FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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August 10, 2021

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 August 5, 2021 from the Spic 'n Span 060172, F&BI 108080 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
ASP0810R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 5, 2021 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Spic 'n Span 060172, F&BI 108080 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
108080 -01	VGAC-1-INF-080521
108080 -02	VGAC-1-EFF-080521

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

The tetrachloroethene concentration in sample VGAC-1-INF-080521 exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-INF-080521	Client:	Aspect Consulting, LLC
Date Received:	08/05/21	Project:	Spic 'n Span 060172, F&BI 108080
Date Collected:	08/05/21	Lab ID:	108080-01 1/17
Date Analyzed:	08/06/21	Data File:	080532.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	6,400
APH EC9-12 aliphatics	6,000
APH EC9-10 aromatics	1,900

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-EFF-080521	Client:	Aspect Consulting, LLC
Date Received:	08/05/21	Project:	Spic 'n Span 060172, F&BI 108080
Date Collected:	08/05/21	Lab ID:	108080-02 1/6.0
Date Analyzed:	08/06/21	Data File:	080529.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<450
APH EC9-12 aliphatics	300
APH EC9-10 aromatics	1,700

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 108080
Date Collected:	Not Applicable	Lab ID:	01-1726 MB
Date Analyzed:	08/05/21	Data File:	080513.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	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-1-INF-080521	Client:	Aspect Consulting, LLC
Date Received:	08/05/21	Project:	Spic 'n Span 060172, F&BI 108080
Date Collected:	08/05/21	Lab ID:	108080-01 1/17
Date Analyzed:	08/06/21	Data File:	080532.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	110	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<20	<12	1,2-Dichloropropane	<3.9	<0.85
Dichlorodifluoromethane	<8.4	<1.7	1,4-Dioxane	<6.1	<1.7
Chloromethane	<63	<31	2,2,4-Trimethylpentane	<79	<17
F-114	<12	<1.7	Methyl methacrylate	<70	<17
Vinyl chloride	7.7	3.0	Heptane	<70	<17
1,3-Butadiene	<0.75	<0.34	Bromodichloromethane	<1.1	<0.17
Butane	<81	<34	Trichloroethene	230	43
Bromomethane	<40	<10	cis-1,3-Dichloropropene	<7.7	<1.7
Chloroethane	<45	<17	4-Methyl-2-pentanone	<70	<17
Vinyl bromide	<7.4	<1.7	trans-1,3-Dichloropropene	<7.7	<1.7
Ethanol	<130	<68	Toluene	<320	<85
Acrolein	<1.9	<0.85	1,1,2-Trichloroethane	<0.93	<0.17
Pentane	<50	<17	2-Hexanone	<70	<17
Trichlorofluoromethane	<38	<6.8	Tetrachloroethene	14,000 ve	2,000 ve
Acetone	<81	<34	Dibromochloromethane	<1.4	<0.17
2-Propanol	<150	<59	1,2-Dibromoethane (EDB)	<1.3	<0.17
1,1-Dichloroethene	<6.7	<1.7	Chlorobenzene	<7.8	<1.7
trans-1,2-Dichloroethene	<6.7	<1.7	Ethylbenzene	30	6.9
Methylene chloride	<590	<170	1,1,2,2-Tetrachloroethane	<2.3	<0.34
t-Butyl alcohol (TBA)	<210	<68	Nonane	<89	<17
3-Chloropropene	<27	<8.5	Isopropylbenzene	180	36
CFC-113	<13	<1.7	2-Chlorotoluene	<88	<17
Carbon disulfide	<110	<34	Propylbenzene	<42	<8.5
Methyl t-butyl ether (MTBE)	<31	<8.5	4-Ethyltoluene	49	10
Vinyl acetate	<120	<34	m,p-Xylene	120	27
1,1-Dichloroethane	<6.9	<1.7	o-Xylene	51	12
cis-1,2-Dichloroethene	110	29	Styrene	<14	<3.4
Hexane	<60	<17	Bromoform	<35	<3.4
Chloroform	2.9	0.59	Benzyl chloride	<0.88	<0.17
Ethyl acetate	<120	<34	1,3,5-Trimethylbenzene	91	18
Tetrahydrofuran	48	16	1,2,4-Trimethylbenzene	390	80
2-Butanone (MEK)	<50	<17	1,3-Dichlorobenzene	<10	<1.7
1,2-Dichloroethane (EDC)	<0.69	<0.17	1,4-Dichlorobenzene	<3.9	<0.65
1,1,1-Trichloroethane	<9.3	<1.7	1,2-Dichlorobenzene	<10	<1.7
Carbon tetrachloride	<5.3	<0.85	1,2,4-Trichlorobenzene	<13	<1.7
Benzene	74	23	Naphthalene	74	14
Cyclohexane	<120	<34	Hexachlorobutadiene	<3.6	<0.34

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VGAC-1-EFF-080521	Client:	Aspect Consulting, LLC
Date Received:	08/05/21	Project:	Spic 'n Span 060172, F&BI 108080
Date Collected:	08/05/21	Lab ID:	108080-02 1/6.0
Date Analyzed:	08/06/21	Data File:	080529.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.2	<4.2	1,2-Dichloropropane	<1.4	<0.3
Dichlorodifluoromethane	<3	<0.6	1,4-Dioxane	<2.2	<0.6
Chloromethane	<22	<11	2,2,4-Trimethylpentane	<28	<6
F-114	<4.2	<0.6	Methyl methacrylate	<25	<6
Vinyl chloride	<1.5	<0.6	Heptane	<25	<6
1,3-Butadiene	<0.27	<0.12	Bromodichloromethane	<0.4	<0.06
Butane	<29	<12	Trichloroethene	<0.64	<0.12
Bromomethane	<14	<3.6	cis-1,3-Dichloropropene	<2.7	<0.6
Chloroethane	<16	<6	4-Methyl-2-pentanone	<25	<6
Vinyl bromide	<2.6	<0.6	trans-1,3-Dichloropropene	<2.7	<0.6
Ethanol	<45	<24	Toluene	<110	<30
Acrolein	<0.69	<0.3	1,1,2-Trichloroethane	<0.33	<0.06
Pentane	<18	<6	2-Hexanone	<25	<6
Trichlorofluoromethane	<13	<2.4	Tetrachloroethene	<41	<6
Acetone	<29	<12	Dibromochloromethane	<0.51	<0.06
2-Propanol	<52	<21	1,2-Dibromoethane (EDB)	<0.46	<0.06
1,1-Dichloroethene	<2.4	<0.6	Chlorobenzene	<2.8	<0.6
trans-1,2-Dichloroethene	<2.4	<0.6	Ethylbenzene	18	4.1
Methylene chloride	<210	<60	1,1,2,2-Tetrachloroethane	<0.82	<0.12
t-Butyl alcohol (TBA)	<73	<24	Nonane	<31	<6
3-Chloropropene	<9.4	<3	Isopropylbenzene	40	8.1
CFC-113	<4.6	<0.6	2-Chlorotoluene	<31	<6
Carbon disulfide	<37	<12	Propylbenzene	17	3.5
Methyl t-butyl ether (MTBE)	<11	<3	4-Ethyltoluene	42	8.6
Vinyl acetate	<42	<12	m,p-Xylene	74	17
1,1-Dichloroethane	<2.4	<0.6	o-Xylene	34	7.8
cis-1,2-Dichloroethene	<2.4	<0.6	Styrene	<5.1	<1.2
Hexane	<21	<6	Bromoform	<12	<1.2
Chloroform	<0.29	<0.06	Benzyl chloride	0.40	0.078
Ethyl acetate	<43	<12	1,3,5-Trimethylbenzene	72	15
Tetrahydrofuran	<3.5	<1.2	1,2,4-Trimethylbenzene	340	69
2-Butanone (MEK)	<18	<6	1,3-Dichlorobenzene	<3.6	<0.6
1,2-Dichloroethane (EDC)	<0.24	<0.06	1,4-Dichlorobenzene	<1.4	<0.23
1,1,1-Trichloroethane	<3.3	<0.6	1,2-Dichlorobenzene	<3.6	<0.6
Carbon tetrachloride	<1.9	<0.3	1,2,4-Trichlorobenzene	<4.5	<0.6
Benzene	5.9	1.8	Naphthalene	100	19
Cyclohexane	<41	<12	Hexachlorobutadiene	<1.3	<0.12

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 108080
Date Collected:	Not Applicable	Lab ID:	01-1726 MB
Date Analyzed:	08/05/21	Data File:	080513.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	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: 08/10/21
Date Received: 08/05/21
Project: Spic 'n Span 060172, F&BI 108080

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

Laboratory Code: 108080-02 1/6.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	<450	<450	nm
APH EC9-12 aliphatics	ug/m3	300	280	7
APH EC9-10 aromatics	ug/m3	1,700	1,700	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	73	70-130
APH EC9-12 aliphatics	ug/m3	67	94	70-130
APH EC9-10 aromatics	ug/m3	67	95	70-130

Date of Report: 08/10/21
Date Received: 08/05/21
Project: Spic 'n Span 060172, F&BI 108080

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

Laboratory Code: 108080-02 1/6.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<7.2	<7.2	nm
Dichlorodifluoromethane	ug/m3	<3	<3	nm
Chloromethane	ug/m3	<22	<22	nm
F-114	ug/m3	<4.2	<4.2	nm
Vinyl chloride	ug/m3	<1.5	<1.5	nm
1,3-Butadiene	ug/m3	<0.27	<0.27	nm
Butane	ug/m3	<29	<29	nm
Bromomethane	ug/m3	<14	<14	nm
Chloroethane	ug/m3	<16	<16	nm
Vinyl bromide	ug/m3	<2.6	<2.6	nm
Ethanol	ug/m3	<45	<45	nm
Acrolein	ug/m3	<0.69	<0.69	nm
Pentane	ug/m3	<18	<18	nm
Trichlorofluoromethane	ug/m3	<13	<13	nm
Acetone	ug/m3	<29	<29	nm
2-Propanol	ug/m3	<52	<52	nm
1,1-Dichloroethene	ug/m3	<2.4	<2.4	nm
trans-1,2-Dichloroethene	ug/m3	<2.4	<2.4	nm
Methylene chloride	ug/m3	<210	<210	nm
t-Butyl alcohol (TBA)	ug/m3	<73	<73	nm
3-Chloropropene	ug/m3	<9.4	<9.4	nm
CFC-113	ug/m3	<4.6	<4.6	nm
Carbon disulfide	ug/m3	<37	<37	nm
Methyl t-butyl ether (MTBE)	ug/m3	<11	<11	nm
Vinyl acetate	ug/m3	<42	<42	nm
1,1-Dichloroethane	ug/m3	<2.4	<2.4	nm
cis-1,2-Dichloroethene	ug/m3	<2.4	<2.4	nm
Hexane	ug/m3	<21	<21	nm
Chloroform	ug/m3	<0.29	<0.29	nm
Ethyl acetate	ug/m3	<43	<43	nm
Tetrahydrofuran	ug/m3	<3.5	<3.5	nm
2-Butanone (MEK)	ug/m3	<18	<18	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.24	<0.24	nm
1,1,1-Trichloroethane	ug/m3	<3.3	<3.3	nm
Carbon tetrachloride	ug/m3	<1.9	<1.9	nm
Benzene	ug/m3	5.9	6.0	2
Cyclohexane	ug/m3	<41	<41	nm
1,2-Dichloropropane	ug/m3	<1.4	<1.4	nm
1,4-Dioxane	ug/m3	<2.2	<2.2	nm
2,2,4-Trimethylpentane	ug/m3	<28	<28	nm

Date of Report: 08/10/21
Date Received: 08/05/21
Project: Spic 'n Span 060172, F&BI 108080

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

Laboratory Code: 108080-02 1/6.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<25	<25	nm
Heptane	ug/m3	<25	<25	nm
Bromodichloromethane	ug/m3	<0.4	<0.4	nm
Trichloroethene	ug/m3	<0.64	<0.64	nm
cis-1,3-Dichloropropene	ug/m3	<2.7	<2.7	nm
4-Methyl-2-pentanone	ug/m3	<25	<25	nm
trans-1,3-Dichloropropene	ug/m3	<2.7	<2.7	nm
Toluene	ug/m3	<110	<110	nm
1,1,2-Trichloroethane	ug/m3	<0.33	<0.33	nm
2-Hexanone	ug/m3	<25	<25	nm
Tetrachloroethene	ug/m3	<41	<41	nm
Dibromochloromethane	ug/m3	<0.51	<0.51	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.46	<0.46	nm
Chlorobenzene	ug/m3	<2.8	<2.8	nm
Ethylbenzene	ug/m3	18	18	0
1,1,2,2-Tetrachloroethane	ug/m3	<0.82	<0.82	nm
Nonane	ug/m3	<31	<31	nm
Isopropylbenzene	ug/m3	40	39	3
2-Chlorotoluene	ug/m3	<31	<31	nm
Propylbenzene	ug/m3	17	18	6
4-Ethyltoluene	ug/m3	42	42	0
m,p-Xylene	ug/m3	74	74	0
o-Xylene	ug/m3	34	34	0
Styrene	ug/m3	<5.1	<5.1	nm
Bromoform	ug/m3	<12	<12	nm
Benzyl chloride	ug/m3	0.40	0.40	0
1,3,5-Trimethylbenzene	ug/m3	72	72	0
1,2,4-Trimethylbenzene	ug/m3	340	340	0
1,3-Dichlorobenzene	ug/m3	<3.6	<3.6	nm
1,4-Dichlorobenzene	ug/m3	<1.4	<1.4	nm
1,2-Dichlorobenzene	ug/m3	<3.6	<3.6	nm
1,2,4-Trichlorobenzene	ug/m3	<4.5	<4.5	nm
Naphthalene	ug/m3	100	100	0
Hexachlorobutadiene	ug/m3	<1.3	<1.3	nm

Date of Report: 08/10/21
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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	84	70-130
Dichlorodifluoromethane	ug/m3	67	102	70-130
Chloromethane	ug/m3	28	85	70-130
F-114	ug/m3	94	97	70-130
Vinyl chloride	ug/m3	35	94	70-130
1,3-Butadiene	ug/m3	30	91	70-130
Butane	ug/m3	32	96	70-130
Bromomethane	ug/m3	52	101	70-130
Chloroethane	ug/m3	36	99	70-130
Vinyl bromide	ug/m3	59	110	70-130
Ethanol	ug/m3	25	100	70-130
Acrolein	ug/m3	31	97	70-130
Pentane	ug/m3	40	93	70-130
Trichlorofluoromethane	ug/m3	76	103	70-130
Acetone	ug/m3	32	93	70-130
2-Propanol	ug/m3	33	89	70-130
1,1-Dichloroethene	ug/m3	54	101	70-130
trans-1,2-Dichloroethene	ug/m3	54	100	70-130
Methylene chloride	ug/m3	94	88	70-130
t-Butyl alcohol (TBA)	ug/m3	41	94	70-130
3-Chloropropene	ug/m3	42	92	70-130
CFC-113	ug/m3	100	104	70-130
Carbon disulfide	ug/m3	42	103	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	98	70-130
Vinyl acetate	ug/m3	48	91	70-130
1,1-Dichloroethane	ug/m3	55	101	70-130
cis-1,2-Dichloroethene	ug/m3	54	102	70-130
Hexane	ug/m3	48	88	70-130
Chloroform	ug/m3	66	101	70-130
Ethyl acetate	ug/m3	49	96	70-130
Tetrahydrofuran	ug/m3	40	89	70-130
2-Butanone (MEK)	ug/m3	40	105	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	98	70-130
1,1,1-Trichloroethane	ug/m3	74	103	70-130
Carbon tetrachloride	ug/m3	85	104	70-130
Benzene	ug/m3	43	99	70-130
Cyclohexane	ug/m3	46	93	70-130
1,2-Dichloropropane	ug/m3	62	94	70-130
1,4-Dioxane	ug/m3	49	99	70-130
2,2,4-Trimethylpentane	ug/m3	63	96	70-130

Date of Report: 08/10/21
Date Received: 08/05/21
Project: Spic 'n Span 060172, F&BI 108080

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
Methyl methacrylate	ug/m3	55	99	70-130
Heptane	ug/m3	55	93	70-130
Bromodichloromethane	ug/m3	90	99	70-130
Trichloroethene	ug/m3	73	112	70-130
cis-1,3-Dichloropropene	ug/m3	61	104	70-130
4-Methyl-2-pentanone	ug/m3	55	109	70-130
trans-1,3-Dichloropropene	ug/m3	61	98	70-130
Toluene	ug/m3	51	103	70-130
1,1,2-Trichloroethane	ug/m3	74	99	70-130
2-Hexanone	ug/m3	55	94	70-130
Tetrachloroethene	ug/m3	92	107	70-130
Dibromochloromethane	ug/m3	120	101	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	98	70-130
Chlorobenzene	ug/m3	62	109	70-130
Ethylbenzene	ug/m3	59	98	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	100	70-130
Nonane	ug/m3	71	92	70-130
Isopropylbenzene	ug/m3	66	107	70-130
2-Chlorotoluene	ug/m3	70	100	70-130
Propylbenzene	ug/m3	66	101	70-130
4-Ethyltoluene	ug/m3	66	98	70-130
m,p-Xylene	ug/m3	120	104	70-130
o-Xylene	ug/m3	59	107	70-130
Styrene	ug/m3	58	103	70-130
Bromoform	ug/m3	140	111	70-130
Benzyl chloride	ug/m3	70	110	70-130
1,3,5-Trimethylbenzene	ug/m3	66	100	70-130
1,2,4-Trimethylbenzene	ug/m3	66	98	70-130
1,3-Dichlorobenzene	ug/m3	81	110	70-130
1,4-Dichlorobenzene	ug/m3	81	104	70-130
1,2-Dichlorobenzene	ug/m3	81	107	70-130
1,2,4-Trichlorobenzene	ug/m3	100	101	70-130
Naphthalene	ug/m3	71	111	70-130
Hexachlorobutadiene	ug/m3	140	107	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.

SAMPLE CHAIN OF CUSTODY

108080

ME 08/05/21

Page # 1 of 1

Report To Jeremy Porter
Company Aspect Consulting
Address 710 2nd Ave Suite 550
City, State, ZIP Seattle, WA 98104
Phone (206) 790-2129 Email jporter@aspectconsulting.com

SAMPLERS (signature) Rachael C Monique Rutte

PROJECT NAME & ADDRESS: Spic'n Span

PO # 060172

NOTES: ~~060172 RC~~

INVOICE TO AP

TURNAROUND TIME
- ☐ Standard
- ☒ RUSH 72 hrs
- 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-080521~~	01	360108	03	IA / (SG)	08/05/202	30	1335	5	1340	X			X			VGAC-1-INF-080521
~~VGAC-EFF-080521~~	02	3676	111	IA / (SG)	08/05/202	30	1335	5	1341	X			X			VGAC-1-EFF-080521
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												Samples received at 22 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Monique Rutte	Monique Rutte	ASPECT	08/05/21	1415
Received by:	James Bruya	F&B	8/5	1415
Relinquished by:				
Received by:				

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