

ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)						
		January 31, 2017- July 17, 2017				
		24 Hour Residential Sampling Results				
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb		ppb	
Acetone	3.52	BDL	7.14	22	13,000	MRLs (intermed.)
Acrolein*	0.32	BDL	0.87	4	0.04	MRLs (intermed.)
Benzene	0.26	0.12	1.06	29	6	MRLs (intermed.)
n-Butane	1.33	0.47	3.54	28	18,000	MAGLC
2-Butanone	0.35	BDL	0.79	9	200,000	AEGL-1
Carbon tetrachloride	0.06	BDL	0.12	7	30	MRLs (intermed.)
Chloromethane	0.69	0.44	0.98	29	200	MRLs (intermed.)
Dichlorodifluoromethane	0.58	0.38	0.78	29	24,000	MAGLC
Ethanol	4.27	BDL	10.50	28	1,800,000	MAGLC
Ethyl Acetate	0.06	BDL	0.24	2	9,500	MAGLC
Ethyl Benzene	0.05	BDL	0.10	1	5,000	MRLs
n-Heptane	0.06	BDL	0.11	3	10,000	MAGLC
Hexane	0.21	BDL	0.40	24	1,190	MAGLC
2-Hexanone	0.05	BDL	0.12	1	120	MAGLC
Isopropyl alcohol	0.98	BDL	6.07	20	5,000	MAGLC
Methyl methacrylate	0.05	BDL	0.19	1	17,000	AEGL-1
Methylene chloride	0.13	BDL	0.56	24	300	MRLs (intermed.)
Naphthalene	0.11	BDL	0.25	1	240	MAGLC
n-Pentane	0.59	0.18	1.13	29	14,286	MAGLC
Propylene	0.55	0.28	1.30	29	11,905	MAGLC
Styrene	0.07	BDL	0.43	2	5,000	MRLs
Tetrachloroethylene	0.11	BDL	0.29	3	6	MRLs (intermed.)
Trichloroethene	0.05	BDL	0.11	1	0.4	MRLs (intermed.)
Toluene	0.34	0.10	0.76	29	2000	MRLs
Trichlorofluoromethane	0.22	0.16	0.30	29	24,000	MAGLC
1,1,2-Trichloro-1,2,2-	0.10	BDL	0.10	2	24,000	MAGLC
1,2,4-Trimethylbenzene	0.07	BDL	0.16	10	595	MAGLC
Vinyl acetate	0.13	BDL	0.31	4	10	MRLs (intermed.)
o-Xylene	0.06	BDL	0.21	3	600	MRLs (intermed.)
Total m&p-xylenes	0.15	BDL	0.33	10	600	MRLs (intermed.)
BDL= below detection limits						
ATSDR Minimum Risk Level (MRLs)						
AEGL-1 = Acute exposure guideline levels for mild effects						
MAGLC= TLV/42						

* Acrolein: Sample results for Acrolein are suspect. This compound can be created within the sample canister itself: U.S. EPA is refining the test method to correct for this problem.

** Average (½ method detection limit): The arithmetic mean (average) listed uses one-half of the method detection limit (1/2 MDL) as the numerical value for non-detected compounds when computing the average of multiple sampling events. This method is standard practice to estimate averages with non-detected values.

Method Detection limit: The method detection limit is the lowest measurement the collection / analysis procedure can accurately quantify as a true measurement of the ambient air concentration.

*** Count: Total detections out of 29 sampling events (other samples were below detection limits)

ARCO Recycling, 1705 Noble Road								
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)								
	January 31, 2017- July 17, 2017							
	24 Hour Upwind Sampling Results							
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source		
	ppb	ppb	ppb		ppb			
Acetone	3.98	BDL	8.00	24	13,000	MRLs (intermed.)		
Acrolein*	0.30	BDL	0.74	4	0.04	MRLs (intermed.)		
Benzene	0.24	0.10	0.85	29	6	MRLs (intermed.)		
n-Butane	1.33	0.31	3.98	29	18,000	MAGLC		
2-Butanone	0.39	BDL	1.00	10	200,000	AEGL-1		
Carbon tetrachloride	0.06	BDL	0.11	7	30	MRLs (intermed.)		
Chloromethane	0.69	0.47	1.02	29	200	MRLs (intermed.)		
Dichlorodifluoromethane	0.56	0.41	0.76	29	24,000	MAGLC		
Ethanol	4.36	BDL	14.00	27	1,800,000	MAGLC		
Ethyl Acetate	0.06	BDL	0.21	2	9,500	MAGLC		
n-Heptane	0.06	BDL	0.14	4	10,000	MAGLC		
Hexane	0.19	BDL	0.41	25	1,190	MAGLC		
2-Hexanone	0.06	BDL	0.48	1	120	MAGLC		
Isopropyl alcohol	1.33	BDL	5.85	22	5,000	MAGLC		
Methyl methacrylate	0.06	BDL	0.25	1	17,000	AEGL-1		
Methylene chloride	0.12	BDL	0.42	23	300	MRLs (intermed.)		
4-Methyl-2-pentanone	0.05	BDL	0.15	1	476	MAGLC		
n-Pentane	0.52	0.16	1.20	29	14,286	MAGLC		
Propylene	0.68	0.28	1.45	28	11,905	MAGLC		
Styrene	0.07	BDL	0.48	2	5,000	MRLs		
Toluene	0.30	BDL	0.62	28	2000	MRLs		
Tetrachloroethylene	0.06	BDL	0.28	2	6	MRLs (intermed.)		
Trichlorofluoromethane	0.22	0.16	0.32	29	24,000	MAGLC		
1,2,4-Trimethylbenzene	0.08	BDL	0.27	9	595	MAGLC		
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.05	BDL	0.11	2	24000	MAGLC		
Vinyl acetate	0.16	BDL	0.52	8	10	MRLs (intermed.)		
o-Xylene	0.06	BDL	0.17	4	600	MRLs (intermed.)		
Total m&p-xylenes	0.13	BDL	0.27	6	600	MRLs (intermed.)		
BDL= below detection limits								
ATSDR Minimum Risk Level (MRLs)								
AEGL-1 = Acute exposure guideline levels for mild effects								
ERPG-Emergency Response Planning Guidelines.The first tier (e.g., ERPG-1) is a temporary, non-disabling effects threshold								
MAGLC= TLV/42								
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** Average (½ method detection limit): The arithmetic mean (average) listed uses one-half of the method detection limit (1/2 MDL) as the numerical value for non-detected compounds when computing the average of multiple sampling events. This method is standard practice to estimate averages with non-detected values.								
Method Detection limit: The method detection limit is the lowest measurement the collection / analysis procedure can accurately quantify as a true measurement of the ambient air concentration.								
*** Count: Total detections out of 29 sampling events (other samples were below detection limits)								

ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)					 Ohio Environmental Protection Agency	
	January 31, 2017- July 17, 2017					
	24 Hour Downwind Sampling Results					
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb		ppb	
Acetone	4.55	BDL	13.50	26	13,000	MRLs (intermed.)
Acrolein*	0.46	BDL	3.06	6	0.04	MRLs (intermed.)
Benzene	0.30	BDL	1.95	28	6	MRLs (intermed.)
1,3-Butadiene	0.06	BDL	0.16	1	10,000	ERPG-1
n-Butane	0.96	BDL	2.97	26	18,000	MAGLC
2-Butanone	0.41	BDL	1.61	11	200,000	AEGL-1
Carbon disulfide	0.26	BDL	1.03	1	1,000	ERPG-1
Carbon tetrachloride	0.07	BDL	0.14	9	30	MRLs (intermed.)
Chloromethane	0.81	0.43	2.34	30	200	MRLs (intermed.)
Cyclohexane	0.05	BDL	0.12	1	2,400	MAGLC
Dichlorodifluoromethane	0.72	0.38	2.76	30	24,000	MAGLC
Ethanol	3.84	BDL	11.90	23	1,800,000	MAGLC
Ethyl acetate	0.07	BDL	0.21	5	9,500	MAGLC
Ethylbenzene	0.06	BDL	0.10	2	2,000	MRLs
n-Heptane	0.07	BDL	0.16	5	10,000	MAGLC
Hexane	0.16	BDL	0.34	23	1,190	MAGLC
2-Hexanone	0.05	BDL	0.12	1	120	MAGLC
Isopropyl alcohol	1.30	BDL	7.12	19	5,000	MAGLC
Methylene chloride	0.12	BDL	0.21	22	300	MRLs (intermed.)
Methyl methacrylate	0.06	BDL	0.19	2	1,190	MAGLC
4-Methyl-2-pentanone	0.05	BDL	0.12	1	476	MAGLC
Naphthalene	0.14	BDL	0.93	3	240	MAGLC
n-Pentane	0.46	BDL	0.87	28	14,286	MAGLC
Propylene	0.49	BDL	1.21	27	11,905	MAGLC
Styrene	0.07	BDL	0.41	4	5,000	MRLs
Tetrahydrofuran	0.24	BDL	2.82	5	1190	MAGLC
Tetrachloroethylene	0.09	BDL	0.92	2	6	MRLs (intermed.)
Toluene	0.30	BDL	0.94	25	2000	MRLs
Trichloroethene	0.06	BDL	0.12	1	0.4	MRLs (intermed.)
Trichlorofluoromethane	0.34	0.15	1.52	30	24,000	MAGLC
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.08	BDL	0.55	4	24,000	MAGLC
1,2,4-Trimethylbenzene	0.09	BDL	0.21	11	595	MAGLC
Vinyl acetate	0.16	BDL	0.85	8	10	MRLs (intermed.)
o-Xylene	0.11	BDL	0.24	3	600	MRLs (intermed.)
Total m&p-xylenes	0.13	BDL	0.25	7	600	MRLs (intermed.)
BDL= below detection limits						
ATSDR Minimum Risk Level (MRLs)						
ERPG-Emergency Response Planning Guidelines. The first tier (e.g., ERPG-1) is a temporary, non-disabling effects threshold						
AEGL-1 = Acute exposure guideline levels for mild effects						
MAGLC= TLV/42						
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Method Detection limit: The method detection limit is the lowest measurement the collection / analysis procedure can accurately quantify as a true measurement of the ambient air concentration.						
*** Count: Total detections out of 30 sampling events (other samples were below detection limits)						

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