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

MONITORING & ANALYSIS
REPORT OF LABORATORY ANALYSIS
revised report

TO: Ed Pupka, Senior Enforcement Manager
Engineering & Compliance

LABORATORY NO: 08153-01

REFERENCE NO: MSF-4-148

SAMPLE DESCRIPTION:
4 each canisters

#53436	Upwind	6/1/08	1600 hrs
#53428	Downwind	6/1/08	1653 hrs
#54055	Hot Zone	6/1/08	1604 hrs
#54116	Hot Zone	6/1/08	1606 hrs

DATE SAMPLED: 6/1/08

DATE RECEIVED: 6/1/08

DATE ANALYZED: 6/1/08

ANALYZED BY: Ken Sanchez

SAMPLE SOURCE:
Universal Studios Fire
Hollywood, CA

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.

Additional Compounds Detected, Identified and Concentrations Estimated within ± 50% :

	#54055	#54116
3-Pentene-2-one, 4-methyl	27.8	N.A.
Furan	9.7	3.1
Furan, 2-methyl	6.1	N.A.
Acetonitrile	3.3	3.3
Furfural	1.9	1.2
Limonene	0.8	0.7

Date Approved: 6/3/08

Approved By: Rudy Eden

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

cc: Katsumi Keeler, E&C

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

Compound	#53436 6/1/08 Upwind Conc. (ppb)	#53428 6/1/08 Downwind Conc. (ppb)	#54055 6/1/08 Hot Zone Conc. (ppb)	#54116 6/1/08 Hot Zone Conc. (ppb)	Typical Ambient Air Conc. (ppb)
Ethane	1.1	0.7	43	28	3.0
Ethylene	0.2	0.1	27	25	1.1
Acetylene	0.8	0.4	8.4	7.0	2.4
Propane	2.0	1.1	12	9.3	6.4
Freon-12*	0.4	0.3	N.D.	N.D.	0.3
Propylene*	0.2	0.1	25	22	0.8
Isobutane	0.9	0.4	1.1	1.0	1.4
Chloromethane*	0.6	0.5	N.D.	N.D.	0.5
n-Butane	3.4	0.4	2.5	2.2	1.9
Vinyl Chloride*	N.D.	N.D.	0.1	N.D.	N.D.
1,1-Difluoroethane	0.1	0.1	0.1	0.1	0.6
Freon-114	N.D.	N.D.	N.D.	N.D.	N.D.
Bromomethane	N.D.	N.D.	N.D.	N.D.	N.D.
1-Butene	0.1	<0.1	3.9	3.3	0.1
1,3-Butadiene*	<0.1	<0.1	3.2	1.6	0.1
trans-2-Butene	0.1	N.D.	1.5	1.1	<0.1
Isobutylene	0.1	<0.1	4.4	2.4	0.2
Chloroethane	N.D.	N.D.	0.1	N.D.	N.D.
Acetaldehyde*	1.8	1.1	12	11	1.0
cis-2-Butene	N.D.	N.D.	0.1	N.D.	<0.1
Vinyl Bromide*	N.D.	N.D.	N.D.	N.D.	N.D.
Ethanol	18	6.7	2.9	N.D.	7.3
Acrolein*	0.1	<0.1	4.6	2.3	0.1
Isopentane	11	0.4	1.8	1.0	2.1
Acetone	4.3	2.9	760	13	9.9
Freon-11*	0.2	0.2	0.2	0.2	0.3
1-Pentene	0.1	N.D.	0.8	0.9	<0.1
Ethanethiol	N.D.	N.D.	N.D.	N.D.	N.D.
Isopropyl Alcohol*	0.2	0.1	21	0.1	0.7

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Acrylonitrile*	N.D.	N.D.	0.7	1.0	<0.1
n-Pentane	2.4	0.1	1.1	1.4	0.9
Isoprene*	0.3	0.1	2.2	N.D.	<0.1
trans-2-Pentene	0.2	N.D.	0.6	0.5	<0.1
1,1-Dichloroethene (VDC)	N.D.	N.D.	N.D.	N.D.	N.D.
cis-2-Pentene	0.1	N.D.	0.3	0.3	<0.1
Methylene Chloride*	0.1	0.1	0.2	0.1	0.2
Carbon Disulfide*	<0.1	<0.1	0.2	0.2	0.1
Freon-113*	0.1	0.1	0.1	0.1	0.1
2,2-Dimethylbutane	0.4	<0.1	0.2	N.D.	0.2
2-Propanethiol	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.
Cyclopentane	0.3	<0.1	0.2	0.1	0.1
2,3-Dimethylbutane	0.6	<0.1	0.1	0.1	0.2
Methyl tert-Butyl Ether*	N.D.	N.D.	N.D.	N.D.	<0.1
2-Methylpentane	1.4	0.1	0.6	0.4	0.7
Vinyl Acetate*	N.D.	N.D.	N.D.	1.3	0.2
2-Methyl-2-Propanethiol	N.D.	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)*	0.4	0.3	2.9	2.6	0.8
3-Methylpentane	0.8	0.1	0.2	0.2	0.4
1-Hexene	<0.1	N.D.	0.7	0.7	<0.1
cis-1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.
1-Propanethiol	N.D.	N.D.	N.D.	N.D.	N.D.
n-Hexane*	0.6	<0.1	0.5	0.5	0.6
Chloroform*	<0.1	<0.1	0.1	0.1	<0.1
Ethyl Acetate	N.D.	N.D.	N.D.	N.D.	0.1
Tetrahydrofuran	N.D.	N.D.	0.5	0.4	<0.1

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Methylcyclopentane	0.7	0.1	0.3	0.2	0.5
1,2-Dichloroethane (EDC)*	N.D.	N.D.	0.1	N.D.	<0.1
2,4-Dimethylpentane	0.2	<0.1	0.1	0.1	0.2
1,1,1-Trichloroethane*	<0.1	<0.1	N.D.	N.D.	<0.1
Benzene*	0.2	0.1	17.6	12.2	0.4
Carbon Tetrachloride*	0.1	0.1	0.1	0.1	0.1
Cyclohexane	0.2	<0.1	0.2	0.1	0.2
2-Methylhexane	0.2	<0.1	0.1	0.1	0.2
2,3-Dimethylpentane	0.3	<0.1	0.4	0.1	0.2
3-Methylhexane	0.2	<0.1	0.2	0.1	0.3
1,2-Dichloropropane*	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene*	N.D.	N.D.	N.D.	N.D.	<0.1
2,2,4-Trimethylpentane*	0.4	0.1	0.3	0.2	0.5
1,4-Dioxane*	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Methacrylate*	N.D.	N.D.	0.2	0.5	N.D.
n-Heptane	0.1	<0.1	0.3	0.3	0.2
cis-1,3-Dichloropropene*	N.D.	N.D.	N.D.	N.D.	N.D.
Methyl Isobutyl Ketone (MIBK)*	N.D.	N.D.	1.2	0.2	<0.1
Methylcyclohexane	0.1	<0.1	N.D.	0.1	0.2
trans-1,3-Dichoropropene*	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.
2,3,4-Trimethylpentane	0.1	<0.1	0.1	<0.1	0.1
Toluene*	0.7	0.1	5.7	4.7	1.5
2-Methylheptane	<0.1	<0.1	0.4	0.2	0.1
2-Hexanone	N.D.	N.D.	N.D.	0.3	N.D.
3-Methylheptane	<0.1	<0.1	0.1	0.1	0.1
Dibromochloromethane	N.D.	N.D.	N.D.	N.D.	N.D.

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1,2-Dibromoethane (EDB)*	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Heptatriene	N.D.	N.D.	N.D.	N.D.	N.D.
Butyl Acetate*	N.D.	N.D.	N.D.	N.D.	0.2
n-Octane	<0.1	<0.1	0.2	0.2	0.1
Perchloroethylene*	<0.1	N.D.	0.2	<0.1	0.1
Chlorobenzene*	N.D.	N.D.	0.2	0.1	N.D.
Ethylbenzene*	0.1	<0.1	1.6	1.9	0.2
m-Xylene*	0.2	<0.1	1.0	1.0	0.4
p-Xylene*	0.1	<0.1	0.5	0.4	0.2
2-Heptanone	N.D.	N.D.	N.D.	N.D.	N.D.
Bromoform*	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene*	<0.1	N.D.	2.7	2.6	0.1
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	0.1	<0.1	0.5	0.4	0.2
n-Nonane	<0.1	<0.1	0.2	0.1	0.1
Isopropylbenzene	<0.1	N.D.	0.4	0.6	<0.1
n-Propylbenzene	<0.1	N.D.	0.1	0.2	<0.1
m-Ethyltoluene	0.1	<0.1	0.3	0.3	0.1
p-Ethyltoluene	<0.1	<0.1	0.5	0.3	0.1
1,3,5-Trimethylbenzene*	<0.1	N.D.	0.2	0.1	<0.1
o-Ethyltoluene	<0.1	<0.1	0.1	0.1	0.1
1,2,4-Trimethylbenzene*	0.1	<0.1	0.4	0.4	0.1
n-Decane	<0.1	<0.1	0.1	0.1	0.1
Benzyl Chloride*	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene*	N.D.	N.D.	N.D.	N.D.	<0.1
1,3-Dichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,3-Trimethylbenzene*	<0.1	<0.1	0.8	1.1	<0.1
1,2-Dichlorobenzene*	N.D.	N.D.	0.1	<0.1	N.D.
m-Diethylbenzene	<0.1	<0.1	0.3	0.3	<0.1

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p-Diethylbenzene	<0.1	N.D.	0.4	0.2	<0.1
n-Undecane	<0.1	<0.1	0.1	0.2	0.1
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.
Naphthalene*	N.D.	<0.1	0.2	0.2	N.D.
n-Dodecane	N.D.	N.D.	0.2	0.1	0.1
Hexachloro-1,3-Butadiene*	N.D.	N.D.	N.D.	N.D.	N.D.
Total NMOC as ppbC HC	**200**	**45**	**2280**	**660**	**100-700**

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