



**GALSON**

**James Johnston  
Brigham Young University  
2045 Life Sciences Building  
Provo, UT 84602**

**September 22, 2023**

**Account# 38642**

**Login# L605062**

**Dear James Johnston:**

**Enclosed are the analytical results for the samples received by our laboratory on September 15, 2023. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.**

**Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.**

**Sincerely,**

**SGS Galson**

A handwritten signature in black ink that reads 'Lisa Swab'. The signature is written in a cursive, flowing style.

**Lisa Swab  
Laboratory Director**

**Enclosure(s)**

### Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

### Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at [www.sgsgalson.com](http://www.sgsgalson.com).
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

**Accreditations** SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgsgalson.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

### Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



# GALSON

## LABORATORY ANALYSIS REPORT

6601 Kirkville Road  
East Syracuse, NY 13057  
(315) 432-5227  
FAX: (315) 437-0571  
www.sgsgalson.com

Client : Brigham Young University  
Site : UTAH COUNTY  
Project No. : WILDFIRE STUDY  
Date Sampled : 10-AUG-23 - 31-AUG-23  
Date Received : 15-SEP-23

Account No.: 38642  
Login No. : L605062  
Date Analyzed : 20-SEP-23 - 21-SEP-23  
Report ID : 1381243

### Ozone

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>	<u>ppm</u>
63	L605062-1	679.88078	30	4.0	*34	*0.050	*0.025
64	L605062-2	698.43799	25	<4.0	25	0.036	0.018
65	L605062-3	695.24409	<4.0	<4.0	<4.0	<0.0058	<0.0029
66	L605062-4	686.59229	26	<4.0	26	0.037	0.019
67	L605062-5	712.35449	<4.0	<4.0	<4.0	<0.0056	<0.0029
68	L605062-6	697.22972	40	4.6	*45	*0.064	*0.033
69	L605062-7	702.83687	<4.0	<4.0	<4.0	<0.0057	<0.0029
70	L605062-8	695.64719	43	<4.0	43	0.062	0.032
71	L605062-9	704.2613	<4.0	<4.0	<4.0	<0.0057	<0.0029
72	L605062-10	704.98356	24	<4.0	24	0.034	0.018
73	L605062-11	703.1821	<4.0	<4.0	<4.0	<0.0057	<0.0029
74	L605062-12	704.3387	27	<4.0	27	0.039	0.020
75	L605062-13	679.53239	<4.0	<4.0	<4.0	<0.0059	<0.0030
76	L605062-14	693.16514	28	<4.0	28	0.041	0.021
77	L605062-15	712.23444	20	<4.0	20	0.028	0.014
78	L605062-16	714.14589	31	<4.0	31	0.044	0.022

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 4.0 ug  
Analytical Method : mod. OSHA ID-214; IC  
Collection Media : 2 Trtd 37mm GFF

Submitted by: KJA  
Date : 22-SEP-23  
Supervisor : MCM

Approved by: KLS



# GALSON

## LABORATORY ANALYSIS REPORT

6601 Kirkville Road  
East Syracuse, NY 13057  
(315) 432-5227  
FAX: (315) 437-0571  
www.sgsgalson.com

Client : Brigham Young University  
Site : UTAH COUNTY  
Project No. : WILDFIRE STUDY  
Date Sampled : 10-AUG-23 - 31-AUG-23  
Date Received : 15-SEP-23

Account No.: 38642  
Login No. : L605062  
Date Analyzed : 20-SEP-23 - 21-SEP-23  
Report ID : 1381243

### Ozone

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mq/m3</u>	<u>ppm</u>
79	L605062-17	714.69531	31	<4.0	31	0.043	0.022
80	L605062-18	714.43327	<4.0	<4.0	<4.0	<0.0056	<0.0029
81	L605062-19	700.81829	6.6	<4.0	6.6	0.0094	0.0048
82	L605062-20	680.16083	29	4.2	*34	*0.049	*0.025
83	L605062-21	706.9958	22	<4.0	22	0.031	0.016
84	L605062-22	710.42003	24	<4.0	24	0.033	0.017
85	L605062-23	702.78493	<4.0	<4.0	<4.0	<0.0057	<0.0029
86	L605062-24	689.57706	<4.0	<4.0	<4.0	<0.0058	<0.0030
87	L605062-25	682.99039	35	<4.0	35	0.051	0.026
88	L605062-26	683.23975	22	6.4	*28	*0.041	*0.021
89	L605062-27	676.99876	39	5.8	*45	*0.066	*0.034
90	L605062-28	676.99876	<4.0	<4.0	<4.0	<0.0059	<0.0030
91	L605062-29	676.45422	39	5.6	*44	*0.065	*0.033

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 4.0 ug  
Analytical Method : mod. OSHA ID-214; IC  
Collection Media : 2 Trtd 37mm GFF

Submitted by: KJA  
Date : 22-SEP-23  
Supervisor : MCM

Approved by: KLS



# GALSON

## LABORATORY FOOTNOTE REPORT

6601 Kirkville Road  
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Client Name : Brigham Young University  
Site : UTAH COUNTY  
Project No. : WILDFIRE STUDY

Date Sampled : 10-AUG-23 - 31-AUG-23 Account No.: 38642  
Date Received: 15-SEP-23 Login No. : L605062  
Date Analyzed: 20-SEP-23 - 21-SEP-23

L605062 (Report ID: 1381243):

OZONE results have been corrected for the average background found on the media:  
front section = 1.1314 ug and back section = 1.1314 ug for lot #0476 (samples 26-29).  
front section = 1.0343 ug and back section = 1.0343 ug for lot #0474 (samples 1-6,8-9,15).  
SOPs: ii-oid214(19)  
Results reported as (\*) designate possible breakthrough or migration. Reported results may be biased low.

L605062 (Report ID: 1381243):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Ozone	+/-11.6%	97.7%



GALSON  
LABORATORIES

☐ New Client?

Report To\*: Jim Johnston

Client Account No.\*:

2045 Life Sciences Building  
Brigham Young University  
Provo, UT 84602

Phone No.\*: (801) 472-9661

Cell No.: (801) 472-9661

Email Results to: Seth Van Roosendaal

Email address: vanroosendaalsethm@gmail.com

Invoice To\*: Jim Johnston

2045 Life Sciences Building  
Brigham Young University  
Provo, UT 84602

Phone No.: (801) 472-9661

Email: james\_johnston@byu.edu

P.O. No.:

Credit Card: ☐ Card on File ☒ Call for Credit Card Info.

655700037580

Date: 09/15/23

Shipper: FEDEX

Initials: MMM



Prep: UNKNOWN

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)	Site Name: Utah County Project: Wildfire Study Sampled by: IEQ Team					
<input checked="" type="checkbox"/> Standard	0%	Comments: <b>★ All samples 37mm</b>					
<input type="checkbox"/> 4 Business Days	35%						
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%	List description of industry or Process/interferences present in sampling area:		State samples were collected in (e.g., NY) UT	Please indicate which OEL this data will be used for: <input type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):		
<input type="checkbox"/> Next Day by Noon	150%						
<input type="checkbox"/> Same Day	200%						
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
63	08/10/23	3pc Nitrate Treated GFF	679.88078	L	Ozone	Mod OSHA ID-214	
64	08/10/23	3pc Nitrate Treated GFF	698.43799	L	Ozone	Mod OSHA ID-214	
65	08/10/23	3pc Nitrate Treated GFF	695.24409	L	Ozone	Mod OSHA ID-214	
66	08/10/23	3pc Nitrate Treated GFF	686.59229	L	Ozone	Mod OSHA ID-214	
67	08/14/23	3pc Nitrate Treated GFF	712.35449	L	Ozone	Mod OSHA ID-214	
68	08/14/23	3pc Nitrate Treated GFF	697.22972	L	Ozone	Mod OSHA ID-214	
69	08/15/23	3pc Nitrate Treated GFF	702.83687	L	Ozone	Mod OSHA ID-214	
70	08/15/23	3pc Nitrate Treated GFF	695.64719	L	Ozone	Mod OSHA ID-214	
71	08/21/23	3pc Nitrate Treated GFF	704.26130	L	Ozone	Mod OSHA ID-214	
72	08/21/23	3pc Nitrate Treated GFF	704.98356	L	Ozone	Mod OSHA ID-214	
73	08/21/23	3pc Nitrate Treated GFF	703.18210	L	Ozone	Mod OSHA ID-214	

^Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*:

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by:	Seth Van Roosendaal	09/13/23	15:09	Megan M. McGrath	9/15/23	16:10
Relinquished by:						

Page 6 of 8  
\* Required fields, failure to complete these fields may result in a delay in your samples being processed.  
Report Reference: 1 Generated: 22-SEP-23 17:06

Page 1 of 3



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Tel: (315) 432-5227  
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☐ New Client?

Client Account No.:

Report To\*: **Jim Johnston**

**2045 Life Sciences Building**  
**Brigham Young University**  
**Provo, UT 84602**

Phone No.: **(801) 472-9661**

Cell No.: **(801) 472-9661**

Email Results to: **Seth Van Roosendaal**

Email address: **vanroosendaalsethm@gmail.com**

Invoice To\*: **Jim Johnston**

**2045 Life Sciences Building**  
**Brigham Young University**  
**Provo, UT 84602**

Phone No.: **(801) 472-9661**

Email: **james\_johnston@byu.edu**

P.O. No.:

Credit Card: ☐ Card on File ☒ Call for Credit Card Info.

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)						
<input checked="" type="checkbox"/> Standard	0%	Site Name: <b>Utah County</b> Project: <b>Wildfire Study</b> Sampled by: <b>IEQ Team</b>					
<input type="checkbox"/> 4 Business Days	35%	Comments:					
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%	List description of industry or Process/interferences present in sampling area:		State samples were collected in (e.g., NY) <b>UT</b>		Please indicate which OEL this data will be used for: <input type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):	
<input type="checkbox"/> Same Day	200%						
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
74	08/21/23	3pc Nitrate Treated GFF	704.33870	L	Ozone	Mod OSHA ID-214	
75	08/21/23	3pc Nitrate Treated GFF	679.53239	L	Ozone	Mod OSHA ID-214	
76	08/21/23	3pc Nitrate Treated GFF	693.16514	L	Ozone	Mod OSHA ID-214	
77	08/28/23	3pc Nitrate Treated GFF	712.23444	L	Ozone	Mod OSHA ID-214	
78	08/28/23	3pc Nitrate Treated GFF	714.14589	L	Ozone	Mod OSHA ID-214	
79	08/24/23	3pc Nitrate Treated GFF	714.69531	L	Ozone	Mod OSHA ID-214	
80	08/24/23	3pc Nitrate Treated GFF	714.43327	L	Ozone	Mod OSHA ID-214	
81	08/28/23	3pc Nitrate Treated GFF	700.81829	L	Ozone	Mod OSHA ID-214	
82	08/28/23	3pc Nitrate Treated GFF	680.16083	L	Ozone	Mod OSHA ID-214	
83	08/28/23	3pc Nitrate Treated GFF	706.99580	L	Ozone	Mod OSHA ID-214	
84	08/28/23	3pc Nitrate Treated GFF	710.42003	L	Ozone	Mod OSHA ID-214	

\*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*:

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	Seth Van Roosendaal	09/13/23	15:09	Received by:	Megan M. McGrath	9/10/23	16:10
Relinquished by:				Received by:			

Page 7 of 8  
\* Required fields, failure to complete these fields may result in a delay in your samples being processed.  
Report Reference: 1 Generated: 22-SEP-23 17:06

Page 2 of 3



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Email Results to: **Seth Van Roosendaal**

Email address: **vanroosendaalsethm@gmail.com**

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Email: **james\_johnston@byu.edu**

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Credit Card: ☐ Card on File ☒ Call for Credit Card Info.

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)						
<input checked="" type="checkbox"/> Standard	0%	Site Name : <b>Utah County</b> Project : <b>Wildfire Study</b> Sampled by : <b>IEQ Team</b>					
<input type="checkbox"/> 4 Business Days	35%	Comments : <b>* - Did not receive "92" until 9/15/23 verified. KO 9/15/23</b>					
<input type="checkbox"/> 3 Business Days	50%	List description of industry or Process/interferences present in sampling area :  State samples were collected in (e.g., NY) <b>UT</b> Please indicate which OEL this data will be used for : <input type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):					
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%						
<input type="checkbox"/> Same Day	200%						
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
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86	08/31/23	3pc Nitrate Treated GFF	689.57706	L	Ozone	Mod OSHA ID-214	
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89	08/31/23	3pc Nitrate Treated GFF	676.99876	L	Ozone	Mod OSHA ID-214	
90	08/31/23	3pc Nitrate Treated GFF	676.99876	L	Ozone	Mod OSHA ID-214	
91	08/31/23	3pc Nitrate Treated GFF	676.45422	L	Ozone	Mod OSHA ID-214	
* 92	08/31/23	3pc Nitrate Treated GFF	672.92970	L	Ozone	Mod OSHA ID-214	

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Chain of Custody	Print Name/Signature	Date	Time	Received by :	Print Name/Signature	Date	Time
Relinquished by :	<b>Seth Van Roosendaal</b>	09/13/23	15:09	Received by :	<b>Megan M. McGrath</b>	9/15/23	16:10
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business  
\* Required fields, failure to complete these fields may result in a delay in your samples being processed.