ORTECH Environmental
a division of ORTECH Consulting Inc.

Ambient Air Monitoring – Odour Survey 2011

RESULTS OF ANALYSIS	Downwind	Upwind	Downwind	Upwind	Downwind	Upwind	Downwind	Upwind	Downwind	Upwind	
Sample ID	DVOC-01	UVOC-01	DVOC-02	UVOC-02	DVOC-03	UVOC-03	DVOC-05	UVOC-05	DVOC-04	UVOC-04	
Date Sampled	22-SEP-11	22-SEP-11	27-SEP-11	27-SEP-11	29-SEP-11	29-SEP-11	06-Oct-11	06-Oct-11	07-Oct-11	07-Oct-11	
Time Sampled (est)	09:00-09:30	09:00-09:30	12:40-13:10	12:30-13:00	10:45-11:15	10:20-10:50	09:40-10:10	09:50-10:20	08:55-09:25	09:00-09:30	
ALS Sample ID	L1062336-1	L1062336-2	L1064960-1	L1064960-2	L1065853-2	L1065853-1	L1068809-2	L1068809-1	L1070194-1	L1070194-2	1/2-hr Std
Compound:	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**Conc. (µg/m³)**	**or guideline**
Carbon Tetrachloride	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	7.2
Isopropyl alcohol	7.4	2.8	26.8	1.7	4.1	3.8	66.1	3.5	5.1	3.6	22000
Acetone	35.6	33.7	57.6	46.2	8.9	6.3	20.7	7.1	9.6	8.0	35640
Chloroform	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	1.17	<0.98	<0.98	<0.98	3
Benzene	0.71	<0.64	1.48	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	7
1,1,1 -Trichloroethane	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	350000
Vinyl chloride	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	3
Methylene chloride	1.54	<0.69	1.68	<0.69	<0.69	<0.69	3.13	<0.69	2.16	<0.69	660
1,1-Dichloroethane	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	495
1,1-Dichloroethene	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	30
Trichlorofluoromethane	1.40	1.40	1.40	1.20	1.40	1.40	1.40	1.40	1.50	1.20	18000
Dichlorodifluoromethane	1.99	2.09	1.59	1.68	1.89	1.69	1.78	1.89	1.88	1.98	1500000
Freon 113	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	2400000
1,2-Dichloropropane	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	2400
Methyl ethyl ketone	12.6	2.31	9.07	3.95	2.19	0.59	22.4	<0.59	9.58	<0.59	3000
Trichloroethylene	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	36
Naphthalene	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	36
o-Xylene	4.98	<0.87	3.23	<0.87	<0.87	<0.87	3.83	<0.87	1.92	<0.87	2200
1,2-Dichlorobenzene	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	37000
1,2,4-Trimethylbenzene	1.48	<0.98	<0.98	<0.98	<0.98	<0.98	1.28	<0.98	<0.98	<0.98	660
Ethyl benzene	5.50	<0.87	3.93	<0.87	<0.87	<0.87	4.35	<0.87	2.52	<0.87	1400
Styrene	3.42	<0.85	1.54	<0.85	<0.85	<0.85	3.42	<0.85	<0.85	<0.85	400
1,4-Dichlorobenzene	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	285
1,2-Dibromoethane	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	9
1,2-Dichloroethane	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	6
Methyl isobutyl ketone	4.45	<0.82	1.24	<0.82	<0.82	<0.82	2.63	<0.82	1.07	<0.82	1200
m&p-Xylene	17.4	<1.7	8.90	<1.7	<1.7	<1.7	14.1	<1.7	6.9	<1.7	2200
1,3,5-Trimethylbenzene	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	660
Toluene	20.3	1.74	12.6	<0.75	2.88	1.51	20.7	<0.75	24.0	0.83	2000
Chlorobenzene	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	4200
n-Hexane	3.19	2.20	3.97	<0.70	1.63	<0.70	6.64	<0.70	1.84	1.13	22500
Cyclohexane	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	18300
1,2,4-Trichlorobenzene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	100
Tetrachloroethylene	55.5	<1.4	17.7	<1.4	3.7	<1.4	36.3	<1.4	29.5	<1.4	1080
Ethyl acetate	1.88	<0.72	2.17	<0.72	<0.72	<0.72	14.7	<0.72	7.44	<0.72	19000
n-Heptane	1.07	<0.82	<0.82	<0.82	<0.82	<0.82	<0.82	<0.82	<0.82	<0.82	33000
cis-1,2-Dichloroethene	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	315
trans-1,2-Dichloroethene	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	315

Thirty minute whole air samples were collected upwind and downwind of the facility into stainless steel electropolished 6 L evacuated canisters (e.g., Summa or Restek) at a constant flow rate following EPA method TO-15. Sampling was initiated by odour complaints and the MOE was notified one hour prior to sample collection.

The analytical results were compared to half-hour limits and all measured compounds were below any applicable Ontario Reg. 419 standards or guidelines.