FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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January 4, 2022

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

Dear Mr Porter:

Included are the results from the testing of material submitted on December 15, 2021 from the Spic n' Span 060172, F&BI 112287 project. There are 13 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
ASP0104R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2021 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Spic n' Span 060172, F&BI 112287 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
112287 -01	VGAC-INF-3-121521
112287 -02	VAGC-EFF-3-121521

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

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

The TO-15 calibration standard failed the acceptance criteria for ethanol. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-INF-3-121521	Client:	Aspect Consulting, LLC
Date Received:	12/15/21	Project:	Spic n' Span 060172, F&BI 112287
Date Collected:	12/15/21	Lab ID:	112287-01 1/18
Date Analyzed:	12/28/21	Data File:	122817.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	107	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,700
APH EC9-12 aliphatics	9,200
APH EC9-10 aromatics	<450

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VAGC-EFF-3-121521	Client:	Aspect Consulting, LLC
Date Received:	12/15/21	Project:	Spic n' Span 060172, F&BI 112287
Date Collected:	12/15/21	Lab ID:	112287-02 1/18
Date Analyzed:	12/28/21	Data File:	122819.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<1,300
APH EC9-12 aliphatics	450
APH EC9-10 aromatics	<450

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 112287
Date Collected:	Not Applicable	Lab ID:	01-2855 MB
Date Analyzed:	12/28/21	Data File:	122810.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

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

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VGAC-INF-3-121521	Client:	Aspect Consulting, LLC
Date Received:	12/15/21	Project:	Spic n' Span 060172, F&BI 112287
Date Collected:	12/15/21	Lab ID:	112287-01 1/18
Date Analyzed:	12/28/21	Data File:	122817.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	109	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	69	40	1,2-Dichloropropane	<4.2	<0.9
Dichlorodifluoromethane	<8.9	<1.8	1,4-Dioxane	<6.5	<1.8
Chloromethane	<67	<32	2,2,4-Trimethylpentane	<84	<18
F-114	<13	<1.8	Methyl methacrylate	<74	<18
Vinyl chloride	<4.6	<1.8	Heptane	<74	<18
1,3-Butadiene	<0.8	<0.36	Bromodichloromethane	<1.2	<0.18
Butane	<86	<36	Trichloroethene	76	14
Bromomethane	<42	<11	cis-1,3-Dichloropropene	<8.2	<1.8
Chloroethane	<47	<18	4-Methyl-2-pentanone	<74	<18
Vinyl bromide	<7.9	<1.8	trans-1,3-Dichloropropene	<8.2	<1.8
Ethanol	370 ca ve	200 ca ve	Toluene	<340	<90
Acrolein	20	8.6	1,1,2-Trichloroethane	<0.98	<0.18
Pentane	<53	<18	2-Hexanone	<74	<18
Trichlorofluoromethane	<40	<7.2	Tetrachloroethene	350	51
Acetone	3,100 ve	1,300 ve	Dibromochloromethane	<1.5	<0.18
2-Propanol	<150	<63	1,2-Dibromoethane (EDB)	<1.4	<0.18
1,1-Dichloroethene	<7.1	<1.8	Chlorobenzene	<8.3	<1.8
trans-1,2-Dichloroethene	<7.1	<1.8	Ethylbenzene	7.8	1.8
Methylene chloride	<630	<180	1,1,2,2-Tetrachloroethane	<2.5	<0.36
t-Butyl alcohol (TBA)	<220	<72	Nonane	<94	<18
3-Chloropropene	<28	<9	Isopropylbenzene	<44	<9
CFC-113	<14	<1.8	2-Chlorotoluene	<93	<18
Carbon disulfide	<110	<36	Propylbenzene	<44	<9
Methyl t-butyl ether (MTBE)	<32	<9	4-Ethyltoluene	<44	<9
Vinyl acetate	560	160	m,p-Xylene	21	4.8
1,1-Dichloroethane	<7.3	<1.8	o-Xylene	9.9	2.3
cis-1,2-Dichloroethene	51	13	Styrene	<15	<3.6
Hexane	<63	<18	Bromoform	<37	<3.6
Chloroform	8.7	1.8	Benzyl chloride	<0.93	<0.18
Ethyl acetate	<130	<36	1,3,5-Trimethylbenzene	<44	<9
Tetrahydrofuran	12	4.2	1,2,4-Trimethylbenzene	<44	<9
2-Butanone (MEK)	510	170	1,3-Dichlorobenzene	<11	<1.8
1,2-Dichloroethane (EDC)	3.2	0.79	1,4-Dichlorobenzene	<4.1	<0.68
1,1,1-Trichloroethane	<9.8	<1.8	1,2-Dichlorobenzene	<11	<1.8
Carbon tetrachloride	<5.7	<0.9	1,2,4-Trichlorobenzene	<13	<1.8
Benzene	29	9.1	Naphthalene	62	12
Cyclohexane	<120	<36	Hexachlorobutadiene	<3.8	<0.36

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VAGC-EFF-3-121521	Client:	Aspect Consulting, LLC
Date Received:	12/15/21	Project:	Spic n' Span 060172, F&BI 112287
Date Collected:	12/15/21	Lab ID:	112287-02 1/18
Date Analyzed:	12/28/21	Data File:	122819.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	92	53	1,2-Dichloropropane	<4.2	<0.9
Dichlorodifluoromethane	<8.9	<1.8	1,4-Dioxane	<6.5	<1.8
Chloromethane	<67	<32	2,2,4-Trimethylpentane	<84	<18
F-114	<13	<1.8	Methyl methacrylate	<74	<18
Vinyl chloride	<4.6	<1.8	Heptane	<74	<18
1,3-Butadiene	<0.8	<0.36	Bromodichloromethane	<1.2	<0.18
Butane	<86	<36	Trichloroethene	<1.9	<0.36
Bromomethane	<42	<11	cis-1,3-Dichloropropene	<8.2	<1.8
Chloroethane	<47	<18	4-Methyl-2-pentanone	<74	<18
Vinyl bromide	<7.9	<1.8	trans-1,3-Dichloropropene	<8.2	<1.8
Ethanol	390 ca ve	210 ca ve	Toluene	<340	<90
Acrolein	<2.1	<0.9	1,1,2-Trichloroethane	<0.98	<0.18
Pentane	<53	<18	2-Hexanone	<74	<18
Trichlorofluoromethane	<40	<7.2	Tetrachloroethene	<120	<18
Acetone	2,900 ve	1,200 ve	Dibromochloromethane	<1.5	<0.18
2-Propanol	<150	<63	1,2-Dibromoethane (EDB)	<1.4	<0.18
1,1-Dichloroethene	<7.1	<1.8	Chlorobenzene	<8.3	<1.8
trans-1,2-Dichloroethene	<7.1	<1.8	Ethylbenzene	<7.8	<1.8
Methylene chloride	<630	<180	1,1,2,2-Tetrachloroethane	<2.5	<0.36
t-Butyl alcohol (TBA)	<220	<72	Nonane	<94	<18
3-Chloropropene	<28	<9	Isopropylbenzene	<44	<9
CFC-113	<14	<1.8	2-Chlorotoluene	<93	<18
Carbon disulfide	<110	<36	Propylbenzene	<44	<9
Methyl t-butyl ether (MTBE)	<32	<9	4-Ethyltoluene	<44	<9
Vinyl acetate	<130	<36	m,p-Xylene	<16	<3.6
1,1-Dichloroethane	<7.3	<1.8	o-Xylene	<7.8	<1.8
cis-1,2-Dichloroethene	<7.1	<1.8	Styrene	<15	<3.6
Hexane	<63	<18	Bromoform	<37	<3.6
Chloroform	<0.88	<0.18	Benzyl chloride	<0.93	<0.18
Ethyl acetate	<130	<36	1,3,5-Trimethylbenzene	<44	<9
Tetrahydrofuran	<11	<3.6	1,2,4-Trimethylbenzene	<44	<9
2-Butanone (MEK)	<53	<18	1,3-Dichlorobenzene	<11	<1.8
1,2-Dichloroethane (EDC)	<0.73	<0.18	1,4-Dichlorobenzene	<4.1	<0.68
1,1,1-Trichloroethane	<9.8	<1.8	1,2-Dichlorobenzene	<11	<1.8
Carbon tetrachloride	<5.7	<0.9	1,2,4-Trichlorobenzene	<13	<1.8
Benzene	<5.8	<1.8	Naphthalene	18	3.5
Cyclohexane	<120	<36	Hexachlorobutadiene	<3.8	<0.36

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 112287
Date Collected:	Not Applicable	Lab ID:	01-2855 MB
Date Analyzed:	12/28/21	Data File:	122810.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration 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

Date of Report: 01/04/22
Date Received: 12/15/21
Project: Spic n' Span 060172, F&BI 112287

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

Laboratory Code: 112287-01 1/18 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	1,700	2,600	42 vo
APH EC9-12 aliphatics	ug/m3	9,200	9,200	0
APH EC9-10 aromatics	ug/m3	<450	<450	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	87	70-130
APH EC9-12 aliphatics	ug/m3	67	119	70-130
APH EC9-10 aromatics	ug/m3	67	119	70-130

Date of Report: 01/04/22
Date Received: 12/15/21
Project: Spic n' Span 060172, F&BI 112287

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

Laboratory Code: 112287-01 1/18 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	69	55	23
Dichlorodifluoromethane	ug/m3	<8.9	<8.9	nm
Chloromethane	ug/m3	<67	<67	nm
F-114	ug/m3	<13	<13	nm
Vinyl chloride	ug/m3	<4.6	<4.6	nm
1,3-Butadiene	ug/m3	<0.8	<0.8	nm
Butane	ug/m3	<86	<86	nm
Bromomethane	ug/m3	<42	<42	nm
Chloroethane	ug/m3	<47	<47	nm
Vinyl bromide	ug/m3	<7.9	<7.9	nm
Ethanol	ug/m3	370	350	6
Acrolein	ug/m3	20	19	5
Pentane	ug/m3	<53	<53	nm
Trichlorofluoromethane	ug/m3	<40	<40	nm
Acetone	ug/m3	1,300	1,200	8
2-Propanol	ug/m3	<150	<150	nm
1,1-Dichloroethene	ug/m3	<7.1	<7.1	nm
trans-1,2-Dichloroethene	ug/m3	<7.1	<7.1	nm
Methylene chloride	ug/m3	<630	<630	nm
t-Butyl alcohol (TBA)	ug/m3	<220	<220	nm
3-Chloropropene	ug/m3	<28	<28	nm
CFC-113	ug/m3	<14	<14	nm
Carbon disulfide	ug/m3	<110	<110	nm
Methyl t-butyl ether (MTBE)	ug/m3	<32	<32	nm
Vinyl acetate	ug/m3	560	550	2
1,1-Dichloroethane	ug/m3	<7.3	<7.3	nm
cis-1,2-Dichloroethene	ug/m3	51	50	2
Hexane	ug/m3	<63	<63	nm
Chloroform	ug/m3	8.7	8.3	5
Ethyl acetate	ug/m3	<130	<130	nm
Tetrahydrofuran	ug/m3	12	11	9
2-Butanone (MEK)	ug/m3	510	440	15
1,2-Dichloroethane (EDC)	ug/m3	3.2	3.4	6
1,1,1-Trichloroethane	ug/m3	<9.8	<9.8	nm
Carbon tetrachloride	ug/m3	<5.7	<5.7	nm
Benzene	ug/m3	29	28	4
Cyclohexane	ug/m3	<120	<120	nm
1,2-Dichloropropane	ug/m3	<4.2	<4.2	nm
1,4-Dioxane	ug/m3	<6.5	<6.5	nm
2,2,4-Trimethylpentane	ug/m3	<84	<84	nm

Date of Report: 01/04/22
Date Received: 12/15/21
Project: Spic n' Span 060172, F&BI 112287

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

Laboratory Code: 112287-01 1/18 (Duplicate) (continued)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<74	<74	nm
Heptane	ug/m3	<74	<74	nm
Bromodichloromethane	ug/m3	<1.2	<1.2	nm
Trichloroethene	ug/m3	76	68	11
cis-1,3-Dichloropropene	ug/m3	<8.2	<8.2	nm
4-Methyl-2-pentanone	ug/m3	<74	<74	nm
trans-1,3-Dichloropropene	ug/m3	<8.2	<8.2	nm
Toluene	ug/m3	<340	<340	nm
1,1,2-Trichloroethane	ug/m3	<0.98	<0.98	nm
2-Hexanone	ug/m3	<74	<74	nm
Tetrachloroethene	ug/m3	350	310	12
Dibromochloromethane	ug/m3	<1.5	<1.5	nm
1,2-Dibromoethane (EDB)	ug/m3	<1.4	<1.4	nm
Chlorobenzene	ug/m3	<8.3	<8.3	nm
Ethylbenzene	ug/m3	7.8	7.8	0
1,1,2,2-Tetrachloroethane	ug/m3	<2.5	<2.5	nm
Nonane	ug/m3	<94	<94	nm
Isopropylbenzene	ug/m3	<44	<44	nm
2-Chlorotoluene	ug/m3	<93	<93	nm
Propylbenzene	ug/m3	<44	<44	nm
4-Ethyltoluene	ug/m3	<44	<44	nm
m,p-Xylene	ug/m3	21	21	0
o-Xylene	ug/m3	9.9	9.8	1
Styrene	ug/m3	<15	<15	nm
Bromoform	ug/m3	<37	<37	nm
Benzyl chloride	ug/m3	<0.93	<0.93	nm
1,3,5-Trimethylbenzene	ug/m3	<44	<44	nm
1,2,4-Trimethylbenzene	ug/m3	<44	<44	nm
1,3-Dichlorobenzene	ug/m3	<11	<11	nm
1,4-Dichlorobenzene	ug/m3	<4.1	<4.1	nm
1,2-Dichlorobenzene	ug/m3	<11	<11	nm
1,2,4-Trichlorobenzene	ug/m3	<13	<13	nm
Naphthalene	ug/m3	62	64	3
Hexachlorobutadiene	ug/m3	<3.8	<3.8	nm

Date of Report: 01/04/22
Date Received: 12/15/21
Project: Spic n' Span 060172, F&BI 112287

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	113	70-130
Dichlorodifluoromethane	ug/m3	67	93	70-130
Chloromethane	ug/m3	28	103	70-130
F-114	ug/m3	94	99	70-130
Vinyl chloride	ug/m3	35	103	70-130
1,3-Butadiene	ug/m3	30	102	70-130
Butane	ug/m3	32	99	70-130
Bromomethane	ug/m3	52	101	70-130
Chloroethane	ug/m3	36	93	70-130
Vinyl bromide	ug/m3	59	96	70-130
Ethanol	ug/m3	25	161 vo	70-130
Acrolein	ug/m3	31	97	70-130
Pentane	ug/m3	40	106	70-130
Trichlorofluoromethane	ug/m3	76	103	70-130
Acetone	ug/m3	32	109	70-130
2-Propanol	ug/m3	33	104	70-130
1,1-Dichloroethene	ug/m3	54	95	70-130
trans-1,2-Dichloroethene	ug/m3	54	99	70-130
Methylene chloride	ug/m3	94	145 vo	70-130
t-Butyl alcohol (TBA)	ug/m3	41	103	70-130
3-Chloropropene	ug/m3	42	98	70-130
CFC-113	ug/m3	100	97	70-130
Carbon disulfide	ug/m3	42	89	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	94	70-130
Vinyl acetate	ug/m3	48	81	70-130
1,1-Dichloroethane	ug/m3	55	99	70-130
cis-1,2-Dichloroethene	ug/m3	54	99	70-130
Hexane	ug/m3	48	91	70-130
Chloroform	ug/m3	66	99	70-130
Ethyl acetate	ug/m3	49	97	70-130
Tetrahydrofuran	ug/m3	40	94	70-130
2-Butanone (MEK)	ug/m3	40	101	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	101	70-130
1,1,1-Trichloroethane	ug/m3	74	99	70-130
Carbon tetrachloride	ug/m3	85	98	70-130
Benzene	ug/m3	43	97	70-130
Cyclohexane	ug/m3	46	95	70-130
1,2-Dichloropropane	ug/m3	62	86	70-130
1,4-Dioxane	ug/m3	49	92	70-130
2,2,4-Trimethylpentane	ug/m3	63	88	70-130

Date of Report: 01/04/22
Date Received: 12/15/21
Project: Spic n' Span 060172, F&BI 112287

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 Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	87	70-130
Heptane	ug/m3	55	89	70-130
Bromodichloromethane	ug/m3	90	89	70-130
Trichloroethene	ug/m3	73	87	70-130
cis-1,3-Dichloropropene	ug/m3	61	89	70-130
4-Methyl-2-pentanone	ug/m3	55	97	70-130
trans-1,3-Dichloropropene	ug/m3	61	87	70-130
Toluene	ug/m3	51	87	70-130
1,1,2-Trichloroethane	ug/m3	74	84	70-130
2-Hexanone	ug/m3	55	87	70-130
Tetrachloroethene	ug/m3	92	92	70-130
Dibromochloromethane	ug/m3	120	91	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	86	70-130
Chlorobenzene	ug/m3	62	98	70-130
Ethylbenzene	ug/m3	59	94	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	92	70-130
Nonane	ug/m3	71	93	70-130
Isopropylbenzene	ug/m3	66	95	70-130
2-Chlorotoluene	ug/m3	70	101	70-130
Propylbenzene	ug/m3	66	96	70-130
4-Ethyltoluene	ug/m3	66	95	70-130
m,p-Xylene	ug/m3	120	93	70-130
o-Xylene	ug/m3	59	99	70-130
Styrene	ug/m3	58	91	70-130
Bromoform	ug/m3	140	97	70-130
Benzyl chloride	ug/m3	70	98	70-130
1,3,5-Trimethylbenzene	ug/m3	66	95	70-130
1,2,4-Trimethylbenzene	ug/m3	66	96	70-130
1,3-Dichlorobenzene	ug/m3	81	98	70-130
1,4-Dichlorobenzene	ug/m3	81	92	70-130
1,2-Dichlorobenzene	ug/m3	81	94	70-130
1,2,4-Trichlorobenzene	ug/m3	100	74	70-130
Naphthalene	ug/m3	71	81	70-130
Hexachlorobutadiene	ug/m3	140	89	70-130

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.

112207

SAMPLE CHAIN OF CUSTODY

ME 12/15/21

Page # 1 of 1

Report To Jeremy Porter

Company ASPECT CONSULTING

Address 710 2nd Ave Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email jporter@aspectconsulting.com

SAMPLERS (signature) Monique Rutte

PROJECT NAME & ADDRESS: Spic n' Span

PO # 060172

NOTES:

INVOICE TO

TURNAROUND TIME
- [x] Standard
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Default: Clean after 3 days
- [ ] Archive (Fee may apply)

SAMPLE INFORMATION / ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
VGAC-INF-3-121521	01	8532	02	IA / (SG)	12/15/21	29	0837	5	0845	X			X			
VGAC-EFF-3-121521	02	8531	111	IA / (SG)	12/15/21	29	0847	5	0853	X			X			
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Samples received at 17 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Monique Rutte	Monique Rutte	ASPECT	12/15/21	1015
Received by: mpham	mpham	FBT	12/15/21	1015
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044