May 6, 2024

Project 1321

Durham Furniture Inc.
450 Lambton Street West
Durham, ON N0G 1R0
(t) 519 369-2607 x2230

Re: 2023 NPRI and Written Summary Annual Reporting

The following letter report summarizes the review conducted for the 2023 NPRI annual reporting along with the ECA annual written summary.

For the NPRI finishing product usage, recycle, wood and natural gas combustion data were reviewed. Overall paint/stain/solvent usage in 2023 (approx. 35,000 kg) was lower than 2022 (approx. 40,000 kg) which was lower than in 2021 (approx. 65,000 kg).

Thresholds for PM 2.5 and 10, and speciated VOCs were met. No Part 1A met thresholds in 2023 (or 2022, Toluene was reported in 2021). Part 5 Speciated VOCs reported were Ethyl Alcohol, Toluene, and N Butyl Acetate. Similar to 2022 with the removal of Xylene.

A detailed report is given in Attachment 1 including NPRI and confirmation of submission on Single Windows.

Environmental Compliance Approval (Air and Noise) Number 7758-A8LKAX (November 4, 2016) Condition 5.1 requires that an updated log be kept, ESDM and AAR reports updated no later than June 30 (accurate as of December 31 in the previous year). The sea cans were installed in 2023 that reduced noise impacts.

In accordance with Condition 6, an Annual Written Summary be prepared and submitted by August 31 of each year. Attachment 2 provides the written summary submitted online, along with the Source Summary and Emission Summary tables.

The updated AAR of November 2023 and ESDM of March 2024 (updated with AERMOD 22112) is current and remains in Durham's onsite files.

If there are any questions, please do not hesitate to contact the undersigned.

Yours truly,
CCS Engineering Inc.

Jim Anderson, M.Eng., P.Eng.
Principal
JA/JA Attachments

Single Windows Summary Report
Confirmation of Submission
NPRI Review

Government of Canada Gouvernement du Canada

National Pollutant Release Inventory

Summary Report

General Information

NPRI ID

5897

Company Legal Name

Durham Furniture Inc.

Facility Name

Durham Plant

Facility Address

450 Lambton Street West, Durham, Ontario, N0G 1R0, Canada

Report Details

Report Year

2023

Programs

NPRI

Report Types

NPRI Inventory

Report Status

Submitted

Substances

CAS RN	Substance Name	Releases	Disposals	Recycling	Unit
N/A	Speciated VOCs (62 substances)	4.8251			tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	2.0291			tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	1.748			tonnes
NA - M16	Volatile Organic Compounds (total)	7.9			tonnes

Version: 4.1.20.3293-069

From: SGU / SWS (ECCC) on behalf of Inrp / Npri (ECCC)
To: Jim Anderson
Subject: INRP - Confirmation de soumission - [2023] / NPRI – Confirmation of Submission – [2023]
Date: May 6, 2024 8:42:05 AM

[X] [X]
Confirmation de soumission

Confirmation of Submission

, ,
Le but de ce courriel est de vous informer que la déclaration suivante a été soumise avec succès dans le Guichet unique d'Environnement Canada: The purpose of this email is to notify you that the following report has been successfully submitted into Environment Canada's Single Window reporting system:

Période de déclaration: 2023
Programme: INRP
INRP ID: 5897
Type de déclaration(s): Inventaire
Nom de la compagnie: Durham Furniture Inc.
Nom de l'installation: Durham Plant
Adresse de l'installation: 450 Lambton Rue Ouest, Durham, Ontario, N0G 1R0, Canada
Date et temps de soumission: 5/6/2024 8:41:55 AM

Reporting Period: 2023
Program: NPRI
NPRI ID: 5897
Report Type(s): Inventory
Company Name: Durham Furniture Inc.
Facility Name: Durham Plant
Facility location: 450 Lambton Street West, Durham, Ontario, N0G 1R0, Canada
Submitted Date and Time: 5/6/2024 8:41:55 AM

Pour visualiser ou mettre à jour la déclaration, veuillez vous connecter au Guichet unique d'Environnement Canada (https://ec.ss.ec.gc.ca). To view or update the report, please log in to Environment Canada's Single Window (https://ec.ss.ec.gc.ca).
Soumissionnaire:
Signataire d'attestation: Submitter:
Certifying official:

Durham Furniture Inc. (Durham)	
NPRI	2023

SITE DETAILS			
Company	Durham Furniture Inc.	Parent Company	N/A
Site Name	Durham Facility	% Ownership	
Address	450 Lambton Street W Durham ON N0G 1RO Canada	Address	
Latitude	44.105	D&B D-U-N-S No.	
Longitude	-80.492	Federal Business No.	
UTM Zone	17		
UTM Easting	514033.7		
UTM Northing	4891412.3		
NPRI ID	5897		
MOE ID	291700		
D&B D-U-N-S No.	24-923-8981		
Federal Business No.	132743337		
NAICS Code (6 digits)	337123		
CDN SIC (4 digits)	2611		
US SIC (4 digits)	2511		

CONTACT INFORMATION			
Project Coordinator	Luke Simpson	Technical Contact	Jacqui Davidson
Position	President and CEO	Position	Health and Safety Supervisor
Address	450 Lambton Street W Durham ON N0G 1RO Canada	Address	450 Lambton Street W Durham ON N0G 1RO Canada
Phone	519-369-2345 x 2246	Phone	519-369-2607 x2290
Fax	519-369-2715	Fax	519-369-2715
Email	lsimpson@durhamfurniture.com	Email	jdavidson@durhamfurniture.com
Public Contact	Luke Simpson	Certifying Contact	Luke Simpson
Position	President and CEO	Position	President and CEO
Address	450 Lambton Street W Durham ON N0G 1RO Canada	Address	450 Lambton Street W Durham ON N0G 1RO Canada
Phone	519-369-2345 x 2246	Phone	519-369-2345 x 2246
Fax	519-369-2715	Fax	519-369-2715
Email	lsimpson@durhamfurniture.com	Email	lsimpson@durhamfurniture.com
Contractor	Jim Anderson		
Position	Principal		
Company	CCS Engineering Inc.		
Address	69 Lawrence Street Wellesley ON N0B 2T0 Canada		
Phone	519 504 7241		
Fax	226 646 1113		
Email	jim@ccseng.ca		

TYPICAL FACILITY OPERATION IN REPORTING YEAR			
Days of Operation	☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☐ Saturday ☐ Sunday		
Hours of Operation	☐ 24 hr ☐ 16 hr ☑ 8 hr ☐ Other	Start Time:	6:00
		If other, total number of daily hours:	
Shutdowns > 1 week (incl. start/end date)	July 24 - August 7, 2023		
No. of Employees	157		

Production

Month	Possible Production Days	Monthly Percentage	Quarterly Percentage
January	22	8.943%	25.2%
February	19	7.724%	
March	21	8.537%	
April	21	8.537%	25.6%
May	21	8.537%	
June	21	8.537%	
July	18	7.317%	23.6%
August	19	7.724%	
September	21	8.537%	
October	22	8.943%	25.6%
November	20	8.130%	
December	21	8.537%	
Total	246	100.000%	

Part 1A: Core Substances

Nothing to report.

Part 1B: Other Substances

Nothing to report.

Part 2: Polycyclic Aromatic Hydrocarbons

Nothing to report.

Part 3: Hexachlorobenzene and Dioxins / Furans

Nothing to report.

Part 4: Criteria Air Contaminants

Report:

CAS	Substance Name	2023 Releases (tonnes)	2022 Releases (tonnes)	2021 Releases (tonnes)	2020 Releases (tonnes)	2019 Releases (tonnes)	2018 Releases (tonnes)	2017 Releases (tonnes)	2016 Releases (tonnes)	2015 Releases (tonnes)	2014 Releases (tonnes)	2013 Releases (tonnes)	% Change in Releases	Emission Basis
-	PM-2.5	1.7487	1.5114	1.803997223	1.4361	1.9217	2.1081	2.1824	1.6589	1.5346	1.4433	1.663	15.7%	EF
-	PM-10	2.0291	1.7533	2.092791186	1.6657	2.2304	2.4263	2.5322	1.9243	1.7800	1.6735	1.929	15.7%	EF
-	VOCs	7.9300	9.8961	25.72322808	19.4999	14.0814	12.0832	37.7971	24.1614	19.7434	30.1880	41.554	-19.9%	C-MB

Part 5: Speciated Volatile Organic Compounds

CAS	Substance Name	2023 Emissions (tonnes)	2022 Emissions (tonnes)	2021 Emissions (tonnes)	2020 Emissions (tonnes)	2019 Emissions (tonnes)	2018 Emissions (tonnes)	2017 Emissions (tonnes)	2016 Emissions (tonnes)	2015 Emissions (tonnes)	2014 Emissions (tonnes)	2013 Emissions (tonnes)	% Change in Releases	
64-17-5	Ethyl Alcohol	1.3719	1.8639	3.91595	3.5546	2.2402	2.6660	5.9566	4.4089	5.742937013	5.3977	7.054	-26.4%	
67-63-0	Isopropanol	1.1842	1.1114	0.83624	0.6935	0.4091	0.4463	1.1304	0.7477	1.000870919	--	--	6.6%	MOECP required exit in 201
123-86-4	N-Butyl Acetate	2.2690	2.5271	3.85448	3.5397	2.5450	2.3620	6.3113	3.7272	5.768932887	5.9723	9.199	-10.2%	
1330-20-7	Xylenes	0.7990	1.1234	2.23925	1.8025	0.8614	0.8249	1.8929	1.2283	1.300058708	1.5437	1.922	-28.9%	Exit for 2018
	Total Speciated VOCs:	5.6860	7.2128	15.46316	11.9922	8.1601	8.6456	24.5820	14.7006	20.99286274	21.1146	32.793941	-21.2%	

Part 1A: Substances

Wood Combustion

2022
1330410

Amount of wood Burned:	1542104.4	lb/yr
	700,957	kg/yr
For dry wood:	8,000	btu/lb
	17,636.68	btu/kg
Total Btu:	12,362.55	MMBtu/yr

Organic Compound	CAS	Emission Factor (lb/MMBtu)	Emission Rate (kg)
Acetaldehyde	75-07-0	8.30E-04	4.7
Acrolein	107-02-8	4.00E-03	22.4
Benzene	71-43-2	4.20E-03	23.6
Chlorine	7782-50-5	7.90E-04	4.4
Formaldehyde	50-00-0	4.40E-03	24.7
Styrene	100-42-5	1.90E-03	10.7
Toluene	108-88-3	9.20E-04	5.2
Xylene	1330-20-7	2.50E-05	0.1
Chromium	*	2.10E-05	0.1
Silver	*	1.70E-03	9.5
Zinc	*	4.20E-04	2.4

* and its compounds

Product Usage

Contaminant	CAS	MPO (Axalta) (kg)	MPO (RPM) (kg)	MPO (Wood) (kg)	Total MPO (kg)	Threshold (kg)	Report (Y/N)	Recycled (kg)	Emitted to Air (kg)
Manganese (and its compounds)	--					10,000	No		
Chromium (and its compounds)	--			0.12	0.1	10,000	No		0.12
Silver	--			9.53	9.5	10,000	No		9.53
Zinc	--			2.36	2.4	10,000	No		2.36
Cobalt (and its compounds)	--					10,000	No		
Formaldehyde	50-00-0			24.674	24.7	10,000	No		24.67
Methyl Alcohol	67-56-1	1510.960			1,511.0	10,000	No	1445.644	65.32
Isopropyl Alcohol	67-63-0	3191.170	161.945		3,353.1	10,000	No	2168.893	1,184.22
N-Butyl Alcohol	71-36-3		75.314		75.3	10,000	No	48.715	26.60
Benzene	71-43-2		0.023	23.552	23.6	10,000	No	0.015	23.56
Acetaldehyde	75-07-0			4.65	4.7	10,000	No		4.65
Isobutyl Alcohol	78-83-1	1473.430	0.041		1,473.5	10,000	No	953.084	520.39
Methyl Ethyl Ketone	78-93-3	1002.250	44.236		1,046.5	10,000	No	1166.498	-120.01
Naphthalene	91-20-3	67.750			67.8	10,000	No	43.823	23.93
O-Xylene	95-47-6		4.023		4.0	10,000	No		4.02
1,2,4-Trimethylbenzene	95-63-6	91.790	3.477		95.3	10,000	No	61.622	33.65
Cumene	98-82-8	9.880			9.9	10,000	No	6.391	3.49
Ethylbenzene	100-41-4	441.810	3.336		445.1	10,000	No	287.934	157.21
Styrene	100-42-5			10.65	10.7	10,000	No		10.65
P-Xylene	106-42-3		3.195		3.2	10,000	No		3.20
Acrolein	107-02-8			22.43	22.4	10,000	No		22.43
Ethylene Glycol	107-21-1					10,000	No		
Vinyl Acetate	108-05-4					10,000	No		
Methyl Isobutyl Ketone	108-10-1	576.570	0.595		577.2	10,000	No	373.327	203.84
M-Xylene	108-38-3		9.100		9.1	10,000	No		9.10
Toluene	108-88-3	5913.050	104.641	5.159	6,022.8	10,000	No	5,935.95	86.90
Cyclohexane	110-82-7					10,000	No		
Ethylene Glycol Monobutyl Ether	111-76-2	721.120			721.1	10,000	No	466.441	254.68
Diethylene Glycol Monomethyl Ether	111-77-3					10,000	No		
Hydroquinone	123-31-9					10,000	No		
1,4 - Dioxane	123-91-1					10,000	No		
Butylated Hydroxy Toluene	128-37-0					10,000	No		
N-Methylpyrrolidone	872-50-4					10,000	No		
Xylene	1330-20-7	2245.750		0.140	2,245.9	10,000	No	1463.172	782.72
Aluminium Oxide	1344-28-1					10,000	No		
Nitric Acid Sodium Salt	7631-99-4					10,000	No		
Phosphoric Acid	7664-38-2					10,000	No		
Ammonia	7664-41-7					10,000	No		
Sulfuric Acid	7664-93-9					10,000	No		
Chlorine	7782-50-5			4.430	4.4	10,000	No		4.43

3,341.65

Part 1B: Other Substances

Amount of wood Burned:	700,956.55	kg/yr
For dry wood:	8,000	btu/lb
	17,636.68	btu/kg
Total Btu:	12,362.55	MMBtu/yr

Organic Compound	Emission Factor (lb/MMBtu)	Emission Rate (kg)	Threshold (kg)	Report?
Arsenic	2.20E-05	0.1	50	No
Cadmium	4.10E-06	0.0	5	No
Hexavalent Chromium	3.50E-06	0.0	50	No
Lead	4.80E-05	0.3	50	No
Mercury	3.50E-06	0.0	5	No
Selenium	2.80E-06	0.0	100	No
Tetraethyl lead	n/a	-	50	No

Product Usage

Contaminant	CAS	MPO (Axalta) (kg)	MPO (RPM) (kg)	Total MPO (kg)	Threshold (kg)	Report (Y/N)
Nonylphenol, Branched, Ethoxylated	68412-54-4	0.00	0.000	0.000	1000	No

Part 2: Polycyclic Aromatic Hydrocarbons

Amount of wood burned:	700,956.55	kg/yr
For dry wood:	8,000	btu/lb
	17,636.68	btu/kg
Total Btu:	12,362.55	MMBtu/yr

CAS	Organic Compound	Emission Factor (lb/MMBtu)	Emission Rate (kg)	Threshold (kg)	Report?
129-00-0	Pyrene	3.70E-06	2.07E-02	5	No
85-01-8	Phenathrene	7.00E-06	3.93E-02	5	No
198-55-0	Perylene	5.20E-10	2.92E-06	5	No
50-32-8	Benzo(a)pyrene	2.60E-06	1.46E-02	5	No
53-70-3	Dibenzo(a,h)anthracene	9.10E-09	5.10E-05	5	No
56-55-3	Benzo(a)anthracene	6.50E-08	3.64E-04	5	No
83-32-9	Acenaphthene	9.10E-07	5.10E-03	5	No
86-73-7	Fluorene	3.40E-06	1.91E-02	5	No
191-24-2	Benzo(g,h,i)perylene	9.30E-08	5.22E-04	5	No
192-97-2	Benzo(e)pyrene	2.60E-09	1.46E-05	5	No
193-39-5	Indeno(1,2,3-c,d)pyrene	8.70E-08	4.88E-04	5	No
205-99-2	Benzo(b)fluoranthene	1.00E-07	5.61E-04	5	No
206-44-0	Fluoranthene	1.60E-06	8.97E-03	5	No
207-08-9	Benzo(k)fluoranthene	3.60E-08	2.02E-04	5	No
208-96-8	Acenaphthylene	5.00E-06	2.80E-02	5	No
	PAHs Total		**1.38E-01**	**50**	**No**

Part 3: Hexachlorobenzene and Dioxins / Furans

Nothing to Report

Part 4: Criteria Air Contaminants

Wood Boiler:

Amount of wood burned:	700,957	kg/yr
For dry wood:	8,000	btu/lb
	17,636.68	btu/kg
Total Btu:	12,362.55	MMBtu/yr

CAS	Substance	Emission Factor (lb/MMBtu)	Emissions from Wood (kg)
630-08-0	Carbon Monoxide	0.6	3,365
11104-93-1	Nitrogen Oxides	0.49	2,748
--	PM-2.5	0.31	1,738
--	PM-10	0.36	2,019
7446-09-5	Sulphur Dioxide	0.025	140
--	Total PM-100	0.4	2,243
--	VOCs	0.017	95
	Carbon Dioxide	195	1,093,492

From Stains and Lacquers:

CAS	Substance	MPO from Paints (kg)	Recycled (kg)	Emissions from Paints (kg)
--	PM-2.5	0.00	0.00	0.00
--	PM-10	0.00	0.00	0.00
--	Total PM-100	72	63	0
--	VOCs	34,136	26,331	7,805

Non-VOCs Used (kg)	72

*based on non-VOCs with 50% overspray and 99% capture

Natural Gas Usage:

Natural Gas Used: 340,637.00 m^3

CAS	Substance	Emission Factor ($lb/10^6$ scf)	Emission Factor ($kg/10^6 m^3$)	Emissions from Nat Gas (kg)
630-08-0	Carbon Monoxide	84	1344	457.82
10102-43-9	Nitrogen Oxides	100	1600	545.02
--	PM-2.5	1.9	30	10.36
--	PM-10	1.9	30	10.36
7446-09-5	Sulphur Dioxide	0.6	10	3.27
--	Total PM-100	1.9	30	10.36
--	VOCs	5.5	88	29.98

Substance	HHV [1]	EF [2]	(tonnes/yr)	Limit 10,000
Carbon Dioxide	0.03832	49.03	639.9989	

Total:

CAS	Substance	Total Emissions (tonnes)	Threshold (tonnes)	Report?
630-08-0	Carbon Monoxide	3.822	20	No
10102-43-9	Nitrogen Oxides	3.293	20	No
--	PM-2.5	1.749	0.3	Yes
--	PM-10	2.029	0.5	Yes
7446-09-5	Sulphur Dioxide	0.143	20	No
--	Total PM-100	2.253	20	No
--	VOCs	7.930	10	No
	CO2	1733.491	10000	No

Part 5: Speciated Volatile Organic Compounds

Report for speciated VOCs if Part 4 VOC Quantity is > 10 tonne threshold. Part 5 substances if they were released to the air in a quantity equal to or greater than 1 tonne.

Part 4 VOC Quantity = 7.9

CAS	VOC	MPO (Axalta) (kg)	% of Axalta Use	Amt Recycled (kg)	MPO (RPM) (kg)	% of RPM Use	Amt Recycled (kg)	MPO (Comet) (kg)	Wood (kg)	Recycled VOC from Paints (kg)	Recycled VOC from Cleaners (kg)	Total Recycled VOC (kg)	Total Speciated VOCs Emitted (kg)	Threshold (kg)	Report?
50-00-0	Formaldehyde								24.67				24.67	1000	No
57-55-6	Propylene Glycol	0.400	0.00001	0.259	5.85	0.00306	3.787			4.05		4.05	2.21	n/a	No
64-17-5	Ethyl Alcohol	3382.820	0.105	2188.107	501.60	0.26	324.447			2,512.55		2,512.55	1,371.86	1000	Yes
64-19-7	Acetic Acid	30.960	0.001	20.026						20.03		20.03	10.93	n/a	No
67-56-1	Methyl Alcohol	1510.960	0.047	977.333						977.33	468.31	1,445.64	65.32	1000	No
67-63-0	Isopropyl Alcohol	3191.170	0.099	2064.142	161.95	0.08	104.751			2,168.89		2,168.89	1,184.22	1000	Yes
71-36-3	N-Butanol				75.31	0.039	48.715			48.72		48.72	26.60	n/a	No
71-43-2	Benzene				0.02	0.00001	0.015		23.55	0.01		0.015	23.56	1000	No
78-83-1	Isobutanol	1473.430	0.046	953.058	0.04	0.00002	0.026			953.08		953.08	520.39	n/a	No
78-93-3	Methyl Ethyl Ketone	1002.250	0.031	648.285	44.24	0.02	28.613			676.90	489.60	1,166.50	-120.01	1000	No
91-20-3	Naphthalene	67.750	0.0021	43.823						43.82		43.82	23.93	n/a	No
95-63-6	1,2,4-Trimethylbenzene	91.790	0.003	59.372	3.48	0.001817	2.2492			61.62		61.62	33.65	1000	No
96-29-7	2-Butanone Oxime				1.99	0.0010	1.288			1.29		1.29	0.70	n/a	No
97-64-3	Ethyl Lactate													n/a	No
97-85-8	Isobutyl Isobutyrate	288.280	0.009	186.468						186.47		186.47	101.81	n/a	No
97-99-4	Tetrahydrofurfuryl Alcohol													n/a	No
98-82-8	Cumene	9.880	0.0003	6.391						6.39		6.39	3.49	n/a	No
100-41-4	Ethyl Benzene	441.810	0.014	285.776	3.34	0.002	2.158			287.93		287.93	157.21	n/a	No
107-21-1	Ethylene Glycol													n/a	No
107-98-2	Propylene Glycol Methyl Ether	24.600	0.001	15.912	42.76	0.02	27.661			43.57		43.57	23.79	n/a	No
108-05-4	Vinyl Acetate													1000	No
108-10-1	Methyl Isobutyl Ketone	576.570	0.018	372.942	0.60	0.00	0.385			373.33		373.33	203.84	1000	No
108-65-6	Propylene Glycol M.E. Acetate	167.460	0.005	108.318	132.31	0.07	85.581			193.90		193.90	105.87	1000	No
108-83-8	2,6-Dimethylheptan-4-One													n/a	No
108-82-7	2,6-DIMETHYL-4-HEPTANOL													n/a	No
108-88-3	Toluene	5913.050	0.183	3824.733	104.64	0.055	67.685		5.16	3,892.42	2,043.54	5,935.95	86.90	1000	No
110-19-0	Isobutyl Acetate				276.04	0.14	178.551			178.55		178.55	97.49	n/a	No
111-65-9	Octane													1000	No
111-76-2	Ethylene Glycol Butyl Ether	721.120	0.0223	466.441						466.44		466.44	254.68	1000	No
111-77-3	Diethylene G. Monomethyl Ether													n/a	No
111-84-2	Nonane													1000	No
112-34-5	Diethylene G.Monobutyl Ether													1000	No
123-86-4	N-Butyl Acetate	7100.560	0.220	4592.849	288.53	0.15	186.628			4,779.48	340.59	5,120.06	2,269.02	1000	Yes
141-78-6	Ethyl Acetate	696.040	0.022	450.219						450.22	489.60	939.82	-243.78	1000	No
142-82-5	Heptane													1000	No
763-69-9	Ethyl-3-Ethoxy Propionate	24.050	0.001	15.556						15.56		15.56	8.49	n/a	No
1309-48-4	Magnesia													n/a	No
95-47-6	o-xylene				4.02	0.002	2.602			2.60		2.60	1.42	n/a	No
106-42-3	p-xylene				3.20	0.002	2.067			2.07		2.07	1.13	n/a	No
108-38-3	m-xylene				9.10	0.005	5.886			5.89		5.89	3.21	n/a	No
1330-20-7	Total Xylene*	2245.750	0.070	1452.617	16.32	0.01	10.555		0.14	1,463.17		1,463.17	799.04	1000	No
1569-02-4	1-Ethoxy-2-Propanol	11.800	0.000	7.633	2.89	0.002	1.867			9.50		9.50	5.19	n/a	No
2517-43-3	3-Methoxy-1-Butanol													n/a	No
7397-62-8	Hydroxyacetic Acid N-butyl Ester													n/a	No
7727-43-7	Barium Sulphate													n/a	No
8008-20-6	Kerosene													n/a	No
8032-32-4	Mineral Spirits													1000	No
8052-41-3	Mineral Spirits	84.010	0.003	54.340						54.34		54.34	29.67	1000	No
872-50-4	N-Methylpyrrolidone													n/a	No
19089-47-5	2-Ethoxy-1-Propanol													n/a	No
19549-80-5	4,6-Dimethylheptane-2-one													n/a	No
25551-13-7	Trimethyl Benzene													1000	No
34590-94-8	dipropylene glycol monomethyl ether													n/a	No
64741-65-7	Naphtha Petr,Heavy Alkylate													1000	No
64742-47-8	Hydrotreated Kerosene	30.960	0.001	20.026	37.83	0.02	24.471			44.50		44.50	24.30	1000	No
64742-48-9	Petroleum Distillate	1701.550	0.053	1100.612						1,100.61		1,100.61	600.94	1000	No
64742-49-0	Naphtha Petr,Hydrotreated,Ligh				99.65	0.05	64.459			64.46		64.46	35.20	n/a	No
64742-82-1	Naphtha (Petroleum), Hydrodesulphurized Heavy													n/a	No
64742-88-7	Aliphatic Petroleum Distillate	214.460	0.007	138.719	8.35	0.00	5.404			144.12		144.12	78.69	1000	No
64742-89-8	Aliphatic Naphtha	43.810	0.001	28.338						28.34	425.74	454.07	-410.26	1000	No
64742-94-5	Aromatic Petroleum Solvent	874.180	0.027	565.445						565.45		565.45	308.73	1000	No
64742-95-6	Aromatic Naphtha	372.150	0.012	240.717	8.04	0.00	5.198			245.92		245.92	134.27	1000	No
70657-70-4	2-Methoxy-1-Acetoxy Propane													n/a	No
Total (kg)		**32,294**	**1.000**	**20,888.456**	**1,816**	**0.949**	**1,174.495**		**53.53**	**22,062.95**	**4,257.37**	**26,330.87**	**7,848.36**		
Non-VOCs (Solids)							**63.181**			**63.18**					

* Includes o-xylene, p-xylene & m-xylene

22,073.51

Recycling

			2022	2021	2020	2019	2018	2017	2016	2015	2014
Waste Sent Offsite as 212H:	29315	L	38520	45715	31365	36695	31160	15785	29315	17630	10660
Assume Specific Gravity of:	0.9										
Waste Sent Offsite as 212H:	26383.5	kg									
Amount of Thinners recycled from cleaning:	4257.4	kg	1.31400307								
Amount of Product recycled from remainder:	22126.1	kg									

Per facility staff, 80-90% (assumed to be 85%) of the amounts recycled are from the cleaning operations. The remainder is from a mixture of the glazes, lacquers, etc. that are in use.

Thinners used for cleaning (and in production) which are recycled are:	% used for mixing	% used for cleaning
390-7001 E-Z Thinner from Valspar	30%	70%
FM0008 Mineral Spirits from Comet Chemical	20%	80%

Recycled product sent to:
Maratek

390-7001

E-Z THINNER	Chemical Name	CAS Number	MPO (kg)	% Sent for recycling	Recycled (kg)	Emitted (kg)	NPRI Part
	BUTYL ACETATE	123-86-4	486.55	70%	340.6	145.97	5, VOC
	ETHYL ACETATE	141-78-6	699.43	70%	489.6	209.83	5, VOC
	124 tmb	95-63-6	0.00	70%	0.0	0.00	1A, 5, VOC
	METHYL ALCOHOL	67-56-1	669.02	70%	468.3	200.70	1A, 5, VOC
	METHYL ETHYL KETONE	78-93-3	699.43	70%	489.6	209.83	1A, 5, VOC
	NAPHTHA	64742-89-8	608.19	70%	425.7	182.46	5, VOC
	TOLUENE	108-88-3	2,919.34	70%	2043.5	875.80	1A, 5, VOC
	Item Total		6,081.96	70%	4257.3692	1824.5868	

COMET

Mineral Spirits	Chemical Name	CAS Number	MPO (kg)	% Sent for recycling	Recycled (kg)	Emitted (kg)	NPRI Part
	Petroleum Distillate	64742-47-8	0.00	80%	0	0.00	5, VOC
	Stoddard Solvent	8052-41-3	0.00	80%	0	0.00	5, VOC
	Item Total		0.00	80%	0	0.0	

Total VOCs Recycled: 4257.3692

Axalta NPRI Summary Report for Canadian Customers

Customer Name	DURHAM FURNITURE INC	Customer Number	
Transaction Date From:	January 1, 2023	Transaction Date To:	December 31, 2023

Chemical Name	CAS Number	NPRI Kilos	Ont Reg 127 Only Kilos	VOC Kilos	Non VOC	Part
1,2,4-TRIMETHYLBENZENE	95-63-6	91.79	0	91.79	0	Part 1A & Part 5
ETHYLBENZENE	100-41-4	441.81	0	441.81	0	Part 1A
2-ETHYL HEXYL ALCOHOL	104-76-7	0	0	0		--
ETHYLENE GLYCOL	107-21-1	0	0	0	0	Part 1A
PROPYLENE GLYCOL MONO METHYL ETHER	107-98-2	24.6	0	24.6	0	--
VINYL ACETATE	108-05-4	0	0	0	0	Part 1A & Part 5
METHYL ISOBUTYL KETONE	108-10-1	576.57	0	576.57	0	Part 1A & Part 5
PROPYLENEGLYCOL MONOMETHYL ETHER	108-65-6	167.46	0	167.46	0	Part 5
TOLUENE	108-88-3	5913.05	0	5913.05	0	Part 1A & Part 5
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	721.12	0	721.12	0	Part 1A & Part 5
DIETHYLENE GLYCOL MONOMETHYL ETHER	111-77-3	0	0	0	0	Part 1A
DIETHYLENE GLYCOL BUTYL ETHER	112-34-5	0	0	0	0	Part 5
HYDROQUINONE	123-31-9	0	0	0	0	Part 1A
BUTYL ACETATE	123-86-4	7100.56	0	7100.56	0	Part 5
1,4-DIOXANE	123-91-1	0	0	0		Part 1A
BURNT UMBER PIGMENT	12713-03-0	0	0	0	0	--
BUTYLATED HYDROXY TOLUENE	128-37-0	0	0	0		Part 1A
IRON OXIDE	1309-37-1	0	0	0	0	--
MANGANESE OXIDE	1313-13-9	0	0	0	0	Part 1A
MANGANESE OXIDE	1317-34-6	0	0	0	0	Part 1A
XYLENE	1330-20-7	2245.75	0	2245.75	0	Part 1A & Part 5
COBALT OCTOATE	136-52-7		0	0	0	Part 1A
ETHYL ACETATE	141-78-6	696.04	0	696.04	0	Part 5
HEPTANE	142-82-5		0	0	0	Part 5
C.I. PIGMENT BLUE 15	147-14-8		0	0	0	--
ETHOXYPROPANOL	1569-02-4	11.8	0	11.8	0	--
DIPROPYLENE GLYCOL	25265-71-8		0	0	0	--
ISOBUTYRIC ACID MONO ESTER	25265-77-4		0	0	0	--
NEODECANOIC ACID, MANGANESE SALT	27253-32-3		0	0	0	Part 1A
DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8		0	0	0	--
BIOCIDE DISPERSION	35691-65-7		0	0	0	--
FORMALDEHYDE	50-00-0	0	0	0	0	Part 1A & Part 5
4,4-DIMETHYL-1-OXA-3-AZACYCLOPENTANE	51200-87-4		0	0	0	--
BLACK PIGMENT	5610-64-0		0	0	0	--
PROPYLENE GLYCOL	57-55-6	0.4	0	0.4	0	--
ETHANOL	64-17-5	3382.82	0	3382.82	0	Part 5
ACETIC ACID	64-19-7	30.96	0	30.96	0	--
MINERAL SPIRITS	64742-47-8	30.96	0	30.96	0	Part 5
NAPHTHA	64742-48-9	1701.55	0	1701.55	0	Part 5
NAPHTHA (PETROLEUM), HYDRODESULFURIZED	64742-82-1		0	0	0	--
NAPHTHA	64742-88-7	214.46	0	214.46	0	Part 5
NAPHTHA	64742-89-8	43.81	0	43.81	0	Part 5
AROMATIC NAPHTHA, HEAVY	64742-94-5	874.18	0	874.18	0	Part 5
AROMATIC NAPHTHA, LIGHT	64742-95-6	372.15	0	372.15	0	Part 5
CLAY	66402-68-4		0	0	0	--
METHYL ALCOHOL	67-56-1	1510.96	0	1510.96	0	Part 1A & Part 5
ISOPROPYL ALCOHOL	67-63-0	3191.17	0	3191.17	0	Part 1A & Part 5
ACETONE - EXEMPT SOLVENT	67-64-1	0	0	0	0	2B
NONYLPHENOL, BRANCHED, ETHOXYLATED	68412-54-4		0	0	0	Part 1B
2-METHOXY-1-ACETOXY PROPANE	70657-70-4		0	0	0	--
C.I. ACID YELLOW 220	70851-34-2		0	0	0	--
N-BUTYL ALCOHOL	71-36-3		0	0	0	Part 1A
BENZENE	71-43-2		0	0	0	Part 1A & Part 5
ETHYL 3-ETHOXYPROPIONATE	763-69-9	24.05	0	24.05	0	--
PHOSPHORIC ACID	7664-38-2		0	0	0	Part 1A
AMMONIA	7664-41-7		0	0	0	Part 1A
ISOBUTYL ALCOHOL	78-83-1	1473.43	0	1473.43	0	Part 1A
METHYL ETHYL KETONE	78-93-3	1002.25	0	1002.25	0	Part 1A & Part 5
KEROSENE	8008-20-6		0	0		--
MINERAL SPIRITS	8032-32-4	0	0	0	0	Part 5
STODDARD SOLVENT	8052-41-3	84.01	0	84.01	0	Part 5
N-METHYLPYRROLIDONE	872-50-4		0	0		Part 1A
NAPHTHALENE	91-20-3	67.75	0	67.75	0	Part 1A
2-BUTANONE OXIME	96-29-7		0	0	0	--
ISOBUTYL ISOBUTYRATE	97-85-8	288.28	0	288.28	0	--
CUMENE	98-82-8	9.88	0	9.88	0	Part 1A
FRAGRANCE	UNKNOWN	0	0	0	0	--
TOTAL		**32,293.62**	**0.00**	**32,293.62**	**0.00**	

RPM Wood Finishes Group

Customer Specific Chemical Summary Report
2023 data

Customer: Durham Furniture

Reportable Chemicals Summary:

CAS #	Chemical Name			Lbs Emission	kg Emission	Canada_NPRI	Canada_ON_127	Canada_ON_Voc	Voc (kg)	Non Voc (kg)	Non Voc (kg)
50-00-0	formaldehyde			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57-55-6	propylene glycol			12.88	5.85	0.00	0.00	5.85	5.85	0.00	0.00
64-17-5	ethanol		Part 5	1,103.51	501.60	0.00	0.00	501.60	501.60	0.00	0.00
67-56-1	methanol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67-63-0	isopropanol	Part 1A	Part 5	356.28	161.95	161.95	161.95	161.95	161.95	0.00	0.00
67-64-1	acetone	Table 2B		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71-36-3	butanol	Part 1A		165.69	75.31	75.31	75.31	75.31	75.31	0.00	0.00
71-43-2	benzene	Part 1A	Part 5	0.05	0.02	0.02	0.02	0.02	0.02	0.00	0.00
78-93-3	mek		Part 5	97.32	44.24		44.24	44.24	44.24	0.00	0.00
78-83-1	isobutanol	Part 1A		0.09	0.04	0.04	0.04	0.04	0.04	0.00	0.00
95-47-6	o-xylene	Part 1A	Part 5	8.85	4.02	4.02	0.00	4.02	4.02	0.00	0.00
95-63-6	tmb			7.65	3.48	3.48		3.48	3.48	0.00	0.00
96-29-7	methyl ethyl ketoxime			4.38	1.99	1.99	0.00	1.99	1.99	0.00	0.00
97-64-3	Ethyl Lactate			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100-41-4	ethylbenzene	Part 1A		7.34	3.34	3.34	3.34	3.34	3.34	0.00	0.00
106-42-3	p-xylene	Part 1A	Part 5	7.03	3.20	3.20	0.00	3.20	3.20	0.00	0.00
107-98-2	propylene glycol monomethyl ether			94.08	42.76	0.00	42.76	42.76	42.76	0.00	0.00
108-10-1	mibk			1.31	0.60			0.60	0.60	0.00	0.00
108-38-3	m-xylene	Part 1A	Part 5	20.02	9.10	9.10	0.00	9.10	9.10	0.00	0.00
108-65-6	pm acetate		Part 5	291.08	132.31	0.00	132.31	132.31	132.31	0.00	0.00
108-88-3	toluene	Part 1A	Part 5	230.21	104.64	104.64	104.64	104.64	104.64	0.00	0.00
110-19-0	isobutyl acetate			607.29	276.04	0.00	0.00	276.04	276.04	0.00	0.00
110-43-0	mak			37.93	17.24			17.24	17.24	0.00	0.00
110-82-7	cyclohexane	Part 1A		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111-65-9	Octane		Part 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111-84-2	nonane		Part 5		0.00	0.00	0.00	0.00	0.00	0.00	0.00
123-19-3	dipropylketone			19.62	8.92			8.92	8.92	0.00	0.00
123-86-4	n-butyl acetate		Part 5	634.76	288.53	0.00	0.00	288.53	288.53	0.00	0.00
141-78-6	ethyl acetate			0.00	0.00			0.00	0.00	0.00	0.00
142-82-5	heptane		Part 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
546-93-0	magnesium carbonate			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
577-11-7	bis(2-ethylhexyl) sodium sulfosuccinate			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1309-37-1	iron oxide			1.79	0.81	0.00	0.81	0.00	0.00	0.81	0.81
1317-60-8	ferric oxide			1.13	0.51	0.00	0.00	0.00	0.00	0.51	0.51
1332-58-7	aluminum silicate			30.94	14.06	0.00	0.00	0.00	0.00	14.06	14.06
1333-86-4	carbon black			16.81	7.64	0.00	7.64	0.00	0.00	7.64	7.64
1569-02-4	ethoxypropanol			6.35	2.89	0.00	2.89	2.89	2.89	0.00	0.00
7440-47-3	trivalent chromium	Part 1A			0.00	0.00	0.00	0.00	0.00	0.00	0.00
7732-18-5	water			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8030-76-0	soy lecithin			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9007-13-0	calcium resinate			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14807-96-6	magnesium silicate hydrate			100.38	45.63	0.00	0.00	0.00	0.00	45.63	45.63
14808-60-7	crystalline silica			6.29	2.86	0.00	0.00	0.00	0.00	2.86	2.86
34590-94-8	dipropylene glycol monomethyl ether			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52125-53-8	propylene glycol monoethyl ether			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56819-40-0	metal complex dye	--		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-47-8	aliphatic petroleum distillates		Part 5	83.23	37.83	37.83	37.83	37.83	37.83	0.00	0.00

CAS #	Chemical Name			Lbs Emission	kg Emission	Canada_NPRI		Canada_ON_127	Canada_ON_Voc	Voc (kg)	Non Voc (kg)	Non Voc (kg)
64742-49-0	petroleum distillate	--		219.24	99.65	99.65		0.00	99.65	99.65	0.00	0.00
64742-95-6	aromatic hydrocarbons		Part 5	17.68	8.04	8.04		8.04	8.04	8.04	0.00	0.00
64742-88-7	aliphatic		Part 5	18.38	8.35	8.35		8.35	8.35	8.35	0.00	0.00
68911-87-5	organoclay			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
70657-70-4	2-methoxy-1-propanol acetate			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
070851-34-2	cobalt compound	Part 1A		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
071486-79-8	calcium sulfonate			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
071839-77-5	solvent red 130			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
112945-52-5	fumed silica			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
251298-11-0	cetyl-oleyl polyoxyethylene sodium phosphate			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	alkyd resin solids			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	alkylamide and ester salts			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	antisettling agent solids			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	black dye			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	brown pigment			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	chromium complex	Part 1A		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	chromium compound	Part 1A		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	defoamer solids			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	organic-chrome complex	Part 1A		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	red dye			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
proprietary	thixotrope solids			0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
					1,913.45							
		Grand Totals(Lbs):		**4,209.59**	**1,913.45**	**520.96**	**0.00**	**630.17**	**1,841.93**	**1,841.93**	**71.52**	**71.52**
2022	Grand Totals(Lbs):			7060.38	3209.26							
2021	Grand Totals(Lbs):			8546.2	12030.94	3943.85	0	6969.88	9132.91	9132.91	2898.03	2898.03
2018	Grand Totals(Lbs):			15181.32	6900.6	1555.027	0	2951.13	5261.468	5261.468182	1213.54091	1213.54091

2022 Purchases from Comet

Description	Quantity (kg)	Chemical Name	CAS Number	% breakdown	MPO (kg)
FM0008 Mineral Spirits COMSOL 3139	0	Petroleum Distillate	64742-47-8	50%	0
		Stoddard Solvent	8052-41-3	50%	0
				Total	**0**
Methyl Ethyl Alcohol	0	Ethyl Alcohol	64-17-5	50%	0
		Methyl Alcohol	67-56-1	50%	0
				Total	**0**

2022	2021	2020	2019	2018	2017	2016	2015	2014
644	628	628	644	644	644	628	924	628

ECA Annual Written Summary Report

From: Jim Anderson
To: CofAeSubmission@ontario.ca
Cc: Jacqui Davidson
Subject: 7758-A8LKAX Durham Furniture 2023 WS submission
Date: May 6, 2024 8:57:00 AM
Attachments: Durham WS Form April 2024.pdf

Written Summary Submission

Company: Durham Furniture Inc.
Certificate of Approval Number: 7758-A8LKAX
Due Date for Written Summary: 2024/08/31

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Jim Anderson, M.Eng., P.Eng.
CCS Engineering Inc.
(519) 504 7241

Durham Furniture

April 10, 2024

Section 9 Director
Ministry of the Environment and Climate Change
Environment Assessment and Approvals Branch
135 St. Clair Avenue West, Floor 1
Toronto ON M4V 1P5

Re: Written Summary for Reporting Year 2023
Environmental Compliance Approval (Air/Noise) Number 7758-A8LKAX

This is to confirm that the Durham Furniture Inc. facility, located in Durham, Ontario operated in compliance with the Performance Limits set forth in our Environmental Compliance Approval (Air and Noise) Number 7758-A8LKAX (November 4, 2016) as noted above.

The attached Written Summary provides the information required by Condition 6 of the above noted ECA.

Sincerely,

Luke Simpson
President & CEO

c. District Manager
Owen Sound Area Office
101 – 17th Street East
Owen Sound ON N4K 0A5

MODIFICATION LOG

Durham Furniture Inc.

Environmental Compliance Approval (Air and Noise) Number 7758-A8LKAX (November 4, 2016)

No modifications were made in 2023 that changed or altered air emission sources.

Some noise abatement updates were completed in the fall of 2023.

Date Changed	Description of Change	Emission Summary Dispersion Modelling Report Changes
September 2023	Installed sound barrier wall sea cans along driveway at Lambton Street by kilns	No changes to ESDM. Updated AAR – November 2023

Revision Date: December 31, 2023

450 Lambton St. W, P.O. Box 80, Durham, Ontario N0G 1R0
Tel: (519) 369-2345 Fax: (519) 369-6515

EMISSION SUMMARY DISPERSION MODELLING REPORT

Durham Furniture Inc.
450 Lambton Street West
Durham, Ontario

March 2024

Prepared for:

Durham Furniture Inc.
450 Lambton Street West
Durham, Ontario
519-369-6515

Prepared by:

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69 Lawrence Street
Wellesley, ON N0B 2T0
(519) 504-7241

Project 1321

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APPENDICES

EXECUTIVE SUMMARY

This Emission Summary and Dispersion Modelling (ESDM) report was prepared to support Amended Environmental Compliance Approval (ECA) with limited operational flexibility (LOF) NUMBER 7758-A8LKAX Issue Date: November 4, 2016, for the Durham Furniture Inc. (Durham Furniture) facility located at 450 Lambton Street West in Durham, Ontario. The LOF expires February 1, 2020 in accordance with Condition 2.3.

The Durham Furniture facility manufactures custom household wood furniture. Processes at the facility include grading, kiln drying, cutting, sanding and shaping furniture pieces, assembly and finishing.

This report is prepared in accordance with s.22 of O. Reg. 419/05 (as amended), and the Procedure for Preparing an Emission Summary and Dispersion Modelling Report, March 2018, as applicable. This report updates the ESDM to include AERMOD modelling and revised the actual paint usage quantities at the facility from operations over the past three years.

The facility is expected to emit volatile organic compounds, particulates and products of combustion. Site processes and sources were screened as sources that emit contaminants in negligible amounts. Some constituents from paint spray operations was screened out in accordance with threshold level assessments for VOC emissions in accordance with Section 7.2 and Table B-1, Section B.1 Screening Out contaminants that are emitted in Negligible amounts of Guideline A-10.

In accordance with the screening process, the aggregate facility wide emission rate of all contaminants multiplied by the appropriate dispersion factor is less than applicable MOECP ACB criteria (as converted) and indicates that emissions based on the maximum emission scenario are below MOECP limits and in compliance with O. Reg. 419/05.

Table 1.1: Emission Summary Table

Contaminant	CAS	Emission Rate	Air Model	POI Concentration	MOE ACB Limit	Schedule	Limiting Effect	Avg Period	Percentage of MOE ACB Limit
		(g/s)		(µg/m^3)	(µg/m^3)			hours	%
Ethyl 3 Ethoxyproprionate	763-69-9	0.000000	AERMOD 22112	6.864	200	Guide B1	Odour	0.17	3.43%
N-Butyl Acetate	123-86-4	0.000000	AERMOD 22112	39.480	15000	Guide B1	Health	1	0.26%
		0.000000	AERMOD 22112	65.142	1000	Guide B1	Odour	0.17	6.51%
Particulates	n/a	0.149913	AERMOD 22112	105.965	120	Std B1	Visibility	24	88.30%
Nitrogen Oxides	10102-44-0	0.235361	AERMOD 22112	63.778	200	Std B1	Health	24	31.89%
Particulates	n/a	0.235361	AERMOD 22112	107.752	400	Std B1	Health	1	26.94%

1.0 INTRODUCTION AND FACILITY DESCRIPTION

This Emission Summary and Dispersion Modelling (ESDM) report was prepared to support Amended Environmental Compliance Approval (ECA) with limited operational flexibility (LOF) NUMBER 7758-A8LKAX Issue Date: November 4, 2016, for the Durham Furniture Inc. (Durham Furniture) facility located at 450 Lambton Street West in Durham, Ontario.

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The facility is expected to emit volatile organic compounds, particulates and products of combustion. Site processes and sources were screened as sources that emit contaminants in negligible amounts. Some constituents from paint spray operations was screened out in accordance with threshold level assessments for VOC emissions in accordance with Section 7.2 and Table B-1, Section B.1 Screening Out contaminants that are emitted in Negligible amounts of Guideline A-10.

The general site layout showing source locations is presented on Figure 1 – Site Plan Source Layout. The location of the facility is presented in Figure 2 – Scaled Area Location Plan. The land use designation of the site and surrounding area is presented on Figure 3– Land Use Zoning Designation Plan. All figures can be found in Appendix A.

1.1 PURPOSE AND SCOPE OF THE ESDM REPORT

This ESDM report was prepared to support an existing environmental compliance approval and to update it with current usage rates and applicable air modelling per s.22 and 26 of O. Reg. 419/05 and the Procedure for Preparing an Emission Summary and Dispersion Modelling Report, Version 4.1, February 2018 (Guideline A-10).

Processes/sources include: thirteen (13) paint booths, one (1) natural gas fired boiler, one (1) one wood fired boiler and two (2) dust collectors.

1.2 DESCRIPTION OF PROCESSES AND NAICS CODES

The Durham Furniture facility manufactures custom household wood furniture. Processes at the facility include grading, kiln drying, cutting, sanding, and shaping furniture pieces, assembly and finishing.

The North American Industry Classification System (NAICS) code that applies to the Durham Furniture facility is 337123 – Other wood household furniture manufacturing. This industry is comprised of establishments that are primarily engaged in manufacturing wood furniture designed for household use, except upholstered.

NAICS code 337123 is part of NAICS code 337 – Furniture and Related Product Manufacturing

1.3 DESCRIPTION OF PRODUCTS AND RAW MATERIALS

The Durham Furniture facility manufactures and finishes solid wood bedroom furniture. Raw materials used at the facility include clean, untreated lumber and finishing products.

Manufacturing processes include grading, kiln drying, cutting, sanding, and shaping furniture pieces, assembly, finishing and shipping. Finishing products include a variety of stains, sealers, topcoats, colours, catalysts, retarders, and solvents.

Support operations include two dust collection units and wood and natural gas fired boilers.

The potentially emitted contaminants include particulates associated with the cutting, sanding, and planing processes which are directed to the dust collection system. Particulates are also generated during finishing operations. Other potentially emitted contaminants include VOC emissions from finishing processes. Products of combustion from the natural gas and wood fired boilers are also expected to be emitted.

Detailed process information along with emission calculations associated with facility processes are provided in Appendix B.

1.4 PROCESS FLOW DIAGRAM

The process flow diagram for the facility is illustrated below in Figures 1.1, 1.2 and 1.3.

Figure 1.1: Process Flow Diagram – Product Preparation

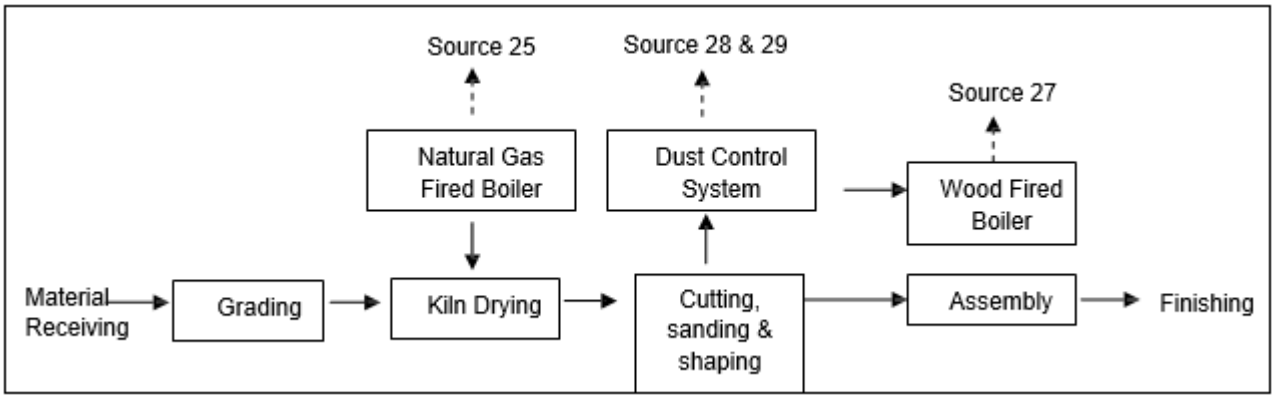


Figure 1.2: Process Flow Diagram – Finishing (Mainline)

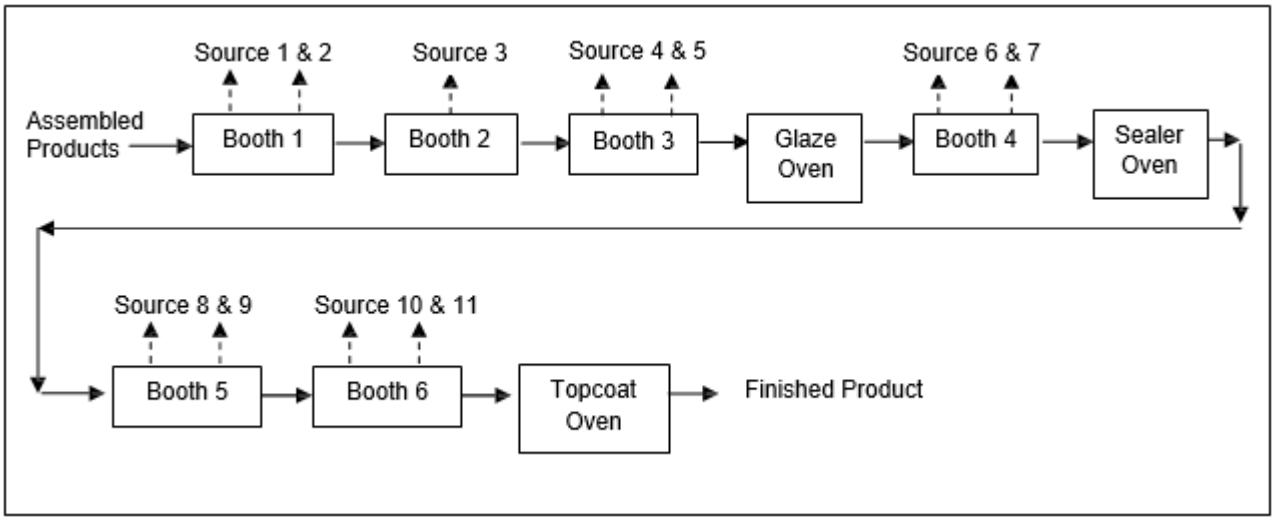
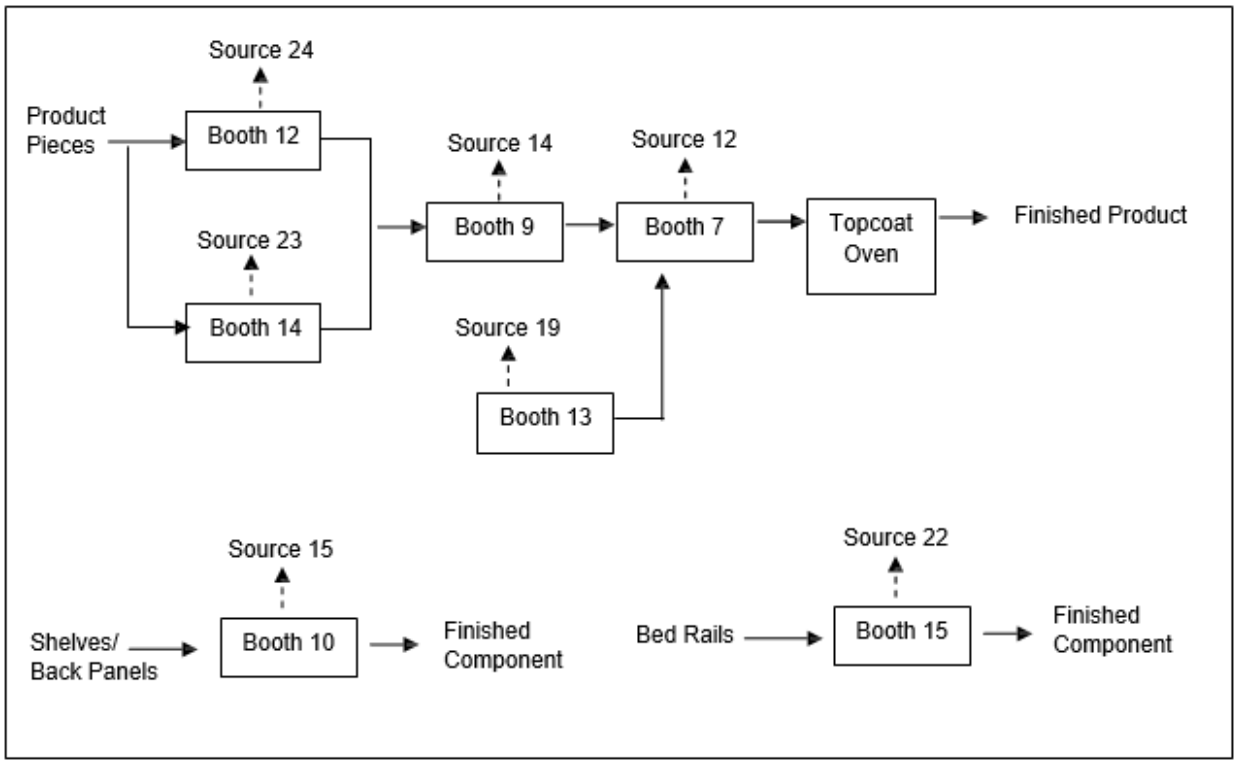


Figure 1.3: Process Flow Diagram – Finishing (Off-line)



1.5 OPERATING SCHEDULE

The Durham Furniture facility typically manufactures furniture Monday through Friday, 07:00 to 16:00 hours. Ancillary support operations such as kiln drying and boiler operation operate 24 hours a day, 7 days a week.

2.0 INITIAL IDENTIFICATION OF SOURCES AND CONTAMINANTS

All the sources and contaminants emitted at the facility have been identified below as required by sub paragraphs 2 to 4 of s.26(1) of O. Reg. 419/05. Insignificant or negligible sources and contaminants are discussed in Section 3.0.

Overall emissions from the facility result from: wood cutting, sanding, and planning, finishing operations, natural gas combustion and wood combustion.

A summary listing of sources and contaminants emitted from the facility is given in Table 2.1: Source and Contaminants Identification Table as required by sub paragraph 5 of s.26(1) of O. Reg. 419/05.

Information related to these sources can be found in Table 5.1 – Source Summary Table and the location of the exhaust is provided in Appendix A – Figures.

Table 2.1: Source and Contaminants Identification Table

Source Information			**Significant (Yes/No)?**	
Source Description (Source ID)	**General Exhaust Location**	**Expected Contaminants**	**(If Yes, included in Modelling)**	**Rationale**
Booth 1 – Toner Booth (Source 1 & Source 2)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 2 – Toner Booth (Source 3)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 3 – Glaze Booth (Source 4 & Source 5)	Middle of facility roof.	VOCs, Particulate	Yes	N/A
Booth 4 – Sealer Booth (Source 6 & Source 7)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 5 – Shader Booth (Source 8 & Source 9)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 6 – Topcoat Booth (Source 10 & Source 11)	Southern edge of facility roof	VOCs, Particulate	Yes	N/A
Mainline Topcoat Oven (Source 18)	Directly north of S10 exhaust	None	No	100% of all finishing products are accounted for in finishing booth emissions.
Booth 12 – Shader Booth (Source 24)	Northern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 14 – Shader Booth (Source 23)	Northern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 9 – Glaze & Toner (Source 14)	Northern portion of facility roof.	VOCs, Particulate	Yes	N/A
Booth 7 – Topcoat & Shader (Source 12)	Middle of facility roof.	VOCs, Particulate	Yes	N/A
Offline Topcoat Oven (Source 21)	Middle of facility roof	None	No	100% of all finishing products are accounted for in finishing booth emissions.
Booth 13 – Repair (Source 19)	Middle of facility roof	VOCs, Particulate	Yes	N/A

Booth 10 – Toner, Glaze & Sealer (Source 15)	Middle of facility roof	VOCs, Particulate	Yes	N/A
Booth 15 – Toner, Glaze & Sealer (Source 22)	Northern portion of facility roof.	VOCs, Particulate	Yes	N/A
Natural Gas Fired Boiler (Source 25)	West side of kiln building roof	Products of Combustion	Yes	N/A
Wood Fired Boiler (Source 27)	Middle of facility	Products of Combustion	Yes	N/A
Dust Collectors (Source 28 & Source 29)	Middle of facility and middle of facility roof.	Particulate	Yes	N/A
Tube Heaters (Source 32- Source 38)	Southwestern portion of facility building	Products of Combustion	No	O. Reg. 524/98:EXEMPTIONS FROM SECTION 9 comfort heater
Air Make Up (AMU) Units (Source 30, Source 49, Source 50, Source 54, Source 55, Source 56)	Throughout facility roof	Products of Combustion	No	O. Reg. 524/98:EXEMPTIONS FROM SECTION 9 comfort heater

Some contaminants screened with Emission Threshold Screened Out Per Procedure 7.2

3.0 ASSESSMENT OF THE SIGNIFICANCE OF CONTAMINANTS AND SOURCES

In accordance with s.8 of O. Reg. 419/05 emission rate calculations and dispersion modelling does not have to be performed for emissions from negligible sources or for the emission of negligible contaminants from significant sources.

An explanation for each source and contaminant identified as negligible in accordance with s. 26 of O. Reg. 419/05 is provided.

3.1 IDENTIFICATION OF NEGLIGIBLE CONTAMINANTS AND SOURCES

The sources/processes shown in Table 2.1, Source Contaminants Identification Table, indicate the sources are deemed insignificant or negligible.

3.2 RATIONALE FOR ASSESSMENT

For each source or general contaminant in Table 2.1 that has been identified as being negligible, an accompanying documented rationale is provided. Where further technical information is deemed necessary to explain the rationale provided in Table 2.1, it is provided below.

Tube Heaters and Air Make Up (AMU) Units (Sources 30, 32-38, 49, 50, 54, 55 & 56):

The Facility utilizes some natural gas combustion units to provide comfort heating for the office spaces and production area. Comfort heating has a thermal input rating of less than 10.5 million kilojoules per hour. Heating, ventilation, and air conditioning systems (HVAC system), that meet the criteria set out in O. Reg. 524/98 are exempt from Section 9 of the Environmental Protection Act (Act).

Total site-wide heat input rating for the facility HVAC system is less than 20 million kilojoules per hour, according to Table B-3B in Appendix B of the ESDM procedure document and the air emissions from these sources can be considered negligible.

Topcoat Ovens (Source 18 & Source 21):

Emissions from each drying oven are less than 1% of facility finishing emissions and have therefore been deemed insignificant with respect to total facility emissions. All emissions from the finishing operation have been included in the emissions emitted from the paint booth stacks, assuming 100% emission of all volatile compounds.

Paint Booth Sources:

Threshold level assessments for painting emissions in accordance with Table B-1, Section B.1 Screening Out contaminants that are emitted in Negligible amounts.

For insignificant contaminants, the site-specific threshold calculator from A-10, Section 7.12 was used to calculate the emission thresholds according to the following:

- Shortest distance from the facility of the paint booth source to the property line is 20 m. The area is urban.
- One-hour average rural dispersion factor from A-10 Table B-1 Appendix B for 20 m is conservatively 8700 ug/m3 per g/s/
- Dispersion factor converted to 24-hour average is 8700 *(1/24)^.28= 3573 ug/m3 per g/s.
- Toluene effect-based standard from ACB is 2000 ug/m3 for 24 hrs.
- Site specific emission threshold for iron is 0.5 x (2000/3573) = 2.799 E-1 g/s
- The aggregate emission rate for iron is 1.11 E-1 g/s. Therefore, the toluene maximum emission rate is less than the site-specific emission threshold and can be considered negligible.

Table B.0 shows these calculations for all potential paint fume constituents.

Paint Storage and Mix Room

The emissions associated with these processes are insignificant relative to the paint booth emissions. All solvent and paint usage are considered emitted through the paint booths.

4.0 OPERATING CONDITIONS, EMISSION ESTIMATING, AND DATA QUALITY

This section provides a description of the operating conditions used in the calculation of the emission estimates and an assessment of the data quality of the emission estimates for each significant contaminant from the facility as required by sub paragraphs 6 and 7 of s.26(1) of O. Reg. 419/05.

In accordance with s.8 of O. Reg. 419/05, emission rate calculations and dispersion modelling does not have to be performed for emissions from negligible sources or for the emission of negligible contaminants from significant sources.

Operating scenarios for the significant scenarios were considered for the significant contaminants to provide the maximum POI concentrations. All significant sources operating simultaneously at maximum rates of production provides the maximum potential POI concentrations. Maximum 24-hour emission rates for each significant contaminant emitted from the significant sources was calculated in accordance with the A-10 guidance requirements.

4.1 DESCRIPTION OF OPERATING CONDITIONS

Operating conditions for emission estimating and modelling represent the worst-case operating scenario, generating maximum emissions.

Natural Gas Combustion

The natural gas fired boiler that provides process heating for kiln drying is modelled as operating 24 hours a day, 7 days a week, at its maximum rated heat input capacity.

Dust Collection

All dust collection units operate in conjunction with facility operations. For purposes of calculating maximum emission rates it was assumed both units are operating simultaneously at their maximum rated flow rates. Maximum flow rates for each unit are 51.9 m3/s and 14.2 m3/s for the Moldow and Murphy units, respectively.

Wood Combustion

The wood fired boiler provides process heating for kiln drying and facility heating. To calculate a maximum emission scenario the boiler is assumed to operate at its 2019 capacity of 88 kg of clean, untreated sawdust per hour.

Finishing Operations

Finishing occurs along six mainline booths and on seven offline booths. The majority of furniture is finished on the mainline; however, some pieces do not fit on the mainline and are finished in the offline booths.

For a maximum operating scenario, it is assumed that all booths are operating continuously and simultaneously.

The paint booth systems only operate during the day shift.

4.2 EXPLANATION OF THE METHOD USED TO CALCULATE EMISSION RATES

Emissions resulting from all significant facility processes have been included in the emission calculations and are listed in the Source Summary Table (Table 5.1).

Emission rates are derived from a mass balance approach to determine emission rates from paint booth activities. The emissions basis for each source is outlined in further detail along with the respective emission calculation in Appendix B.

Dust Collector Emissions

Two dust collection units (Sources 28 & 29) are used to control particulate emissions from cutting, sanding, and planing. The exhaust flow rate for these dust collector units are 51.9 m3/s and 14.2 m3/s for the Moldow and Murphy units, respectively. The Murphy unit (Source 28) is located outdoors directly to the west of the main facility building and exhausts 8 m above grade. The Moldow unit (Source 29) is located in the middle of the facility roof and exhausts 10.6 m above grade.

Compounds of concern emitted from dust collection activities include particulates. Maximum particulate emissions from dust collection units were calculated using engineering calculations/judgement. Calculations were based on typical sawdust tonnages collected from the baghouses and hauled from the facility annually. This tonnage provides insight into the loading input into each baghouse based on their respective removal efficiencies. Efficiencies provided by the manufacturer were used to determine particulate emissions from each unit. Efficiencies provided by the manufacturer are provided in Appendix D.

Emission and sample calculations can be found in Appendix B.

Natural Gas Fired Boiler Emissions

One (1) natural gas fired boiler (Source 25) is used to provide heating for kiln drying. The boiler has a heat capacity of 12,554,000 BTU/hr. The boiler discharges to the atmosphere through a stack located on the facility roof, 10.2 m above grade.

According to Section 7.1.1 of the MOE document “Procedure for Preparing an Emission Summary and Dispersion Modelling Report”, compounds of concern regarding air emissions from natural gas fired equipment include nitrogen oxides. Maximum natural gas combustion emissions are calculated assuming the boiler is operating at 100% of its maximum rated heat input capacity. US EPA AP-42 emission factors from Chapter 1.4 – Natural Gas Combustion (Small Uncontrolled boilers) are applied.

Emission and sample calculations can be found in Appendix B.

Wood Fired Boiler Emissions

One (1) wood fired boiler (Source 27) is used to provide heating for kiln drying. The wood boiler operates at 88 kg/hr based on 2019 wood usage. The boiler discharges to the atmosphere through a stack located on the facility roof, 31.1 m above grade.

Compounds of concern regarding air emissions from wood fired equipment include nitrogen oxides and particulate. Maximum wood combustion emissions are calculated assuming the boiler is operating at 100% of its maximum operating capacity. US EPA AP-42 emission factors from Chapter 1.6 – Wood Residue Combustion in Boilers (for dry wood with no control device) are applied.

Emission and sample calculations can be found in Appendix B.

Finishing Emissions

Finishing operations occur in all booths (Sources 1- 12, 14, 15, 19, 23 & 24). Depending on the desired finish, wood products may be finished in any of the booths. Compounds of concern emitted from finishing activities include particulates and VOCs, emissions were derived based on a mass balance approach.

To determine emissions from each source an inventory of which products sprayed in each booth was compiled. Maximum SDS concentrations were used to determine constituent concentrations of products sprayed. For all mainline booths, the worst-case constituent concentration of all finishes sprayed in each booth was taken to determine the concentration of

each constituent sprayed in each booth. For all offline booths, the average of all constituent concentrations sprayed in each booth was used to determine the concentration of each constituent sprayed in each booth.

These worst-case concentrations are used to create a “super paint” type emission of maximum worst case constituents across approximately 80 different paints used at the facility (stains, glazes, sealers, NGRs, basecoats, etc.).

Actual spray rates were derived based on paint usage data (purchase records and NPRI reporting volumes) then applied to constituent concentrations to determine emission rates for each emission source.

Transfer efficiency is assumed to be 60%, filter removal efficiency is 99%, and weekly paint usage is 830 L.

It should be noted that some products are mixed/reduced before they are applied onto wood products; this mixing has been accounted for and is shown in Table B.2 in Appendix B.

Sample calculations in Appendix B guide the reviewer through one of these mixing scenarios.

Emissions from some booths are vented out two (2) stacks, where this occurs it has been assumed that emissions are divided equally between the two stacks.

4.3 SAMPLE CALCULATIONS

The technical rationale, including sample calculations are documented in Appendix B.

4.4 ASSESSMENT OF DATA QUALITY

This section provides a description of the assessment of the data quality of the emission estimates for each significant contaminant from the facility, as required by sub paragraph 7iii of s.26(1) of O. Reg. 419/05.

Dust Collector Emissions

Emission estimates from dust collection activities were derived from mass balance and engineering calculations/judgement. According to Section 8.3.3 of the ESDM Procedure Document engineering calculations/judgement are classified as having “average” data quality when emission rate estimates are derived from fundamental scientific and engineering principles.

Natural Gas Fired Boiler Emissions

Emission estimates from the natural gas fired boiler were derived from US EPA AP-42 emission factors. Emission factors used to determine nitrogen oxide emissions according to Section

8.3.2 of the ESDM Procedure Document is classified as having “above-average” data quality (US EPA A & B).

Wood Boiler Emissions

Emission estimates from the wood boiler were derived from US EPA AP-42 emission factors. Emission factors used to determine particulate emissions according to Section 8.3.2 of the ESDM Procedure Document is classified as having “above-average” data quality (US EPA A & B).

According to Section 8.3.3 of the ESDM Procedure Document the emission factor used to determine emissions related to nitrogen oxides is classified as having “average” data quality (US EPA C).

Finishing Emissions

Emission estimates from finishing were derived using a mass balance approach. Section 8.3.2 of the ESDM Procedure Document states that emission estimating techniques using a mass balance approach can be considered to provide emission rates of “above-average” quality if; 100% of the material balance is accounted for, that contaminants will not undergo a chemical transformation through the source/process and an averaging period is used that is similar to the air quality standard

5.0 SOURCE SUMMARY TABLE AND SITE PLAN

5.1 SOURCE SUMMARY TABLE

Table 5.1 – Source Summary Table summarizes the contaminant emissions calculated for the worst-case facility emissions scenario.

Emission rate estimates for each source of significant contaminants are documented in accordance with requirements of sub paragraph 8 of s.26(1) of O. Reg. 419/05.

Emission calculations for Table 5.1 – Source Summary Table are appended in Appendix B. Emission estimates based on these sources are discussed and developed in Section 4.0.

5.2 SITE PLAN

The facility's site layouts and plans of the property from which the contaminants are discharged, drawn to scale that show the property boundary, each contaminant source and building height are included in Appendix A.

Table 5.1: Source Summary Table

Source Identifier	Description	Source Data				Emission Data					
		Stack Gas Flow Rate	Stack Diameter	Stack Height Above Roof	Stack Height Above Grade	Contaminant	CAS Number	Emission Rate	Data Quality	Estimation Technique	Percentage of Overall Emission
		(m^3/s) (deg C)	(m)	(m)	(m)			(g/s)			
1	Booth 1 - Toner	3.82 21	0.71	5.3	12.7	Aliphatic Hydrocarbons	n/a	0.0437			2.22%
						Aromatic Naphtha	64742-95-6	0.0089			4.53%
						Stoddard Solvent	8052-41-3	0.0022			3.46%
						Mineral Spirits	8032-32-4	0.0044			12.30%
						VM&P Naphtha	64742-89-8	0.0282			6.38%
						Isopropyl Benzene	98-82-8	0.0004			9.52%
						1,2,4-Trimethylbenzene	95-63-6	0.0044			5.98%
						Toluene	108-88-3	0.2048			6.71%
						Ethylbenzene	100-41-4	0.0030			1.06%
						Xylene	1330-20-7	0.0111			1.52%
						Ethyl Acetate	141-78-6	0.0344			5.46%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0180			8.31%
						Isobutyl Acetate	110-19-0	0.0012			1.09%
						Isobutyl Isobutyrate	97-85-8	0.0044			3.55%
						N-Butyl Acetate	123-86-4	0.0430			2.15%
						Methanol	67-56-1	0.1290			8.54%
						Ethanol	64-17-5	0.3722			8.53%
						Isobutanol	78-83-1	0.0318	Above-Average	MB	3.55%
						Isopropanol	67-63-0	0.0441			3.16%
						Methyl Ethyl Ketone	78-93-3	0.0597			6.18%
						Methyl Isobutyl Ketone	108-10-1	0.0285			5.67%
						Acetone	67-64-1	0.1047			10.20%
						PGMEA	108-65-6	0.0447			12.65%
						Talc	14807-96-6	0.0001			5.60%
						Titanium Dioxide	13463-67-7	0.0001			11.32%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0528			10.66%
						CI Acid Yellow 220	70851-34-2	0.0001			13.14%
						Asphalt	8052-42-4	0.0000			12.30%
						Silica (quartz)	14808-60-7	0.0000			2.92%
						Solvent Red 130	71839-77-5	0.0000			15.28%
						Octane	111-65-9	0.0012			15.28%
						Heptane	142-82-5	0.0004			15.28%
						Cyclohexane	110-82-7	0.0000			15.28%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0089			8.42%
						Red Acid	72017-66-4	0.0000			7.33%

						CI Acid Black 52	5610-64-0	0.0000			7.95%
						Diethylene Glycol Butyl Ether	112-34-5	0.0022			15.28%
						Ceramics (clay)	66402-68-4	0.0000			8.89%
						Metal Complex Dye	84812-63-5	0.0000			11.51%
						C.I. Pigment Red 101	1332-37-2	0.0000			3.42%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			5.42%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			0.06%
						Particulate	n/a	0.0004			0.23%
2	Booth 1 - Toner	3.82 21	0.71	5.3	13.0	Aliphatic Hydrocarbons	n/a	0.0437			2.22%
						Aromatic Naphtha	64742-95-6	0.0089			4.53%
						Stoddard Solvent	8052-41-3	0.0022			3.46%
						Mineral Spirits	8032-32-4	0.0044			12.30%
						VM&P Naphtha	64742-89-8	0.0282			6.38%
						Isopropyl Benzene	98-82-8	0.0004			9.52%
						1,2,4-Trimethylbenzene	95-63-6	0.0044			5.98%
						Toluene	108-88-3	0.2048			6.71%
						Ethylbenzene	100-41-4	0.0030			1.06%
						Xylene	1330-20-7	0.0111			1.52%
						Ethyl Acetate	141-78-6	0.0344			5.46%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0180			8.31%
						Isobutyl Acetate	110-19-0	0.0012			1.09%
						Isobutyl Isobutyrate	97-85-8	0.0044			3.55%
						N-Butyl Acetate	123-86-4	0.0430			2.15%
						Methanol	67-56-1	0.1290			8.54%
						Ethanol	64-17-5	0.3722			8.53%
						Isobutanol	78-83-1	0.0318	Above-Average	MB	3.55%
						Isopropanol	67-63-0	0.0441			3.16%
						Methyl Ethyl Ketone	78-93-3	0.0597			6.18%
						Methyl Isobutyl Ketone	108-10-1	0.0285			5.67%
						Acetone	67-64-1	0.1047			10.20%
						PGMEA	108-65-6	0.0447			12.65%
						Talc	14807-96-6	0.0001			5.60%
						Titanium Dioxide	13463-67-7	0.0001			11.32%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0528			10.66%
						CI Acid Yellow 220	70851-34-2	0.0001			13.14%
						Asphalt	8052-42-4	0.0000			12.30%
						Silica (quartz)	14808-60-7	0.0000			2.92%
						Solvent Red 130	71839-77-5	0.0000			15.28%
						Octane	111-65-9	0.0012			15.28%
						Heptane	142-82-5	0.0004			15.28%
						Cyclohexane	110-82-7	0.0000			15.28%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0089			8.42%
						Red Acid	72017-66-4	0.0000			7.33%

						CI Acid Black 52	5610-64-0	0.0000			7.95%
						Diethylene Glycol Butyl Ether	112-34-5	0.0022			15.28%
						Ceramics (clay)	66402-68-4	0.0000			8.89%
						Metal Complex Dye	84812-63-5	0.0000			11.51%
						C.I. Pigment Red 101	1332-37-2	0.0000			3.42%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			5.42%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			0.06%
						Particulate	n/a	0.0004			0.23%
3	Booth 2 - Toner	3.82 21	0.71	5.3	12.7	Aliphatic Hydrocarbons	n/a	0.0874			4.44%
						Aromatic Naphtha	64742-95-6	0.0177			9.05%
						Stoddard Solvent	8052-41-3	0.0044			6.91%
						Mineral Spirits	8032-32-4	0.0089			24.60%
						VM&P Naphtha	64742-89-8	0.0563			12.75%
						Isopropyl Benzene	98-82-8	0.0009			19.03%
						1,2,4-Trimethylbenzene	95-63-6	0.0089			11.96%
						Toluene	108-88-3	0.4096			13.42%
						Ethylbenzene	100-41-4	0.0060			2.13%
						Xylene	1330-20-7	0.0223			3.05%
						Ethyl Acetate	141-78-6	0.0689			10.92%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0359			16.62%
						Isobutyl Acetate	110-19-0	0.0024			2.18%
						Isobutyl Isobutyrate	97-85-8	0.0088			7.10%
						N-Butyl Acetate	123-86-4	0.0859			4.30%
						Methanol	67-56-1	0.2580			17.08%
						Ethanol	64-17-5	0.7445			17.06%
						Isobutanol	78-83-1	0.0637	Above-Average	MB	7.10%
						Isopropanol	67-63-0	0.0882			6.31%
						Methyl Ethyl Ketone	78-93-3	0.1194			12.35%
						Methyl Isobutyl Ketone	108-10-1	0.0571			11.34%
						Acetone	67-64-1	0.2095			20.39%
						PGMEA	108-65-6	0.0894			25.29%
						Talc	14807-96-6	0.0002			11.20%
						Titanium Dioxide	13463-67-7	0.0002			22.63%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.1056			21.33%
						CI Acid Yellow 220	70851-34-2	0.0001			26.28%
						Asphalt	8052-42-4	0.0000			24.60%
						Silica (quartz)	14808-60-7	0.0000			5.84%
						Solvent Red 130	71839-77-5	0.0000			30.56%
						Octane	111-65-9	0.0024			30.56%
						Heptane	142-82-5	0.0008			30.56%
						Nonane	111-84-2	0.0001			44.01%
						Cyclohexane	110-82-7	0.0001			30.56%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0177			16.85%

						Red Acid	72017-66-4	0.0000			14.66%
						CI Acid Black 52	5610-64-0	0.0000			15.90%
						Diethylene Glycol Butyl Ether	112-34-5	0.0044			30.56%
						Ceramics (clay)	66402-68-4	0.0001			17.79%
						Metal Complex Dye	84812-63-5	0.0000			23.03%
						C.I. Pigment Red 101	1332-37-2	0.0000			6.84%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			10.85%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			0.12%
						Particulate	n/a	0.0008			0.46%
4	Booth 3 - Glaze	3.82 21	0.71	5.3	12.7	Aliphatic Hydrocarbons	n/a	0.2943			14.95%
						Aromatic Naphtha	64742-95-6	0.0078			3.95%
						Mineral Spirits	64742-47-8	0.2212			22.04%
						Petroleum Distillate	64742-49-0	0.0222			22.04%
						Solvent Naphtha, Heavy	64742-94-5	0.0058			22.04%
						Stoddard Solvent	8052-41-3	0.0109			17.05%
						Mineral Spirits	8032-32-4	0.0016			4.30%
						Solvent Naphtha	64742-88-7	0.0220			22.04%
						VM&P Naphtha	64742-89-8	0.0028			0.64%
						Isopropyl Benzene	98-82-8	0.0004			8.31%
						1,2,4-Trimethylbenzene	95-63-6	0.0039			5.22%
						Toluene	108-88-3	0.0449			1.47%
						Ethylbenzene	100-41-4	0.0046			1.63%
						Xylene	1330-20-7	0.0115			1.57%
						Ethyl Acetate	141-78-6	0.0042			0.67%
						Isobutyl Isobutyrate	97-85-8	0.0053			4.30%
						N-Butyl Acetate	123-86-4	0.0284	Above-Average	MB	1.42%
						Methanol	67-56-1	0.0042			0.28%
						Ethanol	64-17-5	0.0113			0.26%
						Isobutanol	78-83-1	0.0119			1.33%
						Isopropanol	67-63-0	0.0069			0.49%
						Methyl Ethyl Ketone	78-93-3	0.0133			1.37%
						Methyl Isobutyl Ketone	108-10-1	0.0156			3.09%
						Acetone	67-64-1	0.0029			0.28%
						PGMEA	108-65-6	0.0082			2.33%
						Talc	14807-96-6	0.0002			9.87%
						Titanium Dioxide	13463-67-7	0.0000			4.63%
						Dioctyl Terephthalate	6422-86-2	0.0001			6.45%
						Iron Oxide	1309-37-1	0.0001			18.30%
						Asphalt	8052-42-4	0.0000			4.30%
						Silica (quartz)	14808-60-7	0.0000			8.37%
						Carbon Black	1333-86-4	0.0000			9.82%
						n-Butyl Stearate	123-95-5	0.0074			22.04%

						Calcium Resinate	9007-13-0	0.0000			22.04%
						Fumed Silica	112945-52-5	0.0000			22.04%
						Aluminum Silicate	1332-58-7	0.0000			22.04%
						Naphthalene	91-20-3	0.0010			22.04%
						Charcoal Pigment	8021-99-6	0.0000			22.04%
						Burnt Umber Pigment	12713-03-0	0.0000			17.42%
						Manganese Oxide	1313-13-9	0.0000			22.04%
						Ceramics (clay)	66402-68-4	0.0000			3.67%
						C.I. Pigment Red 101	1332-37-2	0.0000			17.11%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			14.22%
						Kerosene	8008-20-6	0.0004			22.04%
						Linseed Oil	8001-26-1	0.0000			22.04%
						Benzene	71-43-2	0.0001			5.42%
						Cadmium	7440-43-9	0.0000			22.04%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			3.55%
						Particulate	n/a	0.0007			0.46%
5	Booth 3 - Glaze	3.82 21	0.71	5.3	12.7	Aliphatic Hydrocarbons	n/a	0.2943			14.95%
						Aromatic Naphtha	64742-95-6	0.0078			3.95%
						Mineral Spirits	64742-47-8	0.2212			22.04%
						Petroleum Distillate	64742-49-0	0.0222			22.04%
						Solvent Naphtha, Heavy	64742-94-5	0.0058			22.04%
						Stoddard Solvent	8052-41-3	0.0109			17.05%
						Mineral Spirits	8032-32-4	0.0016			4.30%
						Solvent Naphtha	64742-88-7	0.0220			22.04%
						VM&P Naphtha	64742-89-8	0.0028			0.64%
						Isopropyl Benzene	98-82-8	0.0004			8.31%
						1,2,4-Trimethylbenzene	95-63-6	0.0039			5.22%
						Toluene	108-88-3	0.0449			1.47%
						Ethylbenzene	100-41-4	0.0046			1.63%
						Xylene	1330-20-7	0.0115	Above-Average	MB	1.57%
						Ethyl Acetate	141-78-6	0.0042			0.67%
						Isobutyl Isobutyrate	97-85-8	0.0053			4.30%
						N-Butyl Acetate	123-86-4	0.0284			1.42%
						Methanol	67-56-1	0.0042			0.28%
						Ethanol	64-17-5	0.0113			0.26%
						Isobutanol	78-83-1	0.0119			1.33%
						Isopropanol	67-63-0	0.0069			0.49%
						Methyl Ethyl Ketone	78-93-3	0.0133			1.37%
						Methyl Isobutyl Ketone	108-10-1	0.0156			3.09%
						Acetone	67-64-1	0.0029			0.28%
						PGMEA	108-65-6	0.0082			2.33%
						Talc	14807-96-6	0.0002			9.87%
						Titanium Dioxide	13463-67-7	0.0000			4.63%

						Dioctyl Terephthalate	6422-86-2	0.0001			6.45%
						Iron Oxide	1309-37-1	0.0001			18.30%
						Asphalt	8052-42-4	0.0000			4.30%
						Silica (quartz)	14808-60-7	0.0000			8.37%
						Carbon Black	1333-86-4	0.0000			9.82%
						n-Butyl Stearate	123-95-5	0.0074			22.04%
						Calcium Resinate	9007-13-0	0.0000			22.04%
						Fumed Silica	112945-52-5	0.0000			22.04%
						Aluminum Silicate	1332-58-7	0.0000			22.04%
						Naphthalene	91-20-3	0.0010			22.04%
						Charcoal Pigment	8021-99-6	0.0000			22.04%
						Burnt Umber Pigment	12713-03-0	0.0000			17.42%
						Manganese Oxide	1313-13-9	0.0000			22.04%
						Ceramics (clay)	66402-68-4	0.0000			3.67%
						C.I. Pigment Red 101	1332-37-2	0.0000			17.11%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			14.22%
						Kerosene	8008-20-6	0.0004			22.04%
						Linseed Oil	8001-26-1	0.0000			22.04%
						Benzene	71-43-2	0.0001			5.42%
						Cadmium	7440-43-9	0.0000			22.04%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			3.55%
						Particulate	n/a	0.0007			0.46%
6	Booth 4 - Sealer	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0124	Above-Average	MB	0.63%
						VM&P Naphtha	64742-89-8	0.0124			2.80%
						Toluene	108-88-3	0.1671			5.47%
						Ethylbenzene	100-41-4	0.0285			10.09%
						Xylene	1330-20-7	0.0186			2.54%
						Ethyl Acetate	141-78-6	0.0186			2.94%
						Isobutyl Acetate	110-19-0	0.0248			22.32%
						N-Butyl Acetate	123-86-4	0.1079			5.41%
						Methanol	67-56-1	0.0309			2.05%
						Ethanol	64-17-5	0.0866			1.99%
						Isobutanol	78-83-1	0.0097			1.08%
						N-Butanol	71-36-3	0.0248			10.05%
						Isopropanol	67-63-0	0.1945			13.92%
						Methyl Ethyl Ketone	78-93-3	0.0371			3.84%
						Methyl Isobutyl Ketone	108-10-1	0.0186			3.69%
						Acetone	67-64-1	0.0371			3.61%
						Talc	14807-96-6	0.0001			4.47%
						Titanium Dioxide	13463-67-7	0.0000			1.19%
						Nitrocellulose	9004-78-0	0.0001			8.01%
						Formaldehyde	50-00-0	0.0025			10.97%
						Dioctyl Terephthalate	6422-86-2	0.0000			4.60%

						Silica (quartz)	14808-60-7	0.0000			10.32%
						Carbon Black	1333-86-4	0.0000			10.46%
						Limestone	1317-65-3	0.0004			24.04%
						Naphthalene	91-20-3	0.0000			0.00%
						Burnt Umber Pigment	12713-03-0	0.0000			5.04%
						Ceramics (clay)	66402-68-4	0.0000			6.05%
						urea-formaldehyde resin	68002-19-7	0.0001			24.04%
						Benzene	71-43-2	0.0002			18.13%
						Cellulose Nitrate, Cellulose Ester	9004-70-0	0.0001			24.04%
						o-xylene	95-47-6	0.0248			24.04%
						p-xylene	106-42-3	0.0248			24.04%
						Particulate	n/a	0.0009			0.58%
7	Booth 4 - Sealer	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0124			0.63%
						VM&P Naphtha	64742-89-8	0.0124			2.80%
						Toluene	108-88-3	0.1671			5.47%
						Ethylbenzene	100-41-4	0.0285			10.09%
						Xylene	1330-20-7	0.0186			2.54%
						Ethyl Acetate	141-78-6	0.0186			2.94%
						Isobutyl Acetate	110-19-0	0.0248			22.32%
						N-Butyl Acetate	123-86-4	0.1079			5.41%
						Methanol	67-56-1	0.0309			2.05%
						Ethanol	64-17-5	0.0866			1.99%
						Isobutanol	78-83-1	0.0097			1.08%
						N-Butanol	71-36-3	0.0248			10.05%
						Isopropanol	67-63-0	0.1945			13.92%
						Methyl Ethyl Ketone	78-93-3	0.0371			3.84%
						Methyl Isobutyl Ketone	108-10-1	0.0186			3.69%
						Acetone	67-64-1	0.0371	Above-Average	MB	3.61%
						Talc	14807-96-6	0.0001			4.47%
						Titanium Dioxide	13463-67-7	0.0000			1.19%
						Nitrocellulose	9004-78-0	0.0001			8.01%
						Formaldehyde	50-00-0	0.0025			10.97%
						Dioctyl Terephthalate	6422-86-2	0.0000			4.60%
						Silica (quartz)	14808-60-7	0.0000			10.32%
						Carbon Black	1333-86-4	0.0000			10.46%
						Limestone	1317-65-3	0.0004			24.04%
						Naphthalene	91-20-3	0.0000			0.00%
						Burnt Umber Pigment	12713-03-0	0.0000			5.04%
						Ceramics (clay)	66402-68-4	0.0000			6.05%
						urea-formaldehyde resin	68002-19-7	0.0001			24.04%
						Benzene	71-43-2	0.0002			18.13%
						Cellulose Nitrate, Cellulose Ester	9004-70-0	0.0001			24.04%
						o-xylene	95-47-6	0.0248			24.04%

						p-xylene	106-42-3	0.0248			24.04%
						Particulate	n/a	0.0009			0.58%
8	Booth 5 - Shader	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0730	Above-Average	MB	3.71%
						Aromatic Naphtha	64742-95-6	0.0188			9.60%
						VM&P Naphtha	64742-89-8	0.0542			12.28%
						1,2,4-Trimethylbenzene	95-63-6	0.0077			10.45%
						Toluene	108-88-3	0.2114			6.93%
						Ethylbenzene	100-41-4	0.0015			0.55%
						Xylene	1330-20-7	0.0033			0.45%
						Ethyl Acetate	141-78-6	0.0675			10.70%
						Isobutyl Isobutyrate	97-85-8	0.0199			16.09%
						N-Butyl Acetate	123-86-4	0.1042			5.22%
						Methanol	67-56-1	0.1184			7.84%
						Ethanol	64-17-5	0.3453			7.91%
						Isobutanol	78-83-1	0.0033			0.37%
						Isopropanol	67-63-0	0.0465			3.33%
						Methyl Ethyl Ketone	78-93-3	0.0631			6.52%
						Methyl Isobutyl Ketone	108-10-1	0.0281			5.59%
						Acetone	67-64-1	0.0349			3.39%
						1-Ethoxy-2-Propanol	1569-02-4	0.0013			28.10%
						PGMEA	108-65-6	0.0066			1.88%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0421			8.49%
						CI Acid Yellow 220	70851-34-2	0.0000			3.94%
						Iron Oxide	1309-37-1	0.0000			4.77%
						Carbon Black	1333-86-4	0.0000			3.36%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0133			12.61%
						Red Acid	72017-66-4	0.0000			14.63%
						CI Acid Black 52	5610-64-0	0.0000			13.49%
						Ethyl Lactate	97-64-3	0.0013			28.10%
						Propylene Glycol Monoethyl Ether	52125-53-8	0.0013			28.10%
						Metal Complex Dye	56819-40-0	0.0000			6.93%
						Trivalent Chromium	7440-47-3	0.0000			28.10%
						Particulate	n/a	0.0001			0.08%
9	Booth 5 - Shader	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0730	Above-Average	MB	3.71%
						Aromatic Naphtha	64742-95-6	0.0188			9.60%
						VM&P Naphtha	64742-89-8	0.0542			12.28%
						1,2,4-Trimethylbenzene	95-63-6	0.0077			10.45%
						Toluene	108-88-3	0.2114			6.93%
						Ethylbenzene	100-41-4	0.0015			0.55%
						Xylene	1330-20-7	0.0033			0.45%
						Ethyl Acetate	141-78-6	0.0675			10.70%
						Isobutyl Isobutyrate	97-85-8	0.0199			16.09%
						N-Butyl Acetate	123-86-4	0.1042			5.22%

						Methanol	67-56-1	0.1184			7.84%
						Ethanol	64-17-5	0.3453			7.91%
						Isobutanol	78-83-1	0.0033			0.37%
						Isopropanol	67-63-0	0.0465			3.33%
						Methyl Ethyl Ketone	78-93-3	0.0631			6.52%
						Methyl Isobutyl Ketone	108-10-1	0.0281			5.59%
						Acetone	67-64-1	0.0349			3.39%
						1-Ethoxy-2-Propanol	1569-02-4	0.0013			28.10%
						PGMEA	108-65-6	0.0066			1.88%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0421			8.49%
						CI Acid Yellow 220	70851-34-2	0.0000			3.94%
						Iron Oxide	1309-37-1	0.0000			4.77%
						Carbon Black	1333-86-4	0.0000			3.36%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0133			12.61%
						Red Acid	72017-66-4	0.0000			14.63%
						CI Acid Black 52	5610-64-0	0.0000			13.49%
						Ethyl Lactate	97-64-3	0.0013			28.10%
						Propylene Glycol Monoethyl Ether	52125-53-8	0.0013			28.10%
						Metal Complex Dye	56819-40-0	0.0000			6.93%
						Trivalent Chromium	7440-47-3	0.0000			28.10%
						Particulate	n/a	0.0001			0.08%
10	Booth 6 - Varnish	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0112	Above-Average	MB	0.57%
						Aromatic Naphtha	64742-95-6	0.0112			5.70%
						Toluene	108-88-3	0.0191			0.63%
						Ethylbenzene	100-41-4	0.0367			13.02%
						Xylene	1330-20-7	0.1614			22.07%
						Ethyl Acetate	141-78-6	0.0214			3.40%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0308			14.23%
						N-Butyl Acetate	123-86-4	0.2392			11.98%
						Methanol	67-56-1	0.0303			2.01%
						Ethanol	64-17-5	0.0896			2.05%
						Isobutanol	78-83-1	0.1819			20.27%
						N-Butanol	71-36-3	0.0447			18.16%
						Isopropanol	67-63-0	0.0321			2.30%
						Methyl Ethyl Ketone	78-93-3	0.0428			4.43%
						Methyl Isobutyl Ketone	108-10-1	0.0214			4.26%
						Acetone	67-64-1	0.0156			1.52%
						Nitrocellulose	9004-78-0	0.0003			20.81%
						Amorphous Silica	7631-86-9	0.0001			31.21%
						Formaldehyde	50-00-0	0.0038			16.97%
						Dioctyl Terephthalate	6422-86-2	0.0002			16.10%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0001			26.06%
						Ethylene Glycol Monobutyl Ether	111-76-2	0.0224			31.21%

						Particulate	n/a	0.0006			0.39%
11	Booth 6 - Varnish	3.82 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0112	Above-Average	MB	0.57%
						Aromatic Naphtha	64742-95-6	0.0112			5.70%
						Toluene	108-88-3	0.0191			0.63%
						Ethylbenzene	100-41-4	0.0367			13.02%
						Xylene	1330-20-7	0.1614			22.07%
						Ethyl Acetate	141-78-6	0.0214			3.40%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0308			14.23%
						N-Butyl Acetate	123-86-4	0.2392			11.98%
						Methanol	67-56-1	0.0303			2.01%
						Ethanol	64-17-5	0.0896			2.05%
						Isobutanol	78-83-1	0.1819			20.27%
						N-Butanol	71-36-3	0.0447			18.16%
						Isopropanol	67-63-0	0.0321			2.30%
						Methyl Ethyl Ketone	78-93-3	0.0428			4.43%
						Methyl Isobutyl Ketone	108-10-1	0.0214			4.26%
						Acetone	67-64-1	0.0156			1.52%
						Nitrocellulose	9004-78-0	0.0003			20.81%
						Amorphous Silica	7631-86-9	0.0001			31.21%
						Formaldehyde	50-00-0	0.0038			16.97%
						Dioctyl Terephthalate	6422-86-2	0.0002			16.10%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0001			26.06%
						Ethylene Glycol Monobutyl Ether	111-76-2	0.0224			31.21%
						Particulate	n/a	0.0006			0.39%
12	Booth 7 - Varnish and Shader	2.7 21	0.60	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0909	Above-Average	MB	4.62%
						Aromatic Naphtha	64742-95-6	0.0306			15.59%
						VM&P Naphtha	64742-89-8	0.0604			13.67%
						1,2,4-Trimethylbenzene	95-63-6	0.0086			11.62%
						Toluene	108-88-3	0.2517			8.25%
						Ethylbenzene	100-41-4	0.0333			11.81%
						Xylene	1330-20-7	0.1425			19.49%
						Ethyl Acetate	141-78-6	0.0936			14.83%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0265			12.24%
						Isobutyl Isobutyrate	97-85-8	0.0222			17.91%
						N-Butyl Acetate	123-86-4	0.3216			16.11%
						Methanol	67-56-1	0.1579			10.45%
						Ethanol	64-17-5	0.4613			10.57%
						Isobutanol	78-83-1	0.1601			17.84%
						N-Butanol	71-36-3	0.0385			15.62%
						Isopropanol	67-63-0	0.0794			5.68%
						Methyl Ethyl Ketone	78-93-3	0.1070			11.07%
						Methyl Isobutyl Ketone	108-10-1	0.0497			9.88%
						Acetone	67-64-1	0.0522			5.09%

						1-Ethoxy-2-Propanol	1569-02-4	0.0015			31.28%
						PGMEA	108-65-6	0.0074			2.09%
						Nitrocellulose	9004-78-0	0.0002			17.89%
						Amorphous Silica	7631-86-9	0.0001			26.84%
						Formaldehyde	50-00-0	0.0033			14.59%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0468			9.45%
						CI Acid Yellow 220	70851-34-2	0.0000			4.38%
						Dioctyl Terephthalate	6422-86-2	0.0001			13.84%
						Iron Oxide	1309-37-1	0.0000			5.31%
						Carbon Black	1333-86-4	0.0000			3.74%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0148			14.04%
						Red Acid	72017-66-4	0.0000			16.28%
						CI Acid Black 52	5610-64-0	0.0000			15.01%
						Ethyl Lactate	97-64-3	0.0015			31.28%
						Propylene Glycol Monoethyl Ether	52125-53-8	0.0015			31.28%
						Metal Complex Dye	56819-40-0	0.0000			7.71%
						Trivalent Chromium	7440-47-3	0.0000			31.28%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0001			22.41%
						Ethylene Glycol Monobutyl Ether	111-76-2	0.0192			26.84%
						Particulate	n/a	0.0007			0.42%
14	Booth 9 - Glaze and Toner	4.66 21	1.10	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0220			1.12%
						VM&P Naphtha	64742-89-8	0.0220			4.98%
						Toluene	108-88-3	0.2970			9.73%
						Ethylbenzene	100-41-4	0.0506			17.94%
						Xylene	1330-20-7	0.0330			4.51%
						Ethyl Acetate	141-78-6	0.0330			5.23%
						Isobutyl Acetate	110-19-0	0.0440			39.68%
						N-Butyl Acetate	123-86-4	0.1918			9.61%
						Methanol	67-56-1	0.0550			3.64%
						Ethanol	64-17-5	0.1540			3.53%
						Isobutanol	78-83-1	0.0173			1.93%
						N-Butanol	71-36-3	0.0440	Above-Average	MB	17.87%
						Isopropanol	67-63-0	0.3457			24.74%
						Methyl Ethyl Ketone	78-93-3	0.0660			6.82%
						Methyl Isobutyl Ketone	108-10-1	0.0330			6.56%
						Acetone	67-64-1	0.0660			6.43%
						Talc	14807-96-6	0.0002			7.95%
						Titanium Dioxide	13463-67-7	0.0000			2.12%
						Nitrocellulose	9004-78-0	0.0002			14.25%
						Formaldehyde	50-00-0	0.0044			19.50%
						Dioctyl Terephthalate	6422-86-2	0.0001			8.18%
						Silica (quartz)	14808-60-7	0.0000			18.35%
						Carbon Black	1333-86-4	0.0000			18.59%

						Limestone	1317-65-3	0.0007			42.74%
						Naphthalene	91-20-3	0.0000			0.00%
						Burnt Umber Pigment	12713-03-0	0.0000			8.97%
						Ceramics (clay)	66402-68-4	0.0000			10.75%
						urea-formaldehyde resin	68002-19-7	0.0002			42.74%
						Benzene	71-43-2	0.0004			32.23%
						Cellulose Nitrate, Cellulose Ester	9004-70-0	0.0002			42.74%
						o-xylene	95-47-6	0.0440			42.74%
						p-xylene	106-42-3	0.0440			42.74%
						Particulate	n/a	0.0017			1.03%
15	Booth 10 - Sealer	2.7 21	0.60	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0262			1.33%
						Aromatic Naphtha	64742-95-6	0.0053			2.72%
						Stoddard Solvent	8052-41-3	0.0013			2.07%
						Mineral Spirits	8032-32-4	0.0027			7.38%
						VM&P Naphtha	64742-89-8	0.0169			3.83%
						Isopropyl Benzene	98-82-8	0.0003			5.71%
						1,2,4-Trimethylbenzene	95-63-6	0.0027			3.59%
						Toluene	108-88-3	0.1229			4.03%
						Ethylbenzene	100-41-4	0.0018			0.64%
						Xylene	1330-20-7	0.0067			0.91%
						Ethyl Acetate	141-78-6	0.0207			3.28%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0108			4.99%
						Isobutyl Acetate	110-19-0	0.0007			0.65%
						Isobutyl Isobutyrate	97-85-8	0.0026			2.13%
						N-Butyl Acetate	123-86-4	0.0258			1.29%
						Methanol	67-56-1	0.0774			5.12%
						Ethanol	64-17-5	0.2233	Above-Average	MB	5.12%
						Isobutanol	78-83-1	0.0191			2.13%
						Isopropanol	67-63-0	0.0264			1.89%
						Methyl Ethyl Ketone	78-93-3	0.0358			3.71%
						Methyl Isobutyl Ketone	108-10-1	0.0171			3.40%
						Acetone	67-64-1	0.0628			6.12%
						PGMEA	108-65-6	0.0268			7.59%
						Talc	14807-96-6	0.0001			3.36%
						Titanium Dioxide	13463-67-7	0.0000			6.79%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0317			6.40%
						CI Acid Yellow 220	70851-34-2	0.0000			7.88%
						Asphalt	8052-42-4	0.0000			7.38%
						Silica (quartz)	14808-60-7	0.0000			1.75%
						Solvent Red 130	71839-77-5	0.0000			9.17%
						Octane	111-65-9	0.0007			9.17%
						Heptane	142-82-5	0.0002			9.17%
						Nonane	111-84-2	0.0000			13.20%

						Cyclohexane	110-82-7	0.0000			9.17%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0053			5.05%
						Red Acid	72017-66-4	0.0000			4.40%
						CI Acid Black 52	5610-64-0	0.0000			4.77%
						Diethylene Glycol Butyl Ether	112-34-5	0.0013			9.17%
						Ceramics (clay)	66402-68-4	0.0000			5.34%
						Metal Complex Dye	84812-63-5	0.0000			6.91%
						C.I. Pigment Red 101	1332-37-2	0.0000			2.05%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			3.25%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			0.04%
						Particulate	n/a	0.0002			0.14%
18	Topcoat Oven 1	2.12 45	0.60	5.3	15.3	Insignificant					
19	Booth 13	4.65 21	0.61	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0564			2.86%
						Aromatic Naphtha	64742-95-6	0.0043			2.17%
						Mineral Spirits	64742-47-8	0.0339			3.38%
						Petroleum Distillate	64742-49-0	0.0034			3.38%
						Solvent Naphtha, Heavy	64742-94-5	0.0009			3.38%
						Stoddard Solvent	8052-41-3	0.0018			2.85%
						Mineral Spirits	8032-32-4	0.0005			1.51%
						Solvent Naphtha	64742-88-7	0.0034			3.38%
						VM&P Naphtha	64742-89-8	0.0082			1.85%
						Isopropyl Benzene	98-82-8	0.0001			1.93%
						1,2,4-Trimethylbenzene	95-63-6	0.0016			2.15%
						Toluene	108-88-3	0.0541			1.77%
						Ethylbenzene	100-41-4	0.0058			2.05%
						Xylene	1330-20-7	0.0154			2.11%
						Ethyl Acetate	141-78-6	0.0120	Above-Average	MB	1.90%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.00337			1.56%
						Isobutyl Acetate	110-19-0	0.00198			1.79%
						Isobutyl Isobutyrate	97-85-8	0.00290			2.34%
						N-Butyl Acetate	123-86-4	0.04145			2.08%
						Methanol	67-56-1	0.02462			1.63%
						Ethanol	64-17-5	0.07116			1.63%
						Isobutanol	78-83-1	0.01763			1.96%
						N-Butanol	71-36-3	0.0050			2.03%
						Isopropanol	67-63-0	0.0254			1.82%
						Methyl Ethyl Ketone	78-93-3	0.0176			1.82%
						Methyl Isobutyl Ketone	108-10-1	0.0098			1.94%
						Acetone	67-64-1	0.0147			1.43%
						1-Ethoxy-2-Propanol	1569-02-4	0.0001			2.51%
						PGMEA	108-65-6	0.0049			1.40%
						Talc	14807-96-6	0.0000			2.24%

					Titanium Dioxide	13463-67-7	0.0000				1.58%
					Nitrocellulose	9004-78-0	0.0000				2.05%
					Amorphous Silica	7631-86-9	0.0000				2.16%
					Formaldehyde	50-00-0	0.0005				2.01%
					Propylene Glycol Mono Methyl Ether	107-98-2	0.0074				1.50%
					CI Acid Yellow 220	70851-34-2	0.0000				1.26%
					Dioctyl Terephthalate	6422-86-2	0.0000				2.45%
					Iron Oxide	1309-37-1	0.0000				3.23%
					Asphalt	8052-42-4	0.0000				1.51%
					Silica (quartz)	14808-60-7	0.0000				2.28%
					Carbon Black	1333-86-4	0.0000				2.61%
					Solvent Red 130	71839-77-5	0.0000				1.06%
					Octane	111-65-9	0.0001				1.06%
					Heptane	142-82-5	0.0000				1.06%
					Nonane	111-84-2	0.0000				1.52%
					Cyclohexane	110-82-7	0.0000				1.06%
					n-Butyl Stearate	123-95-5	0.0011				3.38%
					Calcium Resinate	9007-13-0	0.0000				3.38%
					Fumed Silica	112945-52-5	0.0000				3.38%
					Aluminum Silicate	1332-58-7	0.0000				3.38%
					Limestone	1317-65-3	0.0000				1.85%
					Naphthalene	91-20-3	0.0001				3.38%
					Charcoal Pigment	8021-99-6	0.0000				3.38%
					Dipropylene glycol Methyl Ether	34590-94-8	0.0018				1.71%
					Red Acid	72017-66-4	0.0000				1.81%
					CI Acid Black 52	5610-64-0	0.0000				1.76%
					Burnt Umber Pigment	12713-03-0	0.0000				3.06%
					Manganese Oxide	1313-13-9	0.0000				3.38%
					Diethylene Glycol Butyl Ether	112-34-5	0.0002				1.06%
					Ceramics (clay)	66402-68-4	0.0000				1.64%
					urea-formaldehyde resin	68002-19-7	0.0000				1.85%
					Metal Complex Dye	84812-63-5	0.0000				0.80%
					C.I. Pigment Red 101	1332-37-2	0.0000				2.86%
					Urea Polymer with Aldehyde	28931-47-7	0.0000				2.55%
					Kerosene	8008-20-6	0.0001				3.38%
					Linseed Oil	8001-26-1	0.0000				3.38%
					Benzene	71-43-2	0.0000				2.22%
					Cadmium	7440-43-9	0.0000				3.38%
					Cellulose Nitrate, Cellulose Ester	9004-70-0	0.0000				1.85%
					o-xylene	95-47-6	0.0019				1.85%
					p-xylene	106-42-3	0.0019				1.85%
					Ethyl Lactate	97-64-3	0.0001				2.51%
					Propylene Glycol Monoethyl Ether	52125-53-8	0.0001				2.51%

						Metal Complex Dye	56819-40-0	0.0000			0.62%
						Trivalent Chromium	7440-47-3	0.0000			2.51%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			2.35%
						Ethylene Glycol Monobutyl Ether	111-76-2	0.0015			2.16%
						Particulate	n/a	0.0003			0.17%
21	Topcoat Oven 2	0.8 45	0.46	5.3	15.3	Insignificant					
22	Booth 15	4.65 21	0.46	1.8	11.8	Aliphatic Hydrocarbons	n/a	0.2243	Above-Average	MB	11.39%
						Aromatic Naphtha	64742-95-6	0.0169			8.64%
						Mineral Spirits	64742-47-8	0.1349			13.44%
						Petroleum Distillate	64742-49-0	0.0135			13.44%
						Solvent Naphtha, Heavy	64742-94-5	0.0035			13.44%
						Stoddard Solvent	8052-41-3	0.0073			11.35%
						Mineral Spirits	8032-32-4	0.0022			6.00%
						Solvent Naphtha	64742-88-7	0.0134			13.44%
						VM&P Naphtha	64742-89-8	0.0325			7.37%
						Isopropyl Benzene	98-82-8	0.0004			7.69%
						1,2,4-Trimethylbenzene	95-63-6	0.0063			8.55%
						Toluene	108-88-3	0.2152			7.05%
						Ethylbenzene	100-41-4	0.0230			8.14%
						Xylene	1330-20-7	0.0613			8.38%
						Ethyl Acetate	141-78-6	0.0476			7.55%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0134			6.20%
						Isobutyl Acetate	110-19-0	0.0079			7.12%
						Isobutyl Isobutyrate	97-85-8	0.0115			9.32%
						N-Butyl Acetate	123-86-4	0.1649			8.26%
						Methanol	67-56-1	0.0980			6.49%
						Ethanol	64-17-5	0.2831			6.49%
						Isobutanol	78-83-1	0.0702			7.82%
						N-Butanol	71-36-3	0.0199			8.06%
						Isopropanol	67-63-0	0.1011			7.24%
						Methyl Ethyl Ketone	78-93-3	0.0701			7.24%
						Methyl Isobutyl Ketone	108-10-1	0.0389			7.73%
						Acetone	67-64-1	0.0586			5.71%
						1-Ethoxy-2-Propanol	1569-02-4	0.0005			10.00%
						PGMEA	108-65-6	0.0197			5.56%
						Talc	14807-96-6	0.0002			8.92%
						Titanium Dioxide	13463-67-7	0.0000			6.30%
						Nitrocellulose	9004-78-0	0.0001			8.17%
						Amorphous Silica	7631-86-9	0.0000			8.58%
						Formaldehyde	50-00-0	0.0018			8.02%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0295			5.95%
						CI Acid Yellow 220	70851-34-2	0.0000			5.01%

						Dioctyl Terephthalate	6422-86-2	0.0001			9.77%
						Iron Oxide	1309-37-1	0.0001			12.85%
						Asphalt	8052-42-4	0.0000			6.00%
						Silica (quartz)	14808-60-7	0.0000			9.06%
						Carbon Black	1333-86-4	0.0000			10.38%
						Solvent Red 130	71839-77-5	0.0000			4.20%
						Octane	111-65-9	0.0003			4.20%
						Heptane	142-82-5	0.0001			4.20%
						Nonane	111-84-2	0.0000			6.05%
						Cyclohexane	110-82-7	0.0000			4.20%
						n-Butyl Stearate	123-95-5	0.0045			13.44%
						Calcium Resinate	9007-13-0	0.0000			13.44%
						Fumed Silica	112945-52-5	0.0000			13.44%
						Aluminum Silicate	1332-58-7	0.0000			13.44%
						Limestone	1317-65-3	0.0001			7.34%
						Naphthalene	91-20-3	0.0006			13.44%
						Charcoal Pigment	8021-99-6	0.0000			13.44%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0072			6.80%
						Red Acid	72017-66-4	0.0000			7.22%
						CI Acid Black 52	5610-64-0	0.0000			6.98%
						Burnt Umber Pigment	12713-03-0	0.0000			12.16%
						Manganese Oxide	1313-13-9	0.0000			13.44%
						Diethylene Glycol Butyl Ether	112-34-5	0.0006			4.20%
						Ceramics (clay)	66402-68-4	0.0000			6.53%
						urea-formaldehyde resin	68002-19-7	0.0000			7.34%
						Metal Complex Dye	84812-63-5	0.0000			3.17%
						C.I. Pigment Red 101	1332-37-2	0.0000			11.37%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			10.16%
						Kerosene	8008-20-6	0.0002			13.44%
						Linseed Oil	8001-26-1	0.0000			13.44%
						Benzene	71-43-2	0.0001			8.84%
						Cadmium	7440-43-9	0.0000			13.44%
						Cellulose Nitrate, Cellulose Ester	9004-70-0	0.0000			7.34%
						o-xylene	95-47-6	0.0076			7.34%
						p-xylene	106-42-3	0.0076			7.34%
						Ethyl Lactate	97-64-3	0.0005			10.00%
						Propylene Glycol Monoethyl Ether	52125-53-8	0.0005			10.00%
						Metal Complex Dye	56819-40-0	0.0000			2.47%
						Trivalent Chromium	7440-47-3	0.0000			10.00%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			9.35%
						Ethylene Glycol Monobutyl Ether	111-76-2	0.0061			8.58%
						Particulate	n/a	0.0011			0.66%
23	Booth 14	4.65	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.5221	Above-Average	MB	26.53%

		21			Aromatic Naphtha	64742-95-6	0.0138				7.02%
					Mineral Spirits	64742-47-8	0.3925				39.10%
					Petroleum Distillate	64742-49-0	0.0394				39.10%
					Solvent Naphtha, Heavy	64742-94-5	0.0103				39.10%
					Stoddard Solvent	8052-41-3	0.0194				30.26%
					Mineral Spirits	8032-32-4	0.0028				7.63%
					Solvent Naphtha	64742-88-7	0.0390				39.10%
					VM&P Naphtha	64742-89-8	0.0050				1.14%
					Isopropyl Benzene	98-82-8	0.0007				14.75%
					1,2,4-Trimethylbenzene	95-63-6	0.0069				9.27%
					Toluene	108-88-3	0.0796				2.61%
					Ethylbenzene	100-41-4	0.0081				2.89%
					Xylene	1330-20-7	0.0204				2.79%
					Ethyl Acetate	141-78-6	0.0075				1.19%
					Isobutyl Isobutyrate	97-85-8	0.0095				7.63%
					N-Butyl Acetate	123-86-4	0.0504				2.53%
					Methanol	67-56-1	0.0075				0.50%
					Ethanol	64-17-5	0.0200				0.46%
					Isobutanol	78-83-1	0.0211				2.35%
					Isopropanol	67-63-0	0.0123				0.88%
					Methyl Ethyl Ketone	78-93-3	0.0235				2.43%
					Methyl Isobutyl Ketone	108-10-1	0.0276				5.49%
					Acetone	67-64-1	0.0052				0.50%
					PGMEA	108-65-6	0.0146				4.13%
					Talc	14807-96-6	0.0004				17.50%
					Titanium Dioxide	13463-67-7	0.0001				8.21%
					Dioctyl Terephthalate	6422-86-2	0.0001				11.45%
					Iron Oxide	1309-37-1	0.0002				32.46%
					Asphalt	8052-42-4	0.0000				7.63%
					Silica (quartz)	14808-60-7	0.0000				14.84%
					Carbon Black	1333-86-4	0.0000				17.42%
					n-Butyl Stearate	123-95-5	0.0131				39.10%
					Calcium Resinate	9007-13-0	0.0001				39.10%
					Fumed Silica	112945-52-5	0.0001				39.10%
					Aluminum Silicate	1332-58-7	0.0001				39.10%
					Naphthalene	91-20-3	0.0017				39.10%
					Charcoal Pigment	8021-99-6	0.0000				39.10%
					Burnt Umber Pigment	12713-03-0	0.0001				30.90%
					Manganese Oxide	1313-13-9	0.0000				39.10%
					Ceramics (clay)	66402-68-4	0.0000				6.51%
					C.I. Pigment Red 101	1332-37-2	0.0001				30.35%
					Urea Polymer with Aldehyde	28931-47-7	0.0000				25.22%
					Kerosene	8008-20-6	0.0007				39.10%

						Linseed Oil	8001-26-1	0.0001			39.10%
						Benzene	71-43-2	0.0001			9.61%
						Cadmium	7440-43-9	0.0000			39.10%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			6.30%
						Particulate	n/a	0.0013			0.82%
24	Booth 12	4.65 21	0.71	5.3	15.3	Aliphatic Hydrocarbons	n/a	0.0699	Above-Average	MB	3.55%
						Aromatic Naphtha	64742-95-6	0.0142			7.24%
						Stoddard Solvent	8052-41-3	0.0035			5.53%
						Mineral Spirits	8032-32-4	0.0071			19.68%
						VM&P Naphtha	64742-89-8	0.0450			10.20%
						Isopropyl Benzene	98-82-8	0.0007			15.23%
						1,2,4-Trimethylbenzene	95-63-6	0.0071			9.57%
						Toluene	108-88-3	0.3277			10.74%
						Ethylbenzene	100-41-4	0.0048			1.70%
						Xylene	1330-20-7	0.0178			2.44%
						Ethyl Acetate	141-78-6	0.0551			8.74%
						Ethyl 3 Ethoxyproprionate	763-69-9	0.0287			13.30%
						Isobutyl Acetate	110-19-0	0.0019			1.75%
						Isobutyl Isobutyrate	97-85-8	0.0070			5.68%
						N-Butyl Acetate	123-86-4	0.0687			3.44%
						Methanol	67-56-1	0.2064			13.66%
						Ethanol	64-17-5	0.5956			13.65%
						Isobutanol	78-83-1	0.0509			5.68%
						Isopropanol	67-63-0	0.0705			5.05%
						Methyl Ethyl Ketone	78-93-3	0.0956			9.88%
						Methyl Isobutyl Ketone	108-10-1	0.0457			9.07%
						Acetone	67-64-1	0.1676			16.32%
						PGMEA	108-65-6	0.0716			20.23%
						Talc	14807-96-6	0.0002			8.96%
						Titanium Dioxide	13463-67-7	0.0001			18.11%
						Propylene Glycol Mono Methyl Ether	107-98-2	0.0845			17.06%
						CI Acid Yellow 220	70851-34-2	0.0001			21.03%
						Asphalt	8052-42-4	0.0000			19.68%
						Silica (quartz)	14808-60-7	0.0000			4.67%
						Solvent Red 130	71839-77-5	0.0000			24.45%
						Octane	111-65-9	0.0019			24.45%
						Heptane	142-82-5	0.0006			24.45%
						Nonane	111-84-2	0.0001			35.21%
						Cyclohexane	110-82-7	0.0001			24.45%
						Dipropylene glycol Methyl Ether	34590-94-8	0.0142			13.48%
						Red Acid	72017-66-4	0.0000			11.72%
						CI Acid Black 52	5610-64-0	0.0000			12.72%
						Diethylene Glycol Butyl Ether	112-34-5	0.0035			24.45%

						Ceramics (clay)	66402-68-4	0.0001			14.23%
						Metal Complex Dye	84812-63-5	0.0000			18.42%
						C.I. Pigment Red 101	1332-37-2	0.0000			5.47%
						Urea Polymer with Aldehyde	28931-47-7	0.0000			8.68%
						Para-Toluene Sulphonic Acid	6192-52-5	0.0000			0.10%
						Particulate	n/a	0.0006			0.37%
25	Natural Gas Boiler 1 (American Kilns)	1.2 150	0.50	3.0	10.2	Nitrogen Oxides	10102-44-0	0.1591	Above Average (US EPA "B")	EF	67.60%
27	Wood Fired Boiler	2 200	1.04	22.6	31.1	Particulate	N/A	0.0623	A	EF	38.39%
						Nitrogen Oxides	10102-44-0	0.0763	C	EF	32.40%
28	Murphy Baghouse	14.2 21	0.61 x 0.61	side	8.0	Particulate	N/A	0.0188	C	EC	11.61%
29	Moldow Baghouse	51.9 21	12 - 0.61 x 0.61	0.6	10.6	Particulate	N/A	0.0688	C	EC	42.44%
30	Quiet Aire QADD-1-600-40-100-0-W-4-5	flue 50	N/A	1.0	11.0	Insignificant					
31	Lennox HVAC	flue 50	N/A	0.5	10.5	Insignificant - provides cooling only					
32	Tube Heater 1	flue 30	0.15	side	6.5	Insignificant					
33	Tube Heater 2	flue 30	0.15	side	6.5	Insignificant					
34	Tube Heater 3	flue 30	0.15	side	6.5	Insignificant					
35	Tube Heater 4	flue 30	0.15	side	6.5	Insignificant					
36	Tube Heater 5	flue 30	0.15	side	6.5	Insignificant					
37	Tube Heater 6	flue 30	0.15	side	6.5	Insignificant					
38	Tube Heater 7	flue 30	0.15	side	6.5	Insignificant					
49	EN-MAR AMU Boiler Room	flue 30	n/a	n/a	2.0	Insignificant					
50	Quiet Aire QADIO-1-16-16-16-187-1-M-3-E	flue 30	n/a	1.0	11.0	Insignificant					
54	Unit "B" EN-MAR AMU	flue 30	n/a	n/a	3.0	Insignificant					
55	Unit "A" EN-MAR AMU	flue 30	n/a	2.0	5.0	Insignificant					
56	Air Control Tech ACTD AMU	flue 30	n/a	1.0	11.0	Insignificant					

Calculations given in Appendix B, Table B.0 for threshold level assessments for painting fume which confirmed insignificance of most constituents which were not included in the model.

6.0 DISPERSION MODELLING

The dispersion modelling of the maximum emission scenario was conducted following Sections 8 to 17 of O. Reg. 419/05, and in accordance with the Ministry publication “Air Dispersion Modelling Guideline for Ontario” (ADMGO) Version 3 (February 2017).

The assessment of compliance with Schedule 3 standards was carried out with the aid of the AERMOD version 22112 atmospheric dispersion model.

Site processes and sources were screened as sources that emit contaminants in negligible amounts. Many constituents from painting were screened out in accordance with threshold level assessments for VOCs accordance with Section 7.2 and Table B-1, Section B.1 Screening Out contaminants that are emitted in Negligible amounts of Guideline A-10.

Representative graphical results for the dispersion modelling runs are attached in Appendix C (digital files are maintained).

6.1 DISPERSION MODELLING INPUT SUMMARY TABLE

The input data used to conduct the AERMOD modelling is summarized in Table 6.1 – Dispersion Modelling Input Summary Table. This table meets both the requirements of s.26(1)11 and sections 8-17 of O. Reg. 419/05 and follows the format provided in the ESDM Procedure Document.

Table 6.1: Dispersion Modelling Input Summary Table

Section of the Regulation	Section Title	Description of How the Approved Dispersion Model was Used
Section 8	Negligible Sources	Some not included in modelling. See Table 2.1 – Sources and Contaminants Identification Table.
Section 9	Same Structure Contamination	Not applicable.
Section 10	Operating Conditions	Maximum worst-case emissions. See section 4.1 of the ESDM report.
Section 11	Source of Contaminant Emission Rates	s.11 (1)1: at least as high as worst case emissions. See Table 5.1 and Sections 4.1 and 4.2.
Section 12	Combined Effect of Assumptions for Operating Conditions and Emission Rates	The Operating Conditions were estimated in accordance with s.10 (1) 1 and s.11 (1) of O. Reg. 419. See section 4.1 and 4.2 of the ESDM report.
Section 13	Meteorological Conditions	MOE Meteorological data set Central with land more than 50% rural fields
Section 14	Area of Modelling Coverage	Nested grid per S. 7 of ADMGO and S.14 of O. Reg. 419/05

Section of the Regulation	Section Title	Description of How the Approved Dispersion Model was Used
Section 15	Stack Height for Certain New Sources of Contaminant	Actual stack heights as listed in Table 5.1: Source Summary Table were used in the model.
Section 16	Terrain Data	MOE terrain data set Central.
Section 17	Average Periods	One hour, 24 hours, and ten minutes with conversions per MOE.

6.2 LAND USE ZONING DESIGNATION PLAN

Sub paragraph 10 of s.26(1) of O. Reg. 419/05 requires a description of the local land use conditions if meteorological data described in paragraph 2 of s.13(1) of O. Reg. 419/05 was used. The dispersion modelling at the site did not use meteorological data described in paragraph 2 of s.13(1); therefore, a description of the local land use conditions is not required.

Figure 3 – Land Use Zoning Designation Plan describes the nearby land use and can be viewed in Appendix A – Figures.

7.0 EMISSION SUMMARY TABLE AND CONCULSIONS

7.1 EMISSION SUMMARY TABLE

POI concentrations using the facility-wide maximum emission scenario described in section 4.0 are shown in Table 7.1 – Emission Summary Table as required by sub paragraph 14 of s.26(1) of O. Reg. 419/05.

The POI concentrations listed in Table 7.1 – Emission Summary Table were calculated based on the emission rates listed in Table 5.1 – Source Summary Table and the output from the approved dispersion model presented in Section 6.0.

The POI concentrations listed in Table 7.1 were compared against criteria listed in the “Air Contaminants Benchmarks List: standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, updated April 2023 (ACB List with MOECP POI Limits).

All the predicted POI concentrations for contaminants listed in the Emission Summary Table, which are included in the ACB List of MOECP POI Limits and are below the corresponding limits.

7.2 ASSESSMENT OF CONTAMINANTS WITH NO POI LIMITS

Subparagraph 14, subsection viii of s.26(1) of O. Reg. 419/05 requires indication of the likelihood, nature, and location of any adverse effect if the contaminant is not listed in any of Schedules 1, 2, and 3.

There are no emissions of contaminants with no MOECP limits.

The POI concentrations listed in Table 7.1 were compared against criteria listed in the “Air Contaminants Benchmarks List: standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, updated April 2023(ACB List with MOECP POI Limits).

7.3 CONCLUSIONS

This ESDM Report was prepared in accordance with s.26 of O. Reg. 419/05.

The POI concentrations listed in Table 7.1 were compared against criteria listed in the “Air Contaminants Benchmarks List: standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, updated April 2023 (ACB List with MOECP POI Limits).

A comparison of the ground level POI concentrations with applicable MOECP criteria indicates that emissions based on the maximum emission scenario are below MOECP limits and in compliance with O. Reg. 419/05.

Table 7.1: Emission Summary Table

Contaminant	CAS	Emission Rate	Air Model	POI Concentration	MOE ACB Limit	Schedule	Limiting Effect	Avg Period	Percentage of MOE ACB Limit
		(g/s)		(µg/m^3)	(µg/m^3)			hours	%
Ethyl 3 Ethoxyproprionate	763-69-9	0.000000	AERMOD 22112	6.864	200	Guide B1	Odour	0.17	3.43%
N-Butyl Acetate	123-86-4	0.000000	AERMOD 22112	39.480	15000	Guide B1	Health	1	0.26%
		0.000000	AERMOD 22112	65.142	1000	Guide B1	Odour	0.17	6.51%
Particulates	n/a	0.149913	AERMOD 22112	105.965	120	Std B1	Visibility	24	88.30%
Nitrogen Oxides	10102-44-0	0.235361	AERMOD 22112	63.778	200	Std B1	Health	24	31.89%
Particulates	n/a	0.235361	AERMOD 22112	107.752	400	Std B1	Health	1	26.94%
Ethyl 3 Ethoxyproprionate	763-69-9	0.000000	AERMOD 22112	6.864	200	Guide B1	Odour	0.17	3.43%

APPENDIX A

FIGURES

Virtual Source - VS1
Length: 135 m
Width: 110 m
Height: 10 m
Orientation: 0 deg.
X: 163 m
Y: 56 m

Source: Grey County Mapping

Approximate Scale

Metres

0 100

CCS Engineering Inc.

Site Layout
Durham Furniture
Durham, Ontario

By: JA	Date: October 15, 2020	Project No. 743

Figure 1

Legend

1 – Booth 1	2 – Booth 1
3 – Booth 2	4 – Booth 3
5 – Booth 3	6 – Booth 4
7 – Booth 4	8 – Booth 5
9 – Booth 5	10 – Booth 6
11 – Booth 6	12 – Booth 7
14 – Booth 9	15 – Booth 10
19 – Booth 13	22 – Booth 15
23 – Booth14	24 – Booth 12

28 – Murphy Baghouse
29 – Moldow Baghouse

Source: Grey Interactive Mapping

Approximate Scale Metres

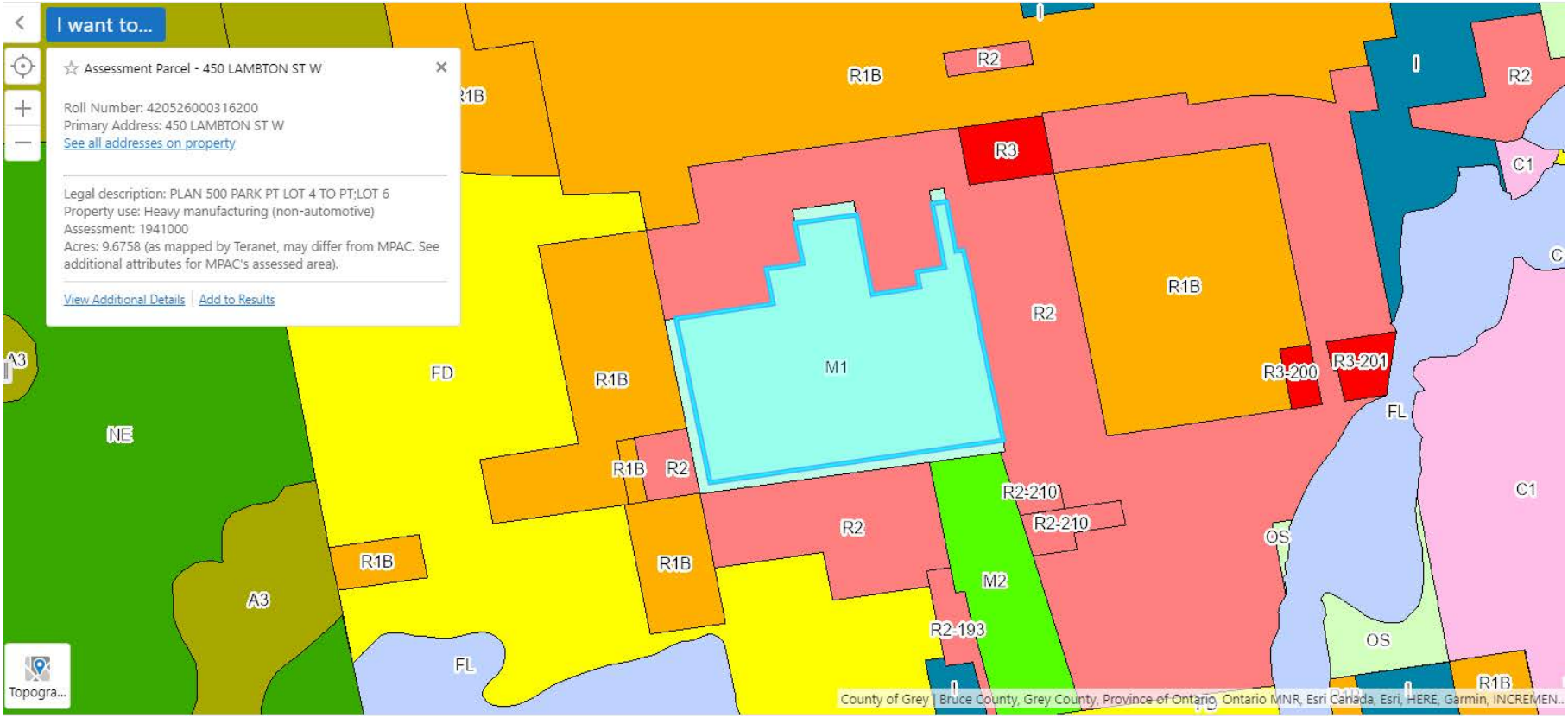
0 50

CCS Engineering Inc.

SOURCE LOCATION PLAN
Durham Furniture
Durham, Ontario

By: JA	Date: October 15, 2020	Project No. 743

Figure 2



Metres (UTM 17N) ▲ X 513238.60908 Y 4891593.38304 0 50 100m 1:500

Source: Grey County

CCS Engineering Inc.

LAND USE ZONING DESIGNATION PLAN
Durham Furniture
Durham, Ontario

By: JA	Date: October 15, 2020	Project No. 743

Figure 3

APPENDIX B

CALCULATIONS
SDS
SPECIFICATIONS

Date	Comments
Jan-20	Update ESDM for paint usage Thresh screening AERMOD 19191 (april 2020)
Dec-23	updated AERMOD 22112

Table 2.1: Source and Contaminants Identification Table

Source Information			Significant (Yes/No)?	
Source Description (Source ID)	**General Exhaust Location**	**Expected Contaminants**	**(If Yes, included in Modelling)**	**Rationale**
Booth 1 – Toner Booth (Source 1 & Source 2)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 2 – Toner Booth (Source 3)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 3 – Glaze Booth (Source 4 & Source 5)	Middle of facility roof.	VOCs, Particulate	Yes	N/A
Booth 4 – Sealer Booth (Source 6 & Source 7)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 5 – Shader Booth (Source 8 & Source 9)	Middle of the southern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 6 – Topcoat Booth (Source 10 & Source 11)	Southern edge of facility roof	VOCs, Particulate	Yes	N/A
Mainline Topcoat Oven (Source 18)	Directly north of S10 exhaust	None	No	100% of all finishing products are accounted for in finishing booth emissions.
Booth 12 – Shader Booth (Source 24)	Northern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 14 – Shader Booth (Source 23)	Northern edge of facility roof	VOCs, Particulate	Yes	N/A
Booth 9 – Glaze & Toner (Source 14)	Northern portion of facility roof.	VOCs, Particulate	Yes	N/A
Booth 7 – Topcoat & Shader (Source 12)	Middle of facility roof.	VOCs, Particulate	Yes	N/A
Offline Topcoat Oven (Source 21)	Middle of facility roof	None	No	100% of all finishing products are accounted for in finishing booth emissions.
Booth 13 – Repair (Source 19)	Middle of facility roof	VOCs, Particulate	Yes	N/A
Booth 10 – Toner, Glaze & Sealer (Source 15)	Middle of facility roof	VOCs, Particulate	Yes	N/A
Booth 15 – Toner, Glaze & Sealer (Source 22)	Northern portion of facility roof.	VOCs, Particulate	Yes	N/A
Natural Gas Fired Boiler (Source 25)	West side of kiln building roof	Products of Combustion	Yes	N/A
Wood Fired Boiler (Source 27)	Middle of facility	Products of Combustion	Yes	N/A

Dust Collectors (Source 28 & Source 29)	Middle of facility and middle of facility roof.	Particulate	Yes	N/A
Tube Heaters (Source 32-Source 38)	Southwestern portion of facility building	Products of Combustion	No	O. Reg. 524/98:EXEMPTIONS FROM SECTION 9 comfort heater
Air Make Up (AMU) Units (Source 30, Source 49, Source 50, Source 54, Source 55, Source 56)	Throughout facility roof	Products of Combustion	No	O. Reg. 524/98:EXEMPTIONS FROM SECTION 9 comfort heater

Some contaminants screened with Emission Threshold Screened Out Per Procedure 7.2

Threshold Screening

Contaminant	CAS	Finishing Emission Rate	Distance to POI	Table B1 Disp Factor	Corrected Disp Factor	MOE ACB Limit	Schedule	Limiting Effect	Avg Period	Emission Threshold	Screen Out? Y/N
		(g/s)	(m)	(ug/m^3) per g/s	(ug/m^3) per g/s	($\mu g/m^3$)			hours	(g/s)	(%)
Total Mineral Spirits	n/a	0.048610	20	8700	3573	3000	Sch 2	Odour	24	4.198E-01	YES
Aromatic Naphtha	64742-95-6	0.040802	20	8700	3573	500	SL-JSL	Health	24	6.996E-02	YES
Mineral Spirits	64742-47-8	0.033259	20	8700	3573	1750	SL-JSL	Health	24	2.449E-01	YES
Petroleum Distillate	64742-49-0	0.003337	20	8700	3573	1750	SL-JSL	Health	24	2.449E-01	YES
Solvent Naphtha, Heavy	64742-94-5	0.000874	20	8700	3573	500	SL-JSL	Health	24	6.996E-02	YES
Stoddard Solvent	8052-41-3	0.059858	20	8700	3573	2600	Std B1	Health	24	3.638E-01	YES
Mineral Spirits	8032-32-4	0.001195	20	8700	3573	2600	Std B1	Health	24	3.638E-01	YES
Solvent Naphtha	64742-88-7	0.003308	20	8700	3573	2600	Std B1	Health	24	3.638E-01	YES
VM&P Naphtha	64742-89-8	0.014632	20	8700	3573	2600	Std B1	Health	24	3.638E-01	YES
Isopropyl Benzene	98-82-8	0.000154	20	8700	3573	400	Std B1	Health	24	5.597E-02	YES
1,2,4-Trimethylbenzene	95-63-6	0.002458	20	8700	3573	220	Std B1	Health	24	3.078E-02	YES
Toluene	108-88-3	0.101149	20	8700	3573	2000	Guide B1	Odour	24	2.799E-01	YES
Ethylbenzene	100-41-4	0.009349	20	8700	3573	1000	Std B1	Health	24	1.399E-01	YES
		0.009349	20	8700	14289	1900	Guide B1	Odour	0.17	6.649E-02	YES
Xylene	1330-20-7	0.024228	20	8700	3573	730	Std B1	Health	24	1.021E-01	YES
		0.024228	20	8700	14289	3000	Guide B1	Odour	0.17	1.050E-01	YES
Ethyl Acetate	141-78-6	0.020902	20	8700	3573	19000	Guide B1	Odour	24	2.659E+00	YES
Ethyl 3 Ethoxyproprionate	763-69-9	0.007162	20	8700	14289	200	Guide B1	Odour	0.17	6.999E-03	NO
Isobutyl Acetate	110-19-0	0.003674	20	8700	14289	1160	Guide B1	Odour	0.17	4.059E-02	YES
Isobutyl Isobutyrate	97-85-8	0.004103	20	8700	3573	1500	SL-JSL	Health	24	2.099E-01	YES
N-Butyl Acetate	123-86-4	0.066145	20	8700	3573	15000	Guide B1	Helath	24	2.099E+00	YES
		0.066145	20	8700	14289	1000	Guide B1	Odour	0.17	3.499E-02	NO
Methanol	67-56-1	0.050061	20	8700	3573	4000	Std B1	Health	24	5.597E-01	YES
Ethanol	64-17-5	0.144582	20	8700	3573	19000	Guide B1	Odour	24	2.659E+00	YES
Isobutanol	78-83-1	0.029737	20	8700	3573	4,600	Std B1	Health	24	6.437E-01	YES
		0.029737	20	8700	14289	2,340	Guide B1	Odour	0.17	8.188E-02	YES
N-Butanol	71-36-3	0.008160	20	8700	3573	920	Std B1	Health	24	1.287E-01	YES
		0.008160	20	8700	14289	2100	Guide B1	Odour	0.17	7.348E-02	YES
Isopropanol	67-63-0	0.046298	20	8700	3573	7300	Std B1	Health	24	1.021E+00	YES
Methyl Ethyl Ketone	78-93-3	0.032050	20	8700	3573	1000	Std B1	Health	24	1.399E-01	YES
Methyl Isobutyl Ketone	108-10-1	0.016680	20	8700	3573	1200	Std B1	Health	24	1.679E-01	YES
Acetone	67-64-1	0.034035	20	8700	3573	11880	Std B1	Health	24	1.662E+00	YES
1-Ethoxy-2-Propanol	1569-02-4	0.000157	20	8700	3573	1100	SL-JSL	Health	24	1.539E-01	YES
PGMEA	108-65-6	0.011720	20	8700	3573	5000	Guide B1	Odour	24	6.996E-01	YES
Talc	14807-96-6	0.000073	20	8700	3573	2	Guide B1	Health	24	2.799E-04	YES
Titanium Dioxide	13463-67-7	0.000024	20	8700	3573	34	Guide B1	Health	24	4.758E-03	YES
Nitrocellulose	9004-70-0	0.000041	20	8700	3573	120	SL-MD	Health	24	1.679E-02	YES
Amorphous Silica	7631-86-9	0.000008	20	8700	3573	5.000	SL-MD	Health	24	6.996E-04	YES
Formaldehyde	50-00-0	0.000748	20	8700	3573	65	Std B1	Health	24	9.095E-03	YES
Propylene Glycol Mono Meth	107-98-2	0.016412	20	8700	14289	120000	Guide B1	Odour	0.17	4.199E+00	YES
CI Acid Yellow 220	70851-34-2	0.000013	20	8700	3573	15	SL-JSL	Health	24	2.099E-03	YES
Dioctyl Terephthalate	6422-86-2	0.000036	20	8700	3573	120	SL-MD	Helath	24	1.679E-02	YES
Iron Oxide	1309-37-1	0.000018	20	8700	3573	25	Std B1	Soiling	24	3.498E-03	YES
Asphalt	8052-42-4	0.000005	20	8700	3573	2.5	SL-MD	Health	24	3.498E-04	YES
Silica (quartz)	14808-60-7	0.000008	20	8700	3573	5	Guide B1	Health	24	6.996E-04	YES
Carbon Black	1333-86-4	0.000009	20	8700	3573	10	Std B1	Soiling	24	1.399E-03	YES
Solvent Red 130	71839-77-5	0.000000	20	8700	3573	15	SL-JSL	Health	24	2.099E-03	YES
Octane	111-65-9	0.000262	20	8700	14289	61800	Guide B1	Odour	0.17	2.163E+00	YES
Heptane	142-82-5	0.000087	20	8700	3573	11000	Std B1	Health	24	1.539E+00	YES
Nonane	111-84-2	0.000009	20	8700	3573	5250	SL-JSL	Health	24	7.346E-01	YES
Cyclohexane	110-82-7	0.000009	20	8700	3573	6100	Std B1	Health	24	8.536E-01	YES
n-Butyl Stearate	123-95-5	0.001112	20	8700	3573	120	Guide B1	Particulate	24	1.679E-02	YES
Calcium Resinate	9007-13-0	0.000004	20	8700	3573	120			24	1.679E-02	YES
Fumed Silica	112945-52-5	0.000004	20	8700	3573	1	SL-JSL	Health	24	1.399E-04	YES

Aluminum Silicate	1332-58-7	0.000004	20	8700	3573	10	SL	Health	24	1.399E-03	YES
Limestone	1317-65-3	0.000055	20	8700	3573	15	SL-JSL	Health	24	2.099E-03	YES
Naphthalene	91-20-3	0.000146	20	8700	3573	22.5	Guide B1	Health	24	3.148E-03	YES
		0.000146	20	8700	14289	50	Guide B1	Odour	0.17	1.750E-03	YES
Charcoal Pigment	8021-99-6	0.000002	20	8700	3573	120			24	1.679E-02	YES
Dipropylene glycol Methyl Et	34590-94-8	0.003490	20	8700	3573	1550	SL-JSL	Health	24	2.169E-01	YES
Red Acid	72017-66-4	0.000008	20	8700	3573	n/a			24	#VALUE!	#VALUE!
CI Acid Black 52	5610-64-0	0.000007	20	8700	3573	n/a			24	#VALUE!	#VALUE!
Burnt Umber Pigment	12713-03-0	0.000009	20	8700	3573	n/a			24	#VALUE!	#VALUE!
Manganese Oxide	1313-13-9	0.000001	20	8700	3573	0.4	Std B1	Health	24	5.597E-05	YES
Diethylene Glycol Butyl Ethe	112-34-5	0.000479	20	8700	3573	65	Guide B1	Health	24	9.095E-03	YES
Ceramics (clay)	66402-68-4	0.000014	20	8700	3573	15			24	2.099E-03	YES
urea-formaldehyde resin	68002-19-7	0.000014	20	8700	3573	15	SL-JSL	Health	24	2.099E-03	YES
Metal Complex Dye	84812-63-5	0.000002	20	8700	3573	15			24	2.099E-03	YES
C.I. Pigment Red 101	1332-37-2	0.000006	20	8700	3573	15			24	2.099E-03	YES
Urea Polymer with Aldehyde	28931-47-7	0.000003	20	8700	3573	15	SL-JSL	Health	24	2.099E-03	YES
Kerosene	8008-20-6	0.000058	20	8700	3573	12	SL-JSL	Health	24	1.679E-03	YES
Linseed Oil	8001-26-1	0.000005	20	8700	3573	120	SL-MD	Health	24	1.679E-02	YES
Benzene	71-43-2	0.000045	20	8700	685	0.45	Std B1	Health	8760	3.285E-04	YES
Cadmium	7440-43-9	0.000000	20	8700	3573	0.025	Std B1	Health	24	3.498E-06	YES
Cellulose Nitrate, Cellulose I	9004-70-0	0.000014	20	8700	3573	120	SL-MD	Health	24	1.679E-02	YES
o-xylene	95-47-6	0.003412	20	8700	3573	300	JSL	n/a	24	4.198E-02	YES
p-xylene	106-42-3	0.003412	20	8700	3573	300	JSL	n/a	24	4.198E-02	YES
Ethyl Lactate	97-64-3	0.000157	20	8700	3573	100	SL-JSL	Health	24	1.399E-02	YES
Propylene Glycol Monoethyl	52125-53-8	0.000157	20	8700	3573	115	SL-JSL	Health	24	1.609E-02	YES
Metal Complex Dye	56819-40-0	0.000001	20	8700	3573	15			24	2.099E-03	YES
Trivalent Chromium	7440-47-3	0.000000	20	8700	3573	0.5	Std B1	Health	24	6.996E-05	YES
Para-Toluene Sulphonic Aci	6192-52-5	0.000017	20	8700	3573	11	SL-MD	Health	24	1.539E-03	YES
Ethylene Glycol Monobutyl E	111-76-2	0.002374	20	8700	3573	2400	Guide B1	Health	24	3.358E-01	YES
		0.002374	20	8700	14289	500	Guide B1	Odour	0.17	1.750E-02	YES
Particulates	n/a	0.150319	55	6500	6555.1503	120	Sch 2	Visibility	24	9.153E-03	NO
Nitrogen Oxides	10102-44-0	0.235361	55	6500	6555.2354	200	Std B1	Health	24	1.525E-02	NO
		0.235361	55	6500	6555.2354	400	Std B1	Health	1	3.051E-02	NO

covered

Dispersion Factor 146.65

indicates can be considered insignificant according to Table B-2A

Based on Urban Disp Factor

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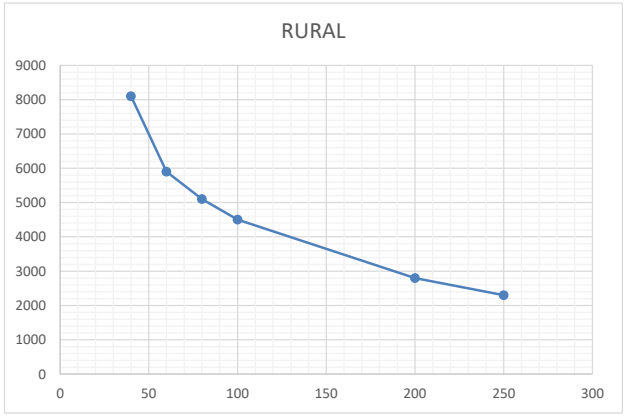
60	5900
80	5100
100	4500
200	2800
250	2300



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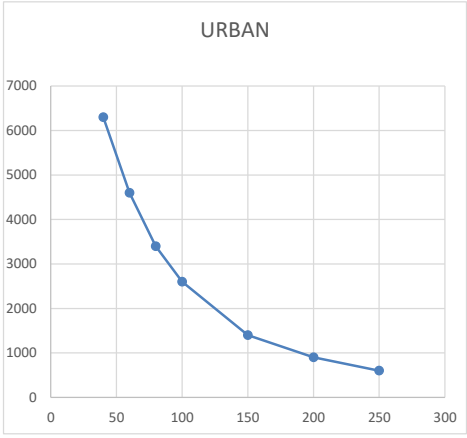
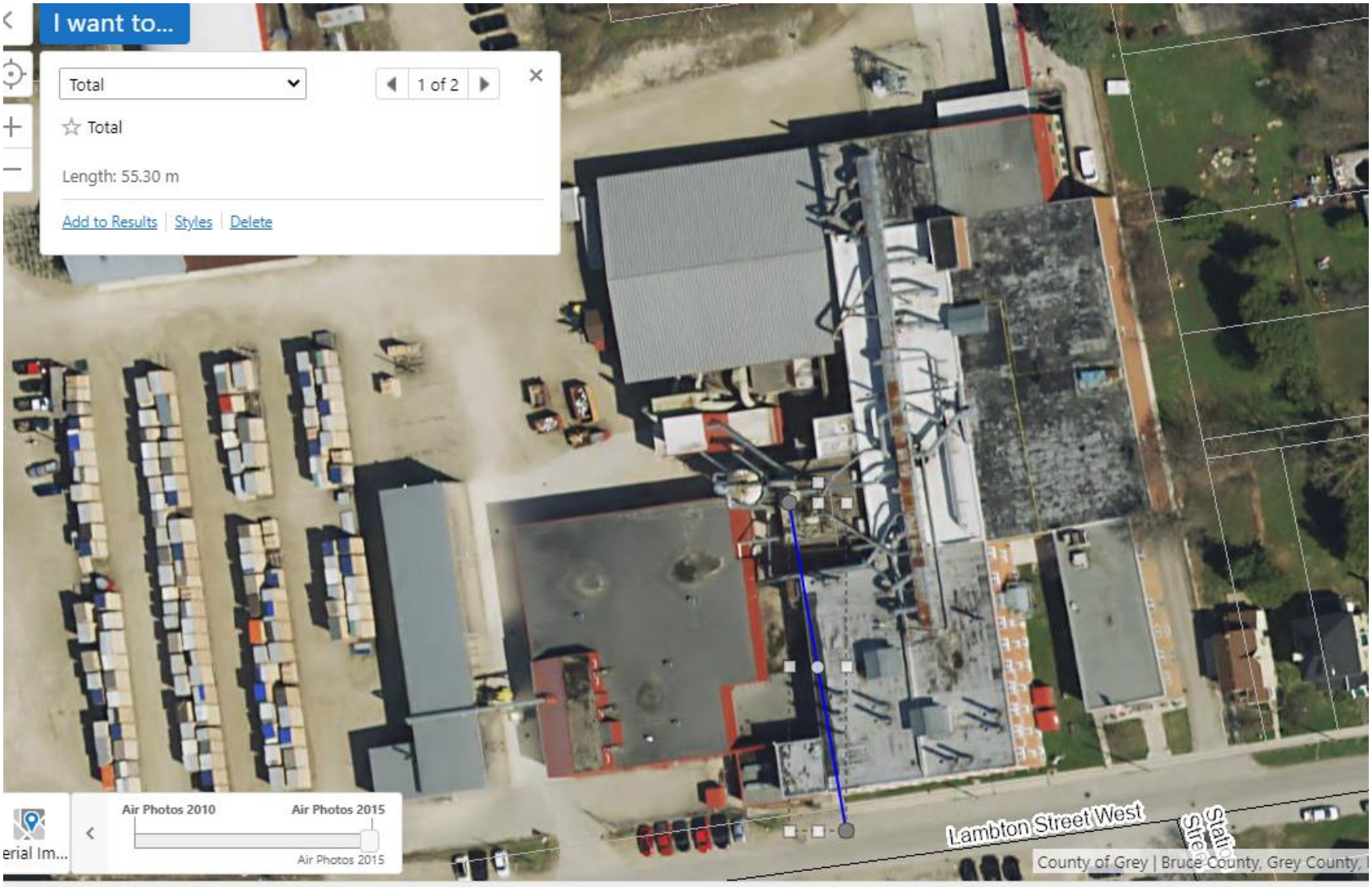
80	3400
100	2600
150	1400
200	900
250	600

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1 of 2
Total
Length: 55.30 m
Add to Results
Styles
Delete
Air Photos 2010
Air Photos 2015
Air Photos 2015
Lambton Street West
County of Grey | Bruce County, Grey County,

Durham Furniture - Durham: Exhaust Fan Information

Description	Area	Fan Manufacturer	Fan Model Number	Fan Serial Number	Fan Type	Motor Rating (horsepower)	Fan RPM (Revolutions per minute)	Flow Rate (cfm)	Flow Rate (m^3/s)	Fan Diameter (meters)	Fan Diameter (inches)	Height Above Ground (ft)	Height Above Ground (m)	Roof Height (m)	Stack Height (m)	Stack Height above Roof (m)
1	Booth 1 - Toner	Aerovent Fan Company	280-BDG	-	Tubeaxial Fan											
2	Booth 1 - Toner	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
3	Booth 2 - Washcoat	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
4	Booth 3 - Glaze	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
5	Booth 3 - Glaze	Canadian Blower & Forge Co., Ltd.	78-G-1561-T1	-	Axial											
6	Booth 4 - Sealer	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
7	Booth 4 - Sealer	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
8	Booth 5 - Shader	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
9	Booth 5 - Shader	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
10	Booth 6 - Varnish	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
11	Booth 6 - Varnish	Canadian Blower & Forge Co., Ltd.	55-2443	-	Tubeaxial Fan											
12	Booth 7 - Varnish and Shader	Devilbiss														
14	Booth 9 - Glaze and Toner															
15	Booth 10 - Sealer															
16	Booth 11 - Nelsonite															
17	Not Connected															
18	Topcoat Oven 1	Devilbiss														
19	Booth 13															
20	Not Connected															
21	Topcoat Oven 2															
22	Booth 15															
23	Booth 14															
24	Booth 12															

Table B.1. : Product Constituent Concentrations

Product Code	Product Description	Booth	Specific Gravity	Mixing	Aliphatic Hydrocarbons	Aromatic Naphtha	Mineral Spirits	Petroleum Distillate	Solvent Naphtha Heavy	Stoddard Solvent	Mineral Spirits	Solvent Naphtha	VM&P Naphtha	Isopropyl Benzene	1,2,4-Trimethylbenzene	Toluene	Ethylbenzene	Xylene	Ethyl Acetate	Ethyl 3 Ethoxypropionate	Isobutyl Acetate	Isobutyl Isobutyrate	N-Butyl Acetate	Methanol	Ethanol
Product	**Name**				n/a	64742-95-6	64742-47-8	64742-49-0	64742-94-5	8052-41-3	8032-32-4	64742-88-7	64742-89-8	98-82-8	95-63-6	108-88-3	100-41-4	1330-20-7	141-78-6	763-69-9	110-19-0	97-85-8	123-86-4	67-56-1	64-17-5
328-0160-00	Trad Cherry Glaze	Glaze	0.97	3 parts glaze 1 part 328-0015	65.00%		60.00%					5.00%													
328-0232-00	Chestnut Glaze	Glaze	0.97	3 parts 328-0232, 1 part 328-0015	60.00%		55.00%					5.00%										5.00%			
320-9312-00	227 W S	Glaze		As is	75.00%		55.00%		15.00%	5.00%							1.00%								
323-1011-00	227 PARK AVENUE S S	Glaze		As is	0.00%																	10.00%	42.10%		10.00%
328-0471-00	COGNAC GLAZE	Glaze		As is	60.00%		55.00%					5.00%				5.00%	1.00%	5.00%							
328-0484-00	MT VERNON GLAZE	Glaze		As is	50.00%		45.00%					5.00%				10.00%	5.00%	10.00%							
328-9117-00	TIMBERLAKE GLAZE	Glaze		As is	65.00%		60.00%					5.00%													
328-9148-00	NEW 975 GLAZE	Glaze		+25% 328-0015	70.00%		55.00%			5.00%	5.00%	5.00%													
UXB0054	OC #501 SPRAY STAIN	Glaze		As is	20.00%	20.00%								1.00%	10.00%	30.00%							26.00%		
G37N2084	HC 258 LODO GLAZE	Glaze		As is	80.00%		50.00%	30.00%								0.10%	1.00%								10.00%
G37N2085	HC 258 SOMA GLAZE	Glaze		+10% T84C0025	80.00%		50.00%	30.00%								0.10%	1.00%								10.00%
T84C0025	Stain & Glaze Retarder	Glaze		Thinner	100.00%							100.00%													
328-0015-00	Neutral Glaze	Glaze	0.88	Mix	75.00%		70.00%					5.00%													
397-2251-00	Eggshell Basecoat II	NGR, Glaze	Cut 30% 390-70	Cut 30% 390-7001	0.00%											15.00%	1.00%	5.00%							
378-0112-00	Hap Free Washcoat	NGR	0.83	As is	20.00%								20.00%									5.00%	25.00%		
322-6118-00	990 UNITONE NGR	NGR		As is	0.00%											30.00%				7.50%				45.00%	15.00%
322-7051-00	225 WARM BROWN NGR	NGR		As is	0.00%															7.50%				10.00%	55.00%
322-7068-00	CASHEW ON MAPLE NGR	NGR		As is	0.00%															7.50%				10.00%	60.00%
322-7175-00	MT VERNON NGR	NGR		As is	0.00%																			10.00%	55.00%
322-7197-00	259 NGR	NGR		As is	0.00%																			10.00%	50.00%
322-9313-00	MANHATTAN NGR	NGR		As is	0.00%															3.00%				10.00%	40.00%
322-9366-00	975 SAP STAIN	NGR		As is	0.00%																			10.00%	55.00%
322-9367-00	1004 COGNAC NGR	NGR		As is	0.00%																			10.00%	55.00%
378-2020-00	ENVIRO SEAL	NGR		Cut 300% 390-7001	20.00%								20.00%					5.00%					25.00%	5.00%	15.00%
379-9017-00	227 MANHATTAN COLOURGUARD	NGR		+ 0.5% 399-5000	0.00%											30.00%			10.00%					25.00%	
398-0161-00	MT VERNON COLOURGUARD	NGR		As is	0.00%											60.00%									
AUR0190	CHINESE RED BASECOAT	NGR		+50% 390-7001	0.00%											15.00%	1.00%	5.00%					1.19%		
AUW0630	#983 VINYL BASECOAT	NGR		+50% 390-7001	0.00%											15.00%	5.00%	10.00%							
UXB0222	#975 CANDLELIGHT SPRAY STAIN	NGR		As is	35.00%	20.00%				5.00%	10.00%			1.00%	10.00%	30.00%							26.10%		
XXB0362	OM # 2 NGR	NGR		As is	0.00%																			10.00%	50.00%
XXB0374	275 & 502 NGR	NGR		As is	0.00%																			10.00%	50.00%
XXB0433	#701 DARK NGR	NGR		As is	0.00%															7.50%				10.00%	55.00%
XXB0444	#2408 NGR	NGR		As is	0.00%																			10.00%	55.00%
XXY0024	BAHAMA NGR	NGR		As is	0.00%															7.50%				10.00%	60.00%
S75N1960	HC 258 LODO DYE STAIN	NGR		As is	0.00%																				50.00%
S75N1974	HC 258 SOMA DYE STAIN	NGR		+ 10% T84C0317	0.00%																				50.00%
T84C0317FG	HAPS COMPLIANT TONER BASE	NGR		Thinner	0.00%																30.00%	10.00%			
322-9333-00	Daybreak NGR	NGR	0.82	As is	0.00%																			7.00%	30.00%
398-9309-00	Cherry Colourguard	NGR	0.82	Cut 25% 390-7001-00	0.00%											35.00%						5.00%	11.90%		
305-0034-00	WB PREMIUM SEALER GLAZE NEUT	Sealer		Reducer	0.00%																				
WYB0010	ANTIQUE W/B POWDER GLAZE	Sealer		+15% 305-0034	0.00%																				
L42C1063	HC PRECATALYZED SEALER	Sealer		As is	0.00%											10.00%	10.00%				10.00%		20.00%		20.00%
322-9031-00	UNIVERSAL SPATTER	Shader		As is	5.00%								5.00%			25.00%			5.00%				3.00%	50.00%	5.00%
398-9394-00	NEW COLONIAL SHADER	Shader		+100% 390-7001	20.00%	10.00%							10.00%		5.00%	40.00%			10.00%				8.34%	10.00%	
XXR0152	227 RED NGR	Shader		+50% 390-7001	0.00%														5.00%						55.00%
S79N0073	HC 222 PAD STAIN	Shader		As is	0.00%																				100.00%
S79N0300	H.C. RICH YELLOW PAD	Shader		As is	0.00%																				100.00%
398-2055-00	Mahogany Shader	Shader	0.88	Cut 100% 390-7001	20.00%	5.00%							15.00%			15.00%	1.00%	5.00%	5.00%				17.50%	5.00%	10.00%
390-7001-00	E-Z THINNER	Shader		Mix	10.00%								10.00%			50.00%			15.00%				7.20%	15.00%	
331-2041-16	16 ENDUROGUARD	Topcoat		+3.5% 399-5000	0.00%											5.00%	5.00%	25.00%		3.00%			3.60%	5.00%	15.00%
AUF1357-45	45 ENVIRO SUPERGUARD EXTRA	Topcoat		+4.5% 399-5000	0.00%												1.00%	5.00%		3.00%			30.80%		5.00%
AUF1358-25	25 Enviro Superguard Extra	Topcoat		+4.5% 399-5000	0.00%												1.00%	5.00%	10.00%	3.00%			30.60%		5.00%
AUF1360-35	35 ENVIRO SUPERGUARD EXTRA	Topcoat		+4.5% 399-5000	0.00%												1.00%	5.00%		3.00%			30.80%		5.00%
391-0011-00	Wax Drawer Coater	Dip Tank	0.79	Cut 200% Mineral Spirits - only use betwee	85.00%		60.00%						25.00%												
392-0910-00	Neutral Filler	Dovetail Area	1.77	+10% 390-7001 Insignificant, not sprayed,	15.00%				15.00%								1.00%	5.00%							
397-0201-00	Black Vinyl Basecoat	Glaze & Sealer Booth	1.07	+ 100% 390-7001	0.00%											15.00%	1.00%	5.00%							
399-5000-00	Fast Catalyst		0.95	Mix	0.00%																				
AUC1311-05	5 Enduraguard	Topcoat		+35% 399-5000	0.00%											5.00%	5.00%	25.00%		3.00%			3.60%	5.00%	15.00%
AUY1160	weathered grey vinyl	glaze (main/offline)			0.00%											15.00%	1.00%	5.00%							
UNR0001	227 manhattan colorguard	toner (main/offline)			0.00%											30.00%			10.00%					25.00%	
AUB0708	Durham Taupe Basecoat				0.00%											15.00%	1.00%	5.00%							
AUG0372	Durham Green Basecoat				0.00%											15.00%	1.00%	5.00%							
AUL0221	Durham Blue Basecoat				0.00%											15.00%	1.00%	5.00%							
AUR0224	Durham Red Vinyl Basecoat				0.00%											15.00%	1.00%	5.00%					3.00%		
XXB0620	131 Nouveau Brown NGR				0.00%																			10.00%	55.00%
QXA0083	OM #2 Glaze	glaze		As is.	70.00%		65.00%					5.00%				5.00%	1.00%	5.00%							
379-7515-00	20 Ultraguard	Topcoat		As is.	5.00%	5.00%											5.00%	15.00%					12.50%	5.00%	
LWS4713	Zenity Waterborne Powder Glaze - Van Dyke Brown	Sealer		+250% 305-0034	0.00%																				
NAS4000	Nitro-Vinyl Sealer	Sealer		As is.	0.00%											25.00%	1.00%	5.00%					20.00%	5.00%	15.00%
QXB1102	Antique Dry Brush Glaze	Drybrush Area		As is. Insignificant, not sprayed, does not ex	40.00%					25.00%		15.00%													
QXB1116	#270 Cherry Glaze	Glaze		+ 30% 328-0015	55.00%		50.00%					5.00%				5.00%	1.00%	5.00%							
AUB0257	New Nut Brown Shader	Shader		+ 50% 390-7001	20.00%	10.00%							10.00%		5.00%	35.00%	1.00%		15.00%				8.40%	10.00%	5.00%
UXR0077	980 Spray Stain	Shader		As is.	0.00%																	15.00%	44.90%		10.00%
YYT7152	XP Stain Solvent Blend	Shader		Reducer	0.00%																	15.00%	55.00%		10.00%
YXC0095	Vanilla Mask Solution			Added to all topcoats at 2.5%	0.00%																				

Table B.1. : Product Constituent Concentrations

Product Code	Product Description	Isobutanol	N-Butanol	Isopropanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Acetone	1-Ethoxy-2-Propanol	PGMEA	Talc	Titanium Dioxide	Nitrocellulose	Amorphous Silica	Formaldehyde	Propylene Glycol Mono Methyl Ether	CI Acid Yellow 220	Dioctyl Terephthalate	Iron Oxide	Asphalt	Silica (quartz)	Carbon Black	Oxirane, methyl-, polymer with oxirane, monobutyl ether	Solvent Red 130	Octane	Heptane	Nonane	Cyclohexane	n-Butyl Stearate
		78-83-1	71-36-3	67-63-0	78-93-3	108-10-1	67-64-1	1569-02-4	108-65-6	14807-96-6	13463-67-7	9004-78-0	7631-86-9	50-00-0	107-98-2	70851-34-2	6422-86-2	1309-37-1	8052-42-4	14808-60-7	1333-86-4	9038-95-3	71839-77-5	111-65-9	142-82-5	111-84-2	110-82-7	123-95-5
Product	**Name**																											
328-0160-00	Trad Cherry Glaze								5.00%	10.00%							5.00%			1.00%	1.00%							
328-0232-00	Chestnut Glaze								10.00%	10.00%							5.00%	5.00%		1.00%	1.00%							
320-9312-00	227 W S									5.00%																		
323-1011-00	227 PARK AVENUE S S					15.00%	15.00%		5.00%									5.00%			1.00%							
328-0471-00	COGNAC GLAZE									10.00%							5.00%	5.00%		1.00%	1.00%							
328-0484-00	MT VERNON GLAZE									10.00%							5.00%	10.00%			1.00%							
328-9117-00	TIMBERLAKE GLAZE									10.00%							5.00%	10.00%		5.00%	1.00%							
328-9148-00	NEW 975 GLAZE									10.00%							10.00%		5.00%		1.00%							
UXB0054	OC #501 SPRAY STAIN								5.00%									5.00%		1.00%	1.00%							
G37N2084	HC 258 LODO GLAZE									10.00%										1.00%	1.00%							10.00%
G37N2085	HC 258 SOMA GLAZE									10.00%										0.10%	1.00%							10.00%
T84C0025	Stain & Glaze Retarder																											
328-0015-00	Neutral Glaze									15.00%							10.00%			1.00%								
397-2251-00	Eggshell Basecoat II	2.00%		8.00%	7.50%	10.00%				15.00%	15.00%									1.00%								
378-0112-00	Hap Free Washcoat	30.00%					20.00%																					
322-6118-00	990 UNITONE NGR				15.00%										5.00%	1.00%												
322-7051-00	225 WARM BROWN NGR						20.00%								5.00%	1.00%												
322-7068-00	CASHEW ON MAPLE NGR						20.00%									1.00%												
322-7175-00	MT VERNON NGR						20.00%		10.00%						10.00%	2.00%												
322-7197-00	259 NGR						20.00%		10.00%						10.00%	2.00%												
322-9313-00	MANHATTAN NGR						40.00%								5.00%	1.00%												
322-9366-00	975 SAP STAIN						20.00%		10.00%							1.00%												
322-9367-00	1004 COGNAC NGR						20.00%		10.00%						10.00%	5.00%												
378-2020-00	ENVIRO SEAL	5.00%					25.00%																					
379-9017-00	227 MANHATTAN COLOURGUARD	5.00%		20.00%											5.00%	1.00%												
398-0161-00	MT VERNON COLOURGUARD					15.00%	15.00%																					
AUR0190	CHINESE RED BASECOAT	5.00%		10.00%	15.00%	15.00%			5.00%	20.00%	1.00%									1.00%								
AUW0630	#983 VINYL BASECOAT	5.00%		10.00%	10.00%	10.00%				15.00%	20.00%									1.00%								
UXB0222	#975 CANDLELIGHT SPRAY STAIN																		10.00%									
XXB0362	OM # 2 NGR						20.00%		10.00%						10.00%	5.00%												
XXB0374	275 & 502 NGR						35.00%		10.00%						5.00%	1.00%												
XXB0433	#701 DARK NGR						20.00%								5.00%	1.00%												
XXB0444	#2408 NGR						20.00%		10.00%						10.00%	5.00%												
XXY0024	BAHAMA NGR						20.00%									1.00%												
S75N1960	HC 258 LODO DYE STAIN			10.00%			50.00%								10.00%													
S75N1974	HC 258 SOMA DYE STAIN			10.00%			50.00%								10.00%							1.00%						
T84C0317FG	HAPS COMPLIANT TONER BASE			10.00%			50.00%																30.00%	10.00%	1.00%	1.00%		
322-9333-00	Daybreak NGR						20.00%		10.00%						5.00%	1.00%												
398-9309-00	Cherry Colourguard	15.00%			15.00%		20.00%																					
305-0034-00	WB PREMIUM SEALER GLAZE NEUT			40.00%																1.00%								
WYB0010	ANTIQUE W/B POWDER GLAZE			40.00%							1.00%									1.00%								
L42C1063	HC PRECATALYZED SEALER		10.00%				10.00%							1.00%						0.10%								
322-9031-00	UNIVERSAL SPATTER			5.00%	5.00%	5.00%									5.00%	1.00%												
398-9394-00	NEW COLONIAL SHADER				15.00%	1.00%	5.00%																					
XXR0152	227 RED NGR						25.00%								10.00%													
S79N0073	HC 222 PAD STAIN			10.00%				1.00%							10.00%	1.00%												
S79N0300	H.C. RICH YELLOW PAD			20.00%											10.00%	1.00%												
398-2055-00	Mahogany Shader	5.00%					20.00%																					
390-7001-00	E-Z THINNER				15.00%																							
331-2041-16	16 ENDUROGUARD	5.00%											5.00%	1.00%														
AUF1357-45	45 ENVIRO SUPERGUARD EXTRA	15.00%		5.00%	10.00%	10.00%						10.00%					5.00%											
AUF1358-25	25 Enviro Superguard Extra	15.00%		5.00%								10.00%					5.00%											
AUF1360-35	35 ENVIRO SUPERGUARD EXTRA	15.00%		5.00%	10.00%							10.00%					5.00%											
391-0011-00	Wax Drawer Coater																											
392-0910-00	Neutral Filler																			75.00%								
397-0201-00	Black Vinyl Basecoat	5.00%		10.00%	15.00%	15.00%				20.00%										1.00%	5.00%							
399-5000-00	Fast Catalyst	70.00%																										
AUC1311-05	5 Enduraguard	5.00%											5.00%	1.00%														
AUY1160	weathered grey vinyl	5.00%		10.00%	15.00%	15.00%				20.00%	15.00%									1.00%								
UNR0001	227 manhattan colorguard	5.00%		20.00%											5.00%													
AUB0708	Durham Taupe Basecoat	5.00%		10.00%	15.00%	15.00%			5.00%	20.00%	10.00%									1.00%								
AUG0372	Durham Green Basecoat	5.00%		10.00%	15.00%	10.00%				15.00%	15.00%									1.00%								
AUL0221	Durham Blue Basecoat	5.00%		10.00%	15.00%	15.00%				20.00%	15.00%									1.00%								
AUR0224	Durham Red Vinyl Basecoat	5.00%		10.00%	10.00%	10.00%			10.00%	15.00%	1.00%									1.00%								
XXB0620	131 Nouveau Brown NGR						20.00%		10.00%						10.00%	1.00%												
QXA0083	OM #2 Glaze									15.00%							5.00%			1.00%	5.00%							
379-7515-00	20 Ultraguard		20.00%														5.00%											
LWS4713	Zenity Waterborne Powder Glaze - Van Dyke Brown	5.00%																		1.00%	1.00%							
NAS4000	Nitro-Vinyl Sealer			5.00%			20.00%					10.00%					5.00%											
QXB1102	Antique Dry Brush Glaze																	35.00%										
QXB1116	#270 Cherry Glaze									10.00%							5.00%	10.00%		5.00%	1.00%							
AUB0257	New Nut Brown Shader				15.00%	1.00%	5.00%														1.00%							
UXR0077	980 Spray Stain					15.00%	20.00%		5.00%									5.00%			1.00%							
YYT7152	XP Stain Solvent Blend					20.00%	20.00%																					
YXC0095	Vanilla Mask Solution						100.00%																					

Table B.1. : Product Constituent Concentrations

Product Code	Product Description	Calcium Resinate 9007-13-0	Fumed Silica 112945-52-5	Aluminum Silicate 1332-58-7	Limestone 1317-65-3	Naphthalene 91-20-3	Charcoal Pigment 8021-99-6	Dipropylene glycol Methyl Ether 34590-94-8	Red Acid 72017-66-4	Cl Acid Black 52 5610-64-0	Burnt Umber Pigment 12713-03-0	Manganese Oxide 1313-13-9	Diethylene Glycol Butyl Ether 112-34-5	Ceramics (clay) 66402-68-4	urea-formaldehyde resin 68002-19-7	Metal Complex Dye 84812-63-5	C.I. Pigment Red 101 1332-37-2	Urea Polymer with Aldehyde 28931-47-7	Kerosene 8008-20-6	Linseed Oil 8001-26-1	Benzene 71-43-2	Cadmium 7440-43-9	Cellulose Nitrate Cellulose Ester 9004-70-0	o-xylene 95-47-6	p-xylene 106-42-3	Ethyl Lactate 97-64-3	Propylene Glycol Monoethyl Ether 52125-53-8	Metal Complex Dye 56819-40-0
Product	**Name**																											
328-0160-00	Trad Cherry Glaze										5.00%							5.00%		10.00%								
328-0232-00	Chestnut Glaze										5.00%							5.00%		10.00%								
320-9312-00	227 W S					2.50%	10.00%												1.00%									
323-1011-00	227 PARK AVENUE S S										5.00%																	
328-0471-00	COGNAC GLAZE										5.00%																	
328-0484-00	MT VERNON GLAZE																											
328-9117-00	TIMBERLAKE GLAZE										5.00%	5.00%																
328-9148-00	NEW 975 GLAZE										5.00%									10.00%								
UXB0054	OC #501 SPRAY STAIN										5.00%																	
G37N2084	HC 258 LODO GLAZE	10.00%	10.00%	10.00%													10.00%				0.10%							
G37N2085	HC 258 SOMA GLAZE	10.00%	10.00%	10.00%													10.00%				0.10%	0.10%						
T84C0025	Stain & Glaze Retarder																											
328-0015-00	Neutral Glaze																											
397-2251-00	Eggshell Basecoat II													5.00%														
378-0112-00	Hap Free Washcoat																											
322-6118-00	990 UNITONE NGR																											
322-7051-00	225 WARM BROWN NGR																											
322-7068-00	CASHEW ON MAPLE NGR																											
322-7175-00	MT VERNON NGR																											
322-7197-00	259 NGR							5.00%	5.00%																			
322-9313-00	MANHATTAN NGR							5.00%		5.00%																		
322-9366-00	975 SAP STAIN																											
322-9367-00	1004 COGNAC NGR																											
378-2020-00	ENVIRO SEAL																											
379-9017-00	227 MANHATTAN COLOURGUARD												5.00%			5.00%												
398-0161-00	MT VERNON COLOURGUARD																											
AUR0190	CHINESE RED BASECOAT													5.00%			5.00%											
AUW0630	#983 VINYL BASECOAT													5.00%														
UXB0222	#975 CANDLELIGHT SPRAY STAIN																											
XXB0362	OM # 2 NGR							5.00%	5.00%	5.00%																		
XXB0374	275 & 502 NGR																											
XXB0433	#701 DARK NGR																											
XXB0444	#2408 NGR																											
XXY0024	BAHAMA NGR																											
S75N1960	HC 258 LODO DYE STAIN																											
S75N1974	HC 258 SOMA DYE STAIN																											
T84C0317FG	HAPS COMPLIANT TONER BASE																											
322-9333-00	Daybreak NGR																											
398-9309-00	Cherry Colourguard																											
305-0034-00	WB PREMIUM SEALER GLAZE NEUT				20.00%																							
WYB0010	ANTIQUE W/B POWDER GLAZE				20.00%																							
L42C1063	HC PRECATALYZED SEALER														10.00%						0.10%		10.00%	10.00%	10.00%			
322-9031-00	UNIVERSAL SPATTER									5.00%																		
398-9394-00	NEW COLONIAL SHADER																											
XXR0152	227 RED NGR							15.00%	10.00%	1.00%																		
S79N0073	HC 222 PAD STAIN																									1.00%	1.00%	1.00%
S79N0300	H.C. RICH YELLOW PAD																											
398-2055-00	Mahogany Shader																											
390-7001-00	E-Z THINNER																											
331-2041-16	16 ENDUROGUARD																											
AUF1357-45	45 ENVIRO SUPERGUARD EXTRA																											
AUF1358-25	25 Enviro Superguard Extra																											
AUF1360-35	35 ENVIRO SUPERGUARD EXTRA																											
391-0011-00	Wax Drawer Coater																											
392-0910-00	Neutral Filler					2.50%																						
397-0201-00	Black Vinyl Basecoat													5.00%														
399-5000-00	Fast Catalyst																											
AUC1311-05	5 Enduraguard																											
AUY1160	weathered grey vinyl													5.00%														
UNR0001	227 manhattan colorguard							5.00%																				
AUB0708	Durham Taupe Basecoat													5.00%														
AUG0372	Durham Green Basecoat													5.00%														
AUL0221	Durham Blue Basecoat													5.00%														
AUR0224	Durham Red Vinyl Basecoat													5.00%				5.00%										
XXB0620	131 Nouveau Brown NGR																											
QXA0083	OM #2 Glaze																											
379-7515-00	20 Ultraguard																											
LWS4713	Zenity Waterborne Powder Glaze - Van Dyke Brown				20.00%						5.00%																	
NAS4000	Nitro-Vinyl Sealer																											
QXB1102	Antique Dry Brush Glaze																											
QXB1116	#270 Cherry Glaze										5.00%	5.00%																
AUB0257	New Nut Brown Shader																											
UXR0077	980 Spray Stain																											
YYT7152	XP Stain Solvent Blend																											
YXC0095	Vanilla Mask Solution																											

Table B.1. : Product Constituent Concentrations

Product Code	Product Description	Trivalent Chromium 7440-47-3	Para-Toluene Sulphonic Acid 6192-52-5	Ethylene Glycol Monobutyl Ether 111-76-2
Product	**Name**			
328-0160-00	Trad Cherry Glaze			
328-0232-00	Chestnut Glaze			
320-9312-00	227 W S			
323-1011-00	227 PARK AVENUE S S			
328-0471-00	COGNAC GLAZE			
328-0484-00	MT VERNON GLAZE			
328-9117-00	TIMBERLAKE GLAZE			
328-9148-00	NEW 975 GLAZE			
UXB0054	OC #501 SPRAY STAIN			
G37N2084	HC 258 LODO GLAZE			
G37N2085	HC 258 SOMA GLAZE			
T84C0025	Stain & Glaze Retarder			
328-0015-00	Neutral Glaze			
397-2251-00	Eggshell Basecoat II			
378-0112-00	Hap Free Washcoat			
322-6118-00	990 UNITONE NGR			
322-7051-00	225 WARM BROWN NGR			
322-7068-00	CASHEW ON MAPLE NGR			
322-7175-00	MT VERNON NGR			
322-7197-00	259 NGR			
322-9313-00	MANHATTAN NGR			
322-9366-00	975 SAP STAIN			
322-9367-00	1004 COGNAC NGR			
378-2020-00	ENVIRO SEAL			
379-9017-00	227 MANHATTAN COLOURGUARD			
398-0161-00	MT VERNON COLOURGUARD			
AUR0190	CHINESE RED BASECOAT			
AUW0630	#983 VINYL BASECOAT			
UXB0222	#975 CANDLELIGHT SPRAY STAIN			
XXB0362	OM # 2 NGR			
XXB0374	275 & 502 NGR			
XXB0433	#701 DARK NGR			
XXB0444	#2408 NGR			
XXY0024	BAHAMA NGR			
S75N1960	HC 258 LODO DYE STAIN			
S75N1974	HC 258 SOMA DYE STAIN			
T84C0317FG	HAPS COMPLIANT TONER BASE			
322-9333-00	Daybreak NGR			
398-9309-00	Cherry Colourguard			
305-0034-00	WB PREMIUM SEALER GLAZE NEUT			
WYB0010	ANTIQUE W/B POWDER GLAZE			
L42C1063	HC PRECATALYZED SEALER			
322-9031-00	UNIVERSAL SPATTER			
398-9394-00	NEW COLONIAL SHADER			
XXR0152	227 RED NGR			
S79N0073	HC 222 PAD STAIN	0.10%		
S79N0300	H.C. RICH YELLOW PAD			
398-2055-00	Mahogany Shader			
390-7001-00	E-Z THINNER			
331-2041-16	16 ENDUROGUARD			
AUF1357-45	45 ENVIRO SUPERGUARD EXTRA			
AUF1358-25	25 Enviro Superguard Extra			
AUF1360-35	35 ENVIRO SUPERGUARD EXTRA			
391-0011-00	Wax Drawer Coater			
392-0910-00	Neutral Filler			
397-0201-00	Black Vinyl Basecoat			
399-5000-00	Fast Catalyst		35.00%	
AUC1311-05	5 Enduraguard			
AUY1160	weathered grey vinyl			
UNR0001	227 manhattan colorguard			
AUB0708	Durham Taupe Basecoat			
AUG0372	Durham Green Basecoat			
AUL0221	Durham Blue Basecoat			
AUR0224	Durham Red Vinyl Basecoat			
XXB0620	131 Nouveau Brown NGR			
QXA0083	OM #2 Glaze			
379-7515-00	20 Ultraguard			10.00%
LWS4713	Zenity Waterborne Powder Glaze - Van Dyke Brown			
NAS4000	Nitro-Vinyl Sealer			
QXB1102	Antique Dry Brush Glaze			
QXB1116	#270 Cherry Glaze			
AUB0257	New Nut Brown Shader			
UXR0077	980 Spray Stain			
YYT7152	XP Stain Solvent Blend			
YXC0095	Vanilla Mask Solution			

Table B.2. : Finishing Style Mixing Ratios

		Mixing/Reduction Products							Aliphatic Hydrocarbons	Aromatic Naphtha	Mineral Spirits	Petroleum Distillate	Solvent Naphtha, Heavy	Stoddard Solvent	Mineral Spirits	Solvent Naphtha	VM&P Naphtha	Isopropyl Benzene	Trimethylbenzene, 1,2,4-	Toluene	Ethylbenzene	Xylene	Ethyl Acetate	Ethoxypropyl acetate	Ethyl 3	Isobutyl Acetate	Isobutyl Isobutyrate	N-Butyl Acetate
		Toner/NGR							n/a	64742-95-6	64742-47-8	64742-49-0	64742-94-5	8052-41-3	8032-32-4	64742-88-7	64742-89-8	98-82-8	95-63-6	108-88-3	100-41-4	1330-20-7	141-78-6	763-69-9		110-19-0	97-85-8	123-86-4
Finish Style	**Step**	**Product**	**Product**			**399-5000**	**390-7001**	**T84C0317**																				
		378-0112-00/1120C00234	As is						20.00%								20.00%										5.00%	25.00%
		322-6118-00	As is																	30.00%				7.50%				
		322-7051-00	As is																					7.50%				
		322-7068-00	As is																					7.50%				
		322-7175-00	As is																									
		322-7197-00	As is																									
		322-9313-00	As is																					3.00%				
		322-9366-00	As is																									
		322-9367-00	As is																									
		378-2020-00	1				3		12.50%								12.50%			37.50%		1.25%	11.25%					11.65%
		379-9017-00	1			0.50%														29.85%			9.95%					
		397-2251-00	1				0.3		2.31%								2.31%			23.08%	0.77%	3.85%	3.46%					1.66%
		398-0161-00	As is																	60.00%								
		AUR0190	1				50.00%		3.33%								3.33%			26.67%	0.67%	3.33%	5.00%					3.19%
		AUW0630	1				50.00%		3.33%								3.33%			26.67%	3.33%	6.67%	5.00%					2.40%
		UXB0222	As is						35.00%	20.00%				5.00%	10.00%			1.00%	10.00%	30.00%								26.10%
		XXB0362	As is																									
		XXB0374	As is																									
		XXB0433	As is																					7.50%				
		XXB0444	As is																									
		XXY0024	As is																					7.50%				
		S75N1960	As is																									
		S75N1974	1					10.00%																	2.73%	0.91%		
		322-9333	As is																									
		UNR0001	As is																	30.00%			10.00%					
		398-9309-00	1				0.25		2.00%								2.00%			38.00%			3.00%			4.00%		10.96%
		XXB0620	As is																									
		AUB0708	1				100.00%		5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					3.60%
		AUR0224	1				100.00%		5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					5.10%
		AUL0221	1				100.00%		5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					3.60%
		AUG0372	1				100.00%		5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					3.60%
		Worst-Case Toner							**0.5500**	**0.2000**				**0.0500**	**0.1000**		**0.2000**	**0.0100**	**0.1000**	**0.6000**	**0.0333**	**0.0667**	**0.1125**	**0.0750**	**0.0273**	**0.0500**	**0.2610**
		Average Toner							**0.0318**	**0.0065**				**0.0016**	**0.0032**		**0.0205**	**0.0003**	**0.0032**	**0.1490**	**0.0022**	**0.0081**	**0.0251**	**0.0131**	**0.0009**	**0.0032**	**0.0312**

		Glaze																										
Finish Style	**Step**	**Product**	**Product**	**328-0015**	**T84C0025**	**390-7001**																						
		328-9117	As is						65.00%		60.00%					5.00%												
		328-0160	3	1					67.50%		62.50%					5.00%												
		320-9312-00	As is						75.00%		55.00%		15.00%	5.00%							1.00%							
		323-1011-00	As is																								10.00%	42.10%
		328-0471-00	As is						60.00%		55.00%					5.00%				5.00%	1.00%	5.00%					
		328-0484-00	As is						50.00%		45.00%					5.00%				10.00%	5.00%	10.00%					
		328-9148-00	1	25%					71.00%		58.00%			4.00%	4.00%	5.00%												
		UXB0054	As is						20.00%	20.00%								1.00%	10.00%	30.00%								26.00%
		G37N2084	As is						80.00%		50.00%	30.00%								0.10%	1.00%							
		G37N2085	1		10%				81.82%		45.45%	27.27%				9.09%				0.09%	0.91%							
		397-2251	1			0.3			2.31%								2.31%			23.08%	0.77%	3.85%	3.46%					1.66%
		QXA0083	As is						70.00%		65.00%					5.00%				5.00%	1.00%	5.00%						
		QXB1116	1	30%					48.08%		16.15%			19.23%		12.69%												
		AUY1160	1			50%														10.00%	0.67%	3.33%						
		328-0232	3	1					63.75%		58.75%					5.00%											3.75%	
		397-0201-00	1			100%			5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					3.60%
		Worst-Case Glaze							**0.8182**	**0.2000**	**0.6500**	**0.3000**	**0.1500**	**0.1923**	**0.0400**	**0.1269**	**0.0500**	**0.0100**	**0.1000**	**0.3250**	**0.0500**	**0.1000**	**0.0750**			**0.1000**	**0.4210**
		Average Glaze							**0.4747**	**0.0125**	**0.3568**	**0.0358**	**0.0094**	**0.0176**	**0.0025**	**0.0355**	**0.0046**	**0.0006**	**0.0063**	**0.0724**	**0.0074**	**0.0185**	**0.0069**			**0.0086**	**0.0459**

		Sealer																										
Finish Style	**Step**	**Product**	**Product**	**399-5000**	**305-0034**	**390-7001**																						
		WYB0010	1		15%																							
		397-0201-00	1			100%			5.00%								5.00%			32.50%	0.50%	2.50%	7.50%					3.60%
		NAS4000	As is																	25.00%	1.00%	5.00%						20.00%
		LWS4713	1		250%																							
		L42C1063	As is																	10.00%	10.00%				10.00%			20.00%
		Worst-Case Sealer							**0.0500**								**0.0500**			**0.3250**	**0.1000**	**0.0500**	**0.0750**		**0.1000**			**0.2000**
		Average Sealer							**0.0100**								**0.0100**			**0.1350**	**0.0230**	**0.0150**	**0.0150**		**0.0200**			**0.0872**

		Shader																										
Finish Style	**Step**	**Product**	**Product**	**390-7001**																								
		322-9031-00	As is						5.00%								5.00%			25.00%			5.00%					3.00%
		398-9394-00	1	100%					15.00%	5.00%							10.00%		2.50%	45.00%			12.50%					7.77%
		XXR0152	1	50%					3.33%								3.33%			16.67%			8.33%					2.40%
		S79N0073	As is																									
		AUB0257	1	50%					16.67%	6.67%							10.00%		3.33%	40.00%	0.67%		15.00%					8.00%
		UXR0077	As is																								15.00%	44.90%
		S79N0300	As is																									
		398-2055-00	1	1					15.00%	2.50%							12.50%			32.50%	0.50%	2.50%	10.00%					12.35%
		Worst-Case Shader							**0.1917**	**0.0667**							**0.1250**		**0.0333**	**0.4500**	**0.0067**	**0.0250**	**0.1500**			**0.1500**		**0.4490**
		Average Shader							**0.0688**	**0.0177**							**0.0510**		**0.0073**	**0.1990**	**0.0015**	**0.0031**	**0.0635**			**0.0188**		**0.0980**

		Varnish/Topcoat																										
Finish Style	**Step**	**Product**	**Product**	**399-5000**	**YXC0095**																							
		331-2041-16	1	3.5%	2.50%															4.72%	4.72%	23.58%		2.83%				3.40%
		AUF1357-45	1	4.5%	2.50%																0.93%	4.67%		2.80%				28.79%
		AUF1358-25	1	4.5%	2.50%																0.93%	4.67%	9.35%	2.80%				28.60%
		AUF1360-35	1	4.5%	2.50%																0.93%	4.67%		2.80%				28.79%
		379-7515-00	1		2.50%				4.88%	4.88%											4.88%	14.63%						12.20%
		AUC 1311-05	1	35%	2.50%															3.64%	3.64%	18.18%		2.18%				2.62%
		Worst-Case Varnish							**0.0488**	**0.0488**										**0.0472**	**0.0488**	**0.2358**	**0.0935**	**0.0283**				**0.2879**
		Average Varnish							**0.0081**	**0.0081**										**0.0139**	**0.0267**	**0.1174**	**0.0156**	**0.0224**				**0.1740**

Table B.2. : Finishing Style Mixing Ratios

		Mixing/Reduction Products							Methanol	Ethanol	Isobutanol	N-Butanol	Isopropanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Acetone	1-Ethoxy-2-Propanol	PGMEA	Talc	Titanium Dioxide	Nitrocellulose	Amorphous Silica	Formaldehyde	Propylene Glycol Monomethyl Ether	Cl Acid Yellow 220	Dioctyl Terephthalate	Iron Oxide	Asphalt	Silica (quartz)	Carbon Black	Solvent Red 130	Octane	Heptane	Nonane	Cyclohexane	n-Butyl Stearate	Calcium Resinate	Fumed Silica	Aluminum Silicate	Limestone	Naphthalene	Charcoal Pigment	Dipropylene glycol Methyl Ether	Red Acid
Toner/NGR									67-56-1	64-17-5	78-83-1	71-36-3	67-63-0	78-93-3	108-10-1	67-64-1	1569-02-4	108-65-6	14807-96-6	13463-67-7	9004-78-0	7631-86-9	50-00-0	107-98-2	70851-34-2	6422-86-2	1309-37-1	8052-42-4	14808-60-7	1333-86-4	71839-77-5	111-65-9	142-82-5	111-84-2	110-82-7	123-95-5	9007-13-0	12945-52-1	1332-58-7	1317-65-3	91-20-3	8021-99-6	34590-94-8	72017-66-4
Finish Style	Step	Product	Product			399-5000	390-7001	T84C0317																																				
		378-0112-00/1120C00234	As is								30.00%					20.00%																											
		322-6118-00	As is						45.00%	15.00%				15.00%										5.00%	1.00%																	
		322-7051-00	As is						10.00%	55.00%						20.00%								5.00%	1.00%																	
		322-7068-00	As is						10.00%	60.00%						20.00%									1.00%																	
		322-7175-00	As is						10.00%	55.00%						20.00%		10.00%						10.00%	2.00%																	
		322-7197-00	As is						10.00%	50.00%						20.00%		10.00%						10.00%	2.00%																5.00%	5.00%
		322-9313-00	As is						10.00%	40.00%						40.00%								5.00%	1.00%																5.00%	
		322-9366-00	As is						10.00%	55.00%						20.00%		10.00%							1.00%																	
		322-9367-00	As is						10.00%	55.00%						20.00%		10.00%						10.00%	5.00%																	
		378-2020-00	1				3		12.50%	3.75%	1.25%			11.25%		6.25%																										
		379-9017-00	1			0.50%			24.88%		5.32%		19.90%											4.98%	1.00%																	
		397-2251-00	1				0.3		3.46%		1.54%		6.15%	9.23%	7.69%				11.54%	11.54%									0.77%														
		398-0161-00	As is												15.00%	15.00%																										
		AUR0190	1				50.00%		5.00%		3.33%		6.67%	15.00%	10.00%			3.33%	13.33%	0.67%									0.67%														
		AUW0630	1				50.00%		5.00%		3.33%		6.67%	11.67%	6.67%				10.00%	13.33%									0.67%														
		UXB0222	As is																								10.00%														
		XXB0362	As is						10.00%	50.00%						20.00%		10.00%						10.00%	5.00%																5.00%	5.00%
		XXB0374	As is						10.00%	50.00%						35.00%		10.00%						5.00%	1.00%																	
		XXB0433	As is						10.00%	55.00%						20.00%								5.00%	1.00%																	
		XXB0444	As is						10.00%	55.00%						20.00%		10.00%						10.00%	5.00%																	
		XXY0024	As is						10.00%	60.00%						20.00%									1.00%																	
		S75N1960	As is							50.00%			10.00%			50.00%								10.00%																		
		S75N1974	1					10.00%		45.45%			10.00%			50.00%								9.09%						0.91%	2.73%	0.91%	0.09%	0.09%								
		322-9333	As is						7.00%	30.00%						20.00%		10.00%						5.00%	1.00%																	
		UNR0001	As is						25.00%		5.00%		20.00%											5.00%																	5.00%	
		398-9309-00	1				0.25		3.00%		12.00%			15.00%		16.00%																										
		XXB0620	As is						10.00%	55.00%						20.00%		10.00%						10.00%	1.00%																	
		AUB0708	1				100.00%		7.50%		2.50%		5.00%	15.00%	7.50%			2.50%	10.00%	5.00%									0.50%														
		AUR0224	1				100.00%		7.50%		2.50%		5.00%	12.50%	5.00%			5.00%	7.50%	0.50%									0.50%														
		AUL0221	1				100.00%		7.50%		2.50%		5.00%	15.00%	7.50%				10.00%	7.50%									0.50%														
		AUG0372	1				100.00%		7.50%		2.50%		5.00%	15.00%	5.00%				7.50%	7.50%									0.50%														
		Worst-Case Toner							**0.4500**	**0.6000**	**0.3000**		**0.2000**	**0.1500**	**0.1500**	**0.5000**		**0.1000**	**0.1333**	**0.1333**				**0.1000**	**0.0500**			**0.1000**	**0.0077**		**0.0091**	**0.0273**	**0.0091**	**0.0009**	**0.0009**							**0.0500**	**0.0500**
		Average Toner							**0.0938**	**0.2707**	**0.0232**		**0.0321**	**0.0434**	**0.0208**	**0.1523**		**0.0325**	**0.0225**	**0.0149**				**0.0384**	**0.0097**			**0.0032**	**0.0013**		**0.0003**	**0.0009**	**0.0003**	**0.0000**	**0.0000**							**0.0065**	**0.0032**

Glaze

Finish Style	Step	Product	Product	328-0015	T84C0025	390-7001																																				
		328-9117	As is																10.00%							5.00%	10.00%		5.00%	1.00%													
		328-0160	3	1														3.75%	11.25%							6.25%			1.00%	0.75%													
		320-9312-00	As is																5.00%																					2.50%	10.00%		
		323-1011-00	As is							10.00%					15.00%	15.00%		5.00%									5.00%			1.00%												
		328-0471-00	As is																10.00%							5.00%	5.00%		1.00%	1.00%												
		328-0484-00	As is																10.00%							5.00%	10.00%			1.00%												
		328-9148-00	1	25%															11.00%							10.00%		4.00%	0.20%	0.80%												
		UXB0054	As is															5.00%								5.00%			1.00%	1.00%												
		G37N2084	As is							10.00%									10.00%											1.00%	1.00%					10.00%	10.00%	10.00%	10.00%				
		G37N2085	1		10%					9.09%									9.09%											0.09%	0.91%					9.09%	9.09%	9.09%	9.09%				
		397-2251	1			0.3			3.46%		1.54%		6.15%	9.23%	7.69%				11.54%	11.54%									0.77%														
		QXA0083	As is																15.00%							5.00%			1.00%	5.00%												
		QXB1116	1	30%															3.46%							2.31%	26.92%		0.23%													
		AUY1160	1			50%					26.67%		6.67%	10.00%	10.00%				13.33%	10.00%									0.67%														
		328-0232	3	1														7.50%	11.25%							6.25%	3.75%		1.00%	0.75%												
		397-0201-00	1			100%			7.50%		2.50%		5.00%	15.00%	7.50%				10.00%										0.50%	2.50%													
		Worst-Case Glaze							**0.0750**	**0.1000**	**0.2667**		**0.0667**	**0.1500**	**0.1500**	**0.1500**		**0.0750**	**0.1500**	**0.1154**						**0.1000**	**0.2692**	**0.0400**	**0.0500**	**0.0500**					**0.1000**	**0.1000**	**0.1000**	**0.1000**		**0.0250**	**0.1000**		
		Average Glaze							**0.0069**	**0.0182**	**0.0192**		**0.0111**	**0.0214**	**0.0251**	**0.0094**		**0.0133**	**0.0881**	**0.0135**						**0.0280**	**0.0410**	**0.0025**	**0.0084**	**0.0104**					**0.0119**	**0.0119**	**0.0119**	**0.0119**		**0.0016**	**0.0063**		

Sealer

Finish Style	Step	Product	Product	399-5000	305-0034	390-7001																																				
		WYB0010	1		15%								40.00%							0.87%								1.00%											20.00%			
		397-0201-00	1			100%			7.50%		2.50%		5.00%	15.00%	7.50%				10.00%										0.50%	2.50%													
		NAS4000	As is						5.00%	15.00%			5.00%			20.00%					10.00%					5.00%																
		LWS4713	1		250%						1.43%		28.57%																1.00%	0.29%										20.00%			
		L42C1063	As is							20.00%		10.00%				10.00%							1.00%						0.10%														
		Worst-Case Sealer							**0.0750**	**0.2000**	**0.0250**	**0.1000**	**0.4000**	**0.1500**	**0.0750**	**0.2000**			**0.1000**	**0.0087**	**0.1000**		**0.0100**			**0.0500**			**0.0100**	**0.0250**										**0.2000**			
		Average Sealer							**0.0250**	**0.0700**	**0.0079**	**0.0200**	**0.1571**	**0.0300**	**0.0150**	**0.0600**			**0.0200**	**0.0017**	**0.0200**		**0.0020**			**0.0100**			**0.0052**	**0.0056**										**0.0800**			

Shader

Finish Style	Step	Product	Product	390-7001																																						
		322-9031-00	As is						50.00%	5.00%			5.00%	5.00%	5.00%									5.00%	1.00%																		
		398-9394-00	1	100%					12.50%					15.00%	0.50%	2.50%																											
		XXR0152	1	50%					5.00%	36.67%				5.00%		16.67%								6.67%																		10.00%	6.67%
		S79N0073	As is							100.00%			10.00%				1.00%							10.00%	1.00%																	
		AUB0257	1	50%					11.67%	3.33%				15.00%	0.67%	3.33%														0.67%													
		UXR0077	As is							10.00%					15.00%	20.00%		5.00%											1.00%													
		S79N0300	As is							100.00%			20.00%											10.00%	1.00%																	
		398-2055-00	1	1					10.00%	5.00%	2.50%			7.50%		10.00%																											
		Worst-Case Shader							**0.5000**	**1.0000**	**0.0250**		**0.2000**	**0.1500**	**0.1500**	**0.2000**	**0.0100**	**0.0500**						**0.1000**	**0.0100**		**0.0500**		**0.0100**												**0.1000**	**0.0667**
		Average Shader							**0.1115**	**0.3250**	**0.0031**		**0.0438**	**0.0594**	**0.0265**	**0.0656**	**0.0013**	**0.0063**						**0.0396**	**0.0038**		**0.0063**		**0.0021**												**0.0125**	**0.0083**

Varnish/Topcoat

Finish Style	Step	Product	Product	399-5000	YXC0095																																					
		331-2041-16	1	3.5%	2.50%				4.72%	14.15%	7.03%					2.36%											4.72%	0.94%															
		AUF1357-45	1	4.5%	2.50%					4.67%	16.96%		4.67%	9.35%	9.35%	2.34%						9.35%					4.67%																
		AUF1358-25	1	4.5%	2.50%					4.67%	16.96%		4.67%			2.34%						9.35%					4.67%																
		AUF1360-35	1	4.5%	2.50%					4.67%	16.96%		4.67%	9.35%		2.34%						9.35%					4.67%																
		379-7515-00	1		2.50%				4.88%			19.51%				2.44%											4.88%																
		AUC 1311-05	1	35%	2.50%				3.64%	10.91%	21.45%					1.82%											3.64%	0.73%															
		Worst-Case Varnish							**0.0488**	**0.1415**	**0.2145**	**0.1951**	**0.0467**	**0.0935**	**0.0935**	**0.0244**						**0.0935**	**0.0472**	**0.0094**			**0.0488**																
		Average Varnish							**0.0221**	**0.0651**	**0.1323**	**0.0325**	**0.0234**	**0.0312**	**0.0156**	**0.0227**						**0.0467**	**0.0139**	**0.0028**			**0.0315**																

Table B.2. : Finishing Style Mixing Ratios

		Mixing/Reduction Products							CI Acid Black 52	Burnt Umber Pigment	Manganese Oxide	Diethylene Glycol Butyl Ether	Ceramics (clay)	urea-formaldehyde resin	Metal Complex Dye	C.I. Pigment Red 101	Urea Polymer with Aldehyde	Kerosene	Linseed Oil	Benzene	Cadmium	Cellulose Nitrate, Cellulose Ester	o-xylene	p-xylene	Ethyl Lactate	Propylene Glycol Monoethyl Ether	Metal Complex Dye	Trivalent Chromium	Para-Toluene Sulphonic Acid	Ethylene Glycol Monobutyl Ether
		Toner/NGR							5610-64-0	12713-03-0	1313-13-9	112-34-5	66402-68-4	68002-19-7	84812-63-5	1332-37-2	28931-47-1	8008-20-6	8001-26-1	71-43-2	7440-43-9	9004-70-0	95-47-6	106-42-3	97-64-3	52125-53-7	56819-40-0	7440-47-3	6192-52-5	111-76-2
Finish Style	**Step**	**Product**	**Product**			**399-5000**	**390-7001**	**T84C0317**																						
		378-0112-00/1120C00234	As is																											
		322-6118-00	As is																											
		322-7051-00	As is																											
		322-7068-00	As is																											
		322-7175-00	As is																											
		322-7197-00	As is																											
		322-9313-00	As is						5.00%																					
		322-9366-00	As is																											
		322-9367-00	As is																											
		378-2020-00	1				3																							
		379-9017-00	1			0.50%						4.98%			4.98%														0.17%	
		397-2251-00	1				0.3						3.85%																	
		398-0161-00	As is																											
		AUR0190	1				50.00%						3.33%			3.33%														
		AUW0630	1				50.00%						3.33%																	
		UXB0222	As is																											
		XXB0362	As is						5.00%																					
		XXB0374	As is																											
		XXB0433	As is																											
		XXB0444	As is																											
		XXY0024	As is																											
		S75N1960	As is																											
		S75N1974	1					10.00%																						
		322-9333	As is																											
		UNR0001	As is																											
		398-9309-00	1				0.25																							
		XXB0620	As is																											
		AUB0708	1				100.00%						2.50%																	
		AUR0224	1				100.00%						2.50%				2.50%													
		AUL0221	1				100.00%						2.50%																	
		AUG0372	1				100.00%						2.50%																	
		Worst-Case Toner							**0.0500**			**0.0498**	**0.0385**		**0.0498**	**0.0333**	**0.0250**												**0.0017**	
		Average Toner							**0.0032**			**0.0016**	**0.0066**		**0.0016**	**0.0011**	**0.0008**												**0.0001**	

		Glaze																												
Finish Style	**Step**	**Product**	**Product**	**328-0015**	**T84C0025**	**390-7001**																								
		328-9117	As is							5.00%	5.00%																			
		328-0160	3	1						3.75%								3.75%		7.50%										
		320-9312-00	As is																1.00%											
		323-1011-00	As is							5.00%																				
		328-0471-00	As is							5.00%																				
		328-0484-00	As is																											
		328-9148-00	1	25%						4.00%										8.00%										
		UXB0054	As is							5.00%																				
		G37N2084	As is													10.00%				0.10%										
		G37N2085	1		10%											9.09%				0.09%	0.09%									
		397-2251	1			0.3							3.85%																	
		QXA0083	As is																											
		QXB1116	1	30%																										
		AUY1160	1			50%							3.33%																11.67%	
		328-0232	3	1						3.75%							3.75%		7.50%											
		397-0201-00	1			100%							2.50%																	
		Worst-Case Glaze								**0.0500**	**0.0500**		**0.0385**			**0.1000**	**0.0375**	**0.0100**	**0.0800**	**0.0010**	**0.0009**								**0.1167**	
		Average Glaze								**0.0197**	**0.0031**		**0.0060**			**0.0119**	**0.0047**	**0.0006**	**0.0144**	**0.0001**	**0.0001**								**0.0073**	

		Sealer																												
Finish Style	**Step**	**Product**	**Product**	**399-5000**	**305-0034**	**390-7001**																								
		WYB0010	1		15%																									
		397-0201-00	1			100%							2.50%																	
		NAS4000	As is																											
		LWS4713	1		250%					1.43%																				
		L42C1063	As is											10.00%						0.10%		10.00%	10.00%	10.00%						
		Worst-Case Sealer								**0.0143**			**0.0250**	**0.1000**						**0.0010**		**0.1000**	**0.1000**	**0.1000**						
		Average Sealer								**0.0029**			**0.0050**	**0.0200**						**0.0002**		**0.0200**	**0.0200**	**0.0200**						

		Shader																												
Finish Style	**Step**	**Product**	**Product**	**390-7001**																										
		322-9031-00	As is						5.00%																					
		398-9394-00	1	100%																										
		XXR0152	1	50%					0.67%																					
		S79N0073	As is																							1.00%	1.00%	1.00%	0.10%		
		AUB0257	1	50%																										
		UXR0077	As is																											
		S79N0300	As is																											
		398-2055-00	1	1																										
		Worst-Case Shader							**0.0500**																	**0.0100**	**0.0100**	**0.0100**	**0.0010**		
		Average Shader							**0.0071**																	**0.0013**	**0.0013**	**0.0013**	**0.0001**		

		Varnish/Topcoat																												
Finish Style	**Step**	**Product**	**Product**	**399-5000**	**YXC0095**																									
		331-2041-16	1	3.5%	2.50%																								1.16%	
		AUF1357-45	1	4.5%	2.50%																								1.47%	
		AUF1358-25	1	4.5%	2.50%																								1.47%	
		AUF1360-35	1	4.5%	2.50%																								1.47%	
		379-7515-00	1		2.50%																									9.76%
		AUC 1311-05	1	35%	2.50%																								8.91%	
		Worst-Case Varnish																											**0.0891**	**0.0976**
		Average Varnish																											**0.0241**	**0.0163**

Table B.3. : Constituent Concentration in Superpaint per Booth

		Aliphatic Hydrocarbons	Aromatic Naphtha	Mineral Spirits	Petroleum Distillate	Solvent Naphtha, Heavy	Stoddard Solvent	Mineral Spirits	Solvent Naphtha	VM&P Naphtha	Isopropyl Benzene	1,2,4-Trimethylbenzene	Toluene	Ethylbenzene
		n/a	64742-95-6	64742-47-8	64742-49-0	64742-94-5	8052-41-3	8032-32-4	64742-88-7	64742-89-8	98-82-8	95-63-6	108-88-3	100-41-4
Booth 1	**= Avg Toner/NGR**	0.0318	0.0065				0.0016	0.0032		0.0205	0.0003	0.0032	0.1490	0.0022
Booth 2	**= Avg Toner/NGR**	0.0318	0.0065				0.0016	0.0032		0.0205	0.0003	0.0032	0.1490	0.0022
Booth 3	**= Avg Glaze**		0.0125	0.3568	0.0358	0.0094	0.0176	0.0025	0.0355	0.0046	0.0006	0.0063	0.0724	0.0074
Booth 4	**= Avg Sealer**	0.0100								0.0100			0.1350	0.0230
Booth 5	**= Avg Shader**	0.0688	0.0177							0.0510		0.0073	0.1990	0.0015
Booth 6	**= Avg Varnish/Topcoat**	0.0081	0.0081										0.0139	0.0267
Booth 7	**= Avg Booths 5,6**	0.0384	0.0129							0.0255		0.0036	0.1064	0.0141
Booth 9	**= Avg Sealer**	0.0100								0.0100			0.1350	0.0230
Booth 10	**= Avg Toner/NGR**	0.0318	0.0065				0.0016	0.0032		0.0205	0.0003	0.0032	0.1490	0.0022
Booth 12	**= Avg Toner/NGR**	0.0318	0.0065				0.0016	0.0032		0.0205	0.0003	0.0032	0.1490	0.0022
Booth 13	**= Avg Booths 1,3,4,5,6**	0.1187	0.0090	0.0714	0.0072	0.0019	0.0039	0.0011	0.0071	0.0172	0.0002	0.0034	0.1138	0.0122
Booth 14	**= Avg Glaze**	0.4747	0.0125	0.3568	0.0358	0.0094	0.0176	0.0025	0.0355	0.0046	0.0006	0.0063	0.0724	0.0074
Booth 15	**= Avg Booths 1,3,4,5,6**	0.1187	0.0090	0.0714	0.0072	0.0019	0.0039	0.0011	0.0071	0.0172	0.0002	0.0034	0.1138	0.0122

Table B.3. : Constituent Concentration in Sup

		Xylene	Ethyl Acetate	Ethyl 3 Ethoxyproprionate	Isobutyl Acetate	Isobutyl Isobutyrate	N-Butyl Acetate	Methanol	Ethanol	Isobutanol	N-Butanol	Isopropanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Acetone	1-Ethoxy-2-Propanol	PGMEA	Talc
		1330-20-7	141-78-6	763-69-9	110-19-0	97-85-8	123-86-4	67-56-1	64-17-5	78-83-1	71-36-3	67-63-0	78-93-3	108-10-1	67-64-1	1569-02-4	108-65-6	14807-96-6
Booth 1	**= Avg Toner/NGR**	0.0081	0.0251	0.0131	0.0009	0.0032	0.0312	0.0938	0.2707	0.0232		0.0321	0.0434	0.0208	0.1523		0.0325	0.0225
Booth 2	**= Avg Toner/NGR**	0.0081	0.0251	0.0131	0.0009	0.0032	0.0312	0.0938	0.2707	0.0232		0.0321	0.0434	0.0208	0.1523		0.0325	0.0225
Booth 3	**= Avg Glaze**	0.0185	0.0069			0.0086	0.0459	0.0069	0.0182	0.0192		0.0111	0.0214	0.0251	0.0094		0.0133	0.0881
Booth 4	**= Avg Sealer**	0.0150	0.0150		0.0200		0.0872	0.0250	0.0700	0.0079	0.0200	0.1571	0.0300	0.0150	0.0600			0.0200
Booth 5	**= Avg Shader**	0.0031	0.0635			0.0188	0.0980	0.1115	0.3250	0.0031		0.0438	0.0594	0.0265	0.0656	0.0013	0.0063	
Booth 6	**= Avg Varnish/Topcoat**	0.1174	0.0156	0.0224			0.1740	0.0221	0.0651	0.1323	0.0325	0.0234	0.0312	0.0156	0.0227			
Booth 7	**= Avg Booths 5,6**	0.0602	0.0396	0.0112		0.0094	0.1360	0.0668	0.1951	0.0677	0.0163	0.0336	0.0453	0.0210	0.0442	0.0006	0.0031	
Booth 9	**= Avg Sealer**	0.0150	0.0150		0.0200		0.0872	0.0250	0.0700	0.0079	0.0200	0.1571	0.0300	0.0150	0.0600			0.0200
Booth 10	**= Avg Toner/NGR**	0.0081	0.0251	0.0131	0.0009	0.0032	0.0312	0.0938	0.2707	0.0232		0.0321	0.0434	0.0208	0.1523		0.0325	0.0225
Booth 12	**= Avg Toner/NGR**	0.0081	0.0251	0.0131	0.0009	0.0032	0.0312	0.0938	0.2707	0.0232		0.0321	0.0434	0.0208	0.1523		0.0325	0.0225
Booth 13	**= Avg Booths 1,3,4,5,6**	0.0324	0.0252	0.0071	0.0042	0.0061	0.0873	0.0518	0.1498	0.0371	0.0105	0.0535	0.0371	0.0206	0.0620	0.0003	0.0104	0.0261
Booth 14	**= Avg Glaze**	0.0185	0.0069			0.0086	0.0459	0.0069	0.0182	0.0192		0.0111	0.0214	0.0251	0.0094		0.0133	0.0881
Booth 15	**= Avg Booths 1,3,4,5,6**	0.0324	0.0252	0.0071	0.0042	0.0061	0.0873	0.0518	0.1498	0.0371	0.0105	0.0535	0.0371	0.0206	0.0620	0.0003	0.0104	0.0261

Table B.3. : Constituent Concentration in Sup

		Titanium Dioxide	Nitrocellulose	Amorphous Silica	Formaldehyde	Propylene Glycol Mono Methyl Ether	CI Acid Yellow 220	Dioctyl Terephthalate	Iron Oxide	Asphalt	Silica (quartz)	Carbon Black	Solvent Red 130	Octane	Heptane	Nonane	Cyclohexane	n-Butyl Stearate
		13463-67-7	9004-78-0	7631-86-9	50-00-0	107-98-2	70851-34-2	6422-86-2	1309-37-1	8052-42-4	14808-60-7	1333-86-4	71839-77-5	111-65-9	142-82-5	111-84-2	110-82-7	123-95-5
Booth 1	= Avg Toner/NGR	0.0149				0.0384	0.0097			0.0032	0.0013		0.0003	0.0009	0.0003	0.0000	0.0000	
Booth 2	= Avg Toner/NGR	0.0149				0.0384	0.0097			0.0032	0.0013		0.0003	0.0009	0.0003	0.0000	0.0000	
Booth 3	= Avg Glaze	0.0135						0.0280	0.0410	0.0025	0.0084	0.0104						0.0119
Booth 4	= Avg Sealer	0.0017	0.0200		0.0020			0.0100			0.0052	0.0056						
Booth 5	= Avg Shader					0.0396	0.0038		0.0063			0.0021						
Booth 6	= Avg Varnish/Topcoat		0.0467	0.0139	0.0028			0.0315										
Booth 7	= Avg Booths 5,6		0.0234	0.0070	0.0014	0.0198	0.0019	0.0157	0.0031			0.0010						
Booth 9	= Avg Sealer	0.0017	0.0200		0.0020			0.0100			0.0052	0.0056						
Booth 10	= Avg Toner/NGR	0.0149				0.0384	0.0097			0.0032	0.0013		0.0003	0.0009	0.0003	0.0000	0.0000	
Booth 12	= Avg Toner/NGR	0.0149				0.0384	0.0097			0.0032	0.0013		0.0003	0.0009	0.0003	0.0000	0.0000	
Booth 13	= Avg Booths 1,3,4,5,6	0.0060	0.0133	0.0028	0.0010	0.0156	0.0027	0.0139	0.0095	0.0011	0.0030	0.0036	0.0001	0.0002	0.0001	0.0000	0.0000	0.0024
Booth 14	= Avg Glaze	0.0135						0.0280	0.0410	0.0025	0.0084	0.0104						0.0119
Booth 15	= Avg Booths 1,3,4,5,6	0.0060	0.0133	0.0028	0.0010	0.0156	0.0027	0.0139	0.0095	0.0011	0.0030	0.0036	0.0001	0.0002	0.0001	0.0000	0.0000	0.0024

Table B.3. : Constituent Concentration in Sup

		Calcium Resinate	Fumed Silica	Aluminum Silicate	Limestone	Naphthalene	Charcoal Pigment	Dipropylene glycol Methyl Ether	Red Acid	CI Acid Black 52	Burnt Umber Pigment	Manganese Oxide	Diethylene Glycol Butyl Ether	Ceramics (clay)	urea-formaldehyde resin	Metal Complex Dye	C.I. Pigment Red 101	Urea Polymer with Aldehyde
		9007-13-0	12945-52-	1332-58-7	1317-65-3	91-20-3	8021-99-6	34590-94-8	72017-66-4	5610-64-0	12713-03-0	1313-13-9	112-34-5	66402-68-4	68002-19-7	84812-63-5	1332-37-2	28931-47-7
Booth 1	= Avg Toner/NGR							0.0065	0.0032	0.0032			0.0016	0.0066		0.0016	0.0011	0.0008
Booth 2	= Avg Toner/NGR							0.0065	0.0032	0.0032			0.0016	0.0066		0.0016	0.0011	0.0008
Booth 3	= Avg Glaze	0.0119	0.0119	0.0119		0.0016	0.0063				0.0197	0.0031		0.0060			0.0119	0.0047
Booth 4	= Avg Sealer				0.0800						0.0029			0.0050	0.0200			
Booth 5	= Avg Shader							0.0125	0.0083	0.0071								
Booth 6	= Avg Varnish/Topcoat																	
Booth 7	= Avg Booths 5,6							0.0063	0.0042	0.0035								
Booth 9	= Avg Sealer				0.0800						0.0029			0.0050	0.0200			
Booth 10	= Avg Toner/NGR							0.0065	0.0032	0.0032			0.0016	0.0066		0.0016	0.0011	0.0008
Booth 12	= Avg Toner/NGR							0.0065	0.0032	0.0032			0.0016	0.0066		0.0016	0.0011	0.0008
Booth 13	= Avg Booths 1,3,4,5,6	0.0024	0.0024	0.0024	0.0160	0.0003	0.0013	0.0038	0.0023	0.0021	0.0045	0.0006	0.0003	0.0035	0.0040	0.0003	0.0026	0.0011
Booth 14	= Avg Glaze	0.0119	0.0119	0.0119		0.0016	0.0063				0.0197	0.0031		0.0060			0.0119	0.0047
Booth 15	= Avg Booths 1,3,4,5,6	0.0024	0.0024	0.0024	0.0160	0.0003	0.0013	0.0038	0.0023	0.0021	0.0045	0.0006	0.0003	0.0035	0.0040	0.0003	0.0026	0.0011

Table B.3. : Constituent Concentration in Sup

		Kerosene	Linseed Oil	Benzene	Cadmium	Cellulose Nitrate, Cellulose Ester	o-xylene	p-xylene	Ethyl Lactate	Propylene Glycol Monoethyl Ether	Metal Complex Dye	Trivalent Chromium	Para-Toluene Sulphonic Acid	Ethylene Glycol Monobutyl Ether
		8008-20-6	8001-26-1	71-43-2	7440-43-9	9004-70-0	95-47-6	106-42-3	97-64-3	52125-53-8	56819-40-0	7440-47-3	6192-52-5	111-76-2
Booth 1	= Avg Toner/NGR												0.0001	
Booth 2	= Avg Toner/NGR												0.0001	
Booth 3	= Avg Glaze	0.0006	0.0144	0.0001	0.0001								0.0073	
Booth 4	= Avg Sealer			0.0002		0.0200	0.0200	0.0200						
Booth 5	= Avg Shader								0.0013	0.0013	0.0013	0.0001		
Booth 6	= Avg Varnish/Topcoat												0.0241	0.0163
Booth 7	= Avg Booths 5,6								0.0006	0.0006	0.0006	0.0001	0.0121	0.0081
Booth 9	= Avg Sealer			0.0002		0.0200	0.0200	0.0200						
Booth 10	= Avg Toner/NGR												0.0001	
Booth 12	= Avg Toner/NGR												0.0001	
Booth 13	= Avg Booths 1,3,4,5,6	0.0001	0.0029	0.0001	0.0000	0.0040	0.0040	0.0040	0.0003	0.0003	0.0003	0.0000	0.0063	0.0033
Booth 14	= Avg Glaze	0.0006	0.0144	0.0001	0.0001								0.0073	
Booth 15	= Avg Booths 1,3,4,5,6	0.0001	0.0029	0.0001	0.0000	0.0040	0.0040	0.0040	0.0003	0.0003	0.0003	0.0000	0.0063	0.0033

Table B.4. : Maximum Booth Emission Rates

				Aliphatic Hydrocarbons	Aromatic Naphtha	Mineral Spirits	Petroleum Distillate	Solvent Naphtha, Heavy	Stoddard Solvent	Mineral Spirits	Solvent Naphtha	VM&P Naphtha	Isopropyl Benzene	1,2,4-Trimethylbenzene	Toluene	Ethylbenzene	Xylene	Ethyl Acetate	Ethyl 3 Ethoxypropriionate	Isobutyl Acetate
				n/a	64742-95-6	64742-47-8	64742-49-0	64742-94-5	8052-41-3	8032-32-4	64742-88-7	64742-89-4	98-82-8	95-63-6	108-88-3	100-41-4	1330-20-7	141-78-6	763-69-9	110-19-0
Booth Spray Rates (g/s)	**Booth 1**	**= Max Toner/NGR**		2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 2	**= Max Toner/NGR**		2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 3	**= Max Glaze**		1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000
	Booth 4	**= Max Sealer**		2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500
	Booth 5	**= Max Shader**		2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500
	Booth 6	**= Max Varnish/Topcoat**		2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 7	**= Avg Booths 5,6**		2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500
	Booth 9	**= Max Sealer**		2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 10	**= Max Toner/NGR**		0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500
	Booth 12	**= Max Toner/NGR**		2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 13	**= Avg Booths 1,3,4,5,6**		0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500
	Booth 14	**= Max Glaze**		1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000
	Booth 15	**= Avg Booths 1,3,4,5,6**		1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000
	SUM			**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	*******	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**

Constituent Emission Rates (g/s)	**Booth 1**			0.00289	0.01774				0.00015	0.00029		0.00187	0.00003	0.00029	0.01357	0.00020	0.00074	0.00228	0.00119	0.00008
	Booth 2			0.00289	0.01774				0.00444	0.00029		0.00187	0.00003	0.00029	0.01357	0.00020	0.00074	0.00228	0.00119	0.00008
	Booth 3			0.00289	0.00051	0.01466	0.00147	0.00039	0.02188	0.00010	0.00146	0.00019	0.00003	0.00026	0.00297	0.00030	0.00076	0.00028		
	Booth 4			0.00082								0.00082			0.01107	0.00189	0.00123	0.00123		0.00164
	Booth 5			0.00484	0.00125							0.00359		0.00051	0.01401	0.00010	0.00022	0.00447		
	Booth 6			0.00074	0.00074										0.00127	0.00244	0.01070	0.00142	0.00204	
	Booth 7			0.00301	0.00101							0.00200		0.00029	0.00834	0.00110	0.00472	0.00310	0.00088	
	Booth 9			0.00073								0.00073			0.00984	0.00168	0.00109	0.00109		0.00146
	Booth 10			0.00087	0.00018				0.00133	0.00009		0.00056	0.00001	0.00009	0.00407	0.00006	0.00022	0.00068	0.00036	0.00002
	Booth 12			0.00232	0.00047				0.00355	0.00024		0.00149	0.00002	0.00024	0.01086	0.00016	0.00059	0.00183	0.00095	0.00006
	Booth 13			0.00187	0.00014	0.00112	0.00011	0.00003	0.00183	0.00002	0.00011	0.00027	0.00000	0.00005	0.00179	0.00019	0.00051	0.00040	0.00011	0.00007
	Booth 14			0.01730	0.00046	0.01301	0.00130	0.00034	0.01941	0.00009	0.00129	0.00017	0.00002	0.00023	0.00264	0.00027	0.00068	0.00025		
	Booth 15			0.00743	0.00056	0.00447	0.00045	0.00012	0.00728	0.00007	0.00044	0.00108	0.00001	0.00021	0.00713	0.00076	0.00203	0.00158	0.00044	0.00026
7600 L/wk	**SUM**	**7600**		**0.04861**	**0.04080**	**0.03326**	**0.00334**	**0.00087**	**0.05986**	**0.00119**	**0.00331**	**0.01463**	**0.00015**	**0.00246**	**0.10115**	**0.00935**	**0.02423**	**0.02090**	**0.00716**	**0.00367**
actual755 L/wk, 8/24 hrs		**755.5555556**																		
		0.033138402																		

	Transfer Efficiency:	60%		**Painting only occurs 8 hours out of 24 hours a day**
	Filter Removal Efficiency:	99%		
	Acetone Emission Factor:	50%		
34000	**Worst case weekly paint usage (2018, 2019)**	830	L	Actually use 830 L, which is about 750 kg per week
3022.222222		747	kg	assume 0.9 g/l
755.5555556	**Annual paint usage (2023 NPRI)**	34,000	kg	
	Total g/s from Line 37	0.8519	g/s	old emission estimates - worst case carried since 2005
		51.11150574	g/min	
		3.066690344	kg/hr	
	Assume painting for 8 hours in a day	24.53352275	kg/d	
	Assume painting for 4.5 days per week	110.4008524	kg/wk	
	Assume 0.9 g/l	122.6676138	L/wk	
	Current emission estimate are	0.147792306	x larger than actual (estimated)	

Table B.4. : Maximum Booth Emission Rates

		Isobutyl Isobutyrate	N-Butyl Acetate
		97-85-8	123-86-4
Booth Spray Rates (g/s)	**Booth 1**	2.75000	2.75000
	Booth 2	2.75000	2.75000
	Booth 3	1.24000	1.24000
	Booth 4	2.47500	2.47500
	Booth 5	2.12500	2.12500
	Booth 6	2.75000	2.75000
	Booth 7	2.36500	2.36500
	Booth 9	2.20000	2.20000
	Booth 10	0.82500	0.82500
	Booth 12	2.20000	2.20000
	Booth 13	0.47500	0.47500
	Booth 14	1.10000	1.10000
	Booth 15	1.89000	1.89000
	SUM	#######	#######

Constituent Emission Rates (g/s)	**Booth 1**	0.00029	0.00285
	Booth 2	0.00029	0.00285
	Booth 3	0.00035	0.00188
	Booth 4		0.00715
	Booth 5	0.00132	0.00690
	Booth 6		0.01585
	Booth 7	0.00073	0.01066
	Booth 9		0.00636
	Booth 10	0.00009	0.00085
	Booth 12	0.00023	0.00228
	Booth 13	0.00010	0.00137
	Booth 14	0.00031	0.00167
	Booth 15	0.00038	0.00547
7600 L/wk	**SUM**	**0.00410**	**0.06614**
actual755 L/wk, 8/24 hrs			

Transfer Efficiency:
Filter Removal Efficiency:
Acetone Emission Factor:

34000 **Worst case weekly paint usage (2018, 201**
3022.222222
755.5555556 **Annual paint usage (2023 NPRI)**

Total g/s from Line 37

Assume painting for 8 hours in a day
Assume painting for 4.5 days per week
Assume 0.9 g/l

Current emission estimate are

Table B.4. : Maximum Booth Emission Rates

									A		P	P	P	P			P	P	P	P	P
		Methanol	Ethanol	Isobutanol	N-Butanol	Isopropanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Acetone	1-Ethoxy-2-Propanol	PGMEA	Talc	Titanium Dioxide	Nitrocellulose	Amorphous Silica	Formaldehyde	Propylene Glycol Mono Methyl Ether	CI Acid Yellow 220	Dioctyl Terephthalate	Iron Oxide	Asphalt	Silica (quartz)
		67-56-1	64-17-5	78-83-1	71-36-3	67-63-0	78-93-3	108-10-1	67-64-1	1569-02-4	108-65-6	14807-96-6	13463-67-7	9004-78-0	7631-86-9	50-00-0	107-98-2	70851-34-2	6422-86-2	1309-37-1	8052-42-4	14808-60-7
Booth Spray Rates (g/s)	**Booth 1**	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 2	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 3	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000
	Booth 4	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500
	Booth 5	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500
	Booth 6	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 7	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500
	Booth 9	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 10	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500
	Booth 12	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 13	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500
	Booth 14	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000
	Booth 15	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000
	SUM	#######	**25.14500**	#######	#######	#######	**25.14500**	#######	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**

Constituent Emission Rates (g/s)	**Booth 1**	0.00855	0.02467	0.00211		0.00292	0.00396	0.00189	0.00694		0.00296	0.00001	0.00001				0.00350	0.00000			0.00000	0.00000
	Booth 2	0.00855	0.02467	0.00211		0.00292	0.00396	0.00189	0.00694		0.00296	0.00001	0.00001				0.00350	0.00000			0.00000	0.00000
	Booth 3	0.00028	0.00075	0.00079		0.00046	0.00088	0.00103	0.00019		0.00055	0.00001	0.00000						0.00000	0.00001	0.00000	0.00000
	Booth 4	0.00205	0.00574	0.00064	0.00164	0.01289	0.00246	0.00123	0.00246			0.00001	0.00000	0.00001		0.00016			0.00000			0.00000
	Booth 5	0.00785	0.02289	0.00022		0.00308	0.00418	0.00186	0.00231	0.00009	0.00044						0.00279	0.00000		0.00000		
	Booth 6	0.00201	0.00594	0.01206	0.00296	0.00213	0.00284	0.00142	0.00103					0.00002	0.00001	0.00025			0.00001			
	Booth 7	0.00523	0.01529	0.00531	0.00127	0.00263	0.00355	0.00165	0.00173	0.00005	0.00024			0.00001	0.00000	0.00011	0.00155	0.00000	0.00000	0.00000		
	Booth 9	0.00182	0.00510	0.00057	0.00146	0.01146	0.00219	0.00109	0.00219			0.00001	0.00000	0.00001		0.00015			0.00000			0.00000
	Booth 10	0.00256	0.00740	0.00063		0.00088	0.00119	0.00057	0.00208		0.00089	0.00000	0.00000				0.00105	0.00000			0.00000	0.00000
	Booth 12	0.00684	0.01974	0.00169		0.00234	0.00317	0.00151	0.00555		0.00237	0.00001	0.00000				0.00280	0.00000			0.00000	0.00000
	Booth 13	0.00082	0.00236	0.00058	0.00017	0.00084	0.00058	0.00032	0.00049	0.00000	0.00016	0.00000	0.00000	0.00000	0.00000	0.00002	0.00025	0.00000	0.00000	0.00000	0.00000	0.00000
	Booth 14	0.00025	0.00066	0.00070		0.00041	0.00078	0.00092	0.00017		0.00048	0.00001	0.00000						0.00000	0.00001	0.00000	0.00000
	Booth 15	0.00325	0.00938	0.00233	0.00066	0.00335	0.00232	0.00129	0.00194	0.00002	0.00065	0.00001	0.00000	0.00000	0.00000	0.00006	0.00098	0.00000	0.00000	0.00000	0.00000	0.00000
7600 L/wk	**SUM**	**0.05006**	**0.14458**	**0.02974**	**0.00816**	**0.04630**	**0.03205**	**0.01668**	**0.03404**	**0.00016**	**0.01172**	**0.00007**	**0.00002**	**0.00004**	**0.00001**	**0.00075**	**0.01641**	**0.00001**	**0.00004**	**0.00002**	**0.00000**	**0.00001**
actual755 L/wk, 8/24 hrs																						

Transfer Efficiency:
Filter Removal Efficiency:
Acetone Emission Factor:

34000 **Worst case weekly paint usage (2018, 201**
3022.222222
755.5555556 **Annual paint usage (2023 NPRI)**

Total g/s from Line 37

Assume painting for 8 hours in a day
Assume painting for 4.5 days per week
Assume 0.9 g/l

Current emission estimate are

Table B.4. : Maximum Booth Emission Rates

Booth Spray Rates (g/s)

	P	P					P	P	P	P		P		P	P	P	P		P	P
	Carbon Black	Solvent Red 130	Octane	Heptane	Nonane	Cyclohexane	n-Butyl Stearate	Calcium Resinate	Fumed Silica	Aluminum Silicate	Limestone	Naphthalene	Charcoal Pigment	Dipropylene glycol Methyl Ether	Red Acid	CI Acid Black 52	Burnt Umber Pigment	Manganese Oxide	Diethylene Glycol Butyl Ether	Ceramics (clay)	urea-formaldehyde resin
	1333-86-4	71839-77-5	111-65-9	142-82-5	111-84-2	110-82-7	123-95-5	9007-13-0	12945-52-	1332-58-7	1317-65-3	91-20-3	8021-99-6	34590-94-8	72017-66-4	5610-64-0	12713-03-0	1313-13-9	112-34-5	66402-68-4	68002-19-7
Booth 1	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
Booth 2	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
Booth 3	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000
Booth 4	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500
Booth 5	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500
Booth 6	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
Booth 7	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500
Booth 9	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
Booth 10	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500
Booth 12	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
Booth 13	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500
Booth 14	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000
Booth 15	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000
SUM	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**

Constituent Emission Rates (g/s)

Booth 1		0.00000	0.00008	0.00003	0.00000	0.00000								0.00059	0.00000	0.00000			0.00015	0.00000	
Booth 2		0.00000	0.00008	0.00003	0.00000	0.00000								0.00059	0.00000	0.00000			0.00015	0.00000	
Booth 3	0.00000						0.00049	0.00000	0.00000	0.00000		0.00006	0.00000				0.00000	0.00000		0.00000	
Booth 4	0.00000										0.00003						0.00000			0.00000	0.00001
Booth 5	0.00000													0.00088	0.00000	0.00000					
Booth 6																					
Booth 7	0.00000													0.00049	0.00000	0.00000					
Booth 9	0.00000										0.00002						0.00000			0.00000	0.00001
Booth 10		0.00000	0.00002	0.00001	0.00000	0.00000								0.00018	0.00000	0.00000			0.00004	0.00000	
Booth 12		0.00000	0.00006	0.00002	0.00000	0.00000								0.00047	0.00000	0.00000			0.00012	0.00000	
Booth 13	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000
Booth 14	0.00000						0.00043	0.00000	0.00000	0.00000		0.00006	0.00000				0.00000	0.00000		0.00000	
Booth 15	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00015	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00024	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000
SUM	**0.00001**	**0.00000**	**0.00026**	**0.00009**	**0.00001**	**0.00001**	**0.00111**	**0.00000**	**0.00000**	**0.00000**	**0.00005**	**0.00015**	**0.00000**	**0.00349**	**0.00001**	**0.00001**	**0.00001**	**0.00000**	**0.00048**	**0.00001**	**0.00001**

7600 L/wk
actual755 L/wk, 8/24 hrs

Transfer Efficiency:
Filter Removal Efficiency:
Acetone Emission Factor:

34000
3022.222222
755.5555556

Worst case weekly paint usage (2018, 201

Annual paint usage (2023 NPRI)

Total g/s from Line 37

Assume painting for 8 hours in a day
Assume painting for 4.5 days per week
Assume 0.9 g/l

Current emission estimate are

Table B.4. : Maximum Booth Emission Rates

		P	P	P	P	P	P						P	P	P			
		Metal Complex Dye	C.I. Pigment Red 101	Urea Polymer with Aldehyde	Kerosene	Linseed Oil	Benzene	Cadmium	Cellulose Nitrate, Cellulose Ester	o-xylene	p-xylene	Ethyl Lactate	Propylene Glycol Monoethyl Ether	Metal Complex Dye	Trivalent Chromium	Para-Toluene Sulphonic Acid	Ethylene Glycol Monobutyl Ether	Particulate
		84812-63-5	1332-37-2	28931-47-7	8008-20-6	8001-26-1	71-43-2	7440-43-9	9004-70-0	95-47-6	106-42-3	97-64-3	52125-53-8	56819-40-0	7440-47-3	6192-52-5	111-76-2	n/a
Booth Spray Rates (g/s)	**Booth 1**	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 2	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 3	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000	1.24000
	Booth 4	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500	2.47500
	Booth 5	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500	2.12500
	Booth 6	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000	2.75000
	Booth 7	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500	2.36500
	Booth 9	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 10	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500	0.82500
	Booth 12	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000	2.20000
	Booth 13	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500	0.47500
	Booth 14	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000	1.10000
	Booth 15	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000	1.89000
	SUM	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**	**25.14500**

Constituent Emission Rates (g/s)	**Booth 1**	0.00000	0.00000	0.00000												0.00000		0.00002
	Booth 2	0.00000	0.00000	0.00000												0.00000		0.00002
	Booth 3		0.00000	0.00000	0.00003	0.00000	0.00000	0.00000								0.00000		0.00005
	Booth 4						0.00002		0.00001	0.00164	0.00164							0.00006
	Booth 5											0.00009	0.00009	0.00000	0.00000			0.00001
	Booth 6															0.00001	0.00148	0.00004
	Booth 7											0.00005	0.00005	0.00000	0.00000	0.00000	0.00064	0.00002
	Booth 9						0.00001		0.00001	0.00146	0.00146							0.00006
	Booth 10	0.00000	0.00000	0.00000												0.00000		0.00001
	Booth 12	0.00000	0.00000	0.00000												0.00000		0.00002
	Booth 13	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00001
	Booth 14		0.00000	0.00000	0.00002	0.00000	0.00000	0.00000								0.00000		0.00004
	Booth 15	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00025	0.00025	0.00002	0.00002	0.00000	0.00000	0.00000	0.00020	0.00004
7600 L/wk	**SUM**	**0.00000**	**0.00001**	**0.00000**	**0.00006**	**0.00001**	**0.00005**	**0.00000**	**0.00001**	**0.00341**	**0.00341**	**0.00016**	**0.00016**	**0.00000**	**0.00000**	**0.00002**	**0.00237**	**0.00041**
actual755 L/wk, 8/24 hrs																		

Transfer Efficiency:
Filter Removal Efficiency:
Acetone Emission Factor:

34000 **Worst case weekly paint usage (2018, 201**
3022.222222
755.5555556 **Annual paint usage (2023 NPRI)**

Total g/s from Line 37

Assume painting for 8 hours in a day
Assume painting for 4.5 days per week
Assume 0.9 g/l

Current emission estimate are

Table B.6. : Natural Gas Combustion Calculations

Contaminant	Emission Factor ($g/10^3 m^3$)
Nitrogen Oxide	1600

Gas	Higher Heating Value (kJ/m^3)
Natural Gas	37000

Source ID	Source	Capacity (MBTU)	Capacity (BTU)	Capacity (kJ/hr)	Emission Rate Nox (g/s)
25	Natural Gas Boiler 1 (American Kilns)	12554	12,554,000	13,245,223	0.159
30	Quiet Aire QADD-1-600-40-100-0-W-4-5	6600	6,600,000	6,963,396	0.084
32	Tube Heater 1	100	100,000	105,506	0.001
33	Tube Heater 2	100	100,000	105,506	0.001
34	Tube Heater 3	100	100,000	105,506	0.001
35	Tube Heater 4	100	100,000	105,506	0.001
36	Tube Heater 5	100	100,000	105,506	0.001
37	Tube Heater 6	100	100,000	105506	0.001
38	Tube Heater 7	100	100,000	105506	0.001
49	EN-MAR AMU Boiler Room	2475	2,475,000	2611274	0.031
50	Quiet Aire QADIO-1-16-16-16-187-1-M-3-E	370	370,000	390372	0.005
56	Air Control Tech ACTD AMU	2500	2,500,000	2,637,650	0.032
55	Unit "A" EN-MAR AMU	4320	4,320,000	4,557,859	0.055
54	Unit "B" EN-MAR AMU	4320	4,320,000	4,557,859	0.055
	Total	**33,839**	**33,839,000**	**35,702,175**	**0.429**

$$ER_{american\ kiln} = 13{,}245{,}223\frac{kJ}{hr} \times \frac{1}{37{,}000\frac{kJ}{m^3}} \times \frac{1}{10^3} \times 1{,}600\frac{g}{10^3 m^3} \times \frac{1hr}{3{,}600s} = 0.159\frac{g}{s}$$

Table B.7: Wood Boiler Emission Calculations

Vekos GWB Wood Boiler

Type:	WFG
Model No.:	200
Serial No.	71031
Built:	1971
Steam Pressure:	75 PSI
Capacity:	6,695,000 BTU/hr
Burner Make:	ICI
Burner Model:	DG84P

Wood Burned 2019 Capacity: 193 lbs/hr = 88 kg/hr
0.05 lbs/s

Assumptions:
Dry wood as fuel
HHV of wood (20% moisture) = 6400 Btu/lb = 0.0064 MMBtu/lb
1 lb = 453.59 g

Source ID	Contaminant	Emission Factor (lb/MMBtu)	Emisison Factor (lb/lb)	Emission Rate (g/s)	Factor Rating	Estimation Technique	Percentage of Overall Emission
27	Nitrogen Oxide	0.49	0.00314	0.0763	C	EF	39%
	Particulate	0.4	0.00256	0.0623	A	EF	87%

Table B.8: Particulate Emissions Summary

Source	PM Emissions (g/s)
Moldow Baghouse	0.07
Murphy Baghouse	0.02
Wood Boiler	0.0623
Finishing Operations	0.0000
TOTAL	**0.1499**

Table B.9: Baghouse Emission Calculations

Sawdust Captured by Baghouses: 1,576,300 kilograms/year

Conservative Operating Scenario:
(for conservative calculations only)

50 weeks per year
5 days a week
20 hours per day ** wood mill operates from 7 am until 3 am.

Source ID	Source Description	Maximum Design Flow Rate (m^3/s)
29	Moldow Baghouse	51.9
28	Murphy Baghouse	14.2

Source ID	Source Description	Removal Efficiency[1]	% of removal based on max flow rate	Sawdust Captured by Baghouse (kg/year)	Total Sawdust sent to Baghouse (kg/year)	Emission Rate (g/s)
29	Moldow Baghouse	99.9%	78.5%	1,237,670	1,238,909	0.069
28	Murphy Baghouse	99.9%	21.5%	338,630	338,969	0.019
			Total	**1,576,300**	**1,577,878**	**0.088**

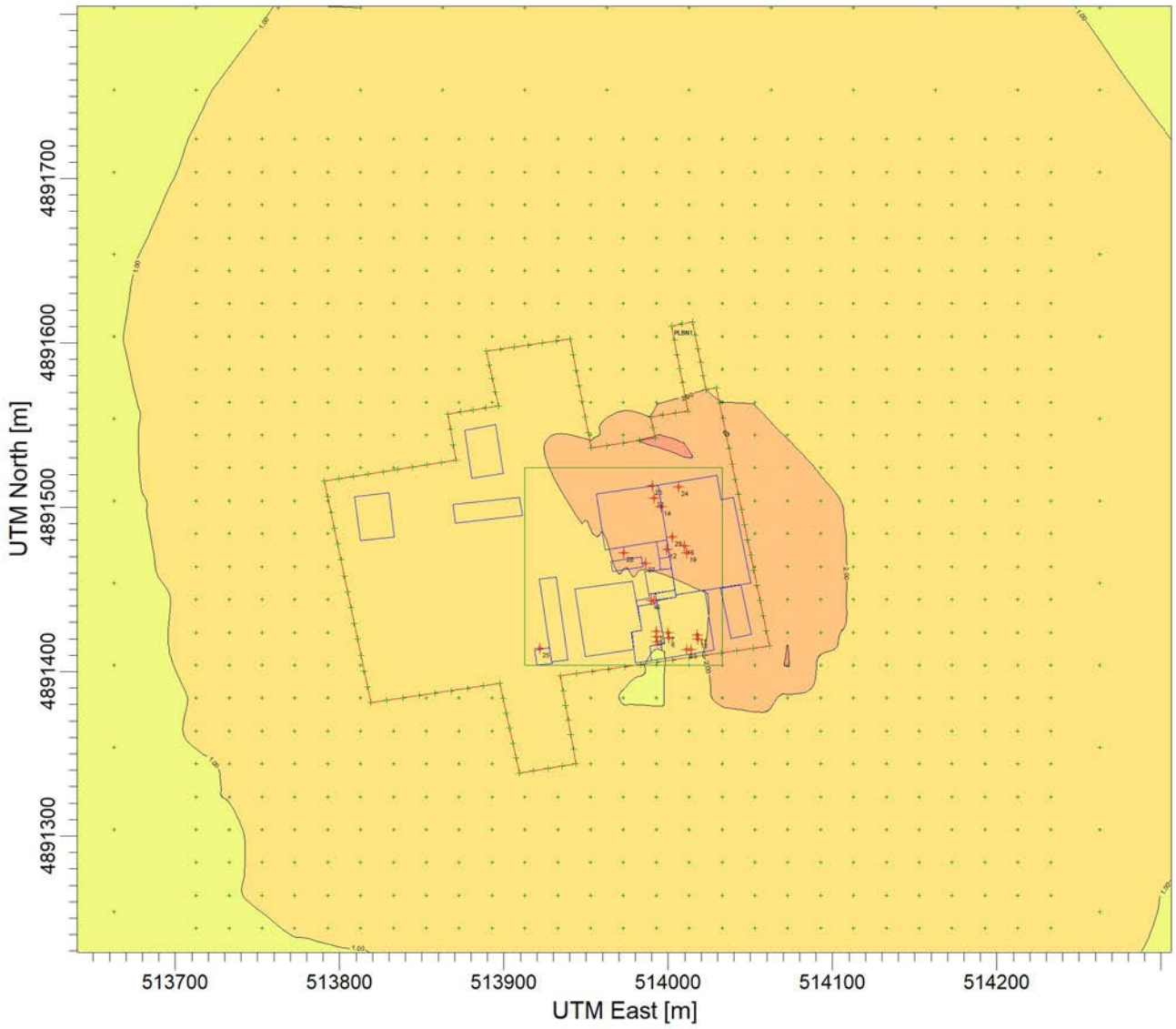
[1] Removal efficiency is based on specifications provided by the manufacturer. Data sheets are provided in Appendix b.

APPENDIX C

MODELLING

PROJECT TITLE:

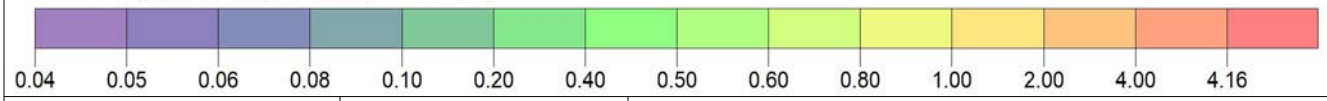
Durham Furniture
Ethyl 3 Ethoxyproprionate - 1 HR



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

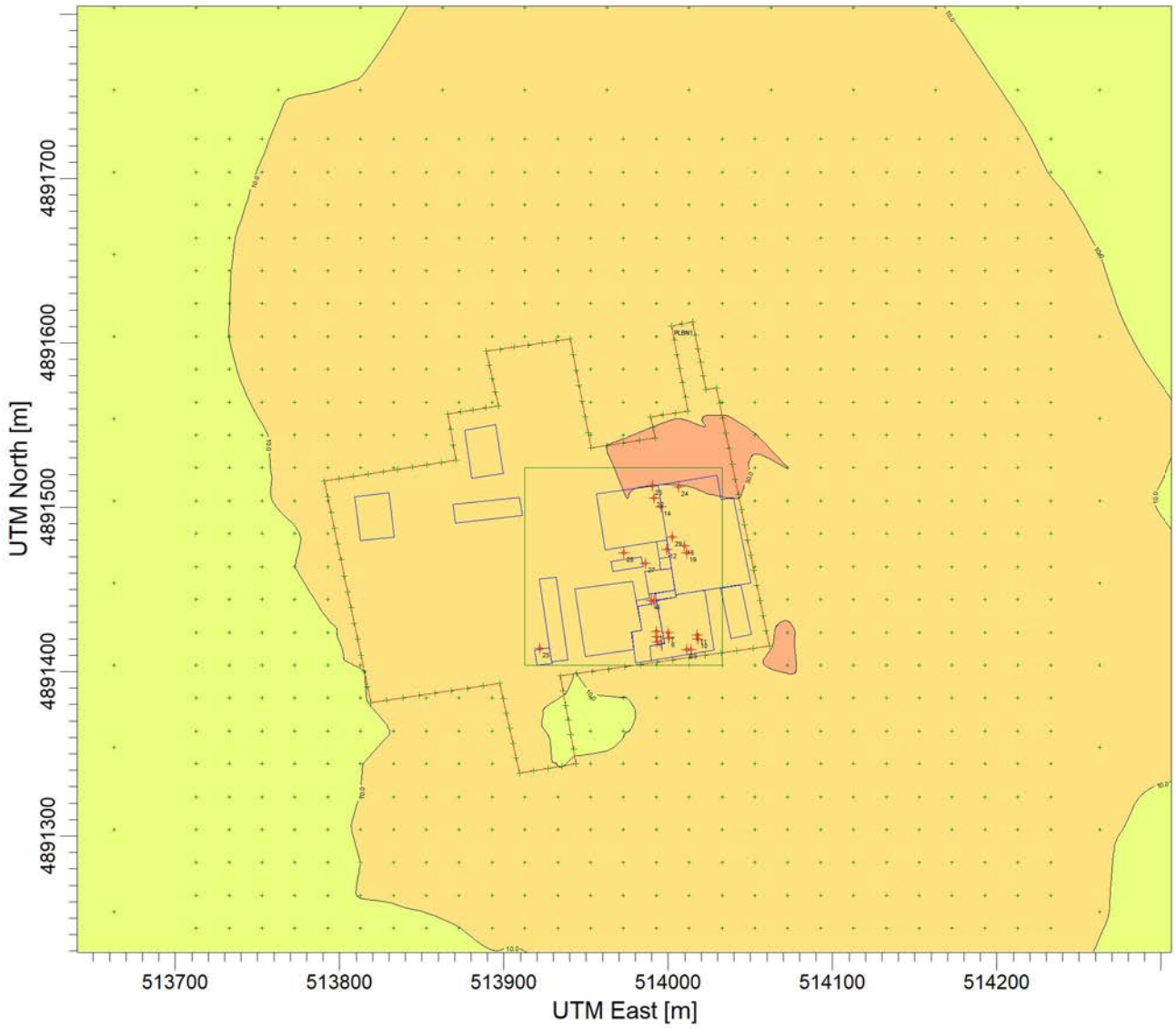
Max: 4.16 [ug/m^3] at (513992.08, 4891542.26)



COMMENTS:	SOURCES:	COMPANY NAME:	
Ethyl 3 Ethoxyproprionate - 1 HR	**22**	**CCS Engineering Inc.**	
	RECEPTORS:	MODELER:	
	2222	**AB**	
	OUTPUT TYPE:	SCALE: 1:4,188	
	Concentration	0 0.1 km	
	MAX:	DATE:	PROJECT NO.:
	4.16 ug/m^3	**2024-04-29**	

PROJECT TITLE:

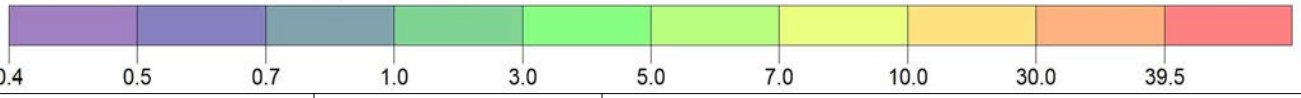
Durham Furniture
N-Butyl Acetate - 1 HR



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

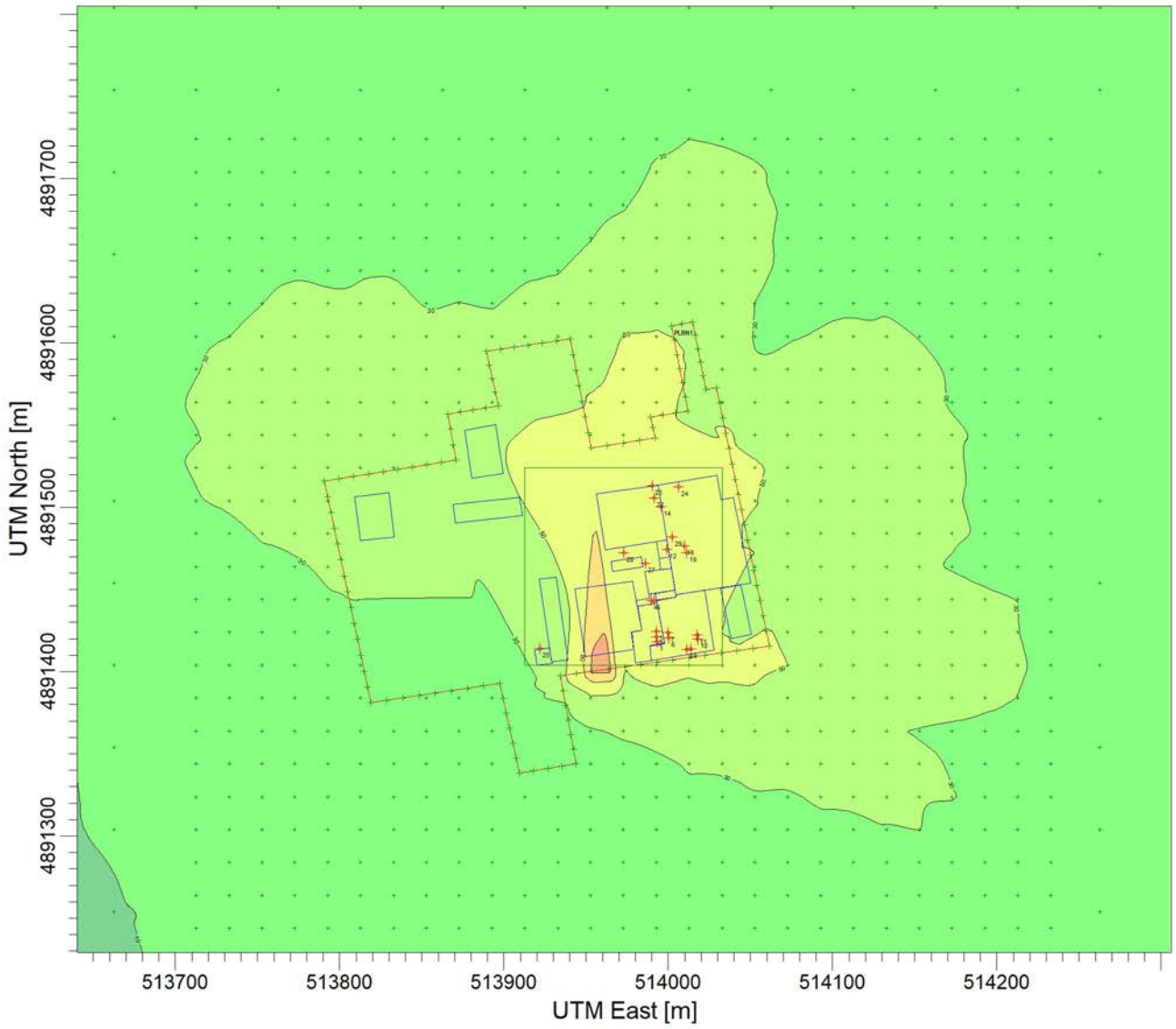
Max: 39.5 [ug/m^3] at (513992.08, 4891542.26)



COMMENTS:	SOURCES:	COMPANY NAME:	
N-Butyl Acetate - 1 HR	**22**	**CCS Engineering Inc.**	
	RECEPTORS:	MODELER:	
	2222	**AB**	
	OUTPUT TYPE:	SCALE: 1:4,188	
	Concentration	0 0.1 km	
	MAX:	DATE:	PROJECT NO.:
	39.5 ug/m^3	**2024-04-29**	

PROJECT TITLE:

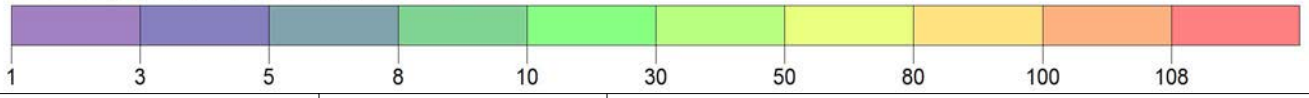
Durham Furniture
Nitrogen Oxides - 1 HR



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

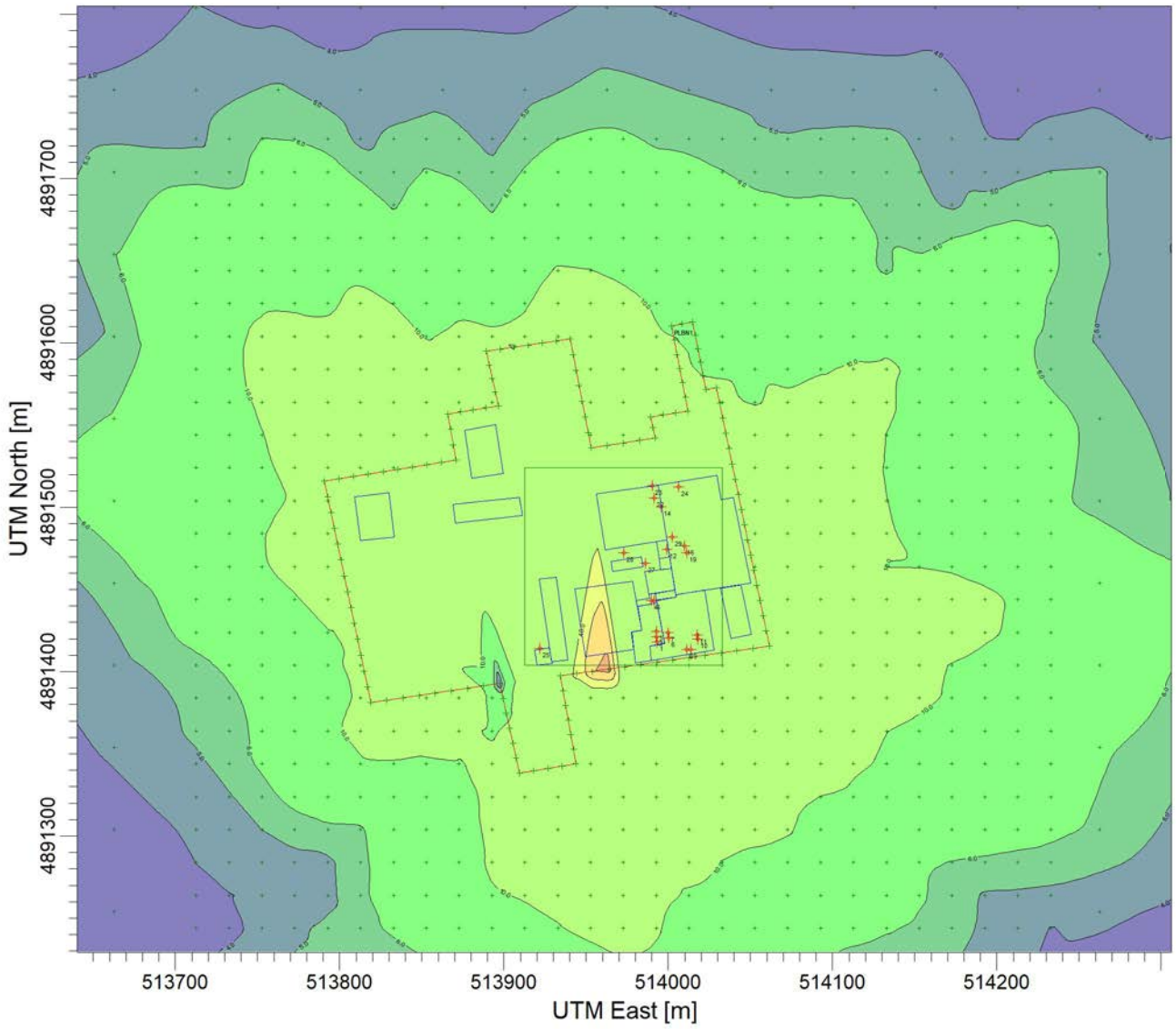
Max: 108 [ug/m^3] at (513963.69, 4891401.59)



COMMENTS:	SOURCES:	COMPANY NAME:	
Nitrogen Oxides - 1 HR	**22**	**CCS Engineering Inc.**	
	RECEPTORS: **2222**	MODELER: **AB**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:4,188 0 0.1 km	
	MAX: **108 ug/m^3**	DATE: **2024-04-29**	PROJECT NO.:

PROJECT TITLE:

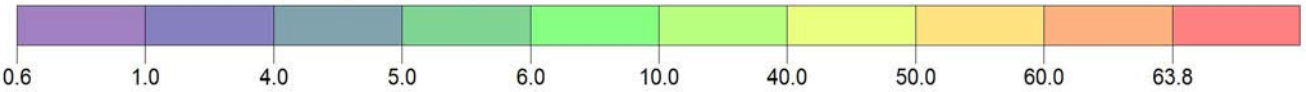
Durham Furniture
Nitrogen Oxides - 24 HR



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

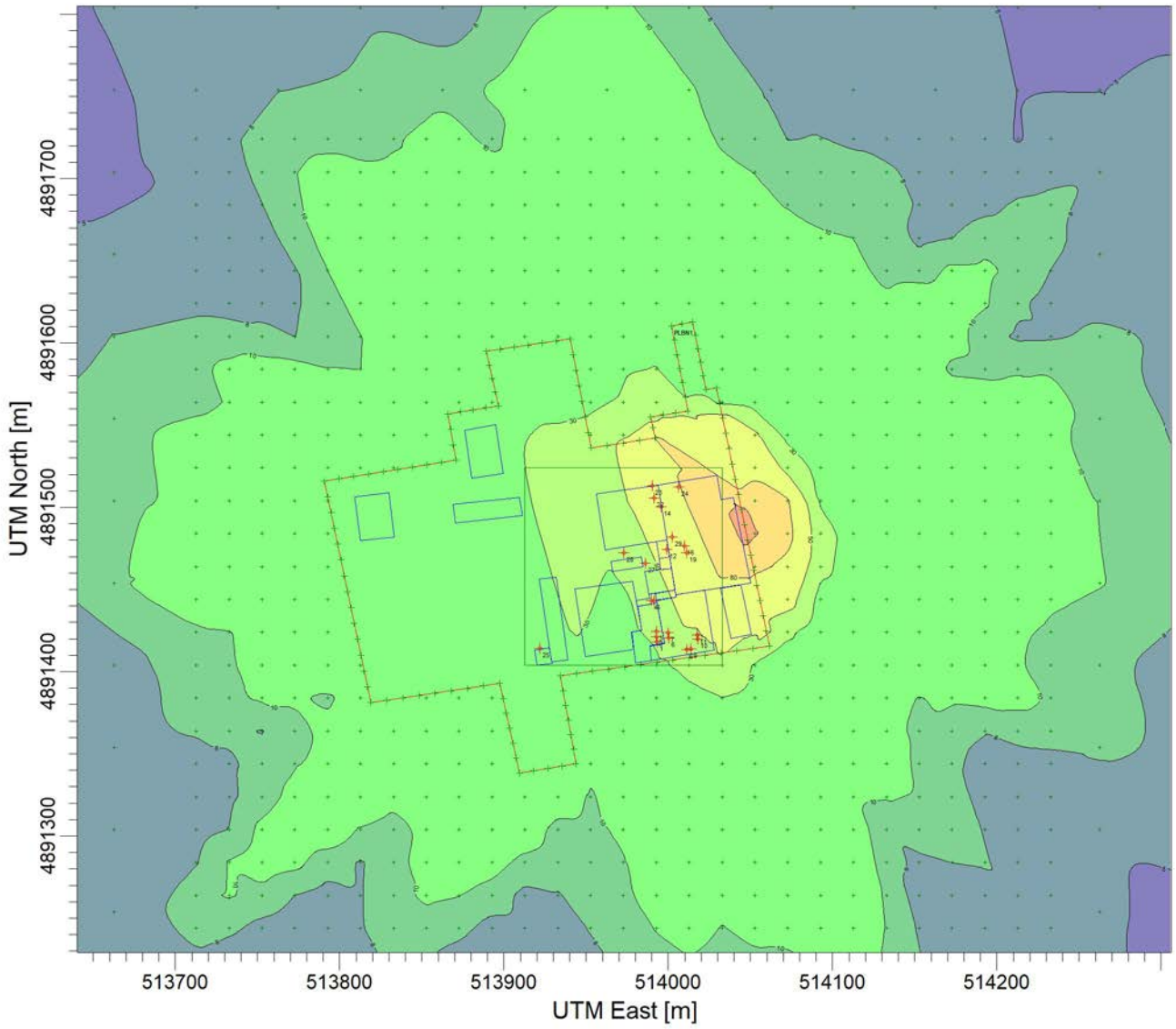
Max: 63.8 [ug/m^3] at (513963.69, 4891401.59)



COMMENTS:	SOURCES:	COMPANY NAME:	
Nitrogen Oxides - 24 HR	**22**	**CCS Engineering Inc.**	
	RECEPTORS: **2222**	MODELER: **AB**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:4,188 0 0.1 km	
	MAX: **63.8 ug/m^3**	DATE: **2024-04-29**	PROJECT NO.:

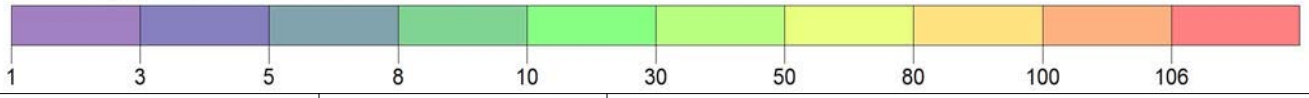
PROJECT TITLE:

Durham Furniture
Particulate - 24 HR



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL ug/m^3

Max: 106 [ug/m^3] at (514046.37, 4891489.49)



COMMENTS:	SOURCES:	COMPANY NAME:	
Particulate - 24 HR	**22**	**CCS Engineering Inc.**	
	RECEPTORS:	MODELER:	
	2222	**AB**	
	OUTPUT TYPE:	SCALE: 1:4,188	
	Concentration	0 0.1 km	
	MAX:	DATE:	PROJECT NO.:
	106 ug/m^3	**2024-04-29**	