Tucson Storm Water Sampling for 77-71.74 Conducted August 12, 2004

Sample ID	77-71.74	Aqua Tech Envronmental Laboratories (ATEL)		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	SM 2540 C	Total Dissolved Solids (TDS)	**188**	mg/l
	160.2	Total suspended solids	**112**	mg/l
	SM 2510 B	Conductivity	**165**	umhos/cm
	SM 2340 B	Hardness, Total (as CaCO3)	**71**	mg/l as CaCO3
	405.1	BOD	**61**	mg/l
	EPA 410.4	COD	**253**	mg/l
	EPA 150.1	pH	**9.6**	s.u.
Nutrients	SM 4500-NO2 B	Nitrite	**0.04**	mg/l
	SM 4500-NO2 F	Nitrogen, Nitrate, Nitrite	**1.83**	
	EPA 351.3	Nitrogen, Kjeldahl, total (as N)	**4.6**	mg/l
	Calculation	Total Nitrogen	**6.43**	mg/l
Biological/Chlorine	SM9222B	Fecal Coliform (by mem. Filtration)	**54000**	CFU/100ml
	330.5	Total Chlorine	**0.09**	mg/l
Pesticides, Organochlorine	EPA 608	Aroclor 1016	<0.10	ug/l
		Aroclor 1221	<0.10	ug/l
		Aroclor 1232	<0.10	ug/l
		Aroclor 1242	<0.10	ug/l
		Aroclor 1248	<0.10	ug/l
		Aroclor 1254	<0.10	ug/l
		Aroclor 1260	<0.10	ug/l
		Aldrin	<0.02	ug/l
		alpha-BHC	<0.02	ug/l
		beta-BHC	<0.02	ug/l
		delta-BHC	<0.02	ug/l
		gamma-BHC (Lindane)	<0.02	ug/l
		Chlordane	<0.10	ug/l
		4,4-DDD	<0.03	ug/l
		4,4-DDE	<0.02	ug/l
		4,4-DDT	<3.0	ug/l
		Dieldrin	<0.02	ug/l
		Endosulfan I	<0.03	ug/l
		Endosulfan II	<0.03	ug/l
		Endosulfan Sulfate	<0.03	ug/l
		Endrin	<0.05	ug/l
		Endrin Aldehyde	<0.50	ug/l
		Heptachlor	<0.30	ug/l
		Heptachlor Epoxide	<0.03	ug/l
		Methoxychlor	<3.0	ug/l
		Toxaphene	<1.0	ug/l
Metals, Total	EPA 200.8/6020	Antimony	**5.5**	ug/l
		Arsenic	<3.0	ug/l
		Beryllium	<0.5	ug/l
		Cadmium	<0.5	ug/l
		Chromium	<20	ug/l
		Copper	**73**	ug/l
		Cyanide (method 335.3)	<0.005	ug/l
		Lead	**14**	ug/l
		Mercury	<0.2	ug/l
		Nickel	<10	ug/l
		Selenium	**3.9**	ug/l
		Silver	<10	ug/l
		Thallium	<1.0	ug/l
		Zinc	**310**	ug/l
Metals, Dissolved	EPA 200.7/6010	Dissolved Cadmium[4]	<0.5	mg/l
		Dissolved Chromium[5]	<20	mg/l
		Dissolved Copper	**24**	mg/l
		Dissolved Zinc	**151**	mg/l

Volalitale Organic Compounds	EPA 624	Benzene	<5.0	ug/l
		Bromodichloromethane	<5.0	ug/l
		Bromoform	<5.0	ug/l
		Bromomethane	<10	ug/l
		Carbon tetrachloride	<5.0	ug/l
		Chlorobenzene	<5.0	ug/l
		Chloroethane	<10	ug/l
		2-Chloroethylvinyl ether	<10	ug/l
		Chloroform	<5.0	ug/l
		Chloromethane	<10	ug/l
		Dibromochloromethane	<5.0	ug/l
		Dichlorodifluromehane	<10	ug/l
		1,2-Dichlorobenzene	<5.0	ug/l
		1,3-Dichlorobenzene	<5.0	ug/l
		1,4-Dichlorobenzene	<5.0	ug/l
		1,1-Dichloroethane	<5.0	ug/l
		1,2-Dichloroethane	<5.0	ug/l
		1,1-Dichloroethene	<5.0	ug/l
		cis-1,2-Dichloroethene	<5.0	ug/l
		trans-1,2-Dichloroethene	<5.0	ug/l
		1,2-Dichloropropane		ug/l
		cis-1,3-Dichloropropene	<5.0	ug/l
		trans-1,3-Dichloropropene	<5.0	ug/l
		Ethylbenzene	<5.0	ug/l
		Methylene chloride	<5.0	ug/l
		Tetrachloroethene	<5.0	ug/l
		Styrene	<5.0	ug/l
		Toluene	<5.0	ug/l
		1,1,1 -Trichloroethane	<5.0	ug/l
		1,1,2,2-Tetrachloroethane	<5.0	ug/l
		1,1,2-Trichloroethane	<5.0	ug/l
		Trichloroethene	<5.0	ug/l
		Trichlorofluoromethane	<5.0	ug/l
		Vinyl chloride	<10	ug/l
		Xylene, Total	<10	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l
		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l
		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l

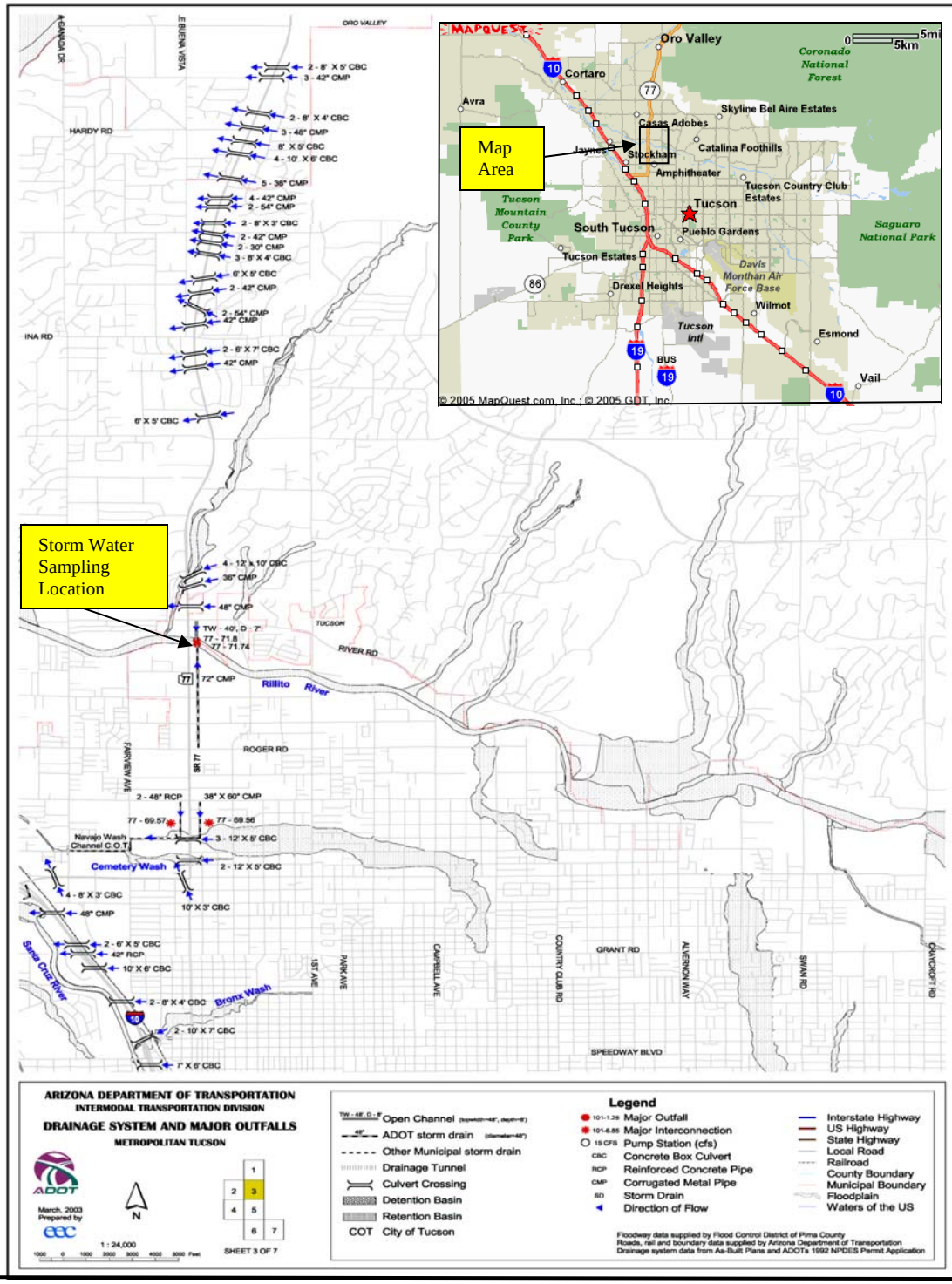
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l
		Hexachlorobenzene	ND	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l
		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	8015 Mod	Total Petroleum Hudrocarbons	**6,100.00**	ug/l
		TPH in mg/l is 6.1 (6.1 PPM)		
Phenolics	EPA 420.2	Phenols	0.01	mg/l
Detections in boldface type				

Tucson Storm Water Sampling for 77-71.74 Conducted December 6, 2004

Sample ID	77-71.74	Aqua Tech Envronmental Laboratories (ATEL)		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	SM 2540 C	Total Dissolved Solids (TDS)	**116**	mg/l
	160.2	Total suspended solids	**54**	mg/l
	SM 2510 B	Conductivity	**95**	umhos/cm
	SM 2340 B	Hardness, Total (as CaCO3)	**40**	mg/l as CaCO3
	405.1	BOD	**43**	mg/l
	EPA 410.4	COD	**223**	mg/l
	EPA 150.1	pH	**9.8**	s.u.
Nutrients	SM 4500-NO2 B	Nitrite	**0.143**	mg/l
	SM 4500-NO2 F	Nitrogen, Nitrate, + Nitrite	**0.87**	mg/l
	EPA 351.3	Nitrogen, Kjeldahl, total (TKN)	**4.33**	mg/l
	Calculation	Total Nitrogen	not analyzed	mg/l
Biological/Chlorine	SM9222B	Fecal Coliform (by mem. Filtration)	not analyzed	CFU/100ml
	330.5	Total Chlorine	<.02	mg/l
Pesticides, Organochlorine	EPA 608	Aroclor 1016	<0.10	ug/l
		Aroclor 1221	<0.10	ug/l
		Aroclor 1232	<0.10	ug/l
		Aroclor 1242	<0.10	ug/l
		Aroclor 1248	<0.10	ug/l
		Aroclor 1254	<0.10	ug/l
		Aroclor 1260	<0.10	ug/l
		Aldrin	<2.0	ug/l
		alpha-BHC	<2.0	ug/l
		beta-BHC	<2.0	ug/l
		delta-BHC	<2.0	ug/l
		gamma-BHC (Lindane)	<2.0	ug/l
		Chlordane	<0.10	ug/l
		4,4'-DDD	<3.0	ug/l
		4,4'-DDE	<2.0	ug/l
		4,4'-DDT	<3.0	ug/l
		Dieldrin	<2.0	ug/l
		Endosulfan I	<3.0	ug/l
		Endosulfan II	<3.0	ug/l
		Endosulfan Sulfate	<3.0	ug/l
		Endrin	<5.0	ug/l
		Endrin Aldehyde	<5.0	ug/l
		Heptachlor	<3.0	ug/l
		Heptachlor Epoxide	<3.0	ug/l
		Methoxychlor	<3.0	ug/l
		Toxaphene	<10.0	ug/l
Metals, Total	EPA 200.8/6020	Antimony	**3.5**	ug/l
		Arsenic	<3.0	ug/l
		Beryllium	<0.5	ug/l
		Cyanide (method 335.3)	<0.005	mg/l
		Lead	**18**	ug/l
		Mercury	<0.2	ug/l
		Nickel	<10	ug/l
		Phosphorus	**0.52**	
		Selenium	<3.0	ug/l
		Silver	<10	ug/l
		Thallium	<1.0	ug/l
Metals, Dissolved	EPA 200.7/6010	Dissolved Cadmium[4]	<0.5	ug/l
		Dissolved Chromium[5]	<20	ug/l
		Dissolved Copper	**32**	ug/l
		Dissolved Lead	**16**	ug/l
		Dissolved Zinc	**194**	ug/l

Volalitale Organic Compounds	EPA 624	Benzene	<5.0	ug/l
		Bromodichloromethane	<5.0	ug/l
		Bromoform	<5.0	ug/l
		Bromomethane	<10	ug/l
		Carbon tetrachloride	<5.0	ug/l
		Chlorobenzene	<5.0	ug/l
		Chloroethane	<10	ug/l
		2-Chloroethyl vinyl ether	<10	ug/l
		Chloroform	<5.0	ug/l
		Chloromethane	<10	ug/l
		Dibromochloromethane	<5.0	ug/l
		Dichlorodifluromehane	<10	ug/l
		1,2-Dichlorobenzene	<5.0	ug/l
		1,3-Dichlorobenzene	<5.0	ug/l
		1,4-Dichlorobenzene	<5.0	ug/l
		1,1-Dichloroethane	<5.0	ug/l
		1,2-Dichloroethane	<5.0	ug/l
		1,1-Dichloroethene	<5.0	ug/l
		cis-1,2-Dichloroethene	<5.0	ug/l
		trans-1,2-Dichloroethene	<5.0	ug/l
		1,2-Dichloropropane	<5.0	ug/l
		cis-1,3-Dichloropropene	<5.0	ug/l
		trans-1,3-Dichloropropene	<5.0	ug/l
		Ethylbenzene	<5.0	ug/l
		Methylene chloride	<5.0	ug/l
		Tetrachloroethene	<5.0	ug/l
		Styrene	<5.0	ug/l
		Toluene	<5.0	ug/l
		1,1,1 -Trichloroethane	<5.0	ug/l
		1,1,2,2-Tetrachloroethane	<5.0	ug/l
		1,1,2-Trichloroethane	<5.0	ug/l
		Trichloroethene	<5.0	ug/l
		Trichlorofluoromethane	<5.0	ug/l
		Vinyl chloride	<10	ug/l
		Xylene, Total	<10	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	<10	ug/l
		Acenaphthylene	<10	ug/l
		Anthracene	<10	ug/l
		Benzidine	<50	ug/l
		Benz(a)anthracene	<10	ug/l
		Benzo(a)pyrene	<10	ug/l
		Benzo(b)fluoranthene	<10	ug/l
		Benzo(ghi) perylene	<10	ug/l
		Benzo(k)fluoranthene	<10	ug/l
		4-Bromophenyl phenyl ether	<10	ug/l
		Butyl benzyl phthalate	<10	ug/l
		4-Chloro-3-methylphenol	<10	ug/l
		Bis(2-chloroethoxy)methane	<10	ug/l
		Bis(2-chloroethyl) ether	<10	ug/l
		Bis(2-chloroisopropyl) ether	<10	ug/l
		2-Chloronaphthalene	<10	ug/l
		2-Chlorophenol	<10	ug/l
		4-Chlorophenyl phenyl ether	<10	ug/l
		Chrysene	<10	ug/l
		Di-n-butyl phthalate	<10	ug/l
		Di-n-octylphthalate	<10	ug/l
		Dibenzo(a,h)anthracene	<10	ug/l
		1,2-Dichlorobenzene	<10	ug/l
		1,3-Dichlorobenzene	<10	ug/l
		1,4-Dichlorobenzene	<10	ug/l
		3,3'-Dichlorobenzidine	<50	ug/l
		2,4-Dichlorophenol	<20	ug/l
		Diethyl phthalate	<10	ug/l
		2,4-Dimethylphenol	<10	ug/l
		4,6-Dinitro-o-cresol	<10	ug/l
		2,4-Dinitrophenol	<10	ug/l
		2,4-Dinitrotoluene	<10	ug/l
		2,6-Dinitrotoluene	<10	ug/l

		bis (2-Ethylhexyl) phthalate	**15**	ug/l
		Fluoranthene	<10	ug/l
		Fluorene	<10	ug/l
		Hexachlorobenzene	<10	ug/l
		Hexachlorobutadiene	<10	ug/l
		Hexachlorocyclopentadiene	<10	ug/l
		Hexachloroethane	<10	ug/l
		Ideno(1,2,3-cd)pyrene	<10	ug/l
		Isophorone	<10	ug/l
		Naphthalene	<10	ug/l
		Nitrobenzene	<10	ug/l
		2-Nitrophenol	<10	ug/l
		4-Nitrophenol	<10	ug/l
		N-Nitrosodimethylamine	<10	ug/l
		N-Nitrosodiphenylamine	<10	ug/l
		N-Nitrosodi-n-propylamine	<10	ug/l
		Pentachlorophenol	<20	ug/l
		Phenanthrene	<10	ug/l
		Phenol	<10	ug/l
		Pyrene	<10	ug/l
		1,2,4-Trichlorobenzene	<10	ug/l
		2,4,6-Trichlorophenol	<10	ug/l
Total Petroleum Hydrocarbons[8]	418.1	Total Petroleum Hudrocarbons	**5.10**	mg/l
		TPH in mg/l is 6.1 (6.1 PPM)		
Phenolics	EPA 420.2	Phenols	0.02	mg/l
Detections in boldface type				



ADOT Storm Water Sampling Location
Outfall ID # 77- 71.74
Rillito River at South Bank
72" CMP
Tucson, AZ

IN

3003 N. Central Avenue, Suite 600
Phoenix, AZ 85012 - 2905