

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

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August 30, 2021

Jeremy Porter, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Porter:

Included are the results from the testing of material submitted on August 25, 2021 from the Spic'N Span 060172, F&BI 108405 project. There are 15 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP0830R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 25, 2021 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Spic'N Span 060172, F&BI 108405 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
108405 -01	VGAC-1-EFF-082521
108405 -02	VGAC-1-INF-082521

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

Individually certified canisters were provided for TO-15 sampling.

The concentration of several analytes exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-EFF-082521	Client:	Aspect Consulting, LLC
Date Received:	08/25/21	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	08/25/21	Lab ID:	108405-01 1/5.8
Date Analyzed:	08/26/21	Data File:	082616.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,600
APH EC9-12 aliphatics	1,500
APH EC9-10 aromatics	340

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-INF-082521	Client:	Aspect Consulting, LLC
Date Received:	08/25/21	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	08/25/21	Lab ID:	108405-02 1/8.4
Date Analyzed:	08/26/21	Data File:	082619.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	117	70	130

	Concentration
Compounds:	ug/m3
APH EC9-10 aromatics	810

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-INF-082521	Client:	Aspect Consulting, LLC
Date Received:	08/25/21	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	08/25/21	Lab ID:	108405-02 1/42
Date Analyzed:	08/26/21	Data File:	082618.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	103	70	130

	Concentration
Compounds:	ug/m3

APH EC5-8 aliphatics	18,000
APH EC9-12 aliphatics	84,000 ve

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	Not Applicable	Lab ID:	01-1867 MB
Date Analyzed:	08/26/21	Data File:	082611.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VGAC-1-EFF-082521	Client:	Aspect Consulting, LLC
Date Received:	08/25/21	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	08/25/21	Lab ID:	108405-01 1/5.8
Date Analyzed:	08/26/21	Data File:	082616.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
Surrogates:			
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<7	<4.1	1,2-Dichloropropane	<1.3	<0.29
Dichlorodifluoromethane	6.3	1.3	1,4-Dioxane	<2.1	<0.58
Chloromethane	<22	<10	2,2,4-Trimethylpentane	<27	<5.8
F-114	<4.1	<0.58	Methyl methacrylate	<24	<5.8
Vinyl chloride	7.4	2.9	Heptane	<24	<5.8
1,3-Butadiene	<0.26	<0.12	Bromodichloromethane	<0.39	<0.058
Butane	110	44	Trichloroethene	<0.62	<0.12
Bromomethane	<14	<3.5	cis-1,3-Dichloropropene	<2.6	<0.58
Chloroethane	<15	<5.8	4-Methyl-2-pentanone	55	13
Vinyl bromide	<2.5	<0.58	trans-1,3-Dichloropropene	<2.6	<0.58
Ethanol	<44	<23	Toluene	160	43
Acrolein	<0.66	<0.29	1,1,2-Trichloroethane	<0.32	<0.058
Pentane	<17	<5.8	2-Hexanone	<24	<5.8
Trichlorofluoromethane	<13	<2.3	Tetrachloroethene	<39	<5.8
Acetone	2,000 ve	820 ve	Dibromochloromethane	<0.49	<0.058
2-Propanol	120	50	1,2-Dibromoethane (EDB)	<0.45	<0.058
1,1-Dichloroethene	<2.3	<0.58	Chlorobenzene	<2.7	<0.58
trans-1,2-Dichloroethene	<2.3	<0.58	Ethylbenzene	76	18
Methylene chloride	<200	<58	1,1,2,2-Tetrachloroethane	<0.8	<0.12
t-Butyl alcohol (TBA)	<70	<23	Nonane	100	19
3-Chloropropene	<9.1	<2.9	Isopropylbenzene	<14	<2.9
CFC-113	<4.4	<0.58	2-Chlorotoluene	<30	<5.8
Carbon disulfide	<36	<12	Propylbenzene	<14	<2.9
Methyl t-butyl ether (MTBE)	<10	<2.9	4-Ethyltoluene	<14	<2.9
Vinyl acetate	<41	<12	m,p-Xylene	300	70
1,1-Dichloroethane	<2.3	<0.58	o-Xylene	83	19
cis-1,2-Dichloroethene	<2.3	<0.58	Styrene	23	5.4
Hexane	<20	<5.8	Bromoform	<12	<1.2
Chloroform	0.62	0.13	Benzyl chloride	0.39	0.075
Ethyl acetate	<42	<12	1,3,5-Trimethylbenzene	<14	<2.9
Tetrahydrofuran	4.1	1.4	1,2,4-Trimethylbenzene	31	6.2
2-Butanone (MEK)	<17	<5.8	1,3-Dichlorobenzene	42	6.9
1,2-Dichloroethane (EDC)	0.45	0.11	1,4-Dichlorobenzene	<1.3	<0.22
1,1,1-Trichloroethane	<3.2	<0.58	1,2-Dichlorobenzene	<3.5	<0.58
Carbon tetrachloride	<1.8	<0.29	1,2,4-Trichlorobenzene	<4.3	<0.58
Benzene	<1.9	<0.58	Naphthalene	50	9.6
Cyclohexane	<40	<12	Hexachlorobutadiene	<1.2	<0.12

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### Analysis For Volatile Compounds By Method TO-15

Client Sample ID: VGAC-1-INF-082521	Client: Aspect Consulting, LLC
Date Received: 08/25/21	Project: Spic'N Span 060172, F&BI 108405
Date Collected: 08/25/21	Lab ID: 108405-02 1/8.4
Date Analyzed: 08/26/21	Data File: 082619.D
Matrix: Air	Instrument: GCMS7
Units: ug/m3	Operator: bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	115	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<10	<5.9	1,2-Dichloropropane	3.9	0.85
Dichlorodifluoromethane	5.2	1.0	1,4-Dioxane	<3	<0.84
Chloromethane	<31	<15	2,2,4-Trimethylpentane	<39	<8.4
F-114	<5.9	<0.84	Methyl methacrylate	<34	<8.4
Vinyl chloride	7.5	2.9	Heptane	<34	<8.4
1,3-Butadiene	<0.37	<0.17	Bromodichloromethane	<0.56	<0.084
Butane	140	61	Trichloroethene	560	110
Bromomethane	<20	<5	cis-1,3-Dichloropropene	<3.8	<0.84
Chloroethane	<22	<8.4	4-Methyl-2-pentanone	55	14
Vinyl bromide	<3.7	<0.84	trans-1,3-Dichloropropene	<3.8	<0.84
Ethanol	<63	<34	Toluene	<160	<42
Acrolein	10	4.5	1,1,2-Trichloroethane	<0.46	<0.084
Pentane	34	11	2-Hexanone	<34	<8.4
Trichlorofluoromethane	<19	<3.4	Tetrachloroethene	15,000 ve	2,200 ve
Acetone	1,900 ve	800 ve	Dibromochloromethane	<0.72	<0.084
2-Propanol	100	42	1,2-Dibromoethane (EDB)	<0.65	<0.084
1,1-Dichloroethene	<3.3	<0.84	Chlorobenzene	<3.9	<0.84
trans-1,2-Dichloroethene	17	4.3	Ethylbenzene	62	14
Methylene chloride	<290	<84	1,1,2,2-Tetrachloroethane	<1.2	<0.17
t-Butyl alcohol (TBA)	<100	<34	Nonane	150	28
3-Chloropropene	<13	<4.2	Isopropylbenzene	<21	<4.2
CFC-113	<6.4	<0.84	2-Chlorotoluene	<43	<8.4
Carbon disulfide	200	64	Propylbenzene	22	4.4
Methyl t-butyl ether (MTBE)	<15	<4.2	4-Ethyltoluene	<21	<4.2
Vinyl acetate	91	26	m,p-Xylene	240	54
1,1-Dichloroethane	<3.4	<0.84	o-Xylene	66	15
cis-1,2-Dichloroethene	300	75	Styrene	27	6.3
Hexane	<30	<8.4	Bromoform	<17	<1.7
Chloroform	18	3.6	Benzyl chloride	<0.43	<0.084
Ethyl acetate	<61	<17	1,3,5-Trimethylbenzene	21	4.3
Tetrahydrofuran	30	10	1,2,4-Trimethylbenzene	48	9.8
2-Butanone (MEK)	60	20	1,3-Dichlorobenzene	36	6.0
1,2-Dichloroethane (EDC)	21	5.2	1,4-Dichlorobenzene	<1.9	<0.32
1,1,1-Trichloroethane	<4.6	<0.84	1,2-Dichlorobenzene	<5.1	<0.84
Carbon tetrachloride	<2.6	<0.42	1,2,4-Trichlorobenzene	<6.2	<0.84
Benzene	12	3.9	Naphthalene	58	11
Cyclohexane	<58	<17	Hexachlorobutadiene	<1.8	<0.17



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## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID: VGAC-1-INF-082521	Client: Aspect Consulting, LLC
Date Received: 08/25/21	Project: Spic'N Span 060172, F&BI 108405
Date Collected: 08/25/21	Lab ID: 108405-02 1/42
Date Analyzed: 08/26/21	Data File: 082618.D
Matrix: Air	Instrument: GCMS7
Units: ug/m3	Operator: bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<51	<29	1,2-Dichloropropane	<9.7	<2.1
Dichlorodifluoromethane	<21	<4.2	1,4-Dioxane	<15	<4.2
Chloromethane	<160	<76	2,2,4-Trimethylpentane	<200	<42
F-114	<29	<4.2	Methyl methacrylate	<170	<42
Vinyl chloride	<11	<4.2	Heptane	<170	<42
1,3-Butadiene	<1.9	<0.84	Bromodichloromethane	<2.8	<0.42
Butane	<200	<84	Trichloroethene	700	130
Bromomethane	<98	<25	cis-1,3-Dichloropropene	<19	<4.2
Chloroethane	<110	<42	4-Methyl-2-pentanone	<170	<42
Vinyl bromide	<18	<4.2	trans-1,3-Dichloropropene	<19	<4.2
Ethanol	<320	<170	Toluene	<790	<210
Acrolein	13	5.8	1,1,2-Trichloroethane	<2.3	<0.42
Pentane	<120	<42	2-Hexanone	<170	<42
Trichlorofluoromethane	<94	<17	Tetrachloroethene	17,000 ve	2,600 ve
Acetone	2,400 ve	1,000 ve	Dibromochloromethane	<3.6	<0.42
2-Propanol	<360	<150	1,2-Dibromoethane (EDB)	<3.2	<0.42
1,1-Dichloroethene	<17	<4.2	Chlorobenzene	<19	<4.2
trans-1,2-Dichloroethene	22	5.5	Ethylbenzene	78	18
Methylene chloride	<1,500	<420	1,1,2,2-Tetrachloroethane	<5.8	<0.84
t-Butyl alcohol (TBA)	<510	<170	Nonane	<220	<42
3-Chloropropene	<66	<21	Isopropylbenzene	<100	<21
CFC-113	<32	<4.2	2-Chlorotoluene	<220	<42
Carbon disulfide	<260	<84	Propylbenzene	<100	<21
Methyl t-butyl ether (MTBE)	<76	<21	4-Ethyltoluene	<100	<21
Vinyl acetate	<300	<84	m,p-Xylene	290	68
1,1-Dichloroethane	<17	<4.2	o-Xylene	83	19
cis-1,2-Dichloroethene	380	96	Styrene	<36	<8.4
Hexane	<150	<42	Bromoform	<87	<8.4
Chloroform	23	4.7	Benzyl chloride	<2.2	<0.42
Ethyl acetate	<300	<84	1,3,5-Trimethylbenzene	<100	<21
Tetrahydrofuran	39	13	1,2,4-Trimethylbenzene	<100	<21
2-Butanone (MEK)	<120	<42	1,3-Dichlorobenzene	43	7.2
1,2-Dichloroethane (EDC)	27	6.7	1,4-Dichlorobenzene	<9.6	<1.6
1,1,1-Trichloroethane	<23	<4.2	1,2-Dichlorobenzene	<25	<4.2
Carbon tetrachloride	<13	<2.1	1,2,4-Trichlorobenzene	<31	<4.2
Benzene	17	5.3	Naphthalene	62	12
Cyclohexane	<290	<84	Hexachlorobutadiene	<9	<0.84

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Spic'N Span 060172, F&BI 108405
Date Collected:	Not Applicable	Lab ID:	01-1867 MB
Date Analyzed:	08/26/21	Data File:	082611.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<1.2	<0.7	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<4.8	<2	Trichloroethene	<0.11	<0.02
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<19	<5
Acrolein	<0.11	<0.05	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.6	<0.5	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.59	<0.2	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/21

Date Received: 08/25/21

Project: Spic'N Span 060172, F&BI 108405

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 108405-01 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	1,600	1,800	12
APH EC9-12 aliphatics	ug/m3	1,500	1,400	7
APH EC9-10 aromatics	ug/m3	340	340	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	91	70-130
APH EC9-12 aliphatics	ug/m3	67	121	70-130
APH EC9-10 aromatics	ug/m3	67	106	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/21

Date Received: 08/25/21

Project: Spic'N Span 060172, F&BI 108405

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 108405-01 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<7	<7	nm
Dichlorodifluoromethane	ug/m3	6.3	6.4	2
Chloromethane	ug/m3	<22	<22	nm
F-114	ug/m3	<4.1	<4.1	nm
Vinyl chloride	ug/m3	7.4	7.2	3
1,3-Butadiene	ug/m3	<0.26	<0.26	nm
Butane	ug/m3	110	100	10
Bromomethane	ug/m3	<14	<14	nm
Chloroethane	ug/m3	<15	<15	nm
Vinyl bromide	ug/m3	<2.5	<2.5	nm
Ethanol	ug/m3	<44	44	nm
Acrolein	ug/m3	<0.66	<0.66	nm
Pentane	ug/m3	<17	<17	nm
Trichlorofluoromethane	ug/m3	<13	<13	nm
Acetone	ug/m3	2,000	1,900	5
2-Propanol	ug/m3	120	120	0
1,1-Dichloroethene	ug/m3	<2.3	<2.3	nm
trans-1,2-Dichloroethene	ug/m3	<2.3	<2.3	nm
Methylene chloride	ug/m3	<200	<200	nm
t-Butyl alcohol (TBA)	ug/m3	<70	<70	nm
3-Chloropropene	ug/m3	<9.1	<9.1	nm
CFC-113	ug/m3	<4.4	<4.4	nm
Carbon disulfide	ug/m3	<36	<36	nm
Methyl t-butyl ether (MTBE)	ug/m3	<10	<10	nm
Vinyl acetate	ug/m3	<41	<41	nm
1,1-Dichloroethane	ug/m3	<2.3	<2.3	nm
cis-1,2-Dichloroethene	ug/m3	<2.3	<2.3	nm
Hexane	ug/m3	<20	<20	nm
Chloroform	ug/m3	0.62	0.59	5
Ethyl acetate	ug/m3	<42	<42	nm
Tetrahydrofuran	ug/m3	4.1	4.0	2
2-Butanone (MEK)	ug/m3	<17	<17	nm
1,2-Dichloroethane (EDC)	ug/m3	0.45	0.45	0
1,1,1-Trichloroethane	ug/m3	<3.2	<3.2	nm
Carbon tetrachloride	ug/m3	<1.8	<1.8	nm
Benzene	ug/m3	<1.9	<1.9	nm
Cyclohexane	ug/m3	<40	<40	nm
1,2-Dichloropropane	ug/m3	<1.3	<1.3	nm
1,4-Dioxane	ug/m3	<2.1	<2.1	nm
2,2,4-Trimethylpentane	ug/m3	<27	<27	nm

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/21

Date Received: 08/25/21

Project: Spic'N Span 060172, F&BI 108405

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 108405-01 1/5.8 (Duplicate) (continued)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<24	<24	nm
Heptane	ug/m3	<24	<24	nm
Bromodichloromethane	ug/m3	<0.39	<0.39	nm
Trichloroethene	ug/m3	<0.62	<0.62	nm
cis-1,3-Dichloropropene	ug/m3	<2.6	<2.6	nm
4-Methyl-2-pentanone	ug/m3	55	61	10
trans-1,3-Dichloropropene	ug/m3	<2.6	<2.6	nm
Toluene	ug/m3	160	160	0
1,1,2-Trichloroethane	ug/m3	<0.32	<0.32	nm
2-Hexanone	ug/m3	<24	<24	nm
Tetrachloroethene	ug/m3	<39	<39	nm
Dibromochloromethane	ug/m3	<0.49	<0.49	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.45	<0.45	nm
Chlorobenzene	ug/m3	<2.7	<2.7	nm
Ethylbenzene	ug/m3	76	75	1
1,1,2,2-Tetrachloroethane	ug/m3	<0.8	<0.8	nm
Nonane	ug/m3	100	100	0
Isopropylbenzene	ug/m3	<14	<14	nm
2-Chlorotoluene	ug/m3	<30	<30	nm
Propylbenzene	ug/m3	<14	<14	nm
4-Ethyltoluene	ug/m3	<14	<14	nm
m,p-Xylene	ug/m3	300	300	0
o-Xylene	ug/m3	83	83	0
Styrene	ug/m3	23	22	4
Bromoform	ug/m3	<12	<12	nm
Benzyl chloride	ug/m3	0.39	0.33	17
1,3,5-Trimethylbenzene	ug/m3	<14	<14	nm
1,2,4-Trimethylbenzene	ug/m3	31	31	0
1,3-Dichlorobenzene	ug/m3	42	42	0
1,4-Dichlorobenzene	ug/m3	<1.3	<1.3	nm
1,2-Dichlorobenzene	ug/m3	<3.5	<3.5	nm
1,2,4-Trichlorobenzene	ug/m3	<4.3	<4.3	nm
Naphthalene	ug/m3	50	54	8
Hexachlorobutadiene	ug/m3	<1.2	<1.2	nm

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/21

Date Received: 08/25/21

Project: Spic'N Span 060172, F&BI 108405

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ug/m3	23	116	70-130
Dichlorodifluoromethane	ug/m3	67	98	70-130
Chloromethane	ug/m3	28	97	70-130
F-114	ug/m3	94	98	70-130
Vinyl chloride	ug/m3	35	106	70-130
1,3-Butadiene	ug/m3	30	100	70-130
Butane	ug/m3	32	98	70-130
Bromomethane	ug/m3	52	109	70-130
Chloroethane	ug/m3	36	101	70-130
Vinyl bromide	ug/m3	59	110	70-130
Ethanol	ug/m3	25	106	70-130
Acrolein	ug/m3	31	102	70-130
Pentane	ug/m3	40	102	70-130
Trichlorofluoromethane	ug/m3	76	105	70-130
Acetone	ug/m3	32	101	70-130
2-Propanol	ug/m3	33	109	70-130
1,1-Dichloroethene	ug/m3	54	101	70-130
trans-1,2-Dichloroethene	ug/m3	54	101	70-130
Methylene chloride	ug/m3	94	97	70-130
t-Butyl alcohol (TBA)	ug/m3	41	106	70-130
3-Chloropropene	ug/m3	42	103	70-130
CFC-113	ug/m3	100	106	70-130
Carbon disulfide	ug/m3	42	108	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	103	70-130
Vinyl acetate	ug/m3	48	108	70-130
1,1-Dichloroethane	ug/m3	55	103	70-130
cis-1,2-Dichloroethene	ug/m3	54	101	70-130
Hexane	ug/m3	48	103	70-130
Chloroform	ug/m3	66	100	70-130
Ethyl acetate	ug/m3	49	100	70-130
Tetrahydrofuran	ug/m3	40	100	70-130
2-Butanone (MEK)	ug/m3	40	103	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	101	70-130
1,1,1-Trichloroethane	ug/m3	74	103	70-130
Carbon tetrachloride	ug/m3	85	103	70-130
Benzene	ug/m3	43	100	70-130
Cyclohexane	ug/m3	46	101	70-130
1,2-Dichloropropane	ug/m3	62	101	70-130
1,4-Dioxane	ug/m3	49	105	70-130
2,2,4-Trimethylpentane	ug/m3	63	105	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/30/21

Date Received: 08/25/21

Project: Spic'N Span 060172, F&BI 108405

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: Laboratory Control Sample (continued)

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Methyl methacrylate	ug/m3	55	107	70-130
Heptane	ug/m3	55	107	70-130
Bromodichloromethane	ug/m3	90	103	70-130
Trichloroethene	ug/m3	73	97	70-130
cis-1,3-Dichloropropene	ug/m3	61	105	70-130
4-Methyl-2-pentanone	ug/m3	55	102	70-130
trans-1,3-Dichloropropene	ug/m3	61	104	70-130
Toluene	ug/m3	51	102	70-130
1,1,2-Trichloroethane	ug/m3	74	102	70-130
2-Hexanone	ug/m3	55	104	70-130
Tetrachloroethene	ug/m3	92	104	70-130
Dibromochloromethane	ug/m3	120	102	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	100	70-130
Chlorobenzene	ug/m3	62	103	70-130
Ethylbenzene	ug/m3	59	98	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	100	70-130
Nonane	ug/m3	71	104	70-130
Isopropylbenzene	ug/m3	66	103	70-130
2-Chlorotoluene	ug/m3	70	101	70-130
Propylbenzene	ug/m3	66	104	70-130
4-Ethyltoluene	ug/m3	66	105	70-130
m,p-Xylene	ug/m3	120	101	70-130
o-Xylene	ug/m3	59	101	70-130
Styrene	ug/m3	58	102	70-130
Bromoform	ug/m3	140	104	70-130
Benzyl chloride	ug/m3	70	106	70-130
1,3,5-Trimethylbenzene	ug/m3	66	102	70-130
1,2,4-Trimethylbenzene	ug/m3	66	103	70-130
1,3-Dichlorobenzene	ug/m3	81	97	70-130
1,4-Dichlorobenzene	ug/m3	81	106	70-130
1,2-Dichlorobenzene	ug/m3	81	99	70-130
1,2,4-Trichlorobenzene	ug/m3	100	100	70-130
Naphthalene	ug/m3	71	95	70-130
Hexachlorobutadiene	ug/m3	140	99	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



## SAMPLE CHAIN OF CUSTODY

ME 8/25/21

Page # 1 of 1

~~Report To~~ Jeremy Barte

Company Aspect Consulting

Address 710 2<sup>nd</sup> Ave Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206.740.2129 Email porter@ospeccincusummary.com

SAMPLERS (signature) <i>Morgan K...</i>		ME 8/25/21
PROJECT NAME & ADDRESS Spic'N Span 060172	PO #	
NOTES: <i>ing.com</i>	INVOICE TO	

Page # 1 of 1

**TURNAROUND TIME**

☐ Standard  
☒ RUSH 72 hrs.

Rush charges authorized by: \_\_\_\_\_

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SAMPLE DISPOSAL

☐ Default: Clean after 3 days

☐ Archive (Fee may apply)

### SAMPLE INFORMATION

[illegible]

*Friedman & Bruya, Inc.*

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Seattle, WA 98119-2029

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Fax (206) 283-5044

FORMS\COCC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>Monique Rutte</i>	Monique Rutte	Aspect	08/25/21	1512
Received by: <i>Will Radford</i>	Will Radford	FBI	8/25/21	1512
Relinquished by:				
Received by:				