309
LCS 550-81309/2-A	Lab Control Sample	Total/NA	Water	8310	81309
LCSD 550-81309/3-A	Lab Control Sample Dup	Total/NA	Water	8310	81309
MB 550-81309/1-A	Method Blank	Total/NA	Water	8310	81309

Biology

Analysis Batch: 81121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-81121/1	Method Blank	Total/NA	Water	9223B	

Analysis Batch: 81129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-56621-1	NOGGRAB	Total/NA	Water	9223B	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Client Sample ID: NOGGRAB

Date Collected: 01/04/16 14:55
Date Received: 01/05/16 16:41

Lab Sample ID: 550-56621-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			81309	01/07/16 20:41	HKT	TAL PHX
Total/NA	Analysis	8310		1	81490	01/12/16 05:43	A1C	TAL PHX
Total/NA	Analysis	9223B		10	81129		NRH	TAL PHX
					(Start)	01/05/16 17:30		
					(End)	01/06/16 12:50		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: ADOT Stormwater Monitoring

TestAmerica Job ID: 550-56621-1

Method	Method Description	Protocol	Laboratory
8310	PAHs (HPLC)	SW846	TAL PHX
9223B	Total Coliforms and E. coli by Colilert - QT	SM	TAL PHX

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (12/08)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 2520 E. Sunset, Suite 3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

56621

Page 1 of

1/14/2016

Client Name/Address: AZ GAME + FISH DEPT 5000 W. CAREFREE HWY. PHOENIX, AZ 85086

Project/PO Number: ADOT STORMWATER MONITORING

Project Manager: NORA CLARK

Phone Number: 928.245-8792

Sampler:

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	E-COLI	PAH-8310								Special Instructions
NOE GRAB			3	1-4-16	1455		X	X								

550-56621 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	1/5/2016 1345	[signature]	1/5/16 13:45
[signature]	1/5/16 16:00	[signature]	1/5/16 16:00

Relinquished By: Date/Time: Received in Lab By: Date/Time:

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.9°C

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-56621-1

Login Number: 56621
List Number: 1
Creator: Stimson, Stephanie

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Nortest Analytical
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Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Superior Maintenance Yard	151085	WW	11.04.15/1203	11.05.15/1035

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
151085	TDS	**16**	1	mg/L	SM 2540 C	-
151085	TSS	**249**	1	mg/L	SM 2540 D	-
151085	Copper	**0.0488**	0.0100	mg/L	EPA 200.7	-
151085	Lead	**0.00838**	0.00500	mg/L	EPA 200.7	-
151085	Selenium	**<0.0100**	0.0100	mg/L	EPA 200.7	-
151085	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Quality Control

Analyte	Sample	Result	Units	Spiked Level	% Recovery/ RPD/ Std Dev	Recovery/RPD Limits	Notes/ Qualifiers
TDS	Blank	<1	mg/L	---	---	---	---
TDS	Duplicate	121	mg/L	143	85%	10%	---
TSS	Blank	1	mg/L	---	---	---	---
TSS	Duplicate	1	mg/L	1	100%	10%	---

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 13, 2015

Nortest

Sample Delivery Group: L799415

Samples Received: 11/06/2015

Project Number:

Description:

Report To: Scott Bajer and Spencer Ropte
2400 E. Huntington Dr.
Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE

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[3]Ss
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[5]Sr
[6]Qc
Is
[8]Gl
[9]Al
[10]Sc

151085 L799415-01 WW

Collected by	Collected date/time	Received date/time
Michael I	11/05/15 12 03	11/06/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Metals (ICP) by Method 200.7	WG827849	1	11/11/15 11:35	11/12/15 02:27	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827803	1	11/10/15 09:06	11/11/15 10:26	KMP

Cp
Tc
Ss
Cn
Sr
Qc
Is
Gl
Al
Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Copper	0.0488		0.0100	1	11/12/2015 02:27	WG827849
Lead	0.00838		0.00500	1	11/12/2015 02:27	WG827849
Selenium	ND		0.0100	1	11/12/2015 02:27	WG827849

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/11/2015 10:26	WG827803
Acenaphthene	ND		0.00100	1	11/11/2015 10:26	WG827803
Acenaphthylene	ND		0.00100	1	11/11/2015 10:26	WG827803
Benzo(a)anthracene	ND		0.00100	1	11/11/2015 10:26	WG827803
Benzo(a)pyrene	ND		0.00100	1	11/11/2015 10:26	WG827803
Benzo(b)fluoranthene	ND		0.00100	1	11/11/2015 10:26	WG827803
Benzo(g,h,i)perylene	ND		0.00100	1	11/11/2015 10:26	WG827803
Benzo(k)fluoranthene	ND		0.00100	1	11/11/2015 10:26	WG827803
Chrysene	ND		0.00100	1	11/11/2015 10:26	WG827803
Dibenz(a,h)anthracene	ND		0.00100	1	11/11/2015 10:26	WG827803
Fluoranthene	ND		0.00100	1	11/11/2015 10:26	WG827803
Fluorene	ND		0.00100	1	11/11/2015 10:26	WG827803
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/11/2015 10:26	WG827803
Naphthalene	ND		0.00100	1	11/11/2015 10:26	WG827803
Phenanthrene	ND		0.00100	1	11/11/2015 10:26	WG827803
Pyrene	ND		0.00100	1	11/11/2015 10:26	WG827803
(S) Nitrobenzene-d5	*102*		*21.9-134*		*11/11/2015 10:26*	WG827803
(S) 2-Fluorobiphenyl	*94.2*		*37.9-123*		*11/11/2015 10:26*	WG827803
(S) p-Terphenyl-d14	*91.9*		*34.6-131*		*11/11/2015 10:26*	WG827803

Method Blank (MB)

(MB) 11/12/15 01:32

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Copper	ND		0.0100
Lead	ND		0.00500
Selenium	ND		0.0100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/12/15 01:34 • (LCSD) 11/12/15 01:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.985	0.976	98	98	85-115			1	20
Lead	1.00	1.01	0.998	101	100	85-115			1	20
Selenium	1.00	1.03	1.03	103	103	85-115			0	20

L799398-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/12/15 01:40 • (MS) 11/12/15 01:46 • (MSD) 11/12/15 01:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.0473	1.04	1.05	99	100	1	75-125			1	20
Lead	1.00	0.00613	1.02	1.03	102	102	1	75-125			1	20
Selenium	1.00	0.000909	1.03	1.05	103	104	1	75-125			2	20

L799459-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/12/15 03:01 • (MS) 11/12/15 03:04 • (MSD) 11/12/15 03:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.0316	1.04	1.05	101	101	1	75-125			1	20
Lead	1.00	0.000368	1.06	1.05	105	105	1	75-125			0	20
Selenium	1.00	ND	1.03	1.04	103	104	1	75-125			0	20

Method Blank (MB)

(MB) 11/11/15 01:27

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*102*		*21.9-134*
(S) 2-Fluorobiphenyl	*101*		*37.9-123*
(S) p-Terphenyl d14	*104*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00501	0.00518	100	104	48.2-121			3.23	20
Acenaphthylene	0.00500	0.00507	0.00509	101	102	47.6-120			0.320	20
Anthracene	0.00500	0.00510	0.00524	102	105	52.6-121			2.78	20
Benzo(a)anthracene	0.00500	0.00590	0.00583	118	117	50.7-122			1.24	20
Benzo(b)fluoranthene	0.00500	0.00513	0.00532	103	106	47.2-130			3.61	20
Benzo(k)fluoranthene	0.00500	0.00505	0.00500	101	100	48.7-124			0.970	20
Benzo(g,h,i)perylene	0.00500	0.00507	0.00513	101	103	46.4-129			1.22	20
Benzo(a)pyrene	0.00500	0.00550	0.00561	110	112	51.9-121			2.02	20
Chrysene	0.00500	0.00516	0.00522	103	104	49.2-129			1.15	20
Dibenz(a,h)anthracene	0.00500	0.00509	0.00509	102	102	44.4-134			0.0900	20
Fluoranthene	0.00500	0.00527	0.00528	105	106	53.2-124			0.160	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00514	0.00511	103	102	51.3-120			0.580	20
Naphthalene	0.00500	0.00491	0.00491	98.2	98.1	43.8-111			0.0800	20
Phenanthrene	0.00500	0.00516	0.00516	103	103	52.5-120			0.0600	20
Pyrene	0.00500	0.00540	0.00536	108	107	53.5-140			0.610	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00512	0.00518	102	104	44.2-128			1.30	20
(S) Nitrobenzene-d5				*106*	*105*	*21.9-134*				
(S) 2-Fluorobiphenyl				*101*	*101*	*37.9-123*				
(S) p-Terphenyl-d14				*104*	*103*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1110_03-1

11/10/2015 23:16

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1110_03-1	145241	87208	148693	152430	162417
Upper Limit		290000	174000	297000	305000	325000
Lower Limit		72600	43600	74300	76200	81200
LCS R3092140-1 WG827803 1x	1110_07	122323	72278	119133	115598	125950
LCSD R3092140-2 WG827803 1x	1110_08	124573	73752	121052	118611	128361
BLANK R3092140-3 WG827803 1x	1110_09	124150	73408	117753	114560	128652
L799415-01 WG827803 1x	1110_35	121037	74222	116469	118640	127483

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1,4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

G235

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game + Fish Dept.	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix, AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: _____ DATE: _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Storm water

SAMPLE / COOLER TEMPERATURE: 2.4°C

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	Se, Pb, Cu	PAH (2-methyl)	TDS, & TSS	LABORATORY IDENTIFICATION
AZGFD-Supmaint	11/5/15	1203	Superior Maintenance Yard	4 3		X	X							X	X	X	1510855 79945-01

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingraldi	[signature]	Robert Spencer	11-5-15 1035
		[signature]		11/6/15 0900

COMMENTS: Please email results directly to: Nclark@azgfd.gov
Nortest: TDS, TSS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

24°C

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

White — Laboratory; Yellow — Work File; Pink — Client

104210 7135 2232 (3)

TB11

346 FRONT - 2006
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Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game + Fish Dept	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix, AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: Stormwater

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	REQUESTED ANALYSES: Se, Pb, Cu	PAH (2-methyl)	TDS, & TSS								LABORATORY IDENTIFICATION
AZGFD-Supmaint	11/5/15	1203	Superior Maintenance Yard	4		X	X								X	X	X								151085

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingraldi	[signature]	Potter, Spencer	11-5-15 1035

COMMENTS:
Please email results directly to: Nclark@azgfd.gov
Nortest: TDS, TSS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Superior Fuel Yard Grab	151083	WW	11.04.15/1243	11.05.15/1035

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
151083	TDS	**143**	1	mg/L	SM 2540 C	-
151083	TSS	**122**	1	mg/L	SM 2540 D	-
151083	Lead	**0.0110**	0.00500	mg/L	EPA 200.7	-
151083	Copper	**0.114**	0.0100	mg/L	EPA 200.7	
151083	Selenium	**<0.0100**	0.0100	mg/L	EPA 200.7	
151083	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Quality Control

Analyte	Sample	Result	Units	Spiked Level	% Recovery/ RPD/ Std Dev	Recovery/RPD Limits	Notes
TSS	Blank	1	mg/L	1	-	10%	---
TSS	Duplicate	1	mg/L	<1	#VALUE!	10%	---
TDS	Blank	<1	mg/L	1	-	10%	---
TDS	Duplicate	121	mg/L	143	17%	10%	---

Reviewed By: _____
Spencer Ropte
Laboratory Technician

Nortest Analytical
Laboratory ID AZ0420

Report Printed: 11/20/2015

ANALYTICAL REPORT

November 13, 2015

Nortest

Sample Delivery Group:	L799420
Samples Received:	11/06/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

151083 L799420-01 WW	Collected by	Collected date/time 11/04/15 12:43	Received date/time 11/06/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Metals (ICP) by Method 200.7	WG827849	1	11/11/15 11:35	11/12/15 02:30	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827803	1	11/10/15 09:06	11/11/15 09:24	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Copper	0.114		0.0100	1	11/12/2015 02:30	WG827849
Lead	0.0110		0.00500	1	11/12/2015 02:30	WG827849
Selenium	ND		0.0100	1	11/12/2015 02:30	WG827849

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/11/2015 09:24	WG827803
Acenaphthene	ND		0.00100	1	11/11/2015 09:24	WG827803
Acenaphthylene	ND		0.00100	1	11/11/2015 09:24	WG827803
Benzo(a)anthracene	ND		0.00100	1	11/11/2015 09:24	WG827803
Benzo(a)pyrene	ND		0.00100	1	11/11/2015 09:24	WG827803
Benzo(b)fluoranthene	ND		0.00100	1	11/11/2015 09:24	WG827803
Benzo(g,h,i)perylene	ND		0.00100	1	11/11/2015 09:24	WG827803
Benzo(k)fluoranthene	ND		0.00100	1	11/11/2015 09:24	WG827803
Chrysene	ND		0.00100	1	11/11/2015 09:24	WG827803
Dibenz(a,h)anthracene	ND		0.00100	1	11/11/2015 09:24	WG827803
Fluoranthene	ND		0.00100	1	11/11/2015 09:24	WG827803
Fluorene	ND		0.00100	1	11/11/2015 09:24	WG827803
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/11/2015 09:24	WG827803
Naphthalene	ND		0.00100	1	11/11/2015 09:24	WG827803
Phenanthrene	ND		0.00100	1	11/11/2015 09:24	WG827803
Pyrene	ND		0.00100	1	11/11/2015 09:24	WG827803
(S) Nitrobenzene-d5	*106*		*21.9-134*		*11/11/2015 09:24*	WG827803
(S) 2-Fluorobiphenyl	*96.3*		*37.9-123*		*11/11/2015 09:24*	WG827803
(S) p-Terphenyl-d14	*101*		*34.6-131*		*11/11/2015 09:24*	WG827803

Method Blank (MB)

(MB) 11/12/15 01:32

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Copper	ND		0.0100
Lead	ND		0.00500
Selenium	ND		0.0100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/12/15 01:34 • (LCSD) 11/12/15 01:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.985	0.976	98	98	85-115			1	20
Lead	1.00	1.01	0.998	101	100	85-115			1	20
Selenium	1.00	1.03	1.03	103	103	85-115			0	20

L799398-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/12/15 01:40 • (MS) 11/12/15 01:46 • (MSD) 11/12/15 01:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.0473	1.04	1.05	99	100	1	75-125			1	20
Lead	1.00	0.00613	1.02	1.03	102	102	1	75-125			1	20
Selenium	1.00	0.000909	1.03	1.05	103	104	1	75-125			2	20

L799459-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/12/15 03:01 • (MS) 11/12/15 03:04 • (MSD) 11/12/15 03:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	0.0316	1.04	1.05	101	101	1	75-125			1	20
Lead	1.00	0.000368	1.06	1.05	105	105	1	75-125			0	20
Selenium	1.00	ND	1.03	1.04	103	104	1	75-125			0	20

Method Blank (MB)

(MB) 11/11/15 01:27

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*102*		*21.9-134*
(S) 2-Fluorobiphenyl	*101*		*37.9-123*
(S) p-Terphenyl-d14	*104*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00501	0.00518	100	104	48.2-121			3.23	20
Acenaphthylene	0.00500	0.00507	0.00509	101	102	47.6-120			0.320	20
Anthracene	0.00500	0.00510	0.00524	102	105	52.6-121			2.78	20
Benzo(a)anthracene	0.00500	0.00590	0.00583	118	117	50.7-122			1.24	20
Benzo(b)fluoranthene	0.00500	0.00513	0.00532	103	106	47.2-130			3.61	20
Benzo(k)fluoranthene	0.00500	0.00505	0.00500	101	100	48.7-124			0.970	20
Benzo(g,h,i)perylene	0.00500	0.00507	0.00513	101	103	46.4-129			1.22	20
Benzo(a)pyrene	0.00500	0.00550	0.00561	110	112	51.9-121			2.02	20
Chrysene	0.00500	0.00516	0.00522	103	104	49.2-129			1.15	20
Dibenz(a,h)anthracene	0.00500	0.00509	0.00509	102	102	44.4-134			0.0900	20
Fluoranthene	0.00500	0.00527	0.00528	105	106	53.2-124			0.160	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppm	ppm	ppm	%	%	%			%	%
Fluorene	0.00500	0.00514	0.00511	103	102	51.3-120			0.580	20
Naphthalene	0.00500	0.00491	0.00491	98.2	98.1	43.8-111			0.0800	20
Phenanthrene	0.00500	0.00516	0.00516	103	103	52.5-120			0.0600	20
Pyrene	0.00500	0.00540	0.00536	108	107	53.5-140			0.610	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00512	0.00518	102	104	44.2-128			1.30	20
(S) Nitrobenzene-d5				*106*	*105*	*21.9-134*				
(S) 2-Fluorobiphenyl				*101*	*101*	*37.9-123*				
(S) p-Terphenyl-d14				*104*	*103*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1110_03-1

11/10/2015 23:16

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1110_03-1	145241	87208	148693	152430	162417
Upper Limit		290000	174000	297000	305000	325000
Lower Limit		72600	43600	74300	76200	81200
LCS R3092140-1 WG827803 1x	1110_07	122323	72278	119133	115598	125950
LCSD R3092140-2 WG827803 1x	1110_08	124573	73752	121052	118611	128361
BLANK R3092140-3 WG827803 1x	1110_09	124150	73408	117753	114560	128652
L799420-01 WG827803 1x	1110_32	124230	76122	117562	119283	128134

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB NATIONWIDE

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp | Tc | Ss | Cn | Sr | Qc | Is | Gl | Al | Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [14] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

G238

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix, AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater ~~Bay~~ Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: _____ DATE: _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE / COOLER TEMPERATURE: 2.4°C

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	REQUESTED ANALYSES: Se, Pb, Cu	PAH (2 bottles)	TDS, TSS	LABORATORY IDENTIFICATION
AZGFD-SUPFUEL	11/4/15	1243	Superior Fuel Yard Grab	~~4~~ 3		X	X							X	X	X	151083 01

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingraldi	[signature]	Spencer Rowe	11-5-15 / 1035
		[signature]		11/6/15 0900

COMMENTS: Nortest: TSS TDS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

2.4°C

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

White — Laboratory; Yellow — Work File; Pink — Client

6436 7135 2232 (3)

T611

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Flagstaff, Arizona 86004-8934
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RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy, Phoenix AZ
CONTACT PERSON: Nora Clark	
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater ~~Bug~~ Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: Stormwater

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLET TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	REQUESTED ANALYSES: Se, Pb, Cu	PAH (3 handles)	TDS + TSS	LABORATORY IDENTIFICATION
112GFD-SUPFUEL	11/4/15	1243	Superior Fuel Yard Grab	4		X	X							X	X	X	151083

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME	COMMENTS
[signature]	Michael Ingraldi	[signature]	Spencer Rupe	11-5-15 / 1035	Nortest: TSS TDS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

346 FRONT - 2006
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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-55859-1
TestAmerica Sample Delivery Group: NogYard
Client Project/Site: Stormwater-ADOT Monitoring

For:
Arizona Game and Wildlife Department
5000 W. Carefree Hwy
Phoenix, Arizona 85086

Attn: Nora Clark

Authorized for release by:
12/23/2015 11:44:19 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
carlene.mccutcheon@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Metals

Qualifier	Qualifier Description
H6	The filtration was not done within the required 15 minutes of sampling, the sample was filtered in the laboratory.

General Chemistry

Qualifier	Qualifier Description
R12	RPD/RSD exceeded the method acceptance limit. Result less than 5 times the PQL..
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
D2	Sample required dilution due to high concentration of analyte.

Biology

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
H3	Sample was received and/ or analysis requested past holding time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-55859-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-55859-1

Comments
No additional comments.

Receipt
The sample was received on 12/14/2015 4:35 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Receipt Exceptions

The following samples were received outside of the holding time for method 9223B and 8167: NogYard (550-55859-1).

The container for the 9223B analysis for the following sample was received empty: NogYard (550-55859-1). A portion of the 1 L unpreserved container was used for this analysis.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) Filtration: The following samples requested dissolved metals and were not filtered in the field: NogYard (550-55859-1). These samples were filtered and preserved upon receipt to the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Biology
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with Prep Batch 80048.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-55859-1	NogYard	Water	12/12/15 12:30	12/14/15 16:35

Detection Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Client Sample ID: NogYard — Lab Sample ID: 550-55859-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.015	H6	0.010		mg/L	1		200.7 Rev 4.4	Dissolved
Chlorine, Total Residual	0.073	H5	0.050		mg/L	1		8167	Total/NA
Total Dissolved Solids	160		20		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	280	D2	20		mg/L	1		SM 2540D	Total/NA
Escherichia coli	52	D1 H3	10		MPN/100mL	10		9223B	Total/NA
Coliform, Total	>24196.0	D1 H3	10		MPN/100mL	10		9223B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Client Sample ID: NogYard

Date Collected: 12/12/15 12:30
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55859-1

Matrix: Water

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 22:02	1
Acenaphthylene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 22:02	1
Anthracene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 22:02	1
Benzo[a]anthracene	ND		0.20		ug/L		12/16/15 09:20	12/18/15 22:02	1
Benzo[a]pyrene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 22:02	1
Benzo[b]fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Benzo[k]fluoranthene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 22:02	1
Chrysene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Fluorene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Naphthalene	ND		0.50		ug/L		12/16/15 09:20	12/18/15 22:02	1
Phenanthrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1
Pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*55*		*27 - 101*	*12/16/15 09:20*	*12/18/15 22:02*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**0.015**	**H6**	0.010		mg/L		12/17/15 06:45	12/17/15 17:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	**0.073**	**H5**	0.050		mg/L			12/15/15 11:13	1
Total Dissolved Solids	**160**		20		mg/L			12/17/15 13:49	1
Total Suspended Solids	**280**	**D2**	20		mg/L			12/16/15 09:50	1
Ammonia	ND		0.50		mg/L			12/17/15 21:11	1

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	**52**	**D1 H3**	10		MPN/100mL			12/14/15 18:15	10
Coliform, Total	**>24196.0**	**D1 H3**	10		MPN/100mL			12/14/15 18:15	10

Surrogate Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Method: 8310 - PAHs (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PTP1 (27-101)**							
550-55859-1	NogYard	55							
LCS 550-80048/2-A	Lab Control Sample	73							
LCSD 550-80048/3-A	Lab Control Sample Dup	72							
MB 550-80048/1-A	Method Blank	79							

Surrogate Legend

PTP = p-Terphenyl

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 550-80048/1-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 80048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 20:23	1
Acenaphthylene	ND		1.0		ug/L		12/16/15 09:20	12/18/15 20:23	1
Anthracene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[a]anthracene	ND		0.20		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[a]pyrene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[b]fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Benzo[k]fluoranthene	ND		0.050		ug/L		12/16/15 09:20	12/18/15 20:23	1
Chrysene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Fluoranthene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Fluorene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Naphthalene	ND		0.50		ug/L		12/16/15 09:20	12/18/15 20:23	1
Phenanthrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1
Pyrene	ND		0.10		ug/L		12/16/15 09:20	12/18/15 20:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*79*		*27 - 101*	*12/16/15 09:20*	*12/18/15 20:23*	*1*

Lab Sample ID: LCS 550-80048/2-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 80048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.50	1.99		ug/L		80	25 - 149
Acenaphthylene	5.00	3.63		ug/L		73	58 - 112
Anthracene	0.250	0.209		ug/L		83	10 - 150
Benzo[a]anthracene	0.250	0.218		ug/L		87	43 - 141
Benzo[a]pyrene	0.250	0.211		ug/L		84	37 - 144
Benzo[b]fluoranthene	0.500	0.417		ug/L		83	57 - 129
Benzo[g,h,i]perylene	0.500	0.414		ug/L		83	15 - 150
Benzo[k]fluoranthene	0.250	0.206		ug/L		83	54 - 130
Chrysene	0.250	0.224		ug/L		90	52 - 142
Dibenz(a,h)anthracene	0.500	0.409		ug/L		82	15 - 121
Fluoranthene	0.500	0.415		ug/L		83	50 - 127
Fluorene	0.500	0.400		ug/L		80	46 - 123
Indeno[1,2,3-cd]pyrene	0.250	0.220		ug/L		88	24 - 150
Naphthalene	2.50	1.88		ug/L		75	35 - 101
Phenanthrene	0.250	0.212		ug/L		85	58 - 124
Pyrene	0.250	0.188		ug/L		75	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*73*		*27 - 101*

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: LCSD 550-80048/3-A
Matrix: Water
Analysis Batch: 80282

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 80048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.50	1.96		ug/L		78	25 - 149	1	35
Acenaphthylene	5.00	4.42		ug/L		88	58 - 112	19	35
Anthracene	0.250	0.206		ug/L		83	10 - 150	1	35
Benzo[a]anthracene	0.250	0.220		ug/L		88	43 - 141	1	35
Benzo[a]pyrene	0.250	0.211		ug/L		84	37 - 144	0	35
Benzo[b]fluoranthene	0.500	0.417		ug/L		83	57 - 129	0	35
Benzo[g,h,i]perylene	0.500	0.428		ug/L		86	15 - 150	3	35
Benzo[k]fluoranthene	0.250	0.208		ug/L		83	54 - 130	1	35
Chrysene	0.250	0.226		ug/L		90	52 - 142	1	35
Dibenz(a,h)anthracene	0.500	0.412		ug/L		82	15 - 121	1	35
Fluoranthene	0.500	0.418		ug/L		84	50 - 127	1	35
Fluorene	0.500	0.395		ug/L		79	46 - 123	1	35
Indeno[1,2,3-cd]pyrene	0.250	0.227		ug/L		91	24 - 150	3	35
Naphthalene	2.50	1.88		ug/L		75	35 - 101	0	35
Phenanthrene	0.250	0.216		ug/L		86	58 - 124	2	28
Pyrene	0.250	0.197		ug/L		79	11 - 150	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*72*		*27 - 101*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-80145/1-A
Matrix: Water
Analysis Batch: 80253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 80145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010		mg/L		12/17/15 06:45	12/17/15 16:38	1

Lab Sample ID: LCS 550-80145/3-A
Matrix: Water
Analysis Batch: 80253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 80145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1.00	0.951		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-80145/4-A
Matrix: Water
Analysis Batch: 80253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 80145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	1.00	0.934		mg/L		93	85 - 115	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-80014/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80253 — **Prep Batch: 80145**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010		mg/L		12/17/15 06:45	12/17/15 16:40	1

Lab Sample ID: 550-55755-B-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80253 — **Prep Batch: 80145**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	ND	H6	1.00	0.971		mg/L		97	70 - 130		

Lab Sample ID: 550-55755-B-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80253 — **Prep Batch: 80145**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	ND	H6	1.00	0.969		mg/L		97	70 - 130	0	20

Method: 8167 - Chlorine, Total Residual

Lab Sample ID: MB 550-79990/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.050		mg/L			12/15/15 11:13	1

Lab Sample ID: MB 550-79990/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.050		mg/L			12/15/15 11:13	1

Lab Sample ID: LCS 550-79990/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorine, Total Residual	0.999	1.05		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-79990/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79990

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorine, Total Residual	0.999	1.04		mg/L		104	90 - 110	1	20

Method: 8167 - Chlorine, Total Residual (Continued)

Lab Sample ID: 550-55859-1 DU — **Client Sample ID: NogYard**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79990

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chlorine, Total Residual	0.073	H5		0.0681	H5	mg/L				7	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-80217/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80217

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			12/17/15 13:49	1

Lab Sample ID: LCS 550-80217/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80217

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	970		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-80217/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80217

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	978		mg/L		98	90 - 110	1	10

Lab Sample ID: 550-55790-A-3 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80217

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2100			2100		mg/L				0.2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 550-80064/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10		mg/L			12/16/15 09:50	1

Lab Sample ID: LCS 550-80064/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			200	189		mg/L		95	90 - 110		

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCSD 550-80064/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids			200	189		mg/L		95	90 - 110	0	10

Lab Sample ID: 550-55813-B-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80064

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	23	R12		27.0	R12	mg/L				16	10

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 550-80265/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.50		mg/L			12/17/15 19:54	1

Lab Sample ID: LCS 550-80265/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80265

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			25.0	26.0		mg/L		104	80 - 120		

Lab Sample ID: LCSD 550-80265/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80265

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia			25.0	27.0		mg/L		108	80 - 120	4	20

Lab Sample ID: 550-55848-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80265

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	1.2		25.0	28.4		mg/L		109	80 - 120		

Lab Sample ID: 550-55848-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 80265

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	1.2		25.0	28.4		mg/L		109	80 - 120	0	20

QC Sample Results

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Method: 9223B - Total Coliforms and E. coli by Colilert - QT

Lab Sample ID: MB 550-79941/1
Matrix: Water
Analysis Batch: 79941

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	<1.0		1.0		MPN/100mL			12/14/15 18:15	1
Coliform, Total	<1.0		1.0		MPN/100mL			12/14/15 18:15	1

QC Association Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

HPLC/IC

Prep Batch: 80048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55859-1	NogYard	Total/NA	Water	3510C	
LCS 550-80048/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 550-80048/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 550-80048/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 80282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55859-1	NogYard	Total/NA	Water	8310	80048
LCS 550-80048/2-A	Lab Control Sample	Total/NA	Water	8310	80048
LCSD 550-80048/3-A	Lab Control Sample Dup	Total/NA	Water	8310	80048
MB 550-80048/1-A	Method Blank	Total/NA	Water	8310	80048

Metals

Filtration Batch: 80014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55859-1	NogYard	Dissolved	Water	Filtration	
MB 550-80014/1-B	Method Blank	Dissolved	Water	Filtration	

Prep Batch: 80145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55755-B-1-A MS	Matrix Spike	Dissolved	Water	200.7	
550-55755-B-1-B MSD	Matrix Spike Duplicate	Dissolved	Water	200.7	
550-55859-1	NogYard	Dissolved	Water	200.7	80014
LCS 550-80145/3-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-80145/4-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-80014/1-B	Method Blank	Dissolved	Water	200.7	80014
MB 550-80145/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 80253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55755-B-1-A MS	Matrix Spike	Dissolved	Water	200.7 Rev 4.4	80145
550-55755-B-1-B MSD	Matrix Spike Duplicate	Dissolved	Water	200.7 Rev 4.4	80145
550-55859-1	NogYard	Dissolved	Water	200.7 Rev 4.4	80145
LCS 550-80145/3-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	80145
LCSD 550-80145/4-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	80145
MB 550-80014/1-B	Method Blank	Dissolved	Water	200.7 Rev 4.4	80145
MB 550-80145/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	80145

General Chemistry

Analysis Batch: 79990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55859-1	NogYard	Total/NA	Water	8167	
550-55859-1 DU	NogYard	Total/NA	Water	8167	
LCS 550-79990/4	Lab Control Sample	Total/NA	Water	8167	
LCSD 550-79990/5	Lab Control Sample Dup	Total/NA	Water	8167	
MB 550-79990/3	Method Blank	Total/NA	Water	8167	
MB 550-79990/6	Method Blank	Total/NA	Water	8167	

General Chemistry (Continued)

Analysis Batch: 80064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55813-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	
550-55859-1	NogYard	Total/NA	Water	SM 2540D	
LCS 550-80064/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 550-80064/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 550-80064/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 80217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55790-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	
550-55859-1	NogYard	Total/NA	Water	SM 2540C	
LCS 550-80217/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-80217/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 550-80217/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 80265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55848-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 D	
550-55848-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 D	
550-55859-1	NogYard	Total/NA	Water	SM 4500 NH3 D	
LCS 550-80265/5	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	
LCSD 550-80265/6	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 D	
MB 550-80265/4	Method Blank	Total/NA	Water	SM 4500 NH3 D	

Biology

Analysis Batch: 79941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-55859-1	NogYard	Total/NA	Water	9223B	
MB 550-79941/1	Method Blank	Total/NA	Water	9223B	

Lab Chronicle

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Client Sample ID: NogYard

Date Collected: 12/12/15 12:30
Date Received: 12/14/15 16:35

Lab Sample ID: 550-55859-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			80048	12/16/15 09:20	JNC	TAL PHX
Total/NA	Analysis	8310		1	80282	12/18/15 22:02	JGM	TAL PHX
Dissolved	Filtration	Filtration			80014	12/15/15 14:16	SGO	TAL PHX
Dissolved	Prep	200.7			80145	12/17/15 06:45	SGO	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	80253	12/17/15 17:43	AJC	TAL PHX
Total/NA	Analysis	8167		1	79990	12/15/15 11:13	ATH	TAL PHX
Total/NA	Analysis	SM 2540C		1	80217		ATH	TAL PHX
					(Start)	12/17/15 13:49		
					(End)	12/18/15 16:20		
Total/NA	Analysis	SM 2540D		1	80064		ATH	TAL PHX
					(Start)	12/16/15 09:50		
					(End)	12/17/15 13:15		
Total/NA	Analysis	SM 4500 NH3 D		1	80265	12/17/15 21:11	AMR	TAL PHX
Total/NA	Analysis	9223B		10	79941		NRH	TAL PHX
					(Start)	12/14/15 18:15		
					(End)	12/15/15 15:15		

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Arizona Game and Wildlife Department
Project/Site: Stormwater-ADOT Monitoring

TestAmerica Job ID: 550-55859-1
SDG: NogYard

Method	Method Description	Protocol	Laboratory
8310	PAHs (HPLC)	SW846	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
8167	Chlorine, Total Residual	Hach	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PHX
SM 4500 NH3 D	Ammonia	SM	TAL PHX
9223B	Total Coliforms and E. coli by Colilert - QT	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
Hach = Hach Company
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

Chain of Custody Record

550-55859

097476

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: AZ Game+Fish Dept	Project Manager: Nora Clark	Site Contact:	Date: 14 Dec 15
Address: 5000 W CarePree Hwy	Tel/Fax: 9282458792	Lab Contact:	Carrier:
City/State/Zip: Phx AZ 85086	Analysis Turnaround Time		
Phone: 7282458792	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below _____		
Project Name: Stormwater-ADOT monitoring	☐ 2 weeks		
Site: Nog Yard	☐ 1 week		
PO#	☐ 2 days		
	☐ 1 day		

COC No: _____ of _____ COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TDS	TSS	PAH 8310	E. coli/GT	Chlorine	Ammonia	Copper	Sample Specific Notes:
Nog Yard -01	12Dec15	1230	G		7			X	X	X	X	X	X	X	If additional stormwater remains, analyze E. coli even though sample is past hold time. Email results to nclark@azgfd.gov

550-55859 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

0.1°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: 001

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ryan Saine	AZGFD	0900 14Dec15		TA	12/14/15 13:40
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TA	12/14/15 16:35			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	12/14/15 16:35

Login Sample Receipt Checklist

Client: Arizona Game and Wildlife Department

Job Number: 550-55859-1
SDG Number: NogYard

Login Number: 55859
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department
500 West Carefree Highway
Phoenix, AZ 85086
pkennedy@azgfd.gov

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792
nclark@azgfd.gov

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Roosevelt Yard Grab	151084	WW	11.04.15/1005	11.05.15/1035

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
151084	TDS	**43**	1	mg/L	SM 2540 C	-
151084	TSS	**14**	1	mg/L	SM 2540 D	-
151084	Mercury	**<0.000200**	0.000200	mg/L	EPA 245.1	
151084	PAHs	**<0.00100***	0.00100	mg/L	EPA 625	-

Comments: *See ESC Report for more detailed analysis

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 13, 2015

Nortest

Sample Delivery Group:	L799417
Samples Received:	11/06/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE

151084 L799417-01 WW

Collected by	Collected date/time	Received date/time
Michael I	11/04/15 10:05	11/06/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Mercury by Method 245.1	WG828428	1	11/12/15 11:34	11/12/15 17:33	TRB
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827803	1	11/10/15 09:06	11/11/15 09:44	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Mercury by Method 245.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	11/12/2015 17:33	WG828428

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/11/2015 09:44	WG827803
Acenaphthene	ND		0.00100	1	11/11/2015 09:44	WG827803
Acenaphthylene	ND		0.00100	1	11/11/2015 09:44	WG827803
Benzo(a)anthracene	ND		0.00100	1	11/11/2015 09:44	WG827803
Benzo(a)pyrene	ND		0.00100	1	11/11/2015 09:44	WG827803
Benzo(b)fluoranthene	ND		0.00100	1	11/11/2015 09:44	WG827803
Benzo(g,h,i)perylene	ND		0.00100	1	11/11/2015 09:44	WG827803
Benzo(k)fluoranthene	ND		0.00100	1	11/11/2015 09:44	WG827803
Chrysene	ND		0.00100	1	11/11/2015 09:44	WG827803
Dibenz(a,h)anthracene	ND		0.00100	1	11/11/2015 09:44	WG827803
Fluoranthene	ND		0.00100	1	11/11/2015 09:44	WG827803
Fluorene	ND		0.00100	1	11/11/2015 09:44	WG827803
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/11/2015 09:44	WG827803
Naphthalene	ND		0.00100	1	11/11/2015 09:44	WG827803
Phenanthrene	ND		0.00100	1	11/11/2015 09:44	WG827803
Pyrene	ND		0.00100	1	11/11/2015 09:44	WG827803
(S) Nitrobenzene-d5	*108*		*21.9-134*		*11/11/2015 09:44*	WG827803
(S) 2-Fluorobiphenyl	*99.2*		*37.9-123*		*11/11/2015 09:44*	WG827803
(S) p-Terphenyl-d14	*93.4*		*34.6-131*		*11/11/2015 09:44*	WG827803

Method Blank (MB)

(MB) 11/12/15 17:12

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Mercury	ND		0.000200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/12/15 17:15 • (LCSD) 11/12/15 17:17

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Mercury	0.00300	0.00296	0.00314	99	105	85-115			6	20

L800359-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/12/15 17:25 • (MS) 11/12/15 17:27 • (MSD) 11/12/15 17:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.00300	ND	0.00288	0.00272	96	91	1	70-130			6	20

Method Blank (MB)

(MB) 11/11/15 01:27

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*102*		*21.9-134*
(S) 2-Fluorobiphenyl	*101*		*37.9-123*
(S) p-Terphenyl-d14	*104*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00501	0.00518	100	104	48.2-121			3.23	20
Acenaphthylene	0.00500	0.00507	0.00509	101	102	47.6-120			0.320	20
Anthracene	0.00500	0.00510	0.00524	102	105	52.6-121			2.78	20
Benzo(a)anthracene	0.00500	0.00590	0.00583	118	117	50.7-122			1.24	20
Benzo(b)fluoranthene	0.00500	0.00513	0.00532	103	106	47.2-130			3.61	20
Benzo(k)fluoranthene	0.00500	0.00505	0.00500	101	100	48.7-124			0.970	20
Benzo(g,h,i)perylene	0.00500	0.00507	0.00513	101	103	46.4-129			1.22	20
Benzo(a)pyrene	0.00500	0.00550	0.00561	110	112	51.9-121			2.02	20
Chrysene	0.00500	0.00516	0.00522	103	104	49.2-129			1.15	20
Dibenz(a,h)anthracene	0.00500	0.00509	0.00509	102	102	44.4-134			0.0900	20
Fluoranthene	0.00500	0.00527	0.00528	105	106	53.2-124			0.160	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00514	0.00511	103	102	51.3-120			0.580	20
Naphthalene	0.00500	0.00491	0.00491	98.2	98.1	43.8-111			0.0800	20
Phenanthrene	0.00500	0.00516	0.00516	103	103	52.5-120			0.0600	20
Pyrene	0.00500	0.00540	0.00536	108	107	53.5-140			0.610	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00512	0.00518	102	104	44.2-128			1.30	20
(S) Nitrobenzene-d5				*106*	*105*	*21.9-134*				
(S) 2-Fluorobiphenyl				*101*	*101*	*37.9-123*				
(S) p-Terphenyl-d14				*104*	*103*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1110_03-1

11/10/2015 23:16

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1110_03-1	145241	87208	148693	152430	162417
Upper Limit		290000	174000	297000	305000	325000
Lower Limit		72600	43600	74300	76200	81200
LCS R3092140-1 WG827803 1x	1110_07	122323	72278	119133	115598	125950
LCSD R3092140-2 WG827803 1x	1110_08	124573	73752	121052	118611	128361
BLANK R3092140-3 WG827803 1x	1110_09	124150	73408	117753	114560	128652
L799417-01 WG827803 1x	1110_33	124144	75253	119305	118935	125453

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB NATIONWIDE

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
1 Tc
2 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1,4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [--] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

G237

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE ____ OF ____

CLIENT: Arizona Game + Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater ~~Project~~ Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: 7/99/17 DATE

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: stormwater

SAMPLE / COOLER TEMPERATURE: 2.4°C

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	TDS	TSS	pH	Mercury (2 bottles)						LABORATORY IDENTIFICATION
AZGFD-ROOYARD	11/4/15	1005	Roosevelt Yard Grab	~~1~~ 2		X	X							X	X	X	X					01	TDS + TSS are in the same container. 151084

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingraldi	[signature]	Spencer Potts	11-5-15 / 1035
		[signature]		11/6/15 0900

COMMENTS: Please email results directly to: nclark@azgfd.gov
NORTEST: TSS,

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

2.4°C

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

White — Laboratory; Yellow — Work File; Pink — Client

1.4360 7135 2232 (2)

TDH

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Matt Shacklock

ESC Lab Sciences
Non-Conformance Form

Login #L799417	Client: NORTESTAZ	Date:11/06/15	Evaluated by:Caleb B

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		If Broken Container:
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample Ids on containers do not match Ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		If no Chain of Custody:
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Metals bottle received busted

Client informed by:		Call		Email		Voice Mail		Date:11/05	Time:13:05
TSR Initials:DR	Client Contact:								

Login Instructions:

Pour off 50ml to run Hg

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Flagstaff, Arizona 86004-8934
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RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game & Fish Dept	ADDRESS: 5000 W Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater ~~Project~~ Monitoring
FAX	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES: A WATER B SOIL O OIL G SLUDGE D DRINKING WATER T TRAVEL BLANK W WASTEWATER F FIELD BLANK X OTHER SPECIFY: Stormwater

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	TDS	TSS	FOH (2 bottles)	Mercury								LABORATORY IDENTIFICATION
AZGFD-ROOYARD	11/4/15	1005	Roosevelt Yard Grab	4		X	X								X	X	X	X								TDS + TSS are in the same container. 151084

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME	COMMENTS
[signature]	Michael Ingraldi	[signature]	Spencer Roots	11-5-15 / 1035	Please email results directly to: mclark@azgfd.gov
					NORTEST: TSS,

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

SAMPLE / COOLER TEMPERATURE:

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White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
928-774-2312

Client: Arizona Game and Fish Department

Project: AZGFD ADOT
Project #: 2515JC013
Contact: Nora Clark 928-245-8792

Sample Information

Sample ID	Laboratory ID	Sample Matrix	Date/Time Sampled	Date/Time Received
Spring Creek Yard	151086/15-4681	WW	11.04.15/1728	11.05.15/1035

Sample Analysis

Laboratory ID	Analyte	Result	MDL	Units	Method	Notes/ Qualifiers
151086	TDS	**262**	1	mg/L	SM 2540 C	-
151086	TSS	**24**	1	mg/L	SM 2540 D	-
15-4681	Total Coliform	**>2419.6**	1.0	MPN	SM 9223 B	-
15-4681	*E.coli*	**2.0**	1.0	MPN	SM 9223 B	-

Comments:

Quality Control

Analyte	Sample	Result	Units	Spiked Level	% Recovery/ RPD/ Std Dev	Recovery/RPD Limits	Notes
TSS	Blank	1	mg/L	1	-	10%	---
TSS	Duplicate	0	mg/L	1	200%	10%	---
TDS	Blank	<1	mg/L	1	-	10%	---
TDS	Duplicate	121	mg/L	143	17%	10%	---

Reviewed By: _____
Spencer Ropte
Laboratory Technician

ANALYTICAL REPORT

November 11, 2015

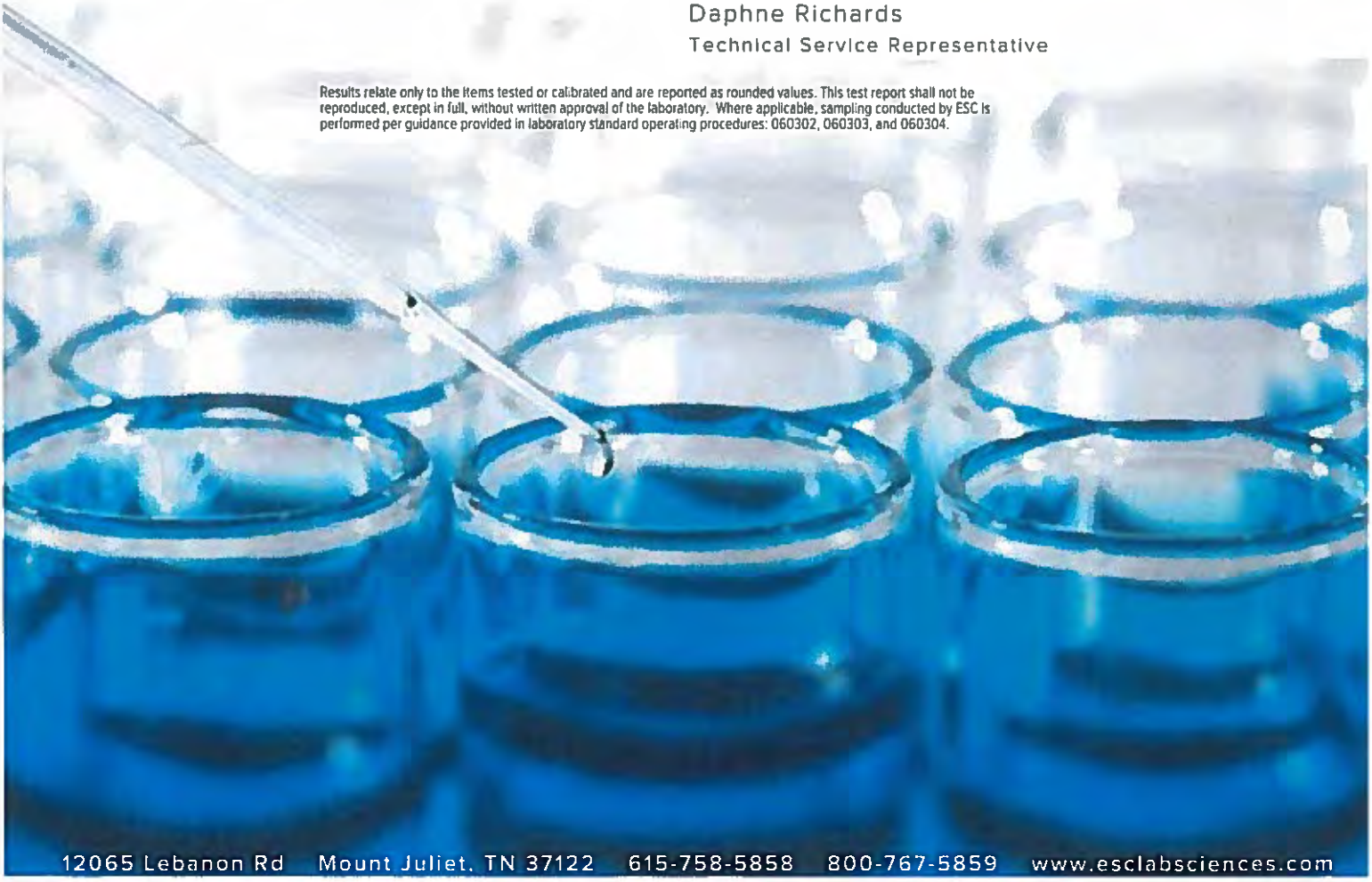
Nortest

Sample Delivery Group:	L799416
Samples Received:	11/06/2015
Project Number:	
Description:	
Report To:	Scott Bajer and Spencer Ropte 2400 E. Huntington Dr. Flagstaff, AZ 86004

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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151086 L799416-01 WW

Collected by	Collected date/time	Received date/time
Michael I	11/05/15 17:28	11/06/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG827803	1	11/10/15 09:06	11/11/15 10:05	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00100	1	11/11/2015 10:05	WG827803
Acenaphthene	ND		0.00100	1	11/11/2015 10:05	WG827803
Acenaphthylene	ND		0.00100	1	11/11/2015 10:05	WG827803
Benzo(a)anthracene	ND		0.00100	1	11/11/2015 10:05	WG827803
Benzo(a)pyrene	ND		0.00100	1	11/11/2015 10:05	WG827803
Benzo(b)fluoranthene	ND		0.00100	1	11/11/2015 10:05	WG827803
Benzo(g,h,i)perylene	ND		0.00100	1	11/11/2015 10:05	WG827803
Benzo(k)fluoranthene	ND		0.00100	1	11/11/2015 10:05	WG827803
Chrysene	ND		0.00100	1	11/11/2015 10:05	WG827803
Dibenz(a,h)anthracene	ND		0.00100	1	11/11/2015 10:05	WG827803
Fluoranthene	ND		0.00100	1	11/11/2015 10:05	WG827803
Fluorene	ND		0.00100	1	11/11/2015 10:05	WG827803
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	11/11/2015 10:05	WG827803
Naphthalene	ND		0.00100	1	11/11/2015 10:05	WG827803
Phenanthrene	ND		0.00100	1	11/11/2015 10:05	WG827803
Pyrene	ND		0.00100	1	11/11/2015 10:05	WG827803
(S) Nitrobenzene-d5	*108*		*21.9-134*		*11/11/2015 10:05*	WG827803
(S) 2-Fluorobiphenyl	*99.9*		*37.9-123*		*11/11/2015 10:05*	WG827803
(S) p-Terphenyl-d14	*86.8*		*34.6-131*		*11/11/2015 10:05*	WG827803

Method Blank (MB)

(MB) 11/11/15 01:27

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Anthracene	ND		0.00100
Acenaphthene	ND		0.00100
Acenaphthylene	ND		0.00100
Benzo(a)anthracene	ND		0.00100
Benzo(a)pyrene	ND		0.00100
Benzo(b)fluoranthene	ND		0.00100
Benzo(g,h,i)perylene	ND		0.00100
Benzo(k)fluoranthene	ND		0.00100
Chrysene	ND		0.00100
Dibenz(a,h)anthracene	ND		0.00100
Fluoranthene	ND		0.00100
Fluorene	ND		0.00100
Indeno(1,2,3-cd)pyrene	ND		0.00100
Naphthalene	ND		0.00100
Phenanthrene	ND		0.00100
Pyrene	ND		0.00100
(S) Nitrobenzene-d5	*102*		*21.9-134*
(S) 2-Fluorobiphenyl	*101*		*37.9-123*
(S) p-Terphenyl d14	*104*		*34.6-131*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.00500	0.00501	0.00518	100	104	48.2-121			3.23	20
Acenaphthylene	0.00500	0.00507	0.00509	101	102	47.6-120			0.320	20
Anthracene	0.00500	0.00510	0.00524	102	105	52.6-121			2.78	20
Benzo(a)anthracene	0.00500	0.00590	0.00583	118	117	50.7-122			1.24	20
Benzo(b)fluoranthene	0.00500	0.00513	0.00532	103	106	47.2-130			3.61	20
Benzo(k)fluoranthene	0.00500	0.00505	0.00500	101	100	48.7-124			0.970	20
Benzo(g,h,i)perylene	0.00500	0.00507	0.00513	101	103	46.4-129			1.22	20
Benzo(a)pyrene	0.00500	0.00550	0.00561	110	112	51.9-121			2.02	20
Chrysene	0.00500	0.00516	0.00522	103	104	49.2-129			1.15	20
Dibenz(a,h)anthracene	0.00500	0.00509	0.00509	102	102	44.4-134			0.0900	20
Fluoranthene	0.00500	0.00527	0.00528	105	106	53.2-124			0.160	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/11/15 00:45 • (LCSD) 11/11/15 01:06

Analyte	Spike Amount ppm	LCS Result ppm	LCSD Result ppm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00500	0.00514	0.00511	103	102	51.3-120			0.580	20
Naphthalene	0.00500	0.00491	0.00491	98.2	98.1	43.8-111			0.0800	20
Phenanthrene	0.00500	0.00516	0.00516	103	103	52.5-120			0.0600	20
Pyrene	0.00500	0.00540	0.00536	108	107	53.5-140			0.610	20
Indeno(1,2,3-cd)pyrene	0.00500	0.00512	0.00518	102	104	44.2-128			1.30	20
(S) Nitrobenzene-d5				*106*	*105*	*21.9-134*				
(S) 2-Fluorobiphenyl				*101*	*101*	*37.9-123*				
(S) p-Terphenyl-d14				*104*	*103*	*34.6-131*				

INTERNAL STANDARD SUMMARY

Instrument: BNAMS14 • File ID: 1110_03-1

11/10/2015 23:16

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1110_03-1	145241	87208	148693	152430	162417
Upper Limit		290000	174000	297000	305000	325000
Lower Limit		72600	43600	74300	76200	81200
LCS R3092140-1 WG827803 1x	1110_07	122323	72278	119133	115598	125950
LCSD R3092140-2 WG827803 1x	1110_08	124573	73752	121052	118611	128361
BLANK R3092140-3 WG827803 1x	1110_09	124150	73408	117753	114560	128652
L799416-01 WG827803 1x	1110_34	128173	75831	120872	126018	130587

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB NATIONWIDE

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

Cp
1 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [14] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

G236

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game + Fish Department	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix, AZ
TELEPHONE: 928-245-8792	PROJECT: AZDOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ: _____ DATE: _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingraldi

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: _____

SAMPLE / COOLER TEMPERATURE: 2.4°C

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl	HOLD DO NOT ANALYZE	TDS	TSS	Fecal Coli (QT)	LABORATORY IDENTIFICATION
AZGFD-SPR YARD	11/5/15	1728	Spring Creek Yard	2		X								X	X	X	151086 799415 #1

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingraldi	[signature]	Terrence Ryan	11/5/15 1055
		[signature]		11/6/15 0900

COMMENTS: Please email results directly to: Nora Clark or Nclark@azgfd.gov
Nonnest: QT, TDS, TSS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

2.4°C

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

White — Laboratory; Yellow — Work File; Pink — Client

(2)

TOH

Nortest Analytical
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-2312 • fax 774-6469

RECEIVING ORDER & CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT: Arizona Game + Fish Department	ADDRESS: 5000 W. Carefree Hwy
CONTACT PERSON: Nora Clark	Phoenix AZ
TELEPHONE: 928-245-8792	PROJECT: ADOT Stormwater Monitoring
FAX:	NORTEST QUOTE / CONTRACT NO.: / JOB / P.O. NO.:

AUTHORIZED SIGNATURE RELEASE TO ADEQ _____ DATE _____

SAMPLER SIGNATURE: [signature]
PRINT NAME: Michael Ingvaldi

SAMPLE TYPE CODES
A WATER B SOIL O OIL G SLUDGE
D DRINKING WATER T TRAVEL BLANK
W WASTEWATER F FIELD BLANK
X OTHER SPECIFY: _____

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION / PWS IDENTIFICATION NO.	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	CONTAINERS LAB USE ONLY: UNPRESERVED	HNO_3	NaOH	H_2SO_4	HCl		HOLD DO NOT ANALYZE	REQUESTED ANALYSES: TDS	TSS	PAH (2 50 HRs)	E. Coli (QT)							LABORATORY IDENTIFICATION
AZGFD-SPRYARD	11/5/15	1728	Spring Creek Yard	4		X									X	X	X	X							151086
15-4681																									
IN @ 1143																									
OUT @ 1145																									
TC: 72419.6																									
EC: 2.0																									

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
[signature]	Michael Ingvaldi	[signature]	Spencer Pace	11/5/15 1055

COMMENTS
Please email results directly to:
Nora Clark
on Nclark@azgfd.gov
Nortest: QT, TDS, TSS

☐ FAX RESULTS SPECIAL DETECTION LIMITS / REQUIREMENTS
SAMPLE PROCESS TURNAROUND TIME:
☐ STANDARD ☐ OTHER (SPECIFY) _____

White — Laboratory; Yellow — Work File; Pink — Client

ALL WORK SUBJECT TO STANDARD TERMS AND CONDITIONS ON REVERSE SIDE

STANDARD TERMS AND CONDITIONS

The Agreement between Western Technologies Inc. ("WT"), dba Nortest Analytical, and Client shall include and be subject to these Standard Terms and Conditions. The terms of the Agreement shall prevail over any different or additional terms contained in any document to which WT's work relates. WT's commencement of work shall constitute Client's acceptance of the Agreement.

1. SERVICES

1.1 WT agrees to render such services that are requested by Client. WT shall have no responsibility to perform services beyond the request, and none shall be imputed or implied.

1.2 The services rendered by WT are for the benefit of Client alone and relate only to conditions observed at specified locations at the time WT's work is performed. There are no intended third-party beneficiaries to this Agreement, and nothing herein shall create a contractual relationship with or claim or cause of action in favor of a third party against WT.

1.3 The presence of WT's field technicians or representatives, if called for in the Agreement, is for the provision of services hereunder, and does not include supervision or direction of the work of Client or its subcontractors. Neither the presence of, nor any observation or testing by WT personnel shall excuse Client or its subcontractors from any deficiencies in their work.

1.4 Client agrees that if Client commences litigation, mediation, arbitration, or any such proceeding against WT, WT shall have the right to withdraw and terminate ongoing work and services conducted for Client on any contract and project, in which event Client shall pay WT for work and services performed up to the time of termination.

2. PAYMENT

WT will invoice Client when the services are performed. Client shall pay such invoices upon receipt without deduction for retention or offset. **Failure to pay within 60 days of invoice shall operate to release WT from any and all claims that Client may have; Client further shall have no right to use or rely on any report prepared by WT, and shall return all such reporting to WT.** Furthermore, WT shall have the right to immediately terminate and cease performance of all services then being performed for Client on any contract and project until all amounts owed are received by WT. Interest shall accrue on the unpaid balance of any invoice not paid in full within 30 days at the rate of 1.5% per month.

3. STANDARD OF CARE

3.1 The services referred to herein will be performed in accordance with the general standard of care practiced locally by providers of such services, and relate only to the conditions observed or samples tested at the time and place reported. WT makes and intends no other warranty or representation, express or implied.

3.2 Soil, subsurface, and groundwater conditions can vary between and among sampling points and with time. WT makes no representation that the points selected for sampling are in any way representative of the entire site or project.

3.3 WT has no right, duty, or obligation to stop Client's or any of Client's subcontractor's work.

3.4 WT makes no oral recommendations or opinions. Field and laboratory technicians are not engineers. Client acknowledges and agrees that there will be no express or implied recommendations or opinions of any sort from field or laboratory technicians.

3.5 Client is obligated to, and shall, directly and specifically notify WT as and when Client wants WT to perform services hereunder. WT shall be subject to no implied duties to observe or test, or to provide reports, other than the actual observation, testing, and reporting performed.

3.6 "Certification" means and implies the expression of professional opinion. It is not a warranty or guaranty.

4. INSURANCE Client shall be adequately insured. Client and its insurers jointly and severally waive subrogation against WT and its insurers.

5. LIMITATIONS OF LIABILITY

Client and WT recognize the relative risks and benefits of this Agreement, and agree to the fair allocation of risk between them as follows:

5.1 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, WT'S TOTAL AGGREGATE LIABILITY TO ANY PERSON OR ENTITY, INCLUDING CLIENT, ON ANY CLAIM, ACTION OR LIABILITY OF ANY KIND OR BASIS WHATSOEVER, IN ANY MANNER ARISING OUT OF THE WORK DONE BY WT SHALL BE STRICTLY LIMITED TO THE FEE CHARGED FOR WT'S SERVICES HEREUNDER.

5.2 WT shall not be liable for loss of profit, delay, or for any special, incidental, indirect, or consequential damages of any kind, nature or description, from any cause whatsoever.

5.3 No proceeding, action or claim of any kind whatsoever, whether in law or equity, may be brought against WT regarding any work performed by WT, more than one year after the cessation of WT's work.

5.4 EXCEPT FOR ENVIRONMENTAL SERVICES THAT SPECIFICALLY INCLUDE AN INDOOR MOLD SURVEY, NO ACTION OR CLAIM OF ANY KIND WHATSOEVER MAY BE BROUGHT AGAINST WT ARISING OUT OF THE PRESENCE OR EXISTENCE OF MOLD. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES WT FROM ALL SUCH CLAIMS AND LIABILITIES.

5.5 No officer, director, principal, employee, or agent of WT shall ever be personally sued, joined, liable, or responsible regarding any claim whatsoever. ALL SUCH ACTIONS ARE ABSOLUTELY BARRED AND CLIENT ABSOLUTELY AND IRREVOCABLY RELEASES SUCH INDIVIDUALS FROM ALL ACTIONS, CLAIMS, LIABILITIES, AND RESPONSIBILITY.

6. HAZARDOUS MATERIALS AND OTHER SITE CONDITIONS

WT does not create, generate, arrange for or transport, dispose, own, or store hazardous materials or operate any such facility in the performance of its work. Client shall maintain possession of and be responsible for the removal and disposal of all hazardous materials including, but not limited to samples, drilling mud, fluids and cuttings, decontamination and well development fluids, and used protective gear and equipment. Client assumes full responsibility for compliance with the provisions of RCRA and any other federal or state statute or regulation governing the handling, treatment, or storage and disposal of hazardous wastes and pollutants. Client shall be solely responsible for notifying all appropriate agencies and prospective buyers of the existence of any hazardous or dangerous materials located on or in the project site, or discovered during the performance of the Agreement, as may be required or advised by such agencies and buyers.

7. PROPERTY

7.1 All work papers (including reports, field notes, laboratory notes, laboratory test data, calculations and other documents prepared by WT), electronic data files and other work product generated by or for WT in connection with the Scope of Work are the property of WT. Samples obtained shall remain the property of Client.

7.2 Client has the right to use the reports, recommendations, design criteria and similar information submitted to it by WT, provided that Client pays WT's invoices. Client expressly agrees that no information produced or provided by WT shall be used for or at any location or for any project or project extension that is not expressly set forth in this Agreement without WT's prior written permission.

7.3 Because data stored on electronic media can deteriorate or be modified without WT's knowledge or control, Client assumes all responsibility for the completeness, correctness, and/or readability of electronic data. Client will indemnify, defend, and hold WT harmless of and from the use of and any reliance upon any part of said electronic data and/or anything generated from them. The controlling document regarding any document prepared by WT shall remain and always be the original hard-copy paper document, and not any electronic form or format of such document.

7.4 Client shall not assign this Agreement, or any of WT's reporting or work product, without the prior express written consent of WT. Any purported assignment without the prior express written consent of WT shall be null and void.

8. TERMINATION

In addition to termination otherwise authorized by law and equity, this Agreement may be terminated by either party upon providing written notice of termination.

9. WT NOT BOUND

WT shall not be bound by: any provision incorporating by reference any contract or term of any contract unless the term or terms incorporated by reference are specifically furnished to WT and are expressly agreed to in a writing signed by WT; any provision or agreement providing for or imposing liquidated damages however described or denominated; any provision waiving any right to a mechanic's lien; any provision conditioning WT's payment for its services upon payment to Client by any third party; or any provision permitting Client to take possession of any property of WT.

10. MEDIATION AND ARBITRATION; FEES AND COSTS

Except for WT's claims for collection of unpaid invoices, which WT may file in any appropriate court, all disputes arising out of the work, including the Agreement, shall first be mediated, and if not so resolved shall be submitted to binding arbitration under the Construction Industry Rules of the AAA. Except for WT's claims for collection of unpaid invoices, concerning which WT shall be entitled to an award of its attorneys' fees and costs, in the event of any claim or dispute resolution proceeding arising out of the work, including the Agreement, each party shall bear its own attorneys' fees, expert and consultant fees, and costs, and each party expressly waives the application of any statute, rule or law entitling the prevailing party to any award of attorneys' fees, expert or consultant fees, or costs.

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