

# Accreditation/Certification Summary

Client: Spokane Environmental Solutions LLC  
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

## Laboratory: Eurofins TestAmerica, Spokane

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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## Laboratory: Eurofins TestAmerica, Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	DoD / DOE		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

# Method Summary

Client: Spokane Environmental Solutions LLC  
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL SPK
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
6020B	Metals (ICP/MS)	SW846	TAL SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
5030C	Purge and Trap	SW846	TAL SPK

**Protocol References:**

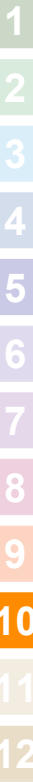
NWTPH = Northwest Total Petroleum Hydrocarbon

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

**Laboratory References:**

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



**TestAmerica Spokane**  
 11922 East 1st Ave  
 Spokane, WA 99206  
 Phone (509) 924-9200 Fax (509) 924-9290

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sampler: <b>GP</b>	Lab ID#	Client Tracking Note:	CDC No:									
Client Contact: <b>Gary Panther</b>		Phone: <b>509-954-5090</b>	Arrington, Randee E		590-4399-1421.1									
Company: <b>Spokane Environmental Solutions LLC</b>			E-Mail: <b>randee.arrington@testamericainc.com</b>		Page: <b>Page 1 of 1</b>									
Address: <b>3810 E. Boone Avenue Suite #101</b>		Due Date Requested:	<b>Analysis Requested</b> Field Filled Sample (Yes or No) <input type="checkbox"/> Perform MS/MSD (Yes or No) <input type="checkbox"/> 8228B - Arsenic 8270D, SIM - Polycyclic Aromatic Hydrocarbons 8266C - BTEX 8270L, SIM - Polycyclic Aromatic Hydrocarbons 8270H, Dx - DRD and RRO 8266C - BTEX 8270D, SIM - Polycyclic Aromatic Hydrocarbons		<b>Preservation Codes:</b> A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)									
City: <b>Spokane</b>		TAT Requested (days):				<b>Job #:</b> Total Number of Containers:								
State, Zip: <b>WA, 99202</b>		PO #:												
Phone: <b>509-954-5090 (Tel)</b>		Advance Payment Required												
Email: <b>gary@spokaneenvironmental.com</b>		WO #:												
Project Name: <b>S14 Burn Pits</b>		Project #: <b>59001518</b>	<b>Special Instructions/Note:</b>											
Site: <b>S14 Burn Pits</b>		SSOW#:												
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastolat)	Preservation Code	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	8228B - Arsenic	8270D, SIM - Polycyclic Aromatic Hydrocarbons	8266C - BTEX	8270L, SIM - Polycyclic Aromatic Hydrocarbons	8270H, Dx - DRD and RRO	8266C - BTEX	8270D, SIM - Polycyclic Aromatic Hydrocarbons
<b>mw-14b</b>	<b>3-26-19</b>	<b>1400</b>	<b>G</b>	<b>Water</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>							
<b>mw-13b</b>		<b>1445</b>	<b>G</b>	<b>Water</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>							
<b>mw-8b</b>		<b>1530</b>	<b>G</b>	<b>Water</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>							
<b>mw-7</b>		<b>1615</b>	<b>G</b>	<b>Water</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>							
				<b>Water</b>		<input type="checkbox"/>	<input type="checkbox"/>							



**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/OC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: *[Signature]* Date/Time: **3-26-19 1807** Company: **SES** Received by: *[Signature]* Date/Time: **3-26-19 1707** Company: **TA SP**

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: **12.6°C Freeze**



## Login Sample Receipt Checklist

Client: Spokane Environmental Solutions LLC

Job Number: 590-10668-1

**Login Number: 10668**  
**List Number: 1**  
**Creator: O'Toole, Maria C**

**List Source: Eurofins TestAmerica, Spokane**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	Received same day of collection; chilling process has begun.
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.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



## Login Sample Receipt Checklist

Client: Spokane Environmental Solutions LLC

Job Number: 590-10668-1

**Login Number: 10668**  
**List Number: 2**  
**Creator: Hobbs, Kenneth F**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 03/30/19 09:17 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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	IR5=-0.2/-0.1
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 (excluding tests with immediate HTs)	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**SITE ASSESSMENT REPORT**  
**Spokane International Airport**  
Spokane, WA

**APPENDIX C**

Response to Comments Received from Ecology on Draft Site Assessment Report



**Appendix C Table 1  
 Response to Ecology Comments of 30 July 2024  
 Regarding Draft Site Assessment Report**

Spokane International Airport  
 Spokane, WA

ECOLOGY COMMENT NO.	DOCUMENT SECTION NO.	ECOLOGY COMMENT	RESPONSE
<b>Main Body – Revised Text Comments</b>			
1	2.2	Please correct the formatting errors.	Corrected.
2	2.5	Please complete the final sentence.	The complete sentence has been revised.
3	4.1.1	Please note that not all airports transitioned to C6 foam.	Sentence has been revised.
4	4.2.2	Page 15, first full paragraph: Please correct the volume for the 1,500- gallon truck.	Corrected.
5	4.2.3	The text indicates “These fire trainings were not led by SIA nor was SIA ARFF equipment used.” Ecology finds it difficult to accept this assertion when SIA’s institutional knowledge only goes back to 1999.	The institutional knowledge retained by SIA is not strictly limited to a finite date but rather to what is documented or reliably recalled by former SIA personnel. In this instance, the former SIA Fire Chief was able to recall information he received upon starting his employment at SIA pertaining to fire training exercises held in the Joint Training Area.
6	6.2	Figure 6.1: Ecology is not aware that gas stations are potential sources of PFAS. The ITRC guidance indicates that uses of PFAS associated with the oil and gas industry are related to well production and drilling, neither of which is occurring at gas stations in the vicinity of the Spokane Airport.	The gas stations (Flying J, Harper Conoco, and Hilltop Conoco & Grocery) have all been removed and Figure 6.1 and Table 6.1 have been updated accordingly.
7	7.2	Please correct the references that are switched in Appendix B2, with AECOM 2017b first and AECOM 2017a following (mislabelled).	Corrected.
8	10.0	If the fuel farm has a foam distribution system, the area should be included in the evaluation.	The fuel farm does not have a foam distribution system. While the fuel farm has the piping infrastructure in place for a foam distribution system, there is no foam reserve in place, nor have there been any past events where foam been used in the system.

Notes:

- 1) Table summarizes response to Ecology comments issued 30 July 2024, for the Draft Site Assessment Report dated 12 July 2024.
- 2) Document Section Number = Section number of the Draft Site Assessment Report submitted on 12 July 2024.



**Appendix C Table 1  
 Response to Ecology Comments of 30 July 2024  
 Regarding Draft Site Assessment Report**

Spokane International Airport  
 Spokane, WA

ECOLOGY COMMENT NO.	DOCUMENT SECTION NO.	ECOLOGY COMMENT	RESPONSE
<b><i>June 28, 2024 Comments from Ecology</i></b>			
1	Comment #31	The comment was not addressed. Please include the complete ERIS environmental data package as an appendix to the report or indicate that the complete ERIS environmental data package will be included in the draft Remedial Investigation Work Plan.	The ERIS package will be included in the draft Remedial Investigation Work Plan.
2	Comment #32	The comment was not addressed. However, Ecology is amenable to including a preliminary assessment of groundwater flow direction in the draft Preliminary PFAS Investigation Work Plan.	We appreciate Ecology's consideration on this topic - flow directions will be presented in the Preliminary PFAS Investigation Work Plan.
3	Comment #33	The comment was not addressed. The data gaps listed in section 3.4 are listed as "the foundation for building the Preliminary PFAS Investigation Workplan." Please redefine the purpose of this section or include nature and extent of contamination as a data gap.	We have revised to indicate that the listed data gaps are specific lines of inquiry. An additional sentence has been added to reflect that this information goes to support both the Preliminary PFAS Investigation Work Plan and the Remedial Investigation Work Plan to characterize the nature and extent of any PFAS contamination on the Site.

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**Appendix C Table 1  
 Response to Ecology Comments of 30 July 2024  
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Spokane International Airport  
 Spokane, WA

ECOLOGY COMMENT NO.	DOCUMENT SECTION NO.	ECOLOGY COMMENT	RESPONSE
4	Comment #55	<p>Ecology recognizes that all information regarding the stormwater system on site may not be available at this time; a comprehensive discussion of this topic will be expected in the draft Remedial Investigation Work Plan.</p> <p>Reports in Appendix B indicate that deicer is considered a likely source of PFAS impacts to groundwater from Alpha Outfall, but this is not discussed in Section 5.1. Please discuss the components of the airport's deicer or indicate further discussion of deicer will be included in the draft Remedial Investigation Work Plan.</p>	<p>A discussion of the stormwater system will be included in the RI Work Plan.</p> <p>The mention of deicer fluid in Appendix B.2 (AECOM, 2017a) states that, "these chemicals include aviation-related products such as lubricants, hydraulic oils, detergents, firefighting agents and deicing compounds" (page 2 of the report). The statement provides no reference for the assertion of PFAS in deicer fluids, either for general use in aviation or, specifically, as a component in the deicing fluid used by SIA.</p> <p>There were past assertions that aircraft deicing fluids contained PFAS however several reports have shown that aircraft deicer fluids do not contain PFAS:</p> <ul style="list-style-type: none"> <li>•In 2012, the U.S. EPA identified surfactants used in aircraft deicing and anti-icing fluid (ADF) none of which are fluorinated, and hence not PFAS. (<a href="https://www.epa.gov/sites/default/files/2015-06/documents/airport-deicing_environmental-impact-and-benefit-assessment-final-2012.pdf">https://www.epa.gov/sites/default/files/2015-06/documents/airport-deicing_environmental-impact-and-benefit-assessment-final-2012.pdf</a>).</li> <li>•ITRC PFAS Guidance does not list ADF as a PFAS source.</li> <li>•Additional reports from the National Academies (<a href="https://nap.nationalacademies.org/catalog/23325/formulations-for-aircraft-and-airfield-deicing-and-anti-icing-aquatic-toxicity-and-biochemical-oxygen-demand">https://nap.nationalacademies.org/catalog/23325/formulations-for-aircraft-and-airfield-deicing-and-anti-icing-aquatic-toxicity-and-biochemical-oxygen-demand</a>) and the Transportation Research Board's Airport Cooperative Research Program (ACRP) (<a href="https://nap.nationalacademies.org/catalog/22962/alternative-aircraft-anti-icing-formulations-with-reduced-aquatic-toxicity-and-biochemical-oxygen-demand">https://nap.nationalacademies.org/catalog/22962/alternative-aircraft-anti-icing-formulations-with-reduced-aquatic-toxicity-and-biochemical-oxygen-demand</a>) further support that ADF is not a source of PFAS.</li> </ul> <p>A statement has been added to the main report (Section 5.1) to indicate that ADF is not a source of PFAS.</p>

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Spokane International Airport  
 Spokane, WA

ECOLOGY COMMENT NO.	DOCUMENT SECTION NO.	ECOLOGY COMMENT	RESPONSE
5	Comment #57	The reports in Appendix B indicate that groundwater flow direction at the airport has been studied to support the Stormwater Discharge Permit. Please provide a short, preliminary description of groundwater flow direction in this report.	Information on groundwater flow direction has been added to Section 5.1 for the two areas studied: Land Treatment Area and the Stormwater Recovery Area.
<b>Appendix A</b>			
1	3	Section 3 and throughout Appendix A: The word “hydrologically” typically refers to surface water. Presumably this should say “hydrogeologically,” when the section is discussing hydrogeology. Please revise.	Corrected.
2	3.1.1	More than 350 lava flows comprise the CRBG (rather than “the CBRG comprises more than 350 lava flows”). Please revise.	Revised.
3	Comment #19	This comment was not addressed. Information on the paleochannels is included in existing references and needs to be discussed along with the rest of the geologic context.	This section has been expanded upon to include information pertaining to paleochannels in the West Plains including the addition of approximated paleochannel locations on Figure 1. Additionally, subsections describing the two paleochannels nearest to the Site (to the west and to the northeast) have been added. The paleochannel to the west of the Site has been studied more extensively and information structure, groundwater flow direction and hydraulic conductivity was added. The paleochannel to the northeast of the Site has not been studied as extensively, so existing information on structure and potential unconfined aquifer thickness was added but additional information on this paleochannel is needed to understand the hydrogeology in the area.
4	Comment #26	This comment was not addressed. Please put the geochemical dating of groundwater in the area within context, as has been discussed in literature.	This section has been expanded upon to include the conclusions of both NLW, 2012 and NLW, 2014. These studies included isotope age dating of select wells in the West Plains and Lower Hangman Creek watershed and concluded that while basalt hosted aquifer water is significantly older than paleochannel water, there is some influence of ‘younger’ water mixing at depth.

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