




ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)						
January 31, 2017- March 6, 2018						
24 Hour Residential Sampling Results						
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb		ppb	
Acetone	3.38	BDL	9.03	88	13,000	MRLs (intermed.)
Acrolein****	0.28	BDL	0.87	8	0.04	MRLs (intermed.)
Benzene	0.27	BDL	1.77	107	6	MRLs (intermed.)
n-Butane	1.55	BDL	6.19	100	18,000	MAGLC
1,3 Butadiene	0.05	BDL	0.10	1	10,000	ERPG-1
2-Butanone	0.31	BDL	1.39	15	200,000	AEGL-1
Carbon tetrachloride	0.07	BDL	0.13	33	30	MRLs (intermed.)
Chloromethane	0.69	0.40	4.56	108	200	MRLs (intermed.)
Cyclohexane	0.05	BDL	0.12	2	2,400	MAGLC
Dichlorodifluoromethane	0.54	BDL	0.78	106	24,000	MAGLC
Ethanol	4.42	BDL	21.50	104	1,800,000	MAGLC
Ethyl Acetate	0.06	BDL	0.30	6	9,500	MAGLC
Ethyl Benzene	0.06	BDL	0.31	14	2,000	MRLs (intermed.)
n-Heptane	0.07	BDL	0.24	21	10,000	MAGLC
Hexane	0.22	BDL	0.74	95	1,190	MAGLC
Hexachlorobutadiene	0.05	BDL	0.25	1	1,000	ERPG-1
2-Hexanone	0.05	BDL	0.12	1	120	MAGLC
Isopropyl alcohol	0.64	BDL	6.07	53	5,000	MAGLC
Methyl methacrylate	0.07	BDL	0.77	4	17,000	AEGL-1
4-Methyl-2-pentanone	0.05	BDL	0.18	2	476	MAGLC
Methylene chloride	0.10	BDL	0.56	65	300	MRLs (intermed.)
Naphthalene	0.11	BDL	0.25	7	240	MAGLC
n-Pentane	0.68	0.14	2.63	108	14,286	MAGLC
Propylene	0.68	0.28	3.20	108	11,905	MAGLC
Styrene	0.07	BDL	0.57	8	200	MRL(chronic)*
Tetrachloroethylene	0.10	BDL	0.29	4	6	MRLs (intermed.)
Trichloroethene	0.05	BDL	0.11	1	0.4	MRLs (intermed.)
Toluene	0.37	BDL	1.25	105	1000	MRL(chronic)*
Trichlorofluoromethane	0.27	0.16	1.04	108	24,000	MAGLC
1,1,2-Trichloro-1,2,2-	0.10	BDL	0.10	3	24,000	MAGLC
1,2,4-Trimethylbenzene	0.08	BDL	0.28	33	595	MAGLC
2,2,4-Trimethylpentane	0.12	BDL	0.44	10	7,143	MAGLC
Vinyl acetate	0.13	BDL	0.58	14	10	MRLs (intermed.)
o-Xylene	0.07	BDL	0.25	20	600	MRLs (intermed.)
Total m&p-xylenes	0.16	BDL	0.61	33	600	MRLs (intermed.)
BDL= below detection limits						
ATSDR Minimum Risk Level (MRLs)						
AEGL-1 = Acute exposure guideline levels for mild effects						
MAGLC= TLV/42						
*MRL(chronic)-No intermediate value available.						
** Average (1/2 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 108 sampling events (other samples were below detection limits)						
**** 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.						

ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)						
November 2, 2017- March 6, 2018						
24 Hour Offsite-Residence Sampling Results						
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb			
1,2,4-Trimethylbenzene	0.07	BDL	0.21	10	595	MAGLC
2,2,4-Trimethylpentane	0.10	BDL	0.24	2	7,143	MAGLC
2-Butanone	0.26	BDL	0.50	1	200,000	AEGL-1
Acetone	2.47	BDL	5.50	37	13000	MRLs (intermed.)
Benzene	0.24	BDL	0.43	45	6	MRLs (intermed.)
Carbon tetrachloride	0.08	BDL	0.13	20	30	MRLs (intermed.)
Chloromethane	0.65	0.53	1.11	46	200	MRLs (intermed.)
Cyclohexane	0.05	BDL	0.16	1	2,400	MAGLC
Dichlorodifluoromethane	0.50	0.44	0.62	46	24,000	MAGLC
Ethanol	4.91	BDL	33.80	44	1,800,000	ERPG-1
Ethylbenzene	0.06	BDL	0.15	4	2,000	MRLs (intermed.)
Ethylacetate	0.06	BDL	0.35	3	9,500	MAGLC
Hexane	0.21	BDL	0.54	41	1,190	MAGLC
Isopropyl alcohol	0.34	BDL	0.83	8	5,000	MAGLC
Methyl methacrylate	0.10	BDL	0.10	2	17,000	AEGL-1
Methylene chloride	0.08	BDL	0.14	24	300	MRLs (intermed.)
Naphthalene	0.16	BDL	1.24	7	240	MAGLC
n-Butane	1.82	0.37	4.61	46	18,000	MAGLC
n-Heptane	0.06	BDL	0.18	8	10,000	MAGLC
n-Pentane	0.70	0.12	1.70	46	14,286	MAGLC
o-Xylene	0.06	BDL	0.20	6	600	MRLs (intermed.)
Propylene	0.70	BDL	2.02	45	11,905	MAGLC
Styrene	0.05	BDL	0.14	1	200	MRL(chronic)*
Toluene	0.29	0.10	1.21	44	2,000	MRLs (acute)*
Total m&p-xylenes	0.14	BDL	0.49	8	600	MRLs (intermed.)
Trichlorofluoromethane	0.24	0.16	0.34	46	24,000	MAGLC
Vinyl acetate	0.12	BDL	0.33	4	10	MRLs (intermed.)
BDL= below detection limits						
ATSDR Minimum Risk Level (MRLs)						
*MRL(acute)-No intermediate value available.						
ERPG-Emergency Response Planning Guidelines.The first tier (e.g., ERPG-1) is a temporary, non-disabling						
AEGL-1 = Acute exposure guideline levels for mild effects						
MAGLC= TLV/42						
** 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 46 sampling events (other samples were below detection limits)						

ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)						
January 31, 2017- March 6, 2018						
24 Hour Upwind Sampling Results						
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb		ppb	
Acetone	3.45	BDL	10.80	83	13,000	MRLs (intermed.)
Acrolein*	0.29	BDL	0.74	11	0.04	MRLs (intermed.)
Benzene	0.24	BDL	0.85	106	6	MRLs (intermed.)
1,3-Butadiene	0.05	BDL	0.20	2	10,000	ERPG-1
n-Butane	1.65	BDL	5.31	97	18,000	MAGLC
2-Butanone	0.31	BDL	1.06	16	200,000	AEGL-1
Carbon tetrachloride	0.07	BDL	0.12	27	30	MRLs (intermed.)
Chloromethane	0.65	0.37	1.09	107	200	MRLs (intermed.)
Cyclohexane	0.05	BDL	0.12	1	2,400	MAGLC
1,2-Dichlorobenzene	0.05	BDL	0.14	1	595	MAGLC
1,3-Dichlorobenzene	0.05	BDL	0.11	1	NA	
1,4-Dichlorobenzene	0.05	BDL	0.13	1	200	MRLs (intermed.)
Dichlorodifluoromethane	0.54	0.41	0.79	107	24,000	MAGLC
Ethanol	3.98	BDL	14.70	103	1,800,000	MAGLC
Ethyl acetate	0.06	BDL	0.49	8	9,500	MAGLC
Ethylbenzene	0.05	BDL	0.15	6	2,000	MRLs (intermed.)
n-Heptane	0.06	BDL	0.31	15	10,000	MAGLC
Hexachlorobutadiene	0.06	BDL	0.81	2	1,000	ERPG-1
Hexane	0.19	BDL	0.58	90	1,190	MAGLC
2-Hexanone	0.05	BDL	0.48	1	120	MAGLC
Isopropyl alcohol	0.79	BDL	7.49	49	5,000	MAGLC
Methyl methacrylate	0.07	BDL	0.72	5	17,000	AEGL-1
Methylene chloride	0.09	BDL	0.42	64	300	MRLs (intermed.)
4-Methyl-2-pentanone	0.05	BDL	0.15	1	476	MAGLC
Naphthalene	0.11	BDL	0.81	5	240	MAGLC
n-Pentane	0.61	0.11	1.98	107	14,286	MAGLC
Propylene	0.78	BDL	2.80	106	11,905	MAGLC
Styrene	0.07	BDL	0.60	6	200	MRL(chronic)*
Toluene	0.33	BDL	1.83	104	1000	MRL(chronic)*
Tetrachloroethylene	0.05	BDL	0.28	3	6	MRLs (intermed.)
Trichlorofluoromethane	0.25	0.14	0.59	107	24,000	MAGLC
1,2,4-Trichlorobenzene	0.25	BDL	0.74	1	88	MAGLC
1,2,4-Trimethylbenzene	0.07	BDL	0.29	30	595	MAGLC
2,2,4-Trimethylpentane	0.11	BDL	0.35	8	7,143	MAGLC
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.05	BDL	0.11	2	24000	MAGLC
Vinyl acetate	0.13	BDL	0.70	14	10	MRLs (intermed.)
o-Xylene	0.06	BDL	0.20	12	600	MRLs (intermed.)
Total m&p-xylenes	0.13	BDL	0.47	18	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						
MAGLC= TLV/42						
*MRL/IRIS (chronic)-No intermediate value available.						
** 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 107 sampling events (other samples were below detection limits)						
**** 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.						

ARCO Recycling, 1705 Noble Road						
Ambient Air Sampling Results-Volatile Organic Compounds(VOCs)						
January 31, 2017- March 6, 2018						
24 Hour Downwind Sampling Results						
Compound list	Average (1/2mdl)**	Minimum	Maximum	Count***	Short-term Screening Values	Source
	ppb	ppb	ppb		ppb	
Acetone	4.24	BDL	24.10	94	13,000	MRLs (intermed.)
Acrolein****	0.37	BDL	5.94	11	0.04	MRLs (intermed.)
Benzene	0.82	BDL	29.10	106	6	MRLs (intermed.)
1,3-Butadiene	0.20	BDL	12.30	4	10,000	ERPG-1
n-Butane	1.50	BDL	5.76	104	18,000	MAGLC
2-Butanone	0.43	BDL	5.50	26	200,000	AEGL-1
Bromomethane	0.05	BDL	0.47	1	50	MRLs (intermed.)
Carbon disulfide	0.25	BDL	1.03	1	1,000	ERPG-1
Carbon tetrachloride	0.07	BDL	0.25	32	30	MRLs (intermed.)
Chlorobenzene	0.05	BDL	0.13	2	10,000	AEGL-1
Chloroethane	0.06	BDL	0.56	3	3,789	IRIS(chronic)*
Chloromethane	2.05	BDL	61.00	108	200	MRLs (intermed.)
Cumene	0.06	BDL	0.63	3	50,000	AEGL-1
Cyclohexane	0.05	BDL	0.12	2	2,400	MAGLC
1,4-Dioxane	0.10	BDL	0.20	2	200	MRLs (intermed.)
Dichlorodifluoromethane	0.61	0.38	2.76	109	24,000	MAGLC
Ethanol	4.05	BDL	15.40	98	1,800,000	MAGLC
Ethyl acetate	0.06	BDL	0.45	10	9,500	MAGLC
Ethylbenzene	0.18	BDL	5.37	15	2,000	MRLs (intermed.)
4-Ethyltoluene	0.06	BDL	0.37	3	NA	
n-Heptane	0.09	BDL	1.17	18	10,000	MAGLC
Hexane	0.22	BDL	1.90	90	1,190	MAGLC
2-Hexanone	0.05	BDL	0.13	2	120	MAGLC
Isopropyl alcohol	0.74	BDL	7.12	50	5,000	MAGLC
Methylene chloride	0.10	BDL	0.25	61	300	MRLs (intermed.)
Methyl methacrylate	0.08	BDL	1.44	11	17,000	AEGL-1
4-Methyl-2-pentanone	0.05	BDL	0.12	4	476	MAGLC
Naphthalene	0.14	BDL	2.34	10	240	MAGLC
n-Nonane	0.06	BDL	0.59	6	4,762	MAGLC
n-Pentane	0.72	BDL	6.14	106	14,286	MAGLC
Propylene	1.60	BDL	57.50	104	11,905	MAGLC
n-Propylbenzene	0.06	BDL	0.32	4	NA	
Styrene	0.19	BDL	5.70	16	200	MRL(chronic)*
Tetrahydrofuran	0.18	BDL	2.82	10	1190	MAGLC
Tetrachloroethylene	0.06	BDL	0.92	3	6	MRLs (intermed.)
Toluene	0.61	BDL	11.80	100	1000	MRL(chronic)*
Trichloroethene	0.05	BDL	0.12	1	0.4	MRLs (intermed.)
Trichlorofluoromethane	0.34	0.15	1.52	109	24,000	MAGLC
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.06	BDL	0.55	5	24,000	MAGLC
1,3,5-Trimethylbenzene	0.14	BDL	5.22	3	595	MAGLC
1,2,4-Trimethylbenzene	0.15	BDL	6.25	37	595	MAGLC
2,2,4-Trimethylpentane	0.11	BDL	0.33	6	7,143	MAGLC
Vinyl acetate	0.18	BDL	5.13	15	10	MRLs (intermed.)
o-Xylene	0.10	BDL	1.32	17	600	MRLs (intermed.)
Total m&p-xylenes	0.24	BDL	6.28	28	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

*MRL/IRIS (chronic)-No intermediate value available.

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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 109 sampling events (other samples were below detection limits)

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