

All4, Inc.

2393 Kimberton Road
Kimberton, PA 19442

U.S. Steel Corp – Clairton Works
Clairton, PA
Client Project # 00701-0002.00

Analytical Report
(1022-151)

EPA Method TO-15

TO-15 Target Compound List



Enthalpy Analytical, LLC

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I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 44 pages.

Report Issued: 12/23/22



Results

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC01_221206_S
Sample Info. 1022-151; 500mL load; Can #0718
Sampling Date 2022-12-06 10:46
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202565.D
Dilution 1.000
Pressurization Factor 1.763
Acquisition Date 2022-12-12 17:28
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC01_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	3.17	0.0681	0.0617	5.45	0.117	0.106	m
Freon 12 (CCl2F2)	0.394	0.0690	0.0617	1.95	0.341	0.305	
Freon 114 (C2Cl2F4)	ND	0.706	0.0617	ND	4.94	0.431	
Chloromethane	0.467	0.0697	0.0617	0.964	0.144	0.127	
Chloroethene (Vinyl chloride)	ND	0.0704	0.0617	ND	0.180	0.158	
1,3-Butadiene	0.166	0.0686	0.0617	0.366	0.152	0.136	
Bromomethane	ND	0.0692	0.0617	ND	0.268	0.239	
Chloroethane	ND	0.0716	0.0617	ND	0.189	0.163	
Bromoethene (Vinyl bromide)	ND	0.0690	0.0617	ND	0.301	0.270	
Freon 11 (CCl3F)	0.234	0.0744	0.0617	1.31	0.418	0.346	m
Ethanol	1.65	0.0699	0.0705	3.10	0.132	0.133	m
Acrolein	0.151	0.0694	0.0617	0.347	0.159	0.141	
Freon 113 (C2Cl3F3)	ND	0.0716	0.0617	ND	0.548	0.472	
1,1-Dichloroethene	ND	0.0709	0.0617	ND	0.281	0.244	
Acetone	1.47	0.0706	0.0617	3.49	0.168	0.146	
Carbon disulfide	0.117	0.0703	0.0617	0.364	0.219	0.192	
Isopropyl alcohol	0.246	0.0703	0.0617	0.605	0.173	0.152	m
Allyl chloride (3-chloropropene)	ND	0.0761	0.0617	ND	0.238	0.193	
Acetonitrile	0.0930	0.0703	0.0617	0.156	0.118	0.104	
Methylene chloride	0.116	0.0722	0.0617	0.401	0.251	0.214	
trans-1,2-Dichloroethene	ND	0.0719	0.0617	ND	0.285	0.244	
Methyl tert-butyl ether	ND	0.0725	0.0617	ND	0.261	0.222	
Acrylonitrile	ND	0.0718	0.0617	ND	0.156	0.134	
Hexane	0.383	0.0716	0.0617	1.35	0.252	0.217	m
1,1-Dichloroethane	ND	0.0700	0.0617	ND	0.283	0.250	
Vinyl acetate	ND	0.0721	0.0617	ND	0.254	0.217	
cis-1,2-Dichloroethene	ND	0.0712	0.0617	ND	0.282	0.244	
Methyl ethyl ketone (2-Butanone)	0.205	0.0729	0.0617	0.604	0.215	0.182	m
Ethyl acetate	0.108	0.0704	0.0617	0.389	0.253	0.222	m
Chloroform	ND	0.0707	0.0617	ND	0.345	0.301	
Tetrahydrofuran	ND	0.0713	0.0617	ND	0.210	0.182	
1,1,1-Trichloroethane	ND	0.0712	0.0617	ND	0.388	0.336	
Cyclohexane	0.938	0.0723	0.0617	3.23	0.249	0.212	

Enthalpy Analytical

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All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC01_221206_S
Sample Info. 1022-151; 500mL load; Can #0718
Sampling Date 2022-12-06 10:46
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202565.D
Dilution 1.000
Pressurization Factor 1.763
Acquisition Date 2022-12-12 17:28
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC01_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0733	0.0710	0.0617	0.461	0.446	0.388	m
Benzene	3.68	0.0709	0.0617	11.8	0.226	0.197	m
2,2,4-trimethylpentane	0.123	0.0729	0.0617	0.576	0.340	0.288	
1,2-Dichloroethane	ND	0.0725	0.0617	ND	0.293	0.250	
Heptane	0.174	0.0714	0.0617	0.714	0.293	0.253	
Trichloroethene	ND	0.0713	0.0617	ND	0.383	0.331	
1,2-Dichloropropane	ND	0.0710	0.0617	ND	0.328	0.285	
Methyl methacrylate	ND	0.0738	0.0617	ND	0.302	0.252	
1,4-Dioxane	ND	0.0707	0.0617	ND	0.255	0.222	
Bromodichloromethane	ND	0.0712	0.0617	ND	0.477	0.413	
cis-1,3-Dichloropropene	ND	0.0700	0.0617	ND	0.318	0.280	
Methyl isobutyl ketone	ND	0.0733	0.0617	ND	0.300	0.253	
Toluene	10.3	0.0718	0.0617	38.9	0.270	0.232	
trans-1,3-Dichloropropene	ND	0.0728	0.0617	ND	0.330	0.280	
1,1,2-Trichloroethane	ND	0.0717	0.0617	ND	0.391	0.336	
Tetrachloroethene	0.116	0.0721	0.0617	0.783	0.489	0.418	m
2-Hexanone (Methyl butyl ketone)	ND	0.0721	0.0617	ND	0.295	0.253	
Dibromochloromethane	ND	0.0711	0.0617	ND	0.605	0.525	
1,2-Dibromoethane	ND	0.0721	0.0617	ND	0.554	0.474	
Chlorobenzene	ND	0.0726	0.0617	ND	0.334	0.284	
Ethylbenzene	0.0983	0.0700	0.0617	0.427	0.304	0.268	
1,1,1,2-Tetrachloroethane	ND	0.0711	0.0617	ND	0.488	0.423	
m-/p-Xylenes	0.270	0.0715	0.0617	1.17	0.310	0.268	m
o-Xylene	0.113	0.0706	0.0617	0.488	0.307	0.268	m
Styrene	0.240	0.0691	0.0617	1.02	0.294	0.263	
Bromoform	ND	0.0707	0.0617	ND	0.730	0.637	
1,1,2,2-Tetrachloroethane	ND	0.0713	0.0617	ND	0.489	0.423	
4-Ethyltoluene	0.133	0.0717	0.0617	0.654	0.352	0.303	m
2-Chlorotoluene	ND	0.0711	0.0617	ND	0.368	0.319	
1,3,5-Trimethylbenzene	0.0794	0.0715	0.0617	0.390	0.351	0.303	m
1,2,4-Trimethylbenzene	0.114	0.0706	0.0617	0.560	0.347	0.303	
1,3-Dichlorobenzene	ND	0.0716	0.0617	ND	0.430	0.371	
1,4-Dichlorobenzene	ND	0.0709	0.0617	ND	0.426	0.371	

Enthalpy Analytical

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Sample Info. 1022-151; 500mL load; Can #0718
Sampling Date 2022-12-06 10:46
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202565.D
Dilution 1.000
Pressurization Factor 1.763
Acquisition Date 2022-12-12 17:28
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC01_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0709	0.0617	ND	0.367	0.319	
1,2-Dichlorobenzene	ND	0.0714	0.0617	ND	0.429	0.371	
1,2,4-Trichlorobenzene	ND	0.0702	0.0617	ND	0.521	0.458	
Hexachlorobutadiene	ND	0.0697	0.0617	ND	0.742	0.658	
Naphthalene	0.0798	0.0710	0.0617	0.418	0.372	0.323	
1-Bromopropane	ND	0.0699	0.0617	ND	0.352	0.310	
1-Octene	ND	0.0696	0.0617	ND	0.319	0.283	
n-Octane	ND	0.0726	0.0617	ND	0.339	0.288	
Isopropylbenzene	ND	0.0716	0.0617	ND	0.352	0.303	
n-Propylbenzene	0.111	0.0723	0.0617	0.544	0.355	0.303	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	736,357	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,857,310	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,503,506	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC02_221206_S
Sample Info. 1022-151; 500mL load; Can #1801
Sampling Date 2022-12-06 11:00
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202566.D
Dilution 1.000
Pressurization Factor 1.759
Acquisition Date 2022-12-12 18:21
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC02_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	4.35	0.0680	0.0616	7.48	0.117	0.106	
Freon 12 (CCl2F2)	0.410	0.0689	0.0616	2.03	0.340	0.304	
Freon 114 (C2Cl2F4)	ND	0.705	0.0616	ND	4.93	0.430	
Chloromethane	0.495	0.0696	0.0616	1.02	0.144	0.127	
Chloroethene (Vinyl chloride)	ND	0.0703	0.0616	ND	0.180	0.157	
1,3-Butadiene	ND	0.0685	0.0616	ND	0.151	0.136	
Bromomethane	ND	0.0690	0.0616	ND	0.268	0.239	
Chloroethane	ND	0.0715	0.0616	ND	0.189	0.162	
Bromoethene (Vinyl bromide)	ND	0.0688	0.0616	ND	0.301	0.269	
Freon 11 (CCl3F)	0.279	0.0742	0.0616	1.56	0.417	0.346	
Ethanol	1.25	0.0697	0.0704	2.35	0.131	0.133	m
Acrolein	0.312	0.0693	0.0616	0.714	0.159	0.141	
Freon 113 (C2Cl3F3)	0.0617	0.0714	0.0616	0.472	0.547	0.472	J
1,1-Dichloroethene	ND	0.0708	0.0616	ND	0.281	0.244	
Acetone	3.06	0.0705	0.0616	7.26	0.167	0.146	m
Carbon disulfide	0.571	0.0702	0.0616	1.78	0.218	0.192	
Isopropyl alcohol	0.435	0.0702	0.0616	1.07	0.172	0.151	m
Allyl chloride (3-chloropropene)	ND	0.0760	0.0616	ND	0.238	0.193	
Acetonitrile	0.237	0.0702	0.0616	0.397	0.118	0.103	m
Methylene chloride	0.140	0.0721	0.0616	0.486	0.250	0.214	
trans-1,2-Dichloroethene	ND	0.0718	0.0616	ND	0.284	0.244	
Methyl tert-butyl ether	ND	0.0723	0.0616	ND	0.261	0.222	
Acrylonitrile	ND	0.0716	0.0616	ND	0.155	0.134	
Hexane	0.340	0.0715	0.0616	1.20	0.252	0.217	
1,1-Dichloroethane	ND	0.0699	0.0616	ND	0.283	0.249	
Vinyl acetate	ND	0.0720	0.0616	ND	0.253	0.217	
cis-1,2-Dichloroethene	ND	0.0711	0.0616	ND	0.282	0.244	
Methyl ethyl ketone (2-Butanone)	0.454	0.0728	0.0616	1.34	0.214	0.181	
Ethyl acetate	0.165	0.0702	0.0616	0.595	0.253	0.222	
Chloroform	ND	0.0706	0.0616	ND	0.344	0.300	
Tetrahydrofuran	ND	0.0712	0.0616	ND	0.210	0.181	
1,1,1-Trichloroethane	ND	0.0711	0.0616	ND	0.388	0.336	
Cyclohexane	0.728	0.0721	0.0616	2.51	0.248	0.212	m

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC02_221206_S
Sample Info. 1022-151; 500mL load; Can #1801
Sampling Date 2022-12-06 11:00
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202566.D
Dilution 1.000
Pressurization Factor 1.759
Acquisition Date 2022-12-12 18:21
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC02_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0712	0.0709	0.0616	0.448	0.446	0.387	
Benzene	1.39	0.0708	0.0616	4.43	0.226	0.197	
2,2,4-trimethylpentane	0.0966	0.0728	0.0616	0.451	0.340	0.288	
1,2-Dichloroethane	ND	0.0724	0.0616	ND	0.293	0.249	
Heptane	0.174	0.0713	0.0616	0.714	0.292	0.252	
Trichloroethene	ND	0.0711	0.0616	ND	0.382	0.331	
1,2-Dichloropropane	ND	0.0709	0.0616	ND	0.327	0.284	
Methyl methacrylate	ND	0.0737	0.0616	ND	0.302	0.252	
1,4-Dioxane	ND	0.0706	0.0616	ND	0.254	0.222	
Bromodichloromethane	ND	0.0711	0.0616	ND	0.476	0.412	
cis-1,3-Dichloropropene	ND	0.0699	0.0616	ND	0.317	0.279	
Methyl isobutyl ketone	ND	0.0731	0.0616	ND	0.299	0.252	
Toluene	8.52	0.0716	0.0616	32.1	0.270	0.232	
trans-1,3-Dichloropropene	ND	0.0726	0.0616	ND	0.329	0.279	
1,1,2-Trichloroethane	0.0653	0.0716	0.0616	0.356	0.390	0.336	J
Tetrachloroethene	0.143	0.0720	0.0616	0.968	0.488	0.417	m
2-Hexanone (Methyl butyl ketone)	ND	0.0720	0.0616	ND	0.295	0.252	
Dibromochloromethane	ND	0.0709	0.0616	ND	0.604	0.524	
1,2-Dibromoethane	ND	0.0720	0.0616	ND	0.553	0.473	
Chlorobenzene	ND	0.0725	0.0616	ND	0.333	0.283	
Ethylbenzene	0.112	0.0699	0.0616	0.486	0.303	0.267	
1,1,1,2-Tetrachloroethane	ND	0.0709	0.0616	ND	0.487	0.422	
m-/p-Xylenes	0.275	0.0714	0.0616	1.19	0.310	0.267	
o-Xylene	0.144	0.0705	0.0616	0.624	0.306	0.267	m
Styrene	0.126	0.0690	0.0616	0.536	0.294	0.262	
Bromoform	ND	0.0706	0.0616	ND	0.729	0.636	
1,1,2,2-Tetrachloroethane	ND	0.0711	0.0616	ND	0.488	0.422	
4-Ethyltoluene	0.197	0.0716	0.0616	0.965	0.352	0.303	m
2-Chlorotoluene	ND	0.0710	0.0616	ND	0.367	0.319	
1,3,5-Trimethylbenzene	0.0639	0.0714	0.0616	0.314	0.351	0.303	J
1,2,4-Trimethylbenzene	0.169	0.0704	0.0616	0.831	0.346	0.303	
1,3-Dichlorobenzene	ND	0.0715	0.0616	ND	0.430	0.370	
1,4-Dichlorobenzene	ND	0.0707	0.0616	ND	0.425	0.370	

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Sample Info. 1022-151; 500mL load; Can #1801
Sampling Date 2022-12-06 11:00
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202566.D
Dilution 1.000
Pressurization Factor 1.759
Acquisition Date 2022-12-12 18:21
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC02_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0708	0.0616	ND	0.366	0.319	
1,2-Dichlorobenzene	ND	0.0713	0.0616	ND	0.428	0.370	
1,2,4-Trichlorobenzene	ND	0.0701	0.0616	ND	0.520	0.457	
Hexachlorobutadiene	ND	0.0695	0.0616	ND	0.741	0.656	
Naphthalene	1.32	0.0709	0.0616	6.92	0.371	0.323	m
1-Bromopropane	ND	0.0698	0.0616	ND	0.351	0.310	
1-Octene	ND	0.0695	0.0616	ND	0.319	0.282	
n-Octane	0.0768	0.0725	0.0616	0.358	0.338	0.288	
Isopropylbenzene	0.0626	0.0715	0.0616	0.307	0.351	0.303	J
n-Propylbenzene	0.191	0.0722	0.0616	0.940	0.355	0.303	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	729,950	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,814,026	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,474,683	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_S
Sample Info. 1022-151; 500mL load; Can #1744
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202567.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 19:15
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	5.88	0.0683	0.0619	10.1	0.118	0.106	
Freon 12 (CCl2F2)	0.426	0.0693	0.0619	2.10	0.342	0.306	m
Freon 114 (C2Cl2F4)	ND	0.709	0.0619	ND	4.95	0.433	
Chloromethane	0.421	0.0700	0.0619	0.868	0.144	0.128	
Chloroethene (Vinyl chloride)	ND	0.0707	0.0619	ND	0.181	0.158	
1,3-Butadiene	0.135	0.0688	0.0619	0.298	0.152	0.137	m
Bromomethane	ND	0.0694	0.0619	ND	0.269	0.240	
Chloroethane	ND	0.0719	0.0619	ND	0.190	0.163	
Bromoethene (Vinyl bromide)	ND	0.0692	0.0619	ND	0.302	0.271	
Freon 11 (CCl3F)	0.273	0.0746	0.0619	1.53	0.419	0.348	m
Ethanol	1.16	0.0701	0.0708	2.19	0.132	0.133	
Acrolein	0.113	0.0697	0.0619	0.259	0.160	0.142	
Freon 113 (C2Cl3F3)	0.0639	0.0718	0.0619	0.490	0.550	0.474	J, m
1,1-Dichloroethene	ND	0.0712	0.0619	ND	0.282	0.245	
Acetone	1.58	0.0709	0.0619	3.75	0.168	0.147	m
Carbon disulfide	0.0748	0.0705	0.0619	0.233	0.220	0.193	
Isopropyl alcohol	0.243	0.0705	0.0619	0.597	0.173	0.152	m
Allyl chloride (3-chloropropene)	ND	0.0764	0.0619	ND	0.239	0.194	
Acetonitrile	0.131	0.0705	0.0619	0.220	0.118	0.104	
Methylene chloride	0.142	0.0725	0.0619	0.493	0.252	0.215	
trans-1,2-Dichloroethene	ND	0.0722	0.0619	ND	0.286	0.245	
Methyl tert-butyl ether	ND	0.0727	0.0619	ND	0.262	0.223	
Acrylonitrile	ND	0.0720	0.0619	ND	0.156	0.134	
Hexane	0.362	0.0719	0.0619	1.28	0.253	0.218	m
1,1-Dichloroethane	ND	0.0703	0.0619	ND	0.284	0.250	
Vinyl acetate	ND	0.0724	0.0619	ND	0.255	0.218	
cis-1,2-Dichloroethene	ND	0.0715	0.0619	ND	0.283	0.245	
Methyl ethyl ketone (2-Butanone)	0.211	0.0732	0.0619	0.621	0.216	0.182	m
Ethyl acetate	0.104	0.0706	0.0619	0.373	0.254	0.223	m
Chloroform	0.0624	0.0710	0.0619	0.305	0.346	0.302	J
Tetrahydrofuran	ND	0.0716	0.0619	ND	0.211	0.182	
1,1,1-Trichloroethane	ND	0.0715	0.0619	ND	0.390	0.338	
Cyclohexane	0.676	0.0725	0.0619	2.32	0.249	0.213	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_S
Sample Info. 1022-151; 500mL load; Can #1744
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202567.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 19:15
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0727	0.0712	0.0619	0.457	0.448	0.389	m
Benzene	2.08	0.0712	0.0619	6.65	0.227	0.198	
2,2,4-trimethylpentane	0.101	0.0732	0.0619	0.470	0.342	0.289	m
1,2-Dichloroethane	ND	0.0728	0.0619	ND	0.294	0.250	
Heptane	0.177	0.0717	0.0619	0.723	0.294	0.254	
Trichloroethene	ND	0.0715	0.0619	ND	0.384	0.332	
1,2-Dichloropropane	ND	0.0712	0.0619	ND	0.329	0.286	
Methyl methacrylate	ND	0.0741	0.0619	ND	0.303	0.253	
1,4-Dioxane	ND	0.0710	0.0619	ND	0.256	0.223	
Bromodichloromethane	ND	0.0715	0.0619	ND	0.479	0.415	
cis-1,3-Dichloropropene	ND	0.0703	0.0619	ND	0.319	0.281	
Methyl isobutyl ketone	ND	0.0735	0.0619	ND	0.301	0.253	
Toluene	7.51	0.0720	0.0619	28.3	0.271	0.233	
trans-1,3-Dichloropropene	ND	0.0730	0.0619	ND	0.331	0.281	
1,1,2-Trichloroethane	ND	0.0720	0.0619	ND	0.392	0.338	
Tetrachloroethene	0.159	0.0724	0.0619	1.07	0.491	0.420	m
2-Hexanone (Methyl butyl ketone)	ND	0.0724	0.0619	ND	0.296	0.253	
Dibromochloromethane	ND	0.0713	0.0619	ND	0.607	0.527	
1,2-Dibromoethane	ND	0.0724	0.0619	ND	0.556	0.475	
Chlorobenzene	ND	0.0729	0.0619	ND	0.335	0.285	
Ethylbenzene	0.118	0.0703	0.0619	0.512	0.305	0.269	
1,1,1,2-Tetrachloroethane	ND	0.0713	0.0619	ND	0.489	0.425	
m-/p-Xylenes	0.367	0.0717	0.0619	1.59	0.311	0.269	
o-Xylene	0.161	0.0709	0.0619	0.697	0.308	0.269	m
Styrene	0.366	0.0693	0.0619	1.56	0.295	0.264	
Bromoform	ND	0.0710	0.0619	ND	0.733	0.640	
1,1,2,2-Tetrachloroethane	ND	0.0715	0.0619	ND	0.491	0.425	
4-Ethyltoluene	0.212	0.0720	0.0619	1.04	0.354	0.304	m
2-Chlorotoluene	ND	0.0714	0.0619	ND	0.369	0.320	
1,3,5-Trimethylbenzene	0.151	0.0717	0.0619	0.740	0.352	0.304	
1,2,4-Trimethylbenzene	0.285	0.0708	0.0619	1.40	0.348	0.304	
1,3-Dichlorobenzene	ND	0.0719	0.0619	ND	0.432	0.372	
1,4-Dichlorobenzene	ND	0.0711	0.0619	ND	0.427	0.372	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_S
Sample Info. 1022-151; 500mL load; Can #1744
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202567.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 19:15
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0712	0.0619	ND	0.368	0.320	
1,2-Dichlorobenzene	ND	0.0717	0.0619	ND	0.431	0.372	
1,2,4-Trichlorobenzene	ND	0.0705	0.0619	ND	0.523	0.459	
Hexachlorobutadiene	ND	0.0699	0.0619	ND	0.745	0.660	
Naphthalene	0.294	0.0712	0.0619	1.54	0.373	0.324	
1-Bromopropane	ND	0.0702	0.0619	ND	0.353	0.311	
1-Octene	ND	0.0698	0.0619	ND	0.320	0.284	
n-Octane	ND	0.0729	0.0619	ND	0.340	0.289	
Isopropylbenzene	ND	0.0719	0.0619	ND	0.353	0.304	
n-Propylbenzene	0.172	0.0726	0.0619	0.847	0.357	0.304	m

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	731,390	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,875,167	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,483,903	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_D
Sample Info. 1022-151; 500mL load; Can #0806
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202569.D
Dilution 1.000
Pressurization Factor 1.741
Acquisition Date 2022-12-12 21:03
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	5.83	0.0673	0.0609	10.0	0.116	0.105	
Freon 12 (CCl2F2)	0.416	0.0682	0.0609	2.06	0.337	0.301	m
Freon 114 (C2Cl2F4)	ND	0.698	0.0609	ND	4.87	0.426	
Chloromethane	0.481	0.0689	0.0609	0.992	0.142	0.126	
Chloroethene (Vinyl chloride)	ND	0.0696	0.0609	ND	0.178	0.156	
1,3-Butadiene	0.135	0.0678	0.0609	0.299	0.150	0.135	
Bromomethane	ND	0.0683	0.0609	ND	0.265	0.236	
Chloroethane	ND	0.0708	0.0609	ND	0.187	0.161	
Bromoethene (Vinyl bromide)	ND	0.0681	0.0609	ND	0.298	0.266	
Freon 11 (CCl3F)	0.296	0.0735	0.0609	1.66	0.413	0.342	
Ethanol	1.07	0.0690	0.0696	2.02	0.130	0.131	
Acrolein	0.0884	0.0686	0.0609	0.203	0.157	0.140	m
Freon 113 (C2Cl3F3)	ND	0.0707	0.0609	ND	0.541	0.467	
1,1-Dichloroethene	ND	0.0701	0.0609	ND	0.278	0.241	
Acetone	1.44	0.0698	0.0609	3.42	0.166	0.145	
Carbon disulfide	ND	0.0694	0.0609	ND	0.216	0.190	
Isopropyl alcohol	0.223	0.0694	0.0609	0.548	0.171	0.150	m
Allyl chloride (3-chloropropene)	ND	0.0752	0.0609	ND	0.235	0.191	
Acetonitrile	0.121	0.0694	0.0609	0.203	0.116	0.102	
Methylene chloride	0.121	0.0713	0.0609	0.419	0.248	0.212	
trans-1,2-Dichloroethene	ND	0.0710	0.0609	ND	0.281	0.241	
Methyl tert-butyl ether	ND	0.0716	0.0609	ND	0.258	0.220	
Acrylonitrile	ND	0.0709	0.0609	ND	0.154	0.132	
Hexane	0.350	0.0708	0.0609	1.23	0.249	0.215	m
1,1-Dichloroethane	ND	0.0692	0.0609	ND	0.280	0.246	
Vinyl acetate	ND	0.0712	0.0609	ND	0.251	0.214	
cis-1,2-Dichloroethene	ND	0.0703	0.0609	ND	0.279	0.241	
Methyl ethyl ketone (2-Butanone)	0.188	0.0720	0.0609	0.555	0.212	0.180	m
Ethyl acetate	0.125	0.0695	0.0609	0.449	0.250	0.219	m
Chloroform	ND	0.0698	0.0609	ND	0.341	0.297	
Tetrahydrofuran	ND	0.0705	0.0609	ND	0.208	0.180	
1,1,1-Trichloroethane	ND	0.0703	0.0609	ND	0.384	0.332	
Cyclohexane	0.655	0.0714	0.0609	2.25	0.246	0.210	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_D
Sample Info. 1022-151; 500mL load; Can #0806
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202569.D
Dilution 1.000
Pressurization Factor 1.741
Acquisition Date 2022-12-12 21:03
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0811	0.0701	0.0609	0.510	0.441	0.383	m
Benzene	1.98	0.0701	0.0609	6.31	0.224	0.195	
2,2,4-trimethylpentane	0.100	0.0720	0.0609	0.468	0.336	0.285	m
1,2-Dichloroethane	ND	0.0717	0.0609	ND	0.290	0.246	
Heptane	0.190	0.0705	0.0609	0.780	0.289	0.250	m
Trichloroethene	ND	0.0704	0.0609	ND	0.378	0.327	
1,2-Dichloropropane	ND	0.0701	0.0609	ND	0.324	0.281	
Methyl methacrylate	ND	0.0729	0.0609	ND	0.298	0.249	
1,4-Dioxane	ND	0.0698	0.0609	ND	0.252	0.219	
Bromodichloromethane	ND	0.0703	0.0609	ND	0.471	0.408	
cis-1,3-Dichloropropene	ND	0.0692	0.0609	ND	0.314	0.276	
Methyl isobutyl ketone	ND	0.0724	0.0609	ND	0.296	0.249	
Toluene	6.76	0.0709	0.0609	25.4	0.267	0.229	
trans-1,3-Dichloropropene	ND	0.0719	0.0609	ND	0.326	0.276	
1,1,2-Trichloroethane	ND	0.0708	0.0609	ND	0.386	0.332	
Tetrachloroethene	0.162	0.0712	0.0609	1.10	0.483	0.413	m
2-Hexanone (Methyl butyl ketone)	ND	0.0712	0.0609	ND	0.292	0.249	
Dibromochloromethane	ND	0.0702	0.0609	ND	0.598	0.519	
1,2-Dibromoethane	ND	0.0712	0.0609	ND	0.547	0.468	
Chlorobenzene	ND	0.0717	0.0609	ND	0.330	0.280	
Ethylbenzene	0.113	0.0692	0.0609	0.492	0.300	0.264	
1,1,1,2-Tetrachloroethane	ND	0.0702	0.0609	ND	0.482	0.418	
m-/p-Xylenes	0.356	0.0706	0.0609	1.55	0.306	0.264	
o-Xylene	0.146	0.0698	0.0609	0.631	0.303	0.264	
Styrene	0.320	0.0682	0.0609	1.36	0.291	0.259	m
Bromoform	ND	0.0698	0.0609	ND	0.722	0.629	
1,1,2,2-Tetrachloroethane	ND	0.0704	0.0609	ND	0.483	0.418	
4-Ethyltoluene	0.190	0.0708	0.0609	0.934	0.348	0.299	m
2-Chlorotoluene	ND	0.0703	0.0609	ND	0.364	0.315	
1,3,5-Trimethylbenzene	0.126	0.0706	0.0609	0.620	0.347	0.299	m
1,2,4-Trimethylbenzene	0.225	0.0697	0.0609	1.11	0.342	0.299	
1,3-Dichlorobenzene	ND	0.0708	0.0609	ND	0.425	0.366	
1,4-Dichlorobenzene	ND	0.0700	0.0609	ND	0.421	0.366	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC03_221206_D
Sample Info. 1022-151; 500mL load; Can #0806
Sampling Date 2022-12-06 11:21
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202569.D
Dilution 1.000
Pressurization Factor 1.741
Acquisition Date 2022-12-12 21:03
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC03_221206_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0701	0.0609	ND	0.362	0.315	
1,2-Dichlorobenzene	ND	0.0705	0.0609	ND	0.424	0.366	
1,2,4-Trichlorobenzene	ND	0.0694	0.0609	ND	0.514	0.452	
Hexachlorobutadiene	ND	0.0688	0.0609	ND	0.733	0.649	
Naphthalene	0.202	0.0701	0.0609	1.06	0.367	0.319	m
1-Bromopropane	ND	0.0691	0.0609	ND	0.347	0.306	
1-Octene	ND	0.0687	0.0609	ND	0.315	0.279	
n-Octane	0.0715	0.0717	0.0609	0.334	0.335	0.285	J, m
Isopropylbenzene	ND	0.0708	0.0609	ND	0.348	0.299	
n-Propylbenzene	0.154	0.0715	0.0609	0.758	0.351	0.299	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	729,837	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,779,219	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,495,170	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC04_221206_S
Sample Info. 1022-151; 500mL load; Can #0850
Sampling Date 2022-12-06 11:34
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202570.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 21:57
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC04_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	7.72	0.0684	0.0619	13.3	0.118	0.106	m
Freon 12 (CCl2F2)	0.415	0.0693	0.0619	2.05	0.342	0.306	
Freon 114 (C2Cl2F4)	ND	0.709	0.0619	ND	4.95	0.433	
Chloromethane	0.462	0.0700	0.0619	0.953	0.144	0.128	
Chloroethene (Vinyl chloride)	ND	0.0707	0.0619	ND	0.181	0.158	
1,3-Butadiene	0.137	0.0689	0.0619	0.303	0.152	0.137	
Bromomethane	ND	0.0694	0.0619	ND	0.269	0.240	
Chloroethane	ND	0.0719	0.0619	ND	0.190	0.163	
Bromoethene (Vinyl bromide)	ND	0.0692	0.0619	ND	0.303	0.271	
Freon 11 (CCl3F)	0.295	0.0747	0.0619	1.66	0.419	0.348	
Ethanol	1.40	0.0701	0.0708	2.63	0.132	0.133	
Acrolein	0.138	0.0697	0.0619	0.317	0.160	0.142	m
Freon 113 (C2Cl3F3)	0.0705	0.0718	0.0619	0.540	0.550	0.474	J
1,1-Dichloroethene	ND	0.0712	0.0619	ND	0.282	0.245	
Acetone	1.69	0.0709	0.0619	4.01	0.168	0.147	
Carbon disulfide	0.0626	0.0706	0.0619	0.195	0.220	0.193	J
Isopropyl alcohol	0.230	0.0706	0.0619	0.565	0.173	0.152	m
Allyl chloride (3-chloropropene)	ND	0.0764	0.0619	ND	0.239	0.194	
Acetonitrile	0.177	0.0706	0.0619	0.298	0.118	0.104	m
Methylene chloride	0.145	0.0725	0.0619	0.502	0.252	0.215	
trans-1,2-Dichloroethene	ND	0.0722	0.0619	ND	0.286	0.245	
Methyl tert-butyl ether	ND	0.0727	0.0619	ND	0.262	0.223	
Acrylonitrile	ND	0.0720	0.0619	ND	0.156	0.134	
Hexane	0.403	0.0719	0.0619	1.42	0.253	0.218	m
1,1-Dichloroethane	ND	0.0703	0.0619	ND	0.284	0.250	
Vinyl acetate	ND	0.0724	0.0619	ND	0.255	0.218	
cis-1,2-Dichloroethene	ND	0.0715	0.0619	ND	0.283	0.245	
Methyl ethyl ketone (2-Butanone)	0.225	0.0732	0.0619	0.663	0.216	0.182	
Ethyl acetate	0.146	0.0706	0.0619	0.527	0.254	0.223	
Chloroform	ND	0.0710	0.0619	ND	0.346	0.302	
Tetrahydrofuran	ND	0.0716	0.0619	ND	0.211	0.182	
1,1,1-Trichloroethane	ND	0.0715	0.0619	ND	0.390	0.338	
Cyclohexane	0.602	0.0725	0.0619	2.07	0.250	0.213	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC04_221206_S
Sample Info. 1022-151; 500mL load; Can #0850
Sampling Date 2022-12-06 11:34
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202570.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 21:57
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC04_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0742	0.0713	0.0619	0.466	0.448	0.389	m
Benzene	4.61	0.0712	0.0619	14.7	0.227	0.198	m
2,2,4-trimethylpentane	0.116	0.0732	0.0619	0.544	0.342	0.289	
1,2-Dichloroethane	ND	0.0728	0.0619	ND	0.295	0.250	
Heptane	0.196	0.0717	0.0619	0.804	0.294	0.254	m
Trichloroethene	ND	0.0715	0.0619	ND	0.384	0.333	
1,2-Dichloropropane	ND	0.0713	0.0619	ND	0.329	0.286	
Methyl methacrylate	ND	0.0741	0.0619	ND	0.303	0.253	
1,4-Dioxane	ND	0.0710	0.0619	ND	0.256	0.223	
Bromodichloromethane	ND	0.0715	0.0619	ND	0.479	0.415	
cis-1,3-Dichloropropene	ND	0.0703	0.0619	ND	0.319	0.281	
Methyl isobutyl ketone	ND	0.0735	0.0619	ND	0.301	0.253	
Toluene	6.06	0.0720	0.0619	22.8	0.271	0.233	
trans-1,3-Dichloropropene	ND	0.0730	0.0619	ND	0.331	0.281	
1,1,2-Trichloroethane	ND	0.0720	0.0619	ND	0.392	0.338	
Tetrachloroethene	0.192	0.0724	0.0619	1.30	0.491	0.420	m
2-Hexanone (Methyl butyl ketone)	ND	0.0724	0.0619	ND	0.296	0.253	
Dibromochloromethane	ND	0.0713	0.0619	ND	0.607	0.527	
1,2-Dibromoethane	ND	0.0724	0.0619	ND	0.556	0.475	
Chlorobenzene	ND	0.0729	0.0619	ND	0.335	0.285	
Ethylbenzene	0.138	0.0703	0.0619	0.600	0.305	0.269	
1,1,1,2-Tetrachloroethane	ND	0.0713	0.0619	ND	0.489	0.425	
m-/p-Xylenes	0.404	0.0718	0.0619	1.75	0.311	0.269	m
o-Xylene	0.179	0.0709	0.0619	0.779	0.308	0.269	m
Styrene	0.401	0.0693	0.0619	1.71	0.295	0.264	m
Bromoform	ND	0.0710	0.0619	ND	0.733	0.640	
1,1,2,2-Tetrachloroethane	ND	0.0715	0.0619	ND	0.491	0.425	
4-Ethyltoluene	0.177	0.0720	0.0619	0.870	0.354	0.304	m
2-Chlorotoluene	ND	0.0714	0.0619	ND	0.369	0.320	
1,3,5-Trimethylbenzene	0.133	0.0718	0.0619	0.654	0.352	0.304	
1,2,4-Trimethylbenzene	0.258	0.0708	0.0619	1.27	0.348	0.304	
1,3-Dichlorobenzene	ND	0.0719	0.0619	ND	0.432	0.372	
1,4-Dichlorobenzene	ND	0.0711	0.0619	ND	0.427	0.372	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC04_221206_S
Sample Info. 1022-151; 500mL load; Can #0850
Sampling Date 2022-12-06 11:34
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202570.D
Dilution 1.000
Pressurization Factor 1.769
Acquisition Date 2022-12-12 21:57
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC04_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0712	0.0619	ND	0.368	0.320	
1,2-Dichlorobenzene	ND	0.0717	0.0619	ND	0.431	0.372	
1,2,4-Trichlorobenzene	ND	0.0705	0.0619	ND	0.523	0.459	
Hexachlorobutadiene	ND	0.0699	0.0619	ND	0.745	0.660	
Naphthalene	0.245	0.0713	0.0619	1.29	0.373	0.324	
1-Bromopropane	ND	0.0702	0.0619	ND	0.353	0.311	
1-Octene	ND	0.0698	0.0619	ND	0.320	0.284	
n-Octane	0.0672	0.0729	0.0619	0.314	0.340	0.289	J, m
Isopropylbenzene	ND	0.0719	0.0619	ND	0.353	0.304	
n-Propylbenzene	0.138	0.0726	0.0619	0.680	0.357	0.304	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	721,540	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,773,040	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,452,676	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC05_221206_S
 Sample Info. 1022-151; 500mL load; Can #000040
 Sampling Date 2022-12-06 15:45
 Received Date 2022-12-09 00:00
 Sample Type Sample
 Batch Xavier_X121222B.v1
 Data File X2202571.D
 Dilution 1.000
 Pressurization Factor 1.792
 Acquisition Date 2022-12-12 22:51
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-151.VOC05_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	3.10	0.0692	0.0627	5.33	0.119	0.108	m
Freon 12 (CCl2F2)	0.389	0.0702	0.0627	1.92	0.347	0.310	
Freon 114 (C2Cl2F4)	ND	0.718	0.0627	ND	5.02	0.438	
Chloromethane	0.507	0.0709	0.0627	1.05	0.146	0.129	
Chloroethene (Vinyl chloride)	ND	0.0716	0.0627	ND	0.183	0.160	
1,3-Butadiene	0.400	0.0697	0.0627	0.884	0.154	0.139	m
Bromomethane	ND	0.0703	0.0627	ND	0.273	0.243	
Chloroethane	ND	0.0728	0.0627	ND	0.192	0.165	
Bromoethene (Vinyl bromide)	ND	0.0701	0.0627	ND	0.306	0.274	
Freon 11 (CCl3F)	0.226	0.0756	0.0627	1.27	0.425	0.352	m
Ethanol	1.69	0.0710	0.0717	3.17	0.134	0.135	
Acrolein	0.147	0.0706	0.0627	0.336	0.162	0.144	
Freon 113 (C2Cl3F3)	0.0667	0.0727	0.0627	0.511	0.557	0.480	J
1,1-Dichloroethene	ND	0.0721	0.0627	ND	0.286	0.248	
Acetone	2.43	0.0718	0.0627	5.77	0.170	0.149	m
Carbon disulfide	0.857	0.0715	0.0627	2.67	0.222	0.195	m
Isopropyl alcohol	2.15	0.0715	0.0627	5.29	0.176	0.154	m
Allyl chloride (3-chloropropene)	ND	0.0774	0.0627	ND	0.242	0.196	
Acetonitrile	3.62	0.0715	0.0627	6.08	0.120	0.105	m
Methylene chloride	0.127	0.0734	0.0627	0.439	0.255	0.218	
trans-1,2-Dichloroethene	ND	0.0731	0.0627	ND	0.290	0.248	
Methyl tert-butyl ether	ND	0.0737	0.0627	ND	0.265	0.226	
Acrylonitrile	ND	0.0730	0.0627	ND	0.158	0.136	
Hexane	0.324	0.0728	0.0627	1.14	0.256	0.221	m
1,1-Dichloroethane	ND	0.0712	0.0627	ND	0.288	0.254	
Vinyl acetate	ND	0.0733	0.0627	ND	0.258	0.221	
cis-1,2-Dichloroethene	ND	0.0724	0.0627	ND	0.287	0.248	
Methyl ethyl ketone (2-Butanone)	0.263	0.0741	0.0627	0.775	0.218	0.185	
Ethyl acetate	0.0955	0.0715	0.0627	0.344	0.258	0.226	m
Chloroform	ND	0.0719	0.0627	ND	0.351	0.306	
Tetrahydrofuran	ND	0.0725	0.0627	ND	0.214	0.185	
1,1,1-Trichloroethane	ND	0.0724	0.0627	ND	0.395	0.342	
Cyclohexane	0.583	0.0735	0.0627	2.01	0.253	0.216	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC05_221206_S
Sample Info. 1022-151; 500mL load; Can #000040
Sampling Date 2022-12-06 15:45
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202571.D
Dilution 1.000
Pressurization Factor 1.792
Acquisition Date 2022-12-12 22:51
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC05_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0739	0.0722	0.0627	0.465	0.454	0.394	
2,2,4-trimethylpentane	0.0888	0.0741	0.0627	0.414	0.346	0.293	m
1,2-Dichloroethane	ND	0.0737	0.0627	ND	0.298	0.254	
Heptane	0.143	0.0726	0.0627	0.585	0.297	0.257	
Trichloroethene	ND	0.0725	0.0627	ND	0.389	0.337	
1,2-Dichloropropane	ND	0.0722	0.0627	ND	0.333	0.290	
Methyl methacrylate	ND	0.0750	0.0627	ND	0.307	0.257	
1,4-Dioxane	ND	0.0719	0.0627	ND	0.259	0.226	
Bromodichloromethane	ND	0.0724	0.0627	ND	0.485	0.420	
cis-1,3-Dichloropropene	ND	0.0712	0.0627	ND	0.323	0.284	
Methyl isobutyl ketone	ND	0.0745	0.0627	ND	0.305	0.257	
Toluene	16.1	0.0730	0.0627	60.8	0.275	0.236	
trans-1,3-Dichloropropene	ND	0.0740	0.0627	ND	0.335	0.284	
1,1,2-Trichloroethane	ND	0.0729	0.0627	ND	0.397	0.342	
Tetrachloroethene	0.167	0.0733	0.0627	1.13	0.497	0.425	
2-Hexanone (Methyl butyl ketone)	ND	0.0733	0.0627	ND	0.300	0.257	
Dibromochloromethane	ND	0.0722	0.0627	ND	0.615	0.534	
1,2-Dibromoethane	ND	0.0733	0.0627	ND	0.563	0.482	
Chlorobenzene	ND	0.0738	0.0627	ND	0.340	0.289	
Ethylbenzene	0.132	0.0712	0.0627	0.573	0.309	0.272	
1,1,1,2-Tetrachloroethane	ND	0.0722	0.0627	ND	0.496	0.430	
m-/p-Xylenes	1.31	0.0727	0.0627	5.70	0.315	0.272	
o-Xylene	0.326	0.0718	0.0627	1.42	0.312	0.272	
Styrene	1.00	0.0702	0.0627	4.26	0.299	0.267	
Bromoform	ND	0.0719	0.0627	ND	0.743	0.648	
1,1,2,2-Tetrachloroethane	ND	0.0725	0.0627	ND	0.497	0.430	
4-Ethyltoluene	0.239	0.0729	0.0627	1.17	0.358	0.308	m
2-Chlorotoluene	ND	0.0723	0.0627	ND	0.374	0.324	
1,3,5-Trimethylbenzene	0.200	0.0727	0.0627	0.980	0.357	0.308	
1,2,4-Trimethylbenzene	0.337	0.0717	0.0627	1.65	0.352	0.308	m
1,3-Dichlorobenzene	ND	0.0728	0.0627	ND	0.438	0.377	
1,4-Dichlorobenzene	ND	0.0720	0.0627	ND	0.433	0.377	
Benzyl chloride	ND	0.0721	0.0627	ND	0.373	0.324	

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC05_221206_S
 Sample Info. 1022-151; 500mL load; Can #000040
 Sampling Date 2022-12-06 15:45
 Received Date 2022-12-09 00:00
 Sample Type Sample
 Batch Xavier_X121222B.v1
 Data File X2202571.D
 Dilution 1.000
 Pressurization Factor 1.792
 Acquisition Date 2022-12-12 22:51
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-151.VOC05_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
1,2-Dichlorobenzene	ND	0.0726	0.0627	ND	0.436	0.377	
1,2,4-Trichlorobenzene	ND	0.0714	0.0627	ND	0.529	0.465	
Hexachlorobutadiene	ND	0.0708	0.0627	ND	0.755	0.668	
Naphthalene	8.12	0.0722	0.0627	42.5	0.378	0.329	
1-Bromopropane	ND	0.0711	0.0627	ND	0.357	0.315	
1-Octene	ND	0.0707	0.0627	ND	0.324	0.288	
n-Octane	0.0645	0.0738	0.0627	0.301	0.345	0.293	J
Isopropylbenzene	ND	0.0728	0.0627	ND	0.358	0.308	
n-Propylbenzene	0.160	0.0735	0.0627	0.788	0.361	0.308	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	720,657	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,828,853	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,436,063	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name VOC05_221206_S
Sample Info. 1022-151; *10=50mL load; Can #000040
Sampling Date 2022-12-06 15:45
Received Date 2022-12-09 00:00
Sample Type Sample
Batch Xavier_X121222B.v1
Data File X2202578.D
Dilution 10.000
Pressurization Factor 1.792
Acquisition Date 2022-12-13 08:12
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-151.VOC05_221206_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzene	123	0.721	0.627	392	2.30	2.00	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
1,4-Difluorobenzene (IS)	2,885,125	12.47	5.16	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical -- Canister Pressurization

Job No. 1022-151
 Company All4, Inc.
 Site U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Can Number	000040	0718	0806	0850	1744	1801
Job	1022-151	1022-151	1022-151	1022-151	1022-151	1022-151
Sample ID	VOC05_221206_S	VOC01_221206_S	VOC03_221206_D	VOC04_221206_S	VOC03_221206_S	VOC02_221206_S
CleanDate	08/13/2022	08/12/2022	08/13/2022	11/09/2022	08/13/2022	08/15/2022
LeakCheckDate	08/16/2022	08/16/2022	08/16/2022	11/10/2022	08/16/2022	08/12/2022
LeakCheckAnalyst	aamears	aamears	aamears	aamears	aamears	aamears
BlankCheckRef	X2201637	X2201600	X2201631	Y2204088	X2201633	X2201648
Weather Station ID	81	81	81	81	81	81
Weather Station Exp.	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022
Transducer ID	3	3	3	3	3	3
Transducer Exp.	02/22/2023	02/22/2023	02/22/2023	02/22/2023	02/22/2023	02/22/2023
Can Size (L)	6	6	6	6	6	6
Evac Temp (F)	68.1	68.1	68.1	68.1	68.1	68.1
Evac Pbar (mmHg)	759.7	759.7	759.7	759.7	759.7	759.7
Evac Gauge (mmHg)	-759.7	-759.7	-759.7	-759.7	-759.7	-759.7
Evac Analyst	aamears	aamears	aamears	aamears	aamears	aamears
Evac Time	12/02/22 10:00	12/02/22 10:01	12/02/22 10:00	12/02/22 10:01	12/02/22 09:59	12/02/22 10:00
Evac Vol (L)	0.000	0.000	0.000	0.000	0.000	0.000
Recd. Temp (F)	70.8	70.8	70.8	70.8	70.8	70.8
Recd. Pbar (mmHg)	767.3	767.3	767.3	767.3	767.3	767.3
Recd. Gauge (mmHg)	-228.0	-172.0	-71.0	-125.0	-65.0	-151.0
Recd Vol (L)	4.235	4.675	5.468	5.044	5.515	4.840
P1 Temp (F)	70.8	70.8	70.8	70.8	70.8	70.8
P1 Pbar (mmHg)	767.3	767.3	767.3	767.3	767.3	767.3
P1 Gauge (mmHg)	199.0	282.0	445.0	369.0	475.0	317.0
P1 Analyst	aamears	aamears	aamears	aamears	aamears	aamears
P1 Time	12/12/22 16:09	12/12/22 16:05	12/12/22 16:08	12/12/22 16:09	12/12/22 16:08	12/12/22 16:08
P1 Vol (L)	7.589	8.240	9.521	8.924	9.756	8.515
P1 DF Override	false	false	false	false	false	false
P1 Dilution Factor	1.792	1.763	1.741	1.769	1.769	1.759

Lab QC

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs
 All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 1022-151.VOC03_221206_S.LD
 Sample Info. 1022-151; 500mL load; Can #1744
 Sampling Date 2022-12-06 11:21
 Received Date 2022-12-09 00:00
 Sample Type LabDup
 Batch Xavier_X121222B.v1
 Data File X2202568.D
 Dilution 1.000
 Pressurization Factor 1.769
 Acquisition Date 2022-12-12 20:09
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Enthalpy ID 1022-151.VOC03_221206_S.LD

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Dup Diff (%)	Flags
Propylene	5.95	0.0683	0.0619	10.2	0.118	0.106	1.2	pass
Freon 12 (CCl2F2)	0.400	0.0693	0.0619	1.98	0.342	0.306	6.2	pass, m
Freon 114 (C2Cl2F4)	ND	0.709	0.0619	ND	4.95	0.433		
Chloromethane	0.449	0.0700	0.0619	0.927	0.144	0.128	6.6	pass
Chloroethene (Vinyl chloride)	ND	0.0707	0.0619	ND	0.181	0.158		
1,3-Butadiene	0.169	0.0688	0.0619	0.374	0.152	0.137	22.5	pass, m
Bromomethane	ND	0.0694	0.0619	ND	0.269	0.240		
Chloroethane	ND	0.0719	0.0619	ND	0.190	0.163		
Bromoethene (Vinyl bromide)	ND	0.0692	0.0619	ND	0.302	0.271		
Freon 11 (CCl3F)	0.285	0.0746	0.0619	1.60	0.419	0.348	4.2	pass
Ethanol	1.21	0.0701	0.0708	2.28	0.132	0.133	4.1	pass
Acrolein	0.125	0.0697	0.0619	0.287	0.160	0.142	10.2	pass
Freon 113 (C2Cl3F3)	0.0683	0.0718	0.0619	0.523	0.550	0.474	6.6	pass, J, m
1,1-Dichloroethene	ND	0.0712	0.0619	ND	0.282	0.245		
Acetone	1.48	0.0709	0.0619	3.52	0.168	0.147	6.4	pass
Carbon disulfide	0.0769	0.0705	0.0619	0.239	0.220	0.193	2.8	pass, m
Isopropyl alcohol	0.216	0.0705	0.0619	0.531	0.173	0.152	11.7	pass, m
Allyl chloride (3-chloropropene)	ND	0.0764	0.0619	ND	0.239	0.194		
Acetonitrile	0.134	0.0705	0.0619	0.224	0.118	0.104	1.9	pass
Methylene chloride	0.140	0.0725	0.0619	0.486	0.252	0.215	1.4	pass, m
trans-1,2-Dichloroethene	ND	0.0722	0.0619	ND	0.286	0.245		
Methyl tert-butyl ether	ND	0.0727	0.0619	ND	0.262	0.223		
Acrylonitrile	ND	0.0720	0.0619	ND	0.156	0.134		
Hexane	0.367	0.0719	0.0619	1.29	0.253	0.218	1.2	pass
1,1-Dichloroethane	ND	0.0703	0.0619	ND	0.284	0.250		
Vinyl acetate	ND	0.0724	0.0619	ND	0.255	0.218		
cis-1,2-Dichloroethene	ND	0.0715	0.0619	ND	0.283	0.245		
Methyl ethyl ketone (2-Butanone)	0.188	0.0732	0.0619	0.555	0.216	0.182	11.3	pass, m
Ethyl acetate	0.126	0.0706	0.0619	0.455	0.254	0.223	19.8	pass
Chloroform	ND	0.0710	0.0619	ND	0.346	0.302		
Tetrahydrofuran	ND	0.0716	0.0619	ND	0.211	0.182		
1,1,1-Trichloroethane	ND	0.0715	0.0619	ND	0.390	0.338		
Cyclohexane	0.678	0.0725	0.0619	2.33	0.249	0.213	0.3	pass, m
Carbon tetrachloride	0.0693	0.0712	0.0619	0.436	0.448	0.389	4.8	pass, J, m
Benzene	2.13	0.0712	0.0619	6.80	0.227	0.198	2.3	pass
2,2,4-trimethylpentane	0.100	0.0732	0.0619	0.469	0.342	0.289	0.4	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs
 All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 1022-151.VOC03_221206_S.LD
 Sample Info. 1022-151; 500mL load; Can #1744
 Sampling Date 2022-12-06 11:21
 Received Date 2022-12-09 00:00
 Sample Type LabDup
 Batch Xavier_X121222B.v1
 Data File X2202568.D
 Dilution 1.000
 Pressurization Factor 1.769
 Acquisition Date 2022-12-12 20:09
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Enthalpy ID 1022-151.VOC03_221206_S.LD

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Dup Diff (%)	Flags
1,2-Dichloroethane	ND	0.0728	0.0619	ND	0.294	0.250		
Heptane	0.163	0.0717	0.0619	0.668	0.294	0.254	8.0	pass
Trichloroethene	ND	0.0715	0.0619	ND	0.384	0.332		
1,2-Dichloropropane	ND	0.0712	0.0619	ND	0.329	0.286		
Methyl methacrylate	ND	0.0741	0.0619	ND	0.303	0.253		
1,4-Dioxane	ND	0.0710	0.0619	ND	0.256	0.223		
Bromodichloromethane	ND	0.0715	0.0619	ND	0.479	0.415		
cis-1,3-Dichloropropene	ND	0.0703	0.0619	ND	0.319	0.281		
Methyl isobutyl ketone	ND	0.0735	0.0619	ND	0.301	0.253		
Toluene	7.31	0.0720	0.0619	27.5	0.271	0.233	2.8	pass
trans-1,3-Dichloropropene	ND	0.0730	0.0619	ND	0.331	0.281		
1,1,2-Trichloroethane	ND	0.0720	0.0619	ND	0.392	0.338		
Tetrachloroethene	0.172	0.0724	0.0619	1.17	0.491	0.420	8.2	pass, m
2-Hexanone (Methyl butyl ketone)	ND	0.0724	0.0619	ND	0.296	0.253		
Dibromochloromethane	ND	0.0713	0.0619	ND	0.607	0.527		
1,2-Dibromoethane	ND	0.0724	0.0619	ND	0.556	0.475		
Chlorobenzene	ND	0.0729	0.0619	ND	0.335	0.285		
Ethylbenzene	0.127	0.0703	0.0619	0.550	0.305	0.269	7.2	pass, m
1,1,1,2-Tetrachloroethane	ND	0.0713	0.0619	ND	0.489	0.425		
m-/p-Xylenes	0.378	0.0717	0.0619	1.64	0.311	0.269	2.9	pass, m
o-Xylene	0.164	0.0709	0.0619	0.710	0.308	0.269	1.8	pass
Styrene	0.371	0.0693	0.0619	1.58	0.295	0.264	1.2	pass
Bromoform	ND	0.0710	0.0619	ND	0.733	0.640		
1,1,2,2-Tetrachloroethane	ND	0.0715	0.0619	ND	0.491	0.425		
4-Ethyltoluene	0.235	0.0720	0.0619	1.15	0.354	0.304	10.0	pass, m
2-Chlorotoluene	ND	0.0714	0.0619	ND	0.369	0.320		
1,3,5-Trimethylbenzene	0.156	0.0717	0.0619	0.766	0.352	0.304	3.5	pass
1,2,4-Trimethylbenzene	0.284	0.0708	0.0619	1.39	0.348	0.304	0.3	pass, m
1,3-Dichlorobenzene	ND	0.0719	0.0619	ND	0.432	0.372		
1,4-Dichlorobenzene	ND	0.0711	0.0619	ND	0.427	0.372		
Benzyl chloride	ND	0.0712	0.0619	ND	0.368	0.320		
1,2-Dichlorobenzene	ND	0.0717	0.0619	ND	0.431	0.372		
1,2,4-Trichlorobenzene	ND	0.0705	0.0619	ND	0.523	0.459		
Hexachlorobutadiene	ND	0.0699	0.0619	ND	0.745	0.660		
Naphthalene	0.311	0.0712	0.0619	1.63	0.373	0.324	5.7	pass
1-Bromopropane	ND	0.0702	0.0619	ND	0.353	0.311		

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs
 All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 1022-151.VOC03_221206_S.LD
 Sample Info. 1022-151; 500mL load; Can #1744
 Sampling Date 2022-12-06 11:21
 Received Date 2022-12-09 00:00
 Sample Type LabDup
 Batch Xavier_X121222B.v1
 Data File X2202568.D
 Dilution 1.000
 Pressurization Factor 1.769
 Acquisition Date 2022-12-12 20:09
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Enthalpy ID 1022-151.VOC03_221206_S.LD

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Dup Diff (%)	Flags
1-Octene	ND	0.0698	0.0619	ND	0.320	0.284		
n-Octane	0.0636	0.0729	0.0619	0.297	0.340	0.289	8.5	pass, J
Isopropylbenzene	0.0622	0.0719	0.0619	0.306	0.353	0.304	8.3	pass, J, m
n-Propylbenzene	0.165	0.0726	0.0619	0.810	0.357	0.304	4.4	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	729,210	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,822,072	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,455,226	16.60	4.92	pass

(ND) = Not Detected
 (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
 IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name Humid Blank #10893
Sample Info. 500mL Load; Can #10893
Sample Type Blank
Batch Xavier_X121222B.v1
Data File X2202564.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 16:34
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID Humid Blank #10893

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	ND	0.0386	0.0350	ND	0.0665	0.0602	pass
Freon 12 (CCl2F2)	ND	0.0392	0.0350	ND	0.194	0.173	pass
Freon 114 (C2Cl2F4)	ND	0.401	0.0350	ND	2.80	0.245	pass
Chloromethane	ND	0.0396	0.0350	ND	0.0816	0.0722	pass
Chloroethene (Vinyl chloride)	ND	0.0400	0.0350	ND	0.102	0.0894	pass
1,3-Butadiene	ND	0.0389	0.0350	ND	0.0860	0.0774	pass
Bromomethane	ND	0.0392	0.0350	ND	0.152	0.136	pass
Chloroethane	ND	0.0406	0.0350	ND	0.107	0.0923	pass
Bromoethene (Vinyl bromide)	ND	0.0391	0.0350	ND	0.171	0.153	pass
Freon 11 (CCl3F)	ND	0.0422	0.0350	ND	0.237	0.197	pass
Ethanol	0.0679	0.0396	0.0400	0.128	0.0746	0.0753	pass, m
Acrolein	ND	0.0394	0.0350	ND	0.0903	0.0802	pass
Freon 113 (C2Cl3F3)	ND	0.0406	0.0350	ND	0.311	0.268	pass
1,1-Dichloroethene	ND	0.0402	0.0350	ND	0.159	0.139	pass
Acetone	0.0925	0.0401	0.0350	0.220	0.0951	0.0831	pass
Carbon disulfide	ND	0.0399	0.0350	ND	0.124	0.109	pass
Isopropyl alcohol	ND	0.0399	0.0350	ND	0.0980	0.0860	pass
Allyl chloride (3-chloropropene)	ND	0.0432	0.0350	ND	0.135	0.109	pass
Acetonitrile	ND	0.0399	0.0350	ND	0.0669	0.0587	pass
Methylene chloride	ND	0.0410	0.0350	ND	0.142	0.122	pass
trans-1,2-Dichloroethene	ND	0.0408	0.0350	ND	0.162	0.139	pass
Methyl tert-butyl ether	ND	0.0411	0.0350	ND	0.148	0.126	pass
Acrylonitrile	ND	0.0407	0.0350	ND	0.0883	0.0759	pass
Hexane	ND	0.0406	0.0350	ND	0.143	0.123	pass
1,1-Dichloroethane	ND	0.0397	0.0350	ND	0.161	0.142	pass
Vinyl acetate	ND	0.0409	0.0350	ND	0.144	0.123	pass
cis-1,2-Dichloroethene	ND	0.0404	0.0350	ND	0.160	0.139	pass
Methyl ethyl ketone (2-Butanone)	ND	0.0414	0.0350	ND	0.122	0.103	pass
Ethyl acetate	0.0477	0.0399	0.0350	0.172	0.144	0.126	pass, m
Chloroform	ND	0.0401	0.0350	ND	0.196	0.171	pass
Tetrahydrofuran	ND	0.0405	0.0350	ND	0.119	0.103	pass
1,1,1-Trichloroethane	ND	0.0404	0.0350	ND	0.220	0.191	pass
Cyclohexane	ND	0.0410	0.0350	ND	0.141	0.120	pass
Carbon tetrachloride	ND	0.0403	0.0350	ND	0.253	0.220	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name Humid Blank #10893
 Sample Info. 500mL Load; Can #10893
 Sample Type Blank
 Batch Xavier_X121222B.v1
 Data File X2202564.D
 Dilution 1.000
 Pressurization Factor 1.000
 Acquisition Date 2022-12-12 16:34
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID Humid Blank #10893

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzene	ND	0.0402	0.0350	ND	0.128	0.112	pass
2,2,4-trimethylpentane	ND	0.0414	0.0350	ND	0.193	0.163	pass
1,2-Dichloroethane	ND	0.0412	0.0350	ND	0.166	0.142	pass
Heptane	ND	0.0405	0.0350	ND	0.166	0.143	pass
Trichloroethene	ND	0.0404	0.0350	ND	0.217	0.188	pass
1,2-Dichloropropane	ND	0.0403	0.0350	ND	0.186	0.162	pass
Methyl methacrylate	ND	0.0419	0.0350	ND	0.171	0.143	pass
1,4-Dioxane	ND	0.0401	0.0350	ND	0.144	0.126	pass
Bromodichloromethane	ND	0.0404	0.0350	ND	0.271	0.234	pass
cis-1,3-Dichloropropene	ND	0.0397	0.0350	ND	0.180	0.159	pass
Methyl isobutyl ketone	ND	0.0416	0.0350	ND	0.170	0.143	pass
Toluene	ND	0.0407	0.0350	ND	0.153	0.132	pass
trans-1,3-Dichloropropene	ND	0.0413	0.0350	ND	0.187	0.159	pass
1,1,2-Trichloroethane	ND	0.0407	0.0350	ND	0.222	0.191	pass
Tetrachloroethene	ND	0.0409	0.0350	ND	0.277	0.237	pass
2-Hexanone (Methyl butyl ketone)	ND	0.0409	0.0350	ND	0.168	0.143	pass
Dibromochloromethane	ND	0.0403	0.0350	ND	0.343	0.298	pass
1,2-Dibromoethane	ND	0.0409	0.0350	ND	0.314	0.269	pass
Chlorobenzene	ND	0.0412	0.0350	ND	0.190	0.161	pass
Ethylbenzene	ND	0.0397	0.0350	ND	0.172	0.152	pass
1,1,1,2-Tetrachloroethane	ND	0.0403	0.0350	ND	0.277	0.240	pass
m-/p-Xylenes	ND	0.0406	0.0350	ND	0.176	0.152	pass
o-Xylene	ND	0.0401	0.0350	ND	0.174	0.152	pass
Styrene	ND	0.0392	0.0350	ND	0.167	0.149	pass
Bromoform	ND	0.0401	0.0350	ND	0.414	0.362	pass
1,1,2,2-Tetrachloroethane	ND	0.0404	0.0350	ND	0.277	0.240	pass
4-Ethyltoluene	ND	0.0407	0.0350	ND	0.200	0.172	pass
2-Chlorotoluene	ND	0.0404	0.0350	ND	0.209	0.181	pass
1,3,5-Trimethylbenzene	ND	0.0406	0.0350	ND	0.199	0.172	pass
1,2,4-Trimethylbenzene	ND	0.0400	0.0350	ND	0.197	0.172	pass
1,3-Dichlorobenzene	ND	0.0406	0.0350	ND	0.244	0.210	pass
1,4-Dichlorobenzene	ND	0.0402	0.0350	ND	0.242	0.210	pass
Benzyl chloride	ND	0.0402	0.0350	ND	0.208	0.181	pass
1,2-Dichlorobenzene	ND	0.0405	0.0350	ND	0.243	0.210	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name Humid Blank #10893
Sample Info. 500mL Load; Can #10893
Sample Type Blank
Batch Xavier_X121222B.v1
Data File X2202564.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 16:34
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID Humid Blank #10893

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
1,2,4-Trichlorobenzene	ND	0.0398	0.0350	ND	0.295	0.260	pass
Hexachlorobutadiene	ND	0.0395	0.0350	ND	0.421	0.373	pass
Naphthalene	ND	0.0403	0.0350	ND	0.211	0.183	pass
1-Bromopropane	ND	0.0397	0.0350	ND	0.199	0.176	pass
1-Octene	ND	0.0395	0.0350	ND	0.181	0.161	pass
n-Octane	ND	0.0412	0.0350	ND	0.192	0.163	pass
Isopropylbenzene	ND	0.0406	0.0350	ND	0.200	0.172	pass
n-Propylbenzene	ND	0.0410	0.0350	ND	0.202	0.172	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	755,956	11.04	5.21	pass
1,4-Difluorobenzene (IS)	2,902,143	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,552,038	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QC
Batch Xavier_X121222B.v1
Data File X2202558.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 10:07
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
Propylene	570,297	4.20	4.83	86.9	pass
Freon 12 (CCl2F2)	1,840,180	4.69	4.90	95.8	pass
Freon 114 (C2Cl2F4)	1,990,954	4.91	5.01	97.9	pass
Chloromethane	650,515	4.60	4.95	93.1	pass
Chloroethene (Vinyl chloride)	476,679	5.72	5.00	114.4	pass
1,3-Butadiene	795,178	5.66	4.87	116.3	pass
Bromomethane	429,264	4.76	4.91	97.0	pass, m
Chloroethane	350,919	5.24	5.08	103.1	pass
Bromoethene (Vinyl bromide)	744,681	4.62	4.89	94.5	pass
Freon 11 (CCl3F)	2,099,541	5.37	5.28	101.8	pass
Ethanol	320,981	4.07	4.96	82.2	pass, m
Acrolein	238,352	4.29	4.93	87.2	pass
Freon 113 (C2Cl3F3)	1,340,805	4.75	5.08	93.6	pass
1,1-Dichloroethene	1,248,704	4.95	5.03	98.4	pass
Acetone	1,528,678	5.27	5.01	105.2	pass, m
Carbon disulfide	1,948,262	4.91	4.99	98.6	pass
Isopropyl alcohol	1,384,300	4.66	4.99	93.4	pass, m
Allyl chloride (3-chloropropene)	281,791	4.96	5.04	98.5	pass
Acetonitrile	627,008	4.70	4.99	94.2	pass
Methylene chloride	994,821	4.62	5.12	90.2	pass
trans-1,2-Dichloroethene	1,065,578	5.18	5.10	101.6	pass
Methyl tert-butyl ether	1,814,174	5.22	5.14	101.6	pass
Acrylonitrile	528,416	4.83	5.09	94.9	pass, m
Hexane	1,259,595	6.04	5.08	119.0	pass
1,1-Dichloroethane	1,249,479	5.00	4.97	100.7	pass
Vinyl acetate	2,162,930	5.32	5.12	103.9	pass
cis-1,2-Dichloroethene	1,303,635	5.74	5.05	113.8	pass
Methyl ethyl ketone (2-Butanone)	328,737	5.27	5.17	101.9	pass
Ethyl acetate	358,137	5.93	4.99	118.8	pass
Chloroform	1,515,111	5.12	5.02	102.1	pass
Tetrahydrofuran	301,009	5.19	5.06	102.5	pass, m
1,1,1-Trichloroethane	1,540,030	5.03	5.05	99.7	pass, m
Cyclohexane	1,098,424	5.19	5.13	101.2	pass
Carbon tetrachloride	1,698,381	4.95	5.04	98.3	pass
Benzene	2,001,782	4.88	5.03	97.1	pass
2,2,4-trimethylpentane	3,624,743	5.03	5.17	97.3	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS
 Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
 Sample Type QC
 Batch Xavier_X121222B.v1
 Data File X2202558.D
 Dilution 1.000
 Pressurization Factor 1.000
 Acquisition Date 2022-12-12 10:07
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
1,2-Dichloroethane	1,008,908	4.59	5.15	89.2	pass
Heptane	696,183	4.84	5.07	95.6	pass
Trichloroethene	1,052,741	4.35	5.06	86.0	pass
1,2-Dichloropropane	866,745	5.08	5.04	100.9	pass
Methyl methacrylate	781,764	5.45	5.24	104.2	pass
1,4-Dioxane	437,140	4.62	5.02	92.2	pass
Bromodichloromethane	1,624,635	4.90	5.05	97.0	pass
cis-1,3-Dichloropropene	1,155,828	4.66	4.97	93.8	pass
Methyl isobutyl ketone	2,189,733	4.80	5.20	92.5	pass
Toluene	2,827,165	4.72	5.09	92.8	pass
trans-1,3-Dichloropropene	1,270,859	4.67	5.16	90.6	pass
1,1,2-Trichloroethane	975,318	4.64	5.09	91.2	pass
Tetrachloroethene	1,558,945	4.49	5.12	87.8	pass
2-Hexanone (Methyl butyl ketone)	2,153,745	4.66	5.12	91.2	pass
Dibromochloromethane	1,974,231	4.47	5.04	88.7	pass
1,2-Dibromoethane	1,631,246	4.40	5.12	86.1	pass
Chlorobenzene	2,199,346	4.19	5.15	81.4	pass
Ethylbenzene	3,483,509	4.46	4.97	89.9	pass
1,1,1,2-Tetrachloroethane	1,322,784	4.27	5.04	84.8	pass
m-/p-Xylenes	2,630,932	4.46	5.07	87.9	pass
o-Xylene	2,714,990	4.41	5.01	88.1	pass
Styrene	2,152,693	4.46	4.90	90.9	pass
Bromoform	2,154,112	4.67	5.02	93.1	pass
1,1,2,2-Tetrachloroethane	2,157,938	4.60	5.06	91.0	pass
4-Ethyltoluene	4,246,574	4.81	5.09	94.5	pass, m
2-Chlorotoluene	3,454,295	4.73	5.05	93.8	pass
1,3,5-Trimethylbenzene	3,387,917	4.62	5.07	91.1	pass
1,2,4-Trimethylbenzene	3,369,226	4.50	5.01	89.9	pass, m
1,3-Dichlorobenzene	2,710,180	4.46	5.08	87.8	pass
1,4-Dichlorobenzene	2,771,734	4.48	5.03	89.1	pass
Benzyl chloride	3,211,383	4.93	5.03	98.1	pass
1,2-Dichlorobenzene	2,656,382	4.54	5.07	89.6	pass
1,2,4-Trichlorobenzene	2,481,073	4.91	4.98	98.5	pass
Hexachlorobutadiene	2,048,143	4.65	4.94	94.2	pass, m
Naphthalene	5,855,017	5.06	5.04	100.5	pass
1-Bromopropane	1,415,305	4.63	4.96	93.4	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QC
Batch Xavier_X121222B.v1
Data File X2202558.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 10:07
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
1-Octene	591,973	4.83	4.94	97.9	pass
n-Octane	731,161	4.50	5.02	89.7	pass
Isopropylbenzene	4,038,865	4.52	5.08	89.0	pass
n-Propylbenzene	4,798,650	4.78	5.13	93.2	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	852,610	11.04	5.21	pass
1,4-Difluorobenzene (IS)	3,275,296	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,998,882	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS LD
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QcDup
Batch Xavier_X121222B.v1
Data File X2202559.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 10:55
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
Propylene	569,558	4.23	4.83	4.20	87.5%	0.7	pass
Freon 12 (CCl2F2)	1,806,443	4.64	4.90	4.69	94.8%	1.0	pass
Freon 114 (C2Cl2F4)	1,971,948	4.90	5.01	4.91	97.8%	0.1	pass
Chloromethane	659,509	4.71	4.95	4.60	95.2%	2.2	pass, m
Chloroethene (Vinyl chloride)	470,166	5.69	5.00	5.72	113.8%	0.5	pass, m
1,3-Butadiene	796,928	5.72	4.87	5.66	117.6%	1.1	pass, m
Bromomethane	424,829	4.75	4.91	4.76	96.9%	0.2	pass, m
Chloroethane	343,525	5.17	5.08	5.24	101.8%	1.3	pass
Bromoethene (Vinyl bromide)	753,019	4.71	4.89	4.62	96.4%	2.0	pass, m
Freon 11 (CCl3F)	2,100,392	5.42	5.28	5.37	102.7%	0.9	pass
Ethanol	305,647	3.91	4.96	4.07	78.9%	4.0	pass
Acrolein	249,783	4.54	4.93	4.29	92.1%	5.5	pass
Freon 113 (C2Cl3F3)	1,385,255	4.95	5.08	4.75	97.5%	4.1	pass
1,1-Dichloroethene	1,309,146	5.24	5.03	4.95	104.1%	5.6	pass
Acetone	1,513,492	5.26	5.01	5.27	105.0%	0.1	pass
Carbon disulfide	2,053,000	5.22	4.99	4.91	104.8%	6.1	pass
Isopropyl alcohol	1,479,241	5.02	4.99	4.66	100.7%	7.5	pass
Allyl chloride (3-chloropropene)	271,851	4.83	5.04	4.96	95.8%	2.7	pass
Acetonitrile	646,501	4.88	4.99	4.70	98.0%	3.9	pass
Methylene chloride	1,004,567	4.70	5.12	4.62	91.8%	1.8	pass, m
trans-1,2-Dichloroethene	1,064,213	5.22	5.10	5.18	102.3%	0.7	pass, m
Methyl tert-butyl ether	1,781,238	5.17	5.14	5.22	100.6%	1.0	pass
Acrylonitrile	532,164	4.91	5.09	4.83	96.4%	1.6	pass
Hexane	1,185,111	5.74	5.08	6.04	112.9%	5.2	pass, m
1,1-Dichloroethane	1,248,526	5.04	4.97	5.00	101.5%	0.8	pass, m
Vinyl acetate	2,045,240	5.07	5.12	5.32	99.1%	4.7	pass
cis-1,2-Dichloroethene	1,279,111	5.68	5.05	5.74	112.6%	1.0	pass
Methyl ethyl ketone (2-Butanone)	325,072	5.25	5.17	5.27	101.6%	0.3	pass
Ethyl acetate	328,284	5.48	4.99	5.93	109.8%	7.8	pass
Chloroform	1,523,539	5.19	5.02	5.12	103.5%	1.4	pass
Tetrahydrofuran	297,643	5.17	5.06	5.19	102.2%	0.3	pass, m
1,1,1-Trichloroethane	1,551,593	5.12	5.05	5.03	101.3%	1.6	pass
Cyclohexane	1,085,913	5.17	5.13	5.19	100.9%	0.3	pass, m
Carbon tetrachloride	1,696,512	4.99	5.04	4.95	99.0%	0.7	pass
Benzene	2,029,820	4.93	5.03	4.88	97.9%	0.9	pass
2,2,4-trimethylpentane	3,622,874	5.00	5.17	5.03	96.7%	0.6	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS LD
 Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
 Sample Type QcDup
 Batch Xavier_X121222B.v1
 Data File X2202559.D
 Dilution 1.000
 Pressurization Factor 1.000
 Acquisition Date 2022-12-12 10:55
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
1,2-Dichloroethane	1,029,209	4.66	5.15	4.59	90.5%	1.5	pass
Heptane	700,900	4.85	5.07	4.84	95.7%	0.1	pass
Trichloroethene	1,058,703	4.35	5.06	4.35	86.0%	0.0	pass, m
1,2-Dichloropropane	856,363	4.99	5.04	5.08	99.1%	1.7	pass, m
Methyl methacrylate	769,308	5.34	5.24	5.45	102.0%	2.1	pass, m
1,4-Dioxane	439,268	4.62	5.02	4.62	92.1%	0.1	pass
Bromodichloromethane	1,629,180	4.89	5.05	4.90	96.8%	0.3	pass
cis-1,3-Dichloropropene	1,145,165	4.59	4.97	4.66	92.5%	1.5	pass
Methyl isobutyl ketone	2,086,694	4.55	5.20	4.80	87.7%	5.4	pass
Toluene	2,674,673	4.53	5.09	4.72	89.0%	4.2	pass, m
trans-1,3-Dichloropropene	1,201,280	4.48	5.16	4.67	86.7%	4.3	pass
1,1,2-Trichloroethane	927,784	4.47	5.09	4.64	87.9%	3.7	pass
Tetrachloroethene	1,456,796	4.25	5.12	4.49	83.1%	5.5	pass
2-Hexanone (Methyl butyl ketone)	1,938,706	4.25	5.12	4.66	83.2%	9.2	pass
Dibromochloromethane	1,921,421	4.41	5.04	4.47	87.5%	1.4	pass
1,2-Dibromoethane	1,636,281	4.48	5.12	4.40	87.5%	1.6	pass
Chlorobenzene	2,189,901	4.23	5.15	4.19	82.1%	0.9	pass, m
Ethylbenzene	3,505,769	4.55	4.97	4.46	91.7%	1.9	pass
1,1,1,2-Tetrachloroethane	1,320,263	4.32	5.04	4.27	85.8%	1.1	pass
m-/p-Xylenes	2,605,210	4.47	5.07	4.46	88.2%	0.3	pass
o-Xylene	2,687,657	4.43	5.01	4.41	88.4%	0.3	pass
Styrene	2,118,174	4.44	4.90	4.46	90.6%	0.3	pass
Bromoform	2,173,264	4.77	5.02	4.67	95.1%	2.2	pass
1,1,2,2-Tetrachloroethane	2,164,021	4.68	5.06	4.60	92.5%	1.6	pass
4-Ethyltoluene	4,210,277	4.83	5.09	4.81	95.0%	0.5	pass, m
2-Chlorotoluene	3,464,893	4.81	5.05	4.73	95.3%	1.6	pass
1,3,5-Trimethylbenzene	3,379,104	4.67	5.07	4.62	92.0%	1.0	pass
1,2,4-Trimethylbenzene	3,377,956	4.57	5.01	4.50	91.4%	1.6	pass, m
1,3-Dichlorobenzene	2,710,949	4.52	5.08	4.46	89.0%	1.3	pass
1,4-Dichlorobenzene	2,763,793	4.53	5.03	4.48	90.1%	1.0	pass
Benzyl chloride	3,214,045	5.00	5.03	4.93	99.4%	1.4	pass
1,2-Dichlorobenzene	2,645,944	4.58	5.07	4.54	90.5%	0.9	pass
1,2,4-Trichlorobenzene	2,476,254	4.96	4.98	4.91	99.6%	1.1	pass, m
Hexachlorobutadiene	2,041,117	4.70	4.94	4.65	95.1%	1.0	pass
Naphthalene	5,804,700	5.08	5.04	5.06	100.9%	0.4	pass
1-Bromopropane	1,411,525	4.66	4.96	4.63	93.9%	0.6	pass

Enthalpy Analytical

Job No.: 1022-151-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clairton Works-Clairton, PA ICR

Sample Name 5ppbv TO15 LCS LD
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QcDup
Batch Xavier_X121222B.v1
Data File X2202559.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-12-12 10:55
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
1-Octene	572,840	4.74	4.94	4.83	96.0%	2.0	pass
n-Octane	683,473	4.26	5.02	4.50	85.0%	5.4	pass
Isopropylbenzene	4,049,102	4.59	5.08	4.52	90.4%	1.6	pass
n-Propylbenzene	4,793,589	4.84	5.13	4.78	94.4%	1.2	pass, m

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	845,375	11.04	5.21	pass
1,4-Difluorobenzene (IS)	3,292,913	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,959,868	16.60	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	All4, Inc.
Analyst	TDD
Parameters	EPA Method TO-15

Client #	00701-0002.00; U.S. Steel Corp – Clairton Works
Job #	1022-151
# Samples	6 Canisters

Custody

Alyssa Miller received the samples on 12/09/22 after being relinquished by All4, Inc. The samples were received at ambient temperature and in good condition.

Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis

The samples were analyzed for the TO-15 target compound list using the analytical procedures in EPA Method TO-15, *Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*.

Upon receipt, the canister pressures were measured and recorded. The canisters were then pressurized with UHP nitrogen and a dilution ratio was calculated for each canister. See the Canister Pressurization Datasheet located in the Results section of this report.

All samples were analyzed undiluted. Sample **VOC05_221206_S** was analyzed at a subsequent 10-fold analytical dilution to bring benzene within the calibrated range of the instrument. Dilution factors are located in the sample header information.

The Agilent Technologies Model 6890N, Gas Chromatograph "Xavier" (S/N US10721018) equipped with a 5975C VL Mass Selective Detector (S/N US71215962) was used for this analysis. All samples and standards were introduced directly to the analyzer using an Entech 7200 Preconcentrator.

Calibration

The associated BFB tune analyses associated with the initial and continuing calibrations met all method acceptance criteria.

The initial calibration (**X100722A-TO15**) met the 30% RSD criteria. The initial calibration verification (ICV) met the 70-130% recovery criteria. The continuing calibration (CCV) met the 30% difference criteria. Full calibration data is available upon request.



Enthalpy Analytical Narrative Summary (continued)

Chromatographic Conditions

The acquisition method (*TO15-SCNv6.M*) may be made available upon request.

QC Notes

All internal standard area responses and retention time criteria were met for these analyses.

The Laboratory Control Samples (LCS) associated with this sample data met the 70-130% recovery criteria.

The Laboratory Duplicates (LD) associated with this sample data met the 25% difference acceptance criteria. The LCS was also analyzed in duplicate and met the 25% difference criteria for all compounds.

The laboratory humid blank associated with this analysis did not contain any of the target analytes at a concentration greater than 3x their MDL.

The samples were analyzed within the 7-day holding time requested in the ICR protocol.

Reporting Notes

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as “**Type**” represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as “EPA Method 16-Type” because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym **MDL** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym **LOQ** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym **ND** following a value indicates a non-detect or analytical result below the MDL.
- The letter **J** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter **E** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- Sample results are presented ‘as measured’ for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.
- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).
- The acronym **DF** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of **MS** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).



General Reporting Notes

(continued)

- The addition of **MSD** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of **LD** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of **AD** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID **LCS** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.
- **Significant Figures:** Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.
- **Manual Integration:** The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was *not integrated* by the software "**NI**", the peak was *integrated incorrectly* by the software "**II**" or the *wrong peak* was integrated by the software "**WP**". These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.



Sample Custody



Phone 919-850-4392

Ambient temp
Good condition
Amms 12.09.22

4

Sampled By:

Sample ID

Type

- (I) Indoor
- (A) Ambient
- (SV) Soil Vapor
- (S) Source

Equipment Information

Canister ID

Size
(1L, 3L,
6L, 15L)

Flow
Controller
ID

Sampling Information

Sample
Start
Date

Sample
Start
Time

Vacuum Start ("Hg)	Time (min)	Pressure ("Hg)	Temperature (°C)	Weight (g)	Volume (cc)	Notes
29.9	0	29.9	25.0	0.0	0.0	
29.9	10	29.9	25.0	0.0	0.0	
29.9	20	29.9	25.0	0.0	0.0	
29.9	30	29.9	25.0	0.0	0.0	
29.9	40	29.9	25.0	0.0	0.0	
29.9	50	29.9	25.0	0.0	0.0	
29.9	60	29.9	25.0	0.0	0.0	
29.9	70	29.9	25.0	0.0	0.0	
29.9	80	29.9	25.0	0.0	0.0	
29.9	90	29.9	25.0	0.0	0.0	
29.9	100	29.9	25.0	0.0	0.0	

Sample
End
Date

Sample
End
Time

Vacuum	
End	
("Hg)	

TO-15 VOC

Signature _____

Print Name

Company / Title

Date / Time

¹ Relinquished By:

¹ Received By:

² Relinquished By:

² Received By:

3. Not Inquired By:

Received By:

Evgen M. G.

Alyssa Miller

ALL 4

EP

22/12/07 2:15PM

12.09.22 1340

**This Is The Last Page
Of This Report.**