SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING & ANALYSIS
REPORT OF LABORATORY ANALYSIS

TO: Ed Pupka, Senior Enforcement Manager
Engineering & Compliance

LABORATORY NO: 08155-07

REFERENCE NO: MSF-4-148

SAMPLE DESCRIPTION:
3 each canisters
#E4260 Child care center 6/2/2008 0700 hrs
#E3386 Gibson Amphitheater 6/2/2008 0812 hrs
#E3711 Residential Zone 6/2/2008 0715 hrs

DATE SAMPLED: 6/2/08

DATE RECEIVED: 6/3/08

DATE ANALYZED: 6/4/08

SAMPLE SOURCE:
Universal Studios Fire
Hollywood, CA

ANALYZED BY: Ken Sanchez

REQUESTED BY: Katsumi Keeler

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS
Qualitative Analysis and Quantitation of Toxic Organics by Gas Chromatography(GC) - Mass Spectrometry(MS) and Flame Ionization Detection(FID)

Note: See Attached Results.

Date Approved: 6/5/08 Approved By: Rudy Eden

Rudy Eden, Sr. Manager
Laboratory Services Branch
(909) 396-2391

cc: Katsumi Keeler, E&C

E:\Ambient VOC's & Microscopy\00tox\AMS\2008 Toxics\Final Reports\Universal Studios 06-02-08 LN-08155-07AE2566rev.xls

LAB NO: 08155-07
SOURCE: Universal Studios Fire

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Qualitative Analysis and Quantitation of Toxic Organics by GC/MS/FID

Compound	#E4260 6/2/08 Child care center Conc. (ppb)	#E3386 6/2/08 Amphitheater Conc. (ppb)	#E3711 6/2/08 Residential Zone Conc. (ppb)	Typical Ambient Air Conc. (ppb)
Ethane	2.6	1.9	2.9	3.0
Ethylene*	0.8	0.5	0.8	1.1
Acetylene	2.3	1.4	1.9	2.4
Propane	4.0	3.6	4.1	6.4
Freon-12*	0.4	0.4	0.4	0.3
Propylene*	1.3	0.5	1.1	0.8
Isobutane	0.8	0.6	0.7	1.4
Chloromethane*	0.5	0.5	0.4	0.5
n-Butane	1.0	0.9	1.0	1.9
Vinyl Chloride*	N.D.	N.D.	N.D.	N.D.
1,1-Difluoroethane	0.3	0.2	0.5	0.6
Freon-114	N.D.	N.D.	N.D.	N.D.
Bromomethane	N.D.	N.D.	N.D.	N.D.
1-Butene	0.1	0.1	0.1	0.1
1,3-Butadiene*	0.2	<0.1	0.1	0.1
trans-2-Butene	0.1	<0.1	0.1	<0.1
Isobutylene	0.3	0.1	0.2	0.2
Chloroethane	N.D.	N.D.	N.D.	N.D.
Acetaldehyde*	1.1	1.1	1.3	1.0
cis-2-Butene	N.D.	N.D.	N.D.	<0.1
Vinyl Bromide*	N.D.	N.D.	N.D.	N.D.
Ethanol	5.0	8.1	8.6	7.3
Acrolein*	0.1	0.1	0.1	0.1
Isopentane	1.6	1.1	1.4	2.1
Acetone	2.8	2.2	2.9	9.9
Freon-11*	0.2	0.2	0.2	0.3
1-Pentene	<0.1	<0.1	0.1	<0.1
Ethanethiol	N.D.	N.D.	N.D.	N.D.
Isopropyl Alcohol*	0.7	0.5	0.5	0.7

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Compound	#E4260 6/2/08 Child care center Conc. (ppb)	#E3386 6/2/08 Amphitheater Conc. (ppb)	#E3711 6/2/08 Residential Zone Conc. (ppb)	Typical Ambient Air Conc. (ppb)
Acrylonitrile*	N.D.	N.D.	N.D.	<0.1
n-Pentane	0.7	0.4	0.6	0.9
Isoprene*	0.4	0.1	0.2	<0.1
trans-2-Pentene	0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene (VDC)	N.D.	N.D.	N.D.	N.D.
cis-2-Pentene	<0.1	<0.1	<0.1	<0.1
Methylene Chloride*	0.1	0.1	0.1	0.2
Carbon Disulfide*	<0.1	<0.1	<0.1	0.1
Freon-113*	0.1	0.1	0.1	0.1
2,2-Dimethylbutane	0.1	0.1	0.1	0.2
2-Propanethiol	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane*	N.D.	N.D.	N.D.	N.D.
Cyclopentane	0.1	0.1	0.1	0.1
2,3-Dimethylbutane	0.2	0.1	0.2	0.2
Methyl tert-Butyl Ether*	N.D.	N.D.	N.D.	<0.1
2-Methylpentane	0.5	0.3	0.4	0.7
Vinyl Acetate*	N.D.	N.D.	0.1	0.2
2-Methyl-2-Propanethiol	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)*	0.2	0.2	0.3	0.8
3-Methylpentane	0.4	0.2	0.3	0.4
1-Hexene	<0.1	<0.1	<0.1	<0.1
cis-1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.
1-Propanethiol	N.D.	N.D.	N.D.	N.D.
n-Hexane*	0.3	0.2	0.2	0.6
Chloroform*	0.1	<0.1	0.1	<0.1
Ethyl Acetate	0.1	0.1	0.1	0.1
Tetrahydrofuran	<0.1	<0.1	<0.1	<0.1

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Compound	#E4260 6/2/08 Child care center Conc. (ppb)	#E3386 6/2/08 Amphitheater Conc. (ppb)	#E3711 6/2/08 Residential Zone Conc. (ppb)	Typical Ambient Air Conc. (ppb)
Methylcyclopentane	0.3	0.2	0.3	0.5
1,2-Dichloroethane (EDC)*	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylpentane	0.2	0.1	0.1	0.2
1,1,1-Trichloroethane*	<0.1	<0.1	<0.1	<0.1
Benzene*	0.6	0.2	0.5	0.4
Carbon Tetrachloride*	0.1	0.1	0.1	0.1
Cyclohexane	0.2	0.1	0.1	0.2
2-Methylhexane	0.2	0.1	0.1	0.2
2,3-Dimethylpentane	0.3	0.2	0.2	0.2
3-Methylhexane	0.2	0.1	0.2	0.3
1,2-Dichloropropane*	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	N.D.	N.D.	<0.1	N.D.
Trichloroethylene*	<0.1	N.D.	<0.1	<0.1
2,2,4-Trimethylpentane*	0.5	0.3	0.4	0.5
1,4-Dioxane*	N.D.	N.D.	N.D.	N.D.
Methyl Methacrylate*	N.D.	N.D.	<0.1	N.D.
n-Heptane	0.1	0.1	0.1	0.2
cis-1,3-Dichloropropene*	N.D.	N.D.	N.D.	N.D.
Methyl Isobutyl Ketone (MIBK)*	<0.1	<0.1	<0.1	<0.1
Methylcyclohexane	0.1	0.1	0.1	0.2
trans-1,3-Dichoropropene*	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane*	N.D.	N.D.	N.D.	N.D.
2,3,4-Trimethylpentane	0.1	0.1	0.1	0.1
Toluene*	1.1	0.6	0.9	1.5
2-Methylheptane	0.1	<0.1	0.1	0.1
2-Hexanone	N.D.	N.D.	N.D.	N.D.
3-Methylheptane	0.1	<0.1	0.1	0.1
Dibromochloromethane	<0.1	N.D.	<0.1	N.D.

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1,2-Dibromoethane (EDB)*	N.D.	N.D.	N.D.	N.D.
1,3,5-Heptatriene	N.D.	N.D.	N.D.	N.D.
Butyl Acetate*	N.D.	N.D.	<0.1	0.2
n-Octane	0.1	<0.1	0.1	0.1
Perchloroethylene*	<0.1	<0.1	<0.1	0.1
Chlorobenzene*	N.D.	N.D.	N.D.	N.D.
Ethylbenzene*	0.2	0.1	0.1	0.2
m-Xylene*	0.3	0.2	0.3	0.4
p-Xylene*	0.2	0.1	0.2	0.2
2-Heptanone	N.D.	N.D.	N.D.	N.D.
Bromoform*	N.D.	N.D.	N.D.	N.D.
Styrene*	0.1	<0.1	0.1	0.1
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.
o-Xylene*	0.2	0.1	0.2	0.2
n-Nonane	0.1	<0.1	0.1	0.1
Isopropylbenzene	<0.1	<0.1	<0.1	<0.1
n-Propylbenzene	<0.1	<0.1	<0.1	<0.1
m-Ethyltoluene	0.1	0.1	0.1	0.1
p-Ethyltoluene	0.1	<0.1	<0.1	0.1
1,3,5-Trimethylbenzene*	0.1	<0.1	<0.1	<0.1
o-Ethyltoluene	0.1	<0.1	<0.1	0.1
1,2,4-Trimethylbenzene*	0.2	0.1	0.1	0.1
n-Decane	0.1	<0.1	0.1	0.1
Benzyl Chloride*	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene*	<0.1	<0.1	<0.1	<0.1
1,3-Dichlorobenzene*	N.D.	N.D.	N.D.	N.D.
1,2,3-Trimethylbenzene*	0.1	<0.1	<0.1	<0.1
1,2-Dichlorobenzene*	N.D.	N.D.	N.D.	N.D.
m-Diethylbenzene	<0.1	<0.1	<0.1	<0.1

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p-Diethylbenzene	0.1	<0.1	<0.1	<0.1
n-Undecane	0.1	<0.1	0.1	0.1
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.
Naphthalene*	<0.1	N.D.	N.D.	N.D.
n-Dodecane	0.1	<0.1	0.1	0.1
Hexachloro-1,3-Butadiene*	N.D.	N.D.	N.D.	N.D.
Total NMOC as ppbC HC	**150**	**95**	**140**	**100-700**

N.D.=Not Detected
* State of California classifies as a Toxic Air Contaminant

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
SAMPLE ANALYSIS REQUEST

☐ DISTRICT INFORMATION
☐ INVOICE SOURCE
LABORATORY NO. 08155-07

TO: SCAQMD LAB: ☐ OTHER: ☐

SOURCE NAME: Universal Studios Fire I.D. No.

Source Address: City:

Mailing Address: City: Zip:

Contact Person: Title: Tel: ( ) -

Analysis Requested by: Kolsun Keeser Date:

Title: Div/Branch: Tel.#:

Approved by: Title: Budget #:

	Name	Title	Div. or Agency	Branch or Group
Report To:				

REASON REQUESTED: Court/Hearing Board ☐ Permit Pending ☐ Hazardous/Toxic Spill ☐
Suspected Violation Rule(s) ☐ Other ☐

Sample Collected by: Larry Israel **Title:** **Division:**

Specify: *City or Location; Container type and ID#; sampling interval (time) & date(s)*

Universal Studios - Child Care Center; E4240; 7:00 AM 6/2/08
- Gibson Amphitheater Amphitheater; E3386, 8:12 AM 6/2/08
- Residential Zone; E3711; 7:15 AM 6/2/08

Analysis Requested:

CHAIN OF CUSTODY FOR INCOMING SAMPLES:

Relinquished by	Received by	Firm/Agency	Date	Time
	[illegible]	SCAQMD/Lab	6/3/08	9:00 AM

Remarks: