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DEPARTMENT OF

ENVIRONMENTAL

QUALITY

Annual Report of the
ADEQ Fixed Station Network
for Monitoring Surface Water Quality
1991 Water Year

November 1993

1100.003

WQMS-139.020

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

April 19, 1994

Dear Interested Party:

Attached is our latest annual FSN data report entitled "Annual Report of the ADEQ Fixed Station Network for Monitoring Surface Water Quality, 1991 Water Year." The Surface Water Monitoring Unit conducts surface water quality monitoring for a fixed station network program (FSN). It is a supplement to similar work performed by the U.S. Geological Survey (USGS). Data collected by these programs are utilized to (a) determine compliance with State standards, (b) prepare statewide assessment reports, and (c) make water quality management program decisions. Data collected by the FSN program includes field measurements, site photographs and water samples which are analyzed in a laboratory. Additional data, such as aquatic biota samples are also collected at selected sites.

We received some useful comments and suggestions on our last annual report. We have modified the format of the 1991 report to reflect these suggestions and hope you will see some improvements. A detailed assessment of FSN and other monitoring data are published in the Department's biannual State Water Quality Assessment report which is prepared in response to §305(b) of the Federal Clean Water Act.

Since we are writing the FSN data report for you, our "customer," we would really appreciate any comments (good or bad) that you have on this report's format, contents, style, figures, tables or data presentation. Your response to this survey will be used to generate more valuable and useful reports. Please take a few moments to give us your feedback on the sections that you use most often. Please respond by using the form on the back of this page.

We are also making an effort to reduce duplicating and mailing costs incurred with this report. If you wish to continue receiving a copy of the report, please contact Linda Mercado at (602) 628-6733 and convey your desire to remain on our mailing list. Otherwise, your name will be dropped from our list for the mailing of this report only.

Thanks for your help in making our data reports more useful to everyone.

Sincerely,

Melinda K. Longsworth

Melinda K. Longsworth, Acting Manager
Surface Water Monitoring Unit

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Prepared By

Water Assessment Section
Arizona Department of Environmental Quality
400 West Congress Street, Suite 433
Tucson, Arizona 85701
(602) 628-6733

EDWARD Z. FOX, DIRECTOR

FIFE SYMINGTON, GOVERNOR

The Arizona Department of Environmental Quality shall preserve, protect and enhance the environment and public health, and shall be a leader in the development of public policy to maintain and improve the quality of Arizona's air, land and water resources.

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I. EXECUTIVE SUMMARY

This annual report contains the results of surface water quality sampling conducted by the Water Assessment Section (WAS) of the Arizona Department of Environmental Quality (ADEQ) as a component of the State's Fixed Station Network (FSN) program. The Point Source and Monitoring Unit of the WAS manages and maintains the FSN Program with personnel in both Phoenix and Tucson.

During the period of October 1990 through September 1991, 66 sites in Arizona were visited by ADEQ personnel. This report contains descriptions of the sites, site location information, a list of analytical parameters, lists of surface water standards exceedances for each basin, and data tables containing the results of the sampling. These tables are available upon request on disk for the LOTUS spreadsheet software.

ADEQ, in cooperation with the U. S. Geological Survey (USGS), funds the ADEQ/USGS Cooperative FSN which is operated by the USGS. Site locations, sampling frequency and parameters for this network during water year 1991 are summarized in Appendix F of this report. These data have been published by the USGS as a part of their Water-Resources Data Report series in August 1992.

The special topic located in Appendix G reviews a water quality intensive survey performed by Phoenix personnel.

II. INTRODUCTION

FSN monitoring of surface water is performed on a regular basis at selected sites throughout the state for a pre-determined period of time. At regular intervals, ADEQ personnel talk with interested agencies and cooperators to determine data collection needs and objectives, sites, parameters and sampling frequencies. The resulting data collection program is based mainly upon the informational needs of ADEQ and other cooperating agencies. Budget and personnel availability are also taken into consideration during this step of the process. Many of ADEQ's cooperators provide funding and/or field and technical assistance to the FSN program.

There are three principle purposes for the FSN monitoring program:

1. Data are needed for long-term trend analysis and compliance evaluation.

2. Term data are needed for program support and assessment. Normally, data are evaluated when 10 to 20 samples have been collected at a site. Preliminary evaluations are performed on new sites after 1 to 6 samples are collected.

3. Data for special evaluations are often obtained for specific periods depending on available resources and program needs.

In addition to the ADEQ FSN program, the WAS conducts intensive surveys on various watercourses. Data from intensive surveys are published in separate reports by ADEQ and are not discussed in this report.

During the report period 66 sites were active in 8 hydrologic basins. Figure 1 shows their approximate locations. Definitive location data are listed in Table 1.

During Water Year 1991 the following work was performed:

Basin	Sites	Visits	Samples Collected
Bill Williams River Basin	5	17	17
Salt River	5	28	34
Middle Gila River	5	18	19
Little Colorado River	6	26	32
Verde River	19	98	108
San Pedro River	9	39	45
Rios de Mexico	2	2	2
Santa Cruz River	15	77	89
Totals	66	305	346

III. ADEQ FIXED STATION NETWORK METHODS

Parameters selected for the ADEQ FSN program depend on data collection objectives. For state surface water quality standards where compliance evaluation is an objective, parameters must include those regulated by A.A.C. Title 18, Chapter 11, Articles 1, 2 and 3. When more comprehensive data are needed for program decisions or trend analyses, parametric coverage is expanded.

Parameter selection determines the sample collection and handling method as well as the use of analytical laboratories. Field and analytical data collected at each site in the FSN program are presented in Appendices A through E.

Field instruments are utilized to collect field data; air temperature, water temperature, dissolved oxygen, electrical conductivity, pH and streamflow. Samples are collected and submitted for laboratory analysis of physical and chemical constituents to define water quality. Biological constituents are analyzed in the field. Table 2 contains detailed information on these parameters such as ADEQ reporting units and STORET codes.

Other field data are collected. These include floodplain conditions, observations of anthropogenic activities, observed aquatic life, terrestrial wildfife, livestock presence and any unusual field conditions. Archive-quality color transparency photographs are also taken at each site, looking both upstream and downstream. These data are maintained in the Point Source and Monitoring Unit (PSMU) site files and are not contained in this report.

When the laboratory results are received by PSMU personnel, the data are entered onto a LOTUS spreadsheet, and quality assurance/ quality control (QA/QC) checks are run to ensure data validity and check for errors. In 1991, the Water Assessment Section took the initiative to develop a comprehensive data management system for various types of environmental sampling data. The WAS database is not yet functional as of this press time.

Data from the ADEQ FSN program through water year 1991 have been uploaded to the U.S. Environmental Protection Agency's STORET database by ADEQ. Water Year 1991 and all prior data from the ADEQ/USGS Cooperative FSN are contained in the USGS WATSTOR database and are regularly uploaded to STORET. These data are located in STORET under AGENCY CODES 21ARIZ and 112WRD for ADEQ and USGS, respectively.

Figure 1.

General Location Map
ADEQ Fixed Station Network Monitoring Sites
October 1990 - September 1991

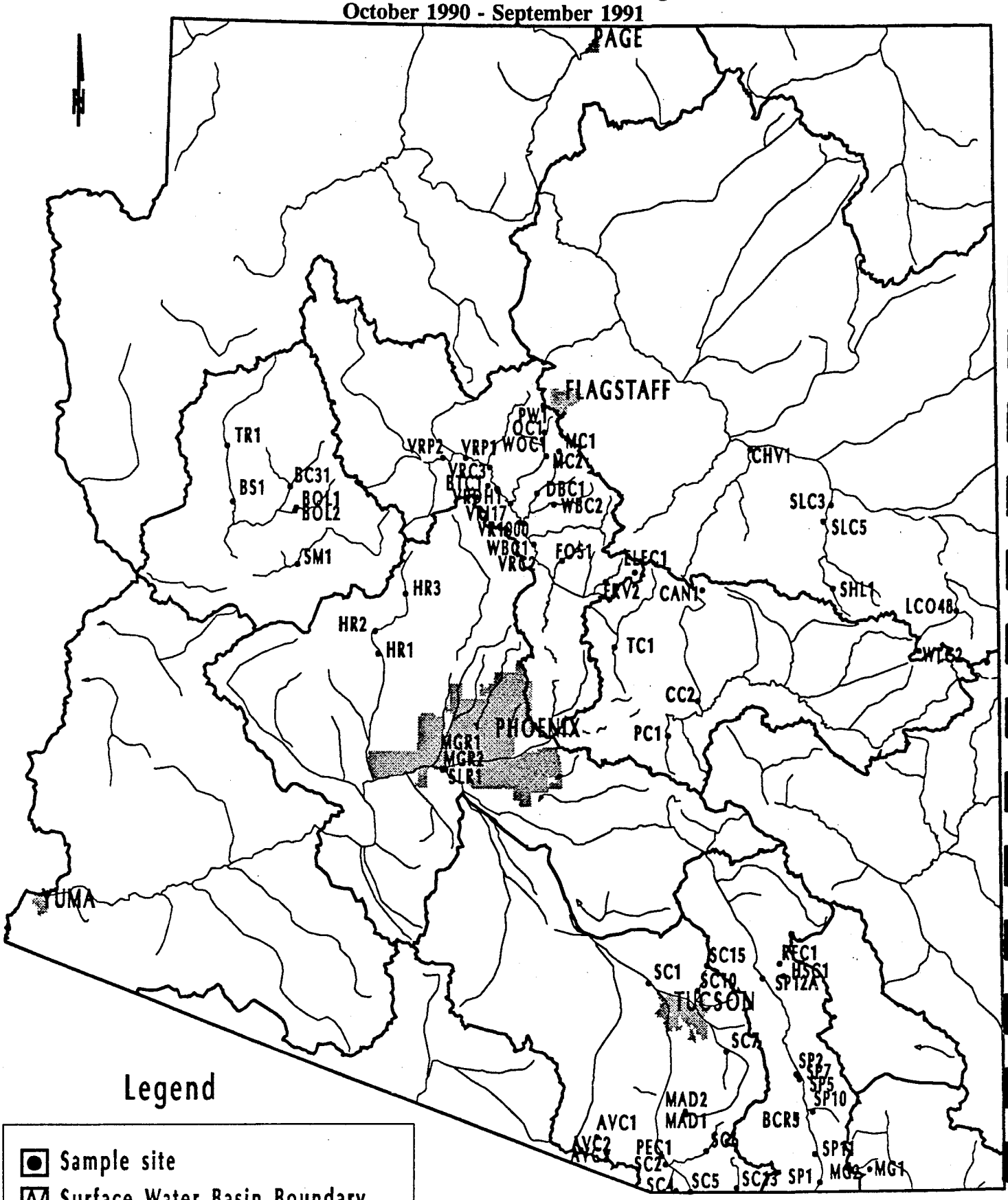


TABLE 1. SITE LOCATION SUMMARY:
ADEQ FIXED STATION NETWORK MONITORING SITES
SEPTEMBER 90 – OCTOBER 91

TABLE 1 Continued

SITE ID	SITE NAME	STORET CODE	HUC NO.	REACH	COUNTY	LATITUDE	LONGITUDE	ELEVATION	TOWNSHIP	RANGE	SECTION	1/4	PROTECTED USES	NUTRIENTS	TOPOGRAPHIC MAP	NOTES
	BILL WILLIAMS RIVER BASIN															
BOL1	Boulder Creek above Hillside mine	BOL1	15030202	–005	Yavapai	343828.0	1131213.0	3140	T15N	R9W	16	acd	A&W,AgI,AgL	NO	BOZARTH MESA 7.5'	
BOL2	Boulder Creek below Hillside Mine	BOL2	15030202	–005	Yavapai	343729.0	1131237.0	3020	T15N	R9W	21	bba	A&W,AgI,AgL	NO	BOZARTH MESA 7.5'	
BS1	Big Sandy River at Hwy. 93	106700050005280	15030201	–004	Mohave	343445.0	1133947.0	1840	T15N	R13W	1	ccb	A&W,IHC,AgL	NO	WICKIEUP 7.5'	
SM1	Santa Maria River below Hwy. 93	106708200003390	15030203	–009	Yavapai	342203.0	1131111.0	1800	T12N	R09W	22	cba	A&W,IHC,AgI,AgL	NO	MALPAIS MESA SW 7.5'	
TR1	Trout Creek near Wickieup	TR1	15030201	–014	Mohave	345557.0	1133728.0	2740	T18N	R13W	23	dcc	A&W,IHC,AgI,AgL	NO	TOM BROWN CANYON 7.5'	
	LITTLE COLORADO RIVER BASIN															
CHV1	Chevelon Creek near Winslow	CHV1	15020010	–001	Navajo	345629.0	1103055.0	4900	T18N	R17E	23	cbd	A&Wc,FBC,AgI,AgL	NO	HIBBARD 7.5'	
LC048	Little Colorado River nr. Springerville	LC048	15020001	–009	Apache	340904.0	1091737.0	6900	T9N	R29E	29	abb	A&Wc,FBC,AgI,AgL	NO	SPRINGERVILLE 7.5'	
SHL1	Showlow Creek near Showlow	SHL1	15020005	–011	Navajo	341555.0	1100130.0	6260	T10N	R22E	17	acd	A&Wc,FBC,AgI,AgL	NO	SHOWLOW NORTH 7.5'	
SLC3	Silver Creek near Snowflake	LC–SC3	15020005	–003	Navajo	344015.0	1100208.0	5204	T15N	R22E	29	bca	A&Wc,FBC,AgI,AgL	NO	TENMILE CEDARS 7.5'	
SLC5	Silver Creek at 5–mile Draw near Snowflake	SLC5	15020005	–009	Navajo	343530.0	1100455.0	5450	T14N	R21E	23	dab	A&Wc,FBC,AgI,AgL	NO	SNOWFLAKE 7.5'	
WLC2	West Fork Little Colo. R. at Wilderness Bndy.	WLC2	15020001	–008	Apache	335728.0	1093057.0	9200	T07N	R27E	32	dbb	Unique (A&Wc,FBC)	NO	MOUNT BALDY 7.5'	
	SALT RIVER BASIN															
CAN1	Canyon Creek near Young	602700000005260	15060103	–014	Gila	341535.0	1104737.0	6360	T10N	R15E	34	bba	A&Wc,FBC,AgI,AgL	NO	WOODS CANYON 15'	
CC2	Cherry Creek above ab. Salt River	SR–CC2	15060103	–015	Gila	334315.0	1104902.0	2540	T4N	R15E	4	acb	A&Wc,FBC,AgI,AgL	NO	DAGGER PEAK 7.5'	
PC1	Pinto Creek at Henderson Ford	604500000001070	15060103	–018	Gila	333302.0	1105924.0	2540	T02N	R13E	02	ddc	A&W,IHC,AgI,AgL	NO	SALT RIVER PEAK 7.5'	
SLR1	Salt River at 107th Ave.	SLR1	15060106	–001	Maricopa	332250.0	1121728.0	0950	T01N	R01E	31	dda	EDW (A&W,IHC,AgI,AgL)	YES	TOLLESON 7.5'	
TC1	Tonto Creek near Gun Creek	605500000004360	15060105	–008	Gila	335848.0	1111812.0	2523	T07N	R10E	2	---	A&Wc,FBC,AgI,AgL	YES	KAYLER BUTTE 7.5'	
	MIDDLE GILA RIVER BASIN															
HR1	Hassayampa River near Wickenburg	408000000009180	15070103	–002	Maricopa	335620.0	1124158.0	1969	T07N	R04W	20	bbd	A&W,AgI,AgL	NO	WICKENBURG 7.5'	
HR2	Hassayampa River near Box Canyon Dam	408000000008600	15070103	–004	Yavapai	340253.0	1124313.0	2400	T08N	R05W	12	dad	A&W,AgI,AgL	NO	SAM POWELL PEAK 7.5'	
HR3	Hassayampa River nr. Wagoner	HR3	15060103	–007	Yavapai	341400.0	1123243.0	3460	T10N	R3W	2	dab	A&W,IHC,AgI,AgL	NO	WAGONER 7.5'	
MGR1	Middle Gila River near PIR	MGR1	15070101	–015	Maricopa	332245.0	1121832.0	0940	T01N	R01W	36	bbb	A&W,IHC	NO	TOLLESON 7.5'	
MGR2	Middle Gila River above confl. of Salt R.	MGR2	15050100	–001	Maricopa	332253.0	1121832.0	0930	T01N	R01E	31	cbc	EDW (A&W,IHC,AgI,AgL)	NO	TOLLESON 7.5'	
	VERDE RIVER BASIN															
BTC1	Bitter Creek near Clarkdale	702600000000095	15060202	–025 off 16	Yavapai	344549.0	1120426.0	3740	T16N	R03E	19	cdc	A&W,AgI,AgL	YES	CLARKDALE 7.5'	
DBC1	Dry Beaver Creek near Sedona	704600200000100	15060202	–010	Yavapai	344630.0	1114342.0	3708	T15N	R05E	1	bdb	A&W,AgI,AgL	YES	LAKE MONTEZUMA 7.5'	
ELC1	Ellison Creek above USFS Control Road	ELC1	15060203	–022 off	Gila	342046.0	1111127.0	5560	T11N	R11E	35	aba	A&Wc,FBC,AgI,AgL			
EVR2	East Verde R. at Hwy. 87 bridge	706500000004300	15060203	–022	Gila	341805.0	1112127.0	4500	T11N	R10E	--	---	A&Wc,FBC,AgI,AgL	YES	PAYSON NORTH 7.5'	
FOS1	Fossil Creek at Irving Power Plant	706000000001510	15060203	–024	Gila	342413.0	1113703.0	3760	T12N	R07E	28	bba	A&W,FBC,AgI,AgL	YES	STRAWBERRY 7.5'	
MC1	Munds Creek at Indian Gardens	MC1	15060202	–018 off	Coconino	345433.0	1114317.0	6580	T18N	R06E	27	cac	UNIQUE(A&Wc,DWS,FBC,AgI,AgL)	YES	MUNDS PARK 7.5'	Tributary to Oak Creek
MC2	Munds Creek at I–17 Bridge	MC2	15060202	–018 off	Coconino	345555.0	1113840.0	4600	T18N	R07E	21	aca	UNIQUE(A&Wc,DWS,FBC,AgI,AgL)	YES	MUNDS PARK 7.5'	Tributary to Oak Creek
PW1	Pumphouse Wash at Hwy.89 Bridge	704002000007910	15060202	–019 off	Coconino	350128.0	1114404.0	5680	T19N	R6E	14	ccc	UNIQUE(A&Wc,DWS,FBC,AgI,AgL)	YES	MOUNTAINAIR 7.5'	Tributary to Oak Creek
OC1	Oak Creek above confluence with West Fork	VR–OC1	15060202	–019	Coconino	345917.0	1114448.0	5280	T19N	R6E	33	bcd	UNIQUE	YES	MUNDS PARK 7.5'	
VRC2	Verde River below Camp Verde	700000000014400	15060202	–027	Yavapai	343101.0	1115013.0	3010	T12N	R05E	17	daa	A&W,FBC,AgI,AgL	YES	CAMP VERDE 7.5'	
VRC3	Verde River near Clarkdale	VRC3	15060203	–025	Yavapai	345104.0	1120337.0	3510	T17N	R03E	17	dbd	A&W,FBC,AgI,AgL	YES	CLARKDALE 7.5'	
VRI17	Verde River at I–17 Bridge	VRI17	15060202	–015	Yavapai	343512.0	1115243.0	3100	T14N	R4E	24	cba	A&W,FBC,<AgI,AgL	YES	MIDDLE VERDE 7.5'	TURBIDITY SITE
VRDH1	Verde River at Dead Horse Ranch State Park	VRDH	15060202	–015	Yavapai	344459.0	1120103.0	3280	T16N	R3E	27	cdb	A&W,FBC,<AgI,AgL	YES	COTTONWOOD 7.5'	TURBIDITY SITE
VRP1	Verde River near Perkinsville	700000000025860	15060202	–037	Yavapai	345344.0	1121223.0	3820	T18N	R01E	36	dac	A&W,FBC,AgI,AgL	YES	PERKINSVILLE 7.5'	
VRP2	Verde River near Paulden	VRP2	15060202	–052	Yavapai	345340.0	1122032.0	4100	T18N	R01W	–	–	A&W,FBC,AgI,AgL	YES	HELL POINT 7.5'	
WBC1	Wet Beaver Creek at Camp Verde	704600100000105	15060202	–002	Yavapai	343502.0	1115111.0	3070	T14N	R05E	29	bbb	A&Wc,FBC,AgI,AgL	YES	CAMP VERDE 7.5'	
WBC2	Wet Beaver Creek near Rimrock	704600100003870	15060202	–004	Yavapai	344028.0	1114017.0	4020	T15N	R06E	24	cbd	A&Wc,FBC,AgI,AgL	YES	CASNER BUTTE 7.5'	
WOC1	West Fork Oak Creek near mouth in Oak Creek Ca	704000000000014	15060202	–020	Coconino	345918.0	1114452.0	5330	T19N	R6E	33	cbb	A&Wc,DWS,FBC,AgI,AgL	YES	MUNDS PARK 7.5'	
	SAN PEDRO RIVER BASIN															
SP1	San Pedro River at Palominas	500000000022200	15050202	–008	Cochise	312248.0	1100638.0	4225	T23S	R22E	33	dcd	A&W,IHC,AgI,AgL	NO	HEREFORD 7.5'	
SP2	San Pedro River At Hwy 80 Bridge	500000000014480	15050202	–003	Cochise	315422.0	1101446.0	3579	T17S	R21E	31	ccc	A&W,IHC,AgI,AgL	YES	ST.DAVID 7.5'	DOWNSTREAM OF SUPERFUND
SP5	San Pedro River 0.8 mi. South of Hwy 80	500000000014610	15050202	–003	Cochise	315356.0	1101411.0	3590	T18S	R21E	06	aac	A&W,IHC,AgI,AgL	YES	ST.DAVID 7.5'	ADJACENT TO SUPERFUND SITI
SP7	San Pedro R. at Curtiss Siding	500000000014835	15050202	–003	Cochise	315258.0	1101343.0	3610	T18S	R21E	08	cbb	A&W,IHC,AgI,AgL	YES	ST.DAVID 7.5'	UPSTREAM OF SUPERFUND SIT
SP10	San Pedro River at Fairbank	SP10	15050202	–003	Cochise	314325.0	1100904.0	3852	T20S	R21E	--	--	A&W,IHC,AgI,AgL		FAIRBANK 7.5'	
SP11	San Pedro River at Lewis Springs	SP11	15050202	–008	Cochise	313108.0	1100817.0	4056	T22E	R22E	--	--	A&W,IHC,AgI,AgL		LEWIS SPRING 7.5'	
SP12a	San Pedro River nr. Redington	SP12a	15050203	–011	Pima	322223.0	1102629.0	2950	T12S	R19E	19	abc	A&W,IHC,AgI,AgL		REDINGTON 7.5'	ONE VISIT
HSC1	Hot Springs near Cascabel	HSC1	15050203	–013	Cochise	322304.0	1101915.0	3410	T12S	R20E	32	ddb	A&W,FBC,AgL		SOZA MESA 7.5'	
RFC1	Redfield Canyon near Redington	RFC1	15050203	–014	Graham	322641.0	1102036.0	3425	T12S	R20E	31	abc	A&W,FBC,AgL		CHERRY SPRING CREEK 7.5'	
	SANTA CRUZ RIVER BASIN															
AVC1	Arivaca Creek near Headwater Springs	807503055002194	15050304	–008	Pima	313143.0	1111913.0	3630	T21S	R10E	28	dac	A&W,IHC,AgI,AgL		ARIVACA 7.5'	
AVC2	Arivaca Creek at Ruby Road	807503055002072	15050304	–008	Pima	313153.0	1111944.0	3610	T21S	R10E	28	bcd	A&W,IHC,AgI,AgL		ARIVACA 7.5'	
AVC3	Arivaca Creek at Figueroa Springs	807503055001493	15050304	–008	Pima	313607.0	1112243.0	3498	T21S	R09E	13	bdc	A&W,IHC,AgI,AgL		WILBUR CANYON 7.5'	
SC1	Santa Cruz River at Cortaro Road Bridge	800000000001696	15050301	–001	Pima	322104.0	1110538.0	2133	T12S	R12E	35	bba	EDW(A&W,IHC,AgI,AgL)	NO	JAYNES 7.5'	BIOMONITORING SITE
SC2	Santa Cruz River at Rio Rico Bridge	800000000028170	15050301	–010	SantaCruz	312812.0	1105930.0	3403	T22S	R13E	35	cbc	EDW(A&W,IHC,AgI,AgL)	NO	RIO RICO 7.5'	BIOMONITORING SITE
SC4	East Nogales W. @ Morley Avenue Tunnel	801005000001030	15050301	–011	SantaCruz	312030.0	1105557.0	3820	T24S	R14E	17	acc	A&W,AgI,AgL	NO	NOGALES 7.5'	
SC5	Santa Cruz R. at International Boundary	800000000030550	15050301	–012	SantaCruz	312013.0	1105057.0	3725	T24S	R15E	18	dcc	A&W,DWS,IHC,AgI,AgL	NO	KINO SPR. 7.5'	
SC6	Sonoita Creek blw. Patagonia WWTP	801500000002786	15050301	–013	SantaCruz	313154.0	1104608.0	4014	T22S	R15E	12	dbb	A&W,IHC,AgI,AgL	NO	PATAGONIA 7.5'	
SC7	Cienega Creek at Marsh Station Road Bridge	SC–SC7	15050302	–005	Pima	320107.0	1103851.0	3300	T16S	R17E	19	dcc	A&W,IHC,AgI,AgL	NO	VAIL 7.5'	UNIQUE WATERS NOMINATION
SC10	Sabino Creek at USGS Gage #0948400	80600234000922	15050302	–008	Pima	331849.0	1104839.0	2695	T13S	R15E	9	dac	A&Wc,DWS,FBC,AgI,AgL		SABINO CANYON 7.5'	
SC13	Santa Cruz R. near Lochiel	SC13	15050301	–012	off Pima	312119.0	1103520.0	4620	T24S	R17E	–	–	A&W,DWS,IHC,AgI,AgL		LOCHIEL 7.5'	BIOMONITORING SITE
SC15	Sabino Creek below Summerhaven, Mt. Lemmon	SC15	15050302	–008	Pima	322610.0	1104528.0	7610	T11S	R15E	31	bdc	A&Wc,DWS,FBC,AgI,AgL		MT. LEMMON 7.5'	
MAD1	Madera Canyon at Roundup	MAD1	15050301	–006	off 18.17 Santa Cruz	314243.0	1105229.0	5440	T20S	R14E	11	aab	A&Wc, IHC	NO	MT WRIGHTSON 7.5'	SPECIAL; 1 SAMPLE
MAD2	Madera Canyon at Whitehouse	MAD2	15050301	–006	off 16.25 Pima	314339.0	1105252.0	4800	T19S	R14E	35	cdd	A&Wc, IHC	NO	MT. HOPKINS QUAD 7.5'	SPECIAL; 1 SAMPLE
PEC1	Peck Canyon Creek at Calabasas School	PEC1	15050301	–010	off 0.55 Santa Cruz	313037.0	110057.0	3360	T22S	R13E			A&W, DWS, IHC, AgI, AgI	NO	TUBACK, ARIZONA 7.5'	SPECIAL; 1 SAMPLE
	RIOS DE MEXICO BASIN															
MG1	Mule Gulch at Elfrida Cutoff	510400000000825	15080297	–400	off Cochise	312630.0	1094929.0	4550	T23S	R25E	08	dcb		NO	BISBEE NE 7.5'	FSN
MG2	Mule Gulch at "Inn at Castle Rock", Bisbee	510400000001900	15080297	–400	off Cochise	312629.0	1095540.0	5360	T23S	R24E	09	ccb		NO	BISBEE 7.5'	FSN

TABLE 1. SITE LOCAT
ADEQ FIXED ST
SEPTEMBER 90

SITE ID	SITE NAME	STORET CODE
	BILL WILLIAMS RIVER BASIN	
BOL1	Boulder Creek above Hillside mine	BOL1
BOL2	Boulder Creek below Hillside Mine	BOL2
BS1	Big Sandy River at Hwy. 93	106700050005280
SM1	Santa Maria River below Hwy. 93	106708200003390
TR1	Trout Creek near Wickieup	TR1
	LITTLE COLORADO RIVER BASIN	
CHV1	Chevelon Creek near Winslow	CHV1
LC048	Little Colorado River nr. Springerville	LC048
SHL1	Showlow Creek near Showlow	SHL1
SLC3	Silver Creek near Snowflake	LC-SC3
SLC5	Silver Creek at 5-mile Draw near Snowflake	SLC5
WLC2	West Fork Little Colo. R. at Wilderness Bndy.	WLC2
	SALT RIVER BASIN	
CAN1	Canyon Creek near Young	602700000005260
CC2	Cherry Creek above ab. Salt River	SR-CC2
PC1	Pinto Creek at Henderson Ford	604500000001070
SLR1	Salt River at 107th Ave.	SLR1
TC1	Tonto Creek near Gun Creek	605500000004360
	MIDDLE GILA RIVER BASIN	
HR1	Hassayampa River near Wickenburg	408000000009180
HR2	Hassayampa River near Box Canyon Dam	408000000008600
HR3	Hassayampa River nr. Wagoner	HR3
MGR1	Middle Gila River near PIR	MGR1
MGR2	Middle Gila River above confl. of Salt R.	MGR2
	VERDE RIVER BASIN	
BTC1	Bitter Creek near Clarkdale	702600000000095
DBC1	Dry Beaver Creek near Sedona	704600200000100
ELC1	Ellison Creek above USFS Control Road	ELC1
EVR2	East Verde R. at Hwy. 87 bridge	706500000004300
FOS1	Fossil Creek at Irving Power Plant	706000000001510
MC1	Munds Creek at Indian Gardens	MC1
MC2	Munds Creek at I-17 Bridge	MC2
PW1	Pumphouse Wash at Hwy.89 Bridge	704002000007910
OC1	Oak Creek above confluence with West Fork	VR-OC1
VRC2	Verde River below Camp Verde	700000000014400
VRC3	Verde River near Clarkdale	VRC3
VRI17	Verde River at I-17 Bridge	VRI17
VRDH1	Verde River at Dead Horse Ranch State Park	VRDH
VRP1	Verde River near Perkinsville	700000000025860
VRP2	Verde River near Paulden	VRP2
WBC1	Wet Beaver Creek at Camp Verde	704600100000105
WBC2	Wet Beaver Creek near Rimrock	704600100003870
WOC1	West Fork Oak Creek near mouth in Oak Creek Cr	704000000000014
	SAN PEDRO RIVER BASIN	
SP1	San Pedro River at Palominas	500000000022200
SP2	San Pedro River At Hwy 80 Bridge	500000000014480
SP5	San Pedro River 0.8 mi. South of Hwy 80	500000000014610
SP7	San Pedro R. at Curtiss Siding	500000000014835
SP10	San Pedro River at Fairbank	SP10
SP11	San Pedro River at Lewis Springs	SP11
SP12a	San Pedro River nr. Redington	SP12a
HSC1	Hot Springs near Cascabel	HSC1
RFC1	Redfield Canyon near Redington	RFC1
	SANTA CRUZ RIVER BASIN	
AVC1	Arivaca Creek near Headwater Springs	807503055002194
AVC2	Arivaca Creek at Ruby Road	807503055002072
AVC3	Arivaca Creek at Figueroa Springs	807503055001493
SC1	Santa Cruz River at Cortaro Road Bridge	800000000001696
SC2	Santa Cruz River at Rio Rico Bridge	800000000028170
SC4	East Nogales W. @ Morley Avenue Tunnel	801005000001030
SC5	Santa Cruz R. at International Boundary	800000000003055
SC6	Sonoita Creek blw. Patagonia WWTP	801500000002785
SC7	Cienega Creek at Marsh Station Road Bridge	SC-SC7
SC10	Sabino Creek at USGS Gage #0948400	80600234000922
SC13	Santa Cruz R. near Lochiel	SC13
SC15	Sabino Creek below Summerhaven, Mt. Lemmon	SC15
MAD1	Madera Canyon at Roundup	MAD1
MAD2	Madera Canyon at Whitehouse	MAD2
PEC1	Peck Canyon Creek at Calabasas School	PEC1
	RIOS DE MEXICO BASIN	
MG1	Mule Gulch at Elfrida Cutoff	51040000000825
MG2	Mule Gulch at "Inn at Castle Rock", Bisbee	51040000001900

TABLE 2. ANALYTICAL PARAMETERS ADEQ FIXED STATION NETWORK MONITORING SITES

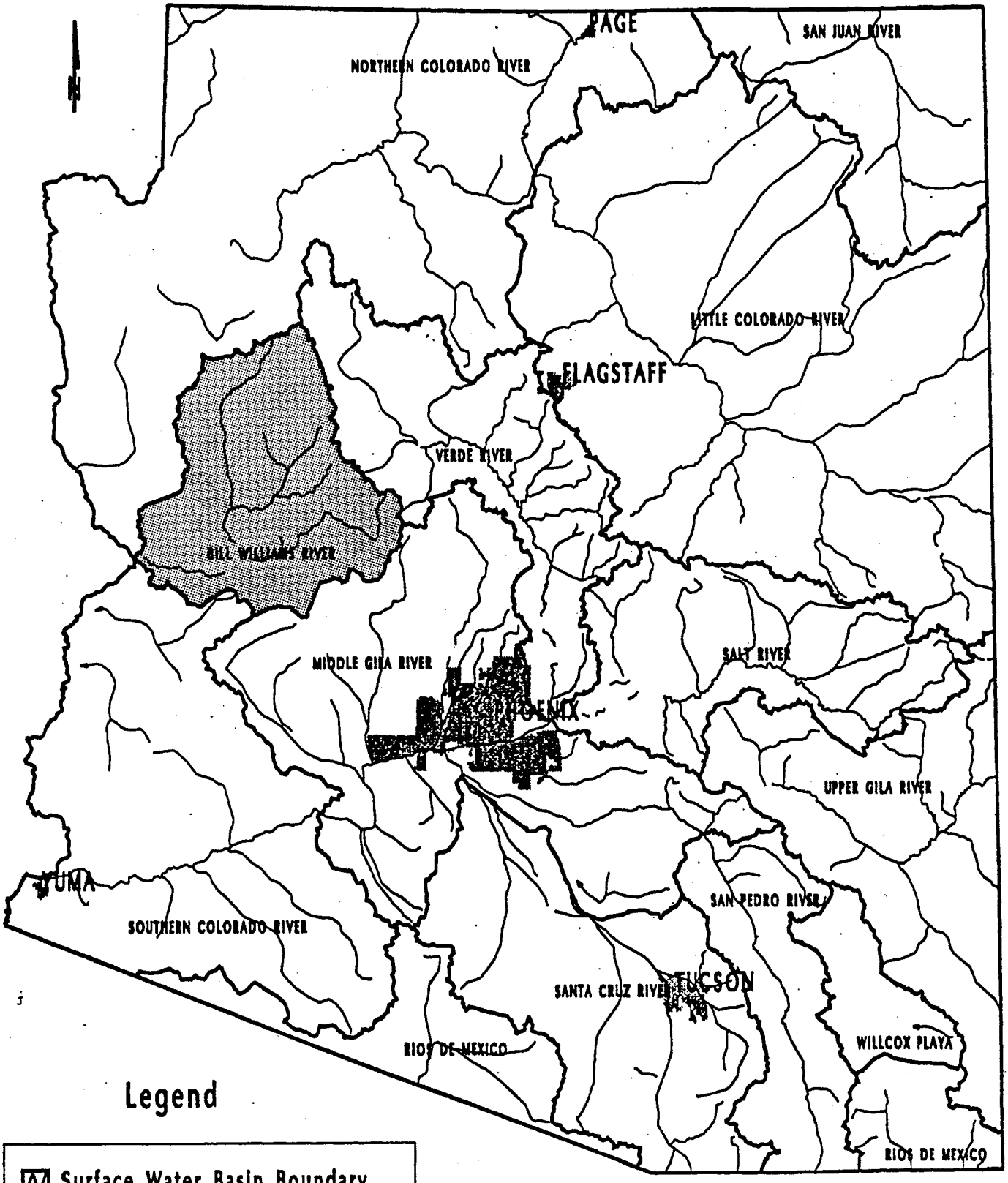
PARAMETER	UNITS	STORET CODE	METHOD
Air Temperature	degrees C	P20	
Water Temperature	degrees C	P10	
Dissolved Oxygen	mg/l	P300	
Saturated Dissolved Oxygen	%	P301	
Field Electrical Conductivity	umhos/cm@ 25°C	P94	EPA 120.1
Field pH	SU	P406	EPA 150.1
Staff Gage	feet	P65	
Stream Width	feet	P4	
Stream Depth	feet	P64	
Stream Velocity	feet	P55	
Stream Discharge	CFS	P61	
MICROBIOLOGICAL			
Fecal Coliform	CFU/100ml	P31613 & P31614	
Fecal Streptococci	CFU/100ml	P31673	
INORGANICS			
Alkalinity, Total	mg/l as Ca CO_3	P410	EPA 310.1
Alkalinity, Phenolphthalein	mg/l	P415	EPA 310.0
Ammonia Nitrogen, Total	mg/l as Nitrogen	P610	EPA 350.3
Electrical Conductivity, Lab	umhos/cm at 25 °C	P95	EPA 120.1
Fluoride, Total	mg/l	P951	EPA 340.2
Hardness, Total	mg/l as Ca Co_3	P900	EPA 130.2
Nitrogen, Total Kledahl	mg/l as Nitrogen	P625	EPA 351.2
Nitrite/Nitrate, Total	mg/l as Nitrogen	P630	EPA 353.2
pH, Lab	SU	P403	EPA 150.1
Phosphorus, Total	mg/l as Phrosphorus	P665	EPA 365.4
Total Dissolved Solids	mg/l	P70300	EPA 160.1
Total Suspended Solids	mg/l	P530	EPA 160.2
Turbidity, Lab	NTU	P82079	EPA 180.1

TABLE 2. Continued

PARAMETER	UNITS	STORET CODE		METHOD
MAJOR CATIONS & ANIONS				
Calcium, Total	mg/l as Ca	P916		EPA 200.7/215.1
Magnesium, Total	mg/l as Mg	P927		EPA 200.7/242.1
Sodium, Total	mg/l as Na	P929		EPA 200.7/243.1
Potassium, Total	mg/l as K	P937		EPA 258.1
Bicarbonate Ion	mg/l as HCO_3	P440		CALC W/EPA 310.1
Carbonate Ion	mg/l as CO_3	P445		CALC W/EPA 310.1
Chloride, Total	mg/l	P940		SM 407C
Hydroxide Ion	mg/l as OH	P71830		CALC W/EPA 310.1
Sulfate, Total	mg/l as SO_4	P945		EPA 375.2
TRACE METALS		(TOTAL) (RECOVERABLE)	(DISSOLVED)	
Antimony	ug/l as Sb	P1097	P1095	EPA 204.2
Arsenic	ug/l as As	P1002	P1000	EPA 206.2
Barium	ug/l as Ba	P1007	P1005	EPA 200.7/208.1
Beryllium	ug/l as Be	P1012	P1010	EPA 210.2
Boron	ug/l as B	P1022	P1020	EPA 200.7/213.3
Cadmium	ug/l as Cd	P1027	P1025	EPA 213.2
Chromium	ug/l as Cr	P1034	P1030	EPA 218.2
Copper	ug/l as Cu	P1042	P1040	EPA 220.1/220.2
Iron	ug/l as Fe	P1045	P1046	EPA 200.7/236.1
Lead	ug/l as Pb	P1051	P1049	EPA 239.2
Manganese	ug/l as Mn	P1055	P1056	EPA 200.7/243.1
Mercury	ug/l as Hg	P71900	P71890	EPA 245.1
Nickel	ug/l as Ni	P1067	P1065	EPA 249.1
Selenium	ug/l as Se	P1147	P1145	EPA 270.2
Silver	ug/l as Ag	P1077	P1075	EPA 272.2
Strontium	ug/l as Sr	P1082	P1080	EPA 200.7
Thallium	ug/l as Tl	P1059	P1057	EPA 279.2
Zinc	ug/l as Zn	P1092	P1090	EPA 289.1

ADEQ Fixed Station Network Sites

Bill Williams River Basin



Legend

Surface Water Basin Boundary

Stream

Bill Williams River Basin

BASIN SUMMARY

The Bill Williams River Basin, located in west-central Arizona, encompasses about 5,200 square miles. The basin consists of the Santa Maria, Big Sandy and Bill Williams watersheds. It is characterized by ecological zones ranging from lowland deserts to upland pine forests. The basin is sparsely populated with no significant population centers. Open range grazing is the principal land use; however, mining also occurs at Bagdad and is scattered throughout the headwaters.

Site ID	Site Location Description
BOL1	Boulder Creek above Hillside Mine. Site is located just upstream from the Hillside Mill tailings pile 10 miles northeast of Bagdad.
BOL2	Boulder Creek below Hillside Mine. Site is located just downstream from the Hillside Mine tailings pile 10 miles northeast of Bagdad.
BS1	Big Sandy River at U.S. Highway 93 Bridge. Site is located just upstream of U.S. Highway 93 bridge approximately 4 miles south of Wikieup.
SM1	Santa Maria River below U.S. Highway 93. Site is located approximately 0.5 mile downstream of the U.S. Highway 93 bridge.
TR1	Trout Creek near Wickieup. Site is located 20 miles north of Wickieup, approximately 2 miles north of small Hualapai Indian Reservation east of Hwy 93.

WATER QUALITY EXCEEDANCES

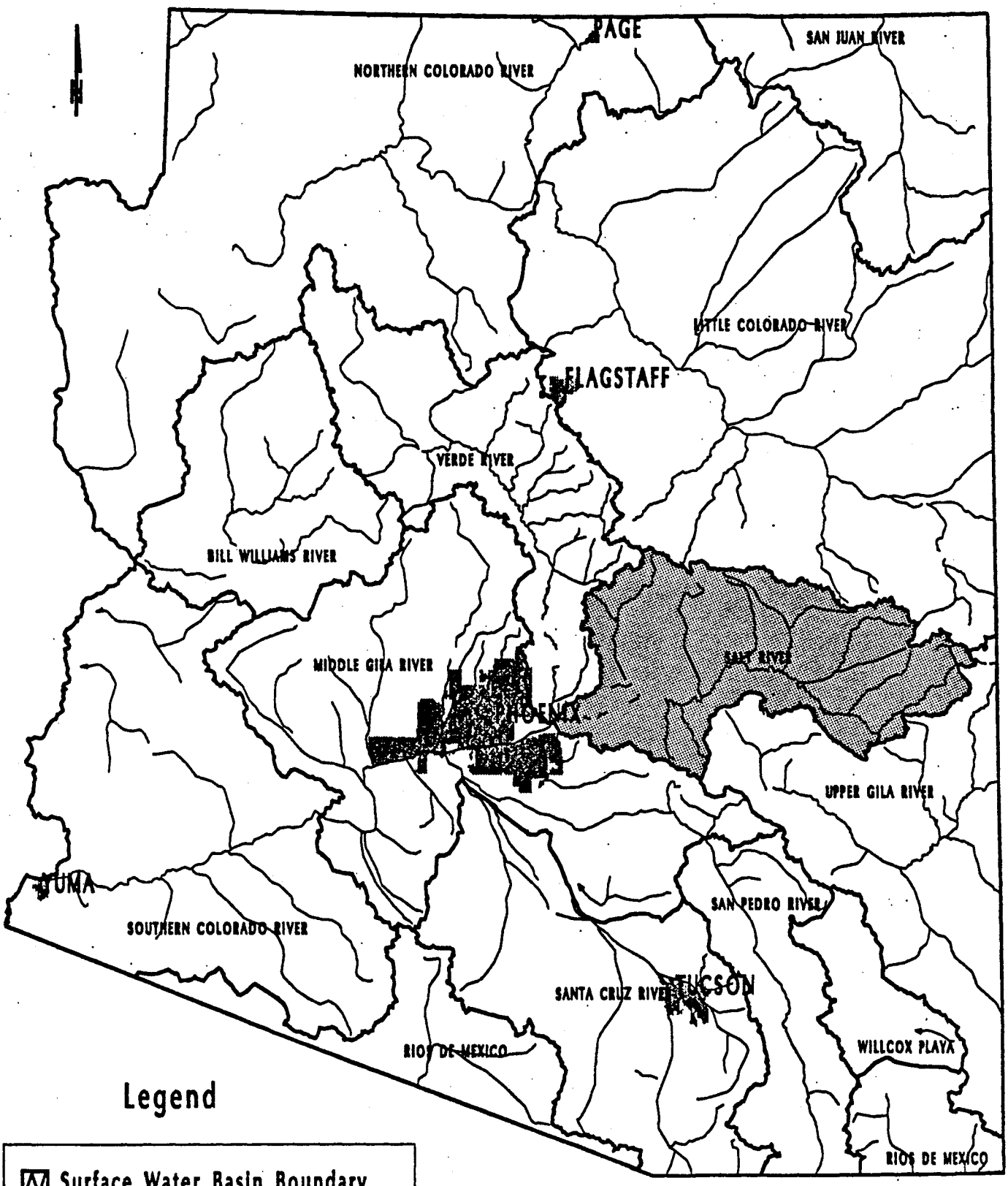
Site ID	Date	Time	Exceedance Value	Standard	Cause
TR1	91/06/12	1420	Lab pH 9.01	9.00 pH	unknown

BOL1 and BOL2 were established to document water quality impacts of the Hillside Mine tailings pile. Data for water year 1991 show little impact. These sites are inaccessible during heavy rains and lack data during high flows. Higher flows with saturated soils may cause more of a problem than low flows in dry conditions. Two other portions of the hillside complex have not been monitored on a regular basis and could be causing exceedances in Boulder Creek.

See Appendix A for detailed water quality listing.

ADEQ Fixed Station Network Sites

Salt River Basin



Salt River Basin

BASIN SUMMARY

The Salt River Basin encompasses 7,121 square miles in Maricopa, Gila, Apache, and Navajo counties and contains 2,023 river miles. Most of the drainage area is Sonoran desert and dry grassland, with some mountain forest and meadow grassland. The entire basin is drained by the Salt River and its tributaries. The Salt River is regulated by the Roosevelt, Horse Mesa, Mormon Flat, and Stewart Mountain dams. Thirty-three lakes are listed in this basin, totaling 20,163 acres. For many years, the Salt River has been a major source of surface water for municipal and agricultural users in metropolitan Phoenix.

Site ID	Site Location Description
CAN1	Canyon Creek near Young. Site is located approximately 1.25 miles below OW Ranch, 5 miles south of Highway 260 and 15 miles NE of Young. Site is within the Tonto National Forest.
CC2	Cherry Creek above Salt River. Site is located 400 feet upstream of Forest Service road #203 crossing, 25 miles north of Globe. Site is within the Tonto National Forest.
PC1	Pinto Creek at Henderson Ford. Site is 100 feet upstream from Henderson Ranch Road crossing above Roosevelt Lake.
TC1	Tonto Creek near Gun Creek. Site is just inside the mouth of the canyon, 200 yards upstream of USGS gaging station #09499000 and 400 yards upstream of the confluence with Gun Creek.
SLR1	Salt River at 107th Avenue. Site is located on the Gila River Indian Reservation immediately below the 107th Avenue road crossing. Site is just above the confluence with the Gila River.

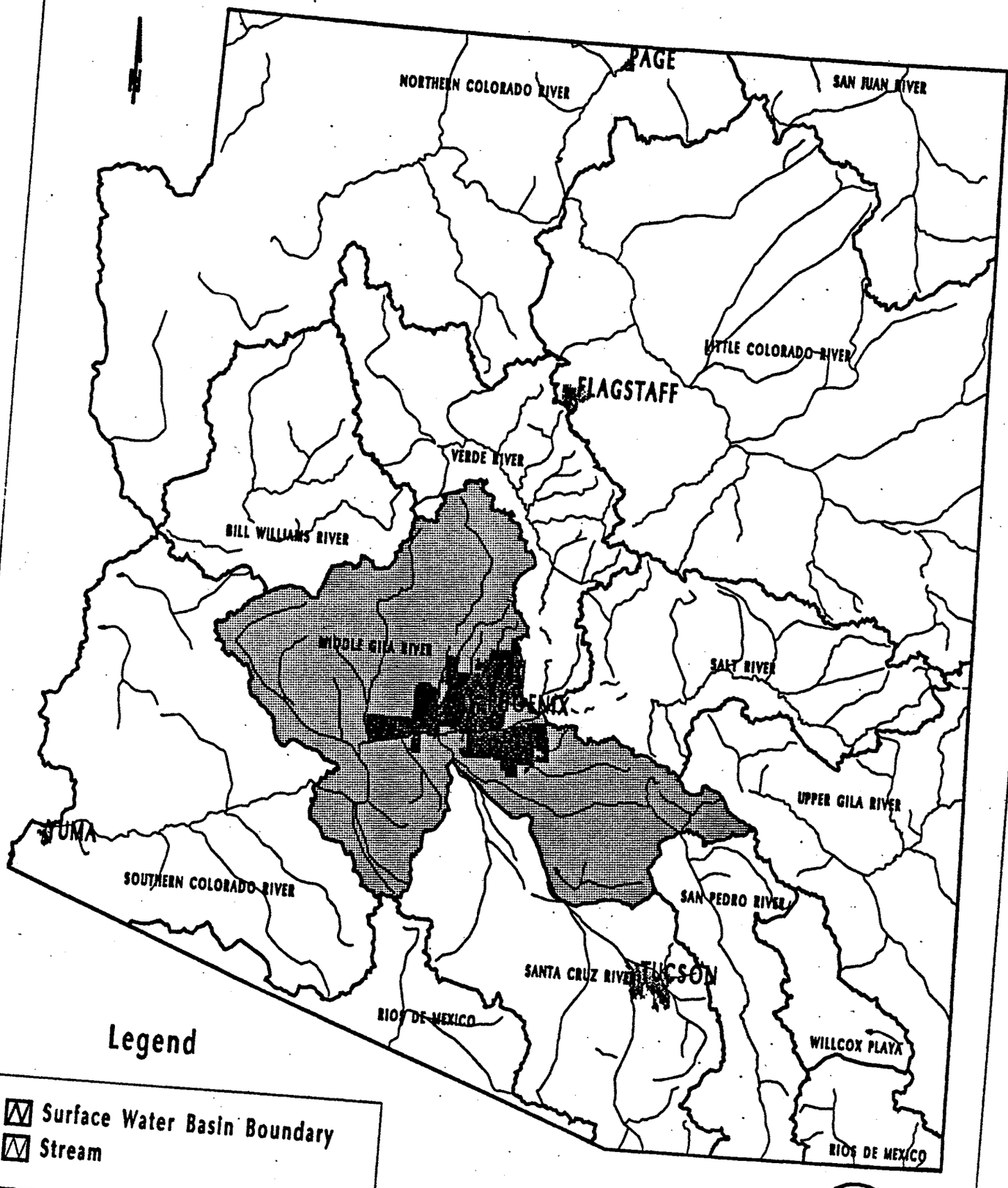
WATER QUALITY EXCEEDANCES

Site ID	Date	Time	Exceedance Value	Standard	Cause
TC1	90/10/09	1210	Turbidity 18.0 NTU	10 NTU	unknown
	90/11/06	1130	Turbidity 30.0 NTU	10 NTU	unknown

See Appendix A for detailed water quality listing.

ADEQ Fixed Station Network Sites

Middle Gila River Basin



Middle Gila River Basin

BASIN SUMMARY

The Middle Gila River Basin encompasses approximately 15,000 square miles in Gila, Maricopa, Pinal, and Yavapai counties. Most of the drainage area is Sonoran desert scrub, desert grasslands, mountain meadow grassland and mixed forest. The basin is drained by the Gila, Agua Fria and Hassayampa Rivers and their tributaries.

Site ID	Site Location Description
HR1	Hassayampa River near Wickenburg. Site is located downstream of the Town of Wickenburg within the Nature Conservancy's Hassayampa River Preserve.
HR2	Hassayampa River near Box Canyon Dam. Site is located approximately 6.5 miles upstream of the Town of Wickenburg inside Box Canyon. The site is located at the metal BLM stage plate, on the north bank.
HR3	Hassayampa River near Wagoner. Site is located just below Milk Creek, about 1000 feet above a temporary diversion dam supplying water to the Z Triangle Ranch.
MGR1	Middle Gila River near Phoenix International Raceway (PIR). Site is located approximately 0.5 mile downstream from the 115th Avenue road crossing directly across from PIR on the Gila River Indian Reservation.
MGR2	Middle Gila River above confluence of Salt River. Site is on the Gila River Indian Reservation approximately 200' above the Salt River at a small road crossing.

WATER QUALITY EXCEEDANCES

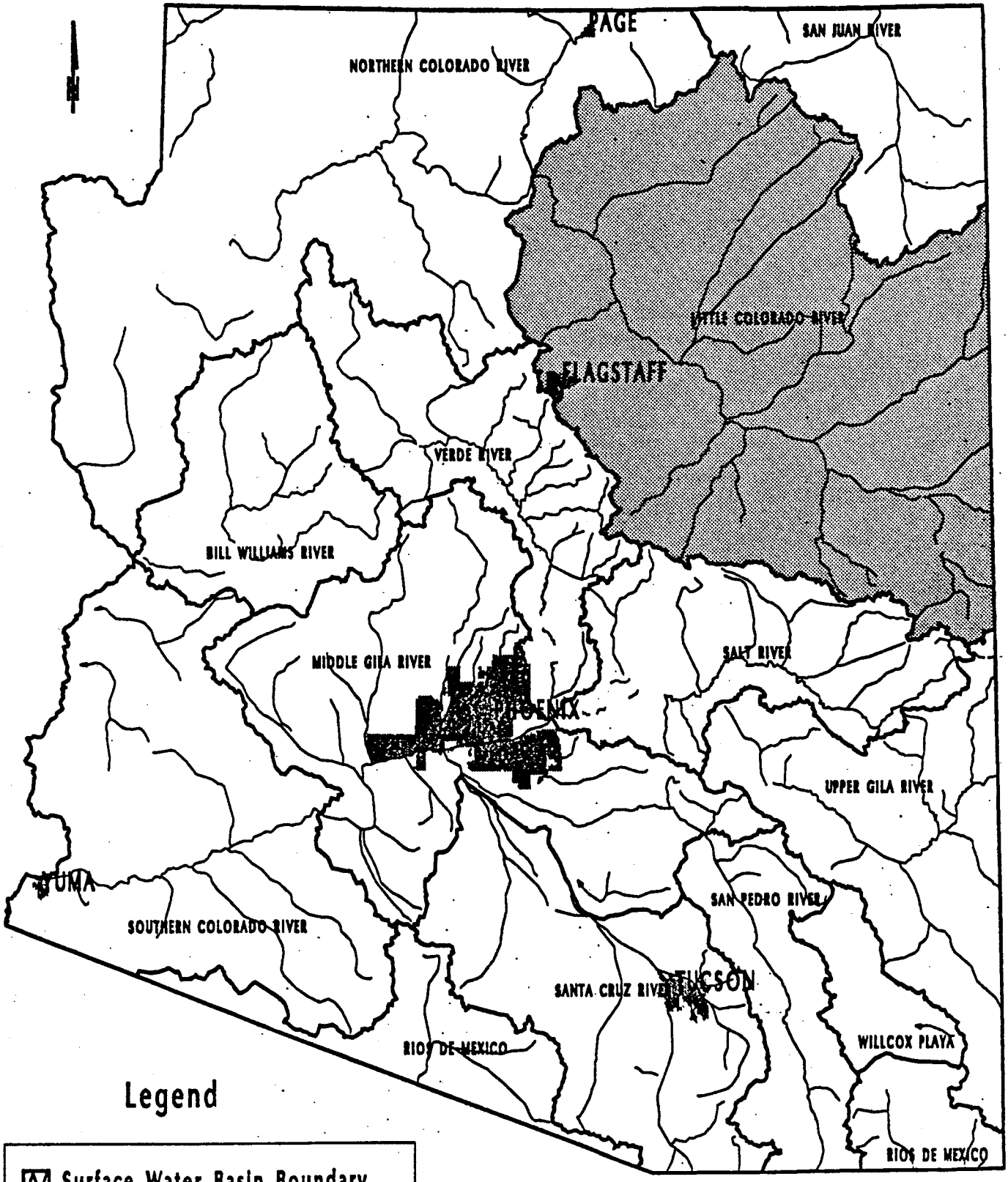
Site ID	Date	Time	Exceedance Value	Standard	Cause
HR1	90/11/27	1450	Diss. Oxygen 4.1 mg/l	6.0 mg/l	unknown
	91/04/04	1245	Turbidity 194 NTU	50 NTU	high flow
HR2	91/04/04	1020	Turbidity 65 NTU	50 NTU	high flow
HR3	91/04/03	1910	Turbidity 91 NTU	50 NTU	high flow

Turbidity exceedances are due to high-flow events.

See Appendix B for detailed water quality listing.

ADEQ Fixed Station Network Sites

Little Colorado River Basin



Legend

- Surface Water Basin Boundary
- Stream

Little Colorado River Basin

BASIN SUMMARY

The Little Colorado River Basin encompasses 26,361 square miles in Apache, Navajo, and Coconino counties, Arizona. Most of the drainage area is composed of plains and desert grassland, with some mountain meadow grassland. The Little Colorado River drains most of the northern one-third of the state, flowing west from the northern slopes of the White Mountains to its confluence with the Colorado River in the Grand Canyon.

Site ID	Site Location Description
WLC2	West Fork Little Colorado River at Wilderness Boundary. Site is located within the Apache Sitegraves National Forest just below the Wilderness Boundary fence, west of Sheep's Crossing.
LCO48	Little Colorado River near Springerville. Site is located 300 yards downstream from Nutrioso Creek and the Springerville WWTP.
SLC3	Silver Creek near Snowflake. Site is located along Silver Creek approximately 11 miles north of Snowflake and 6 miles upstream from the Little Colorado River, near USGS Gaging Station #09393500. Site is approximately 200' downstream of the gage.
SLC5	Silver Creek at 5-Mile Draw. Site is on left bank where 5-Mile Draw meets Silver Creek near Snowflake. Only bacteria samples are taken here.
SHL1	Showlow Creek near Showlow. Site is located approximately 0.25 mile below the City of Showlow wastewater treatment plant ponds. There is a buried gas pipeline road which runs east and west through the site area.
CHV1	Chevelon Creek near Winslow. Site is located just below irrigation diversion dam on the left bank. This site is approximately 0.5 mile above the Little Colorado River confluence.

Little Colorado River Basin, continued

WATER QUALITY EXCEEDANCES

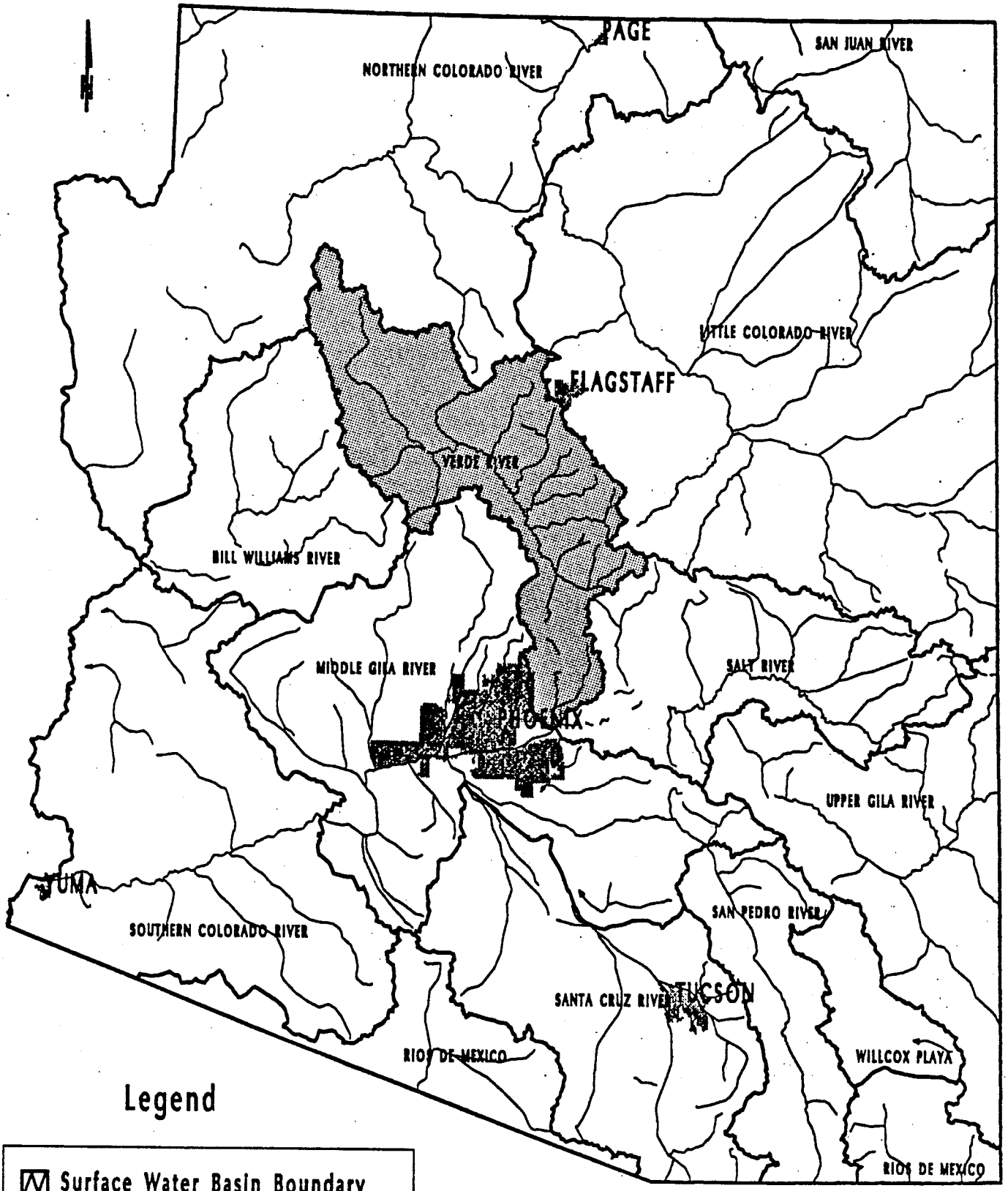
Site ID	Date	Time	Exceedance Value	Standard	Cause
LCO48	91/04/16	1700	Turbidity 34.0 NTU	10 NTU	high flow
	91/08/07	1430	Turbidity 14.4 NTU	10 NTU	unknown
SLC3	90/10/18	1345	Turbidity 32.0 NTU	10 NTU	Ag return flow
	91/06/20	1400	Turbidity 110 NTU	10 NTU	high flow
	91/08/08	1005	Turbidity 278 NTU	10 NTU	Ag return flow
SLC5	90/10/18	1050	Turbidity 30.5	10 NTU	Ag return flow
	90/10/18	1050	Unionized ammonia 1.188	0.02 mg/l	Ag return flow
SHL1	90/10/18	0841	Turbidity 16.9 NTU	10 NTU	unknown
	91/02/05	1700	Turbidity 21 NTU	10 NTU	unknown
	91/04/16	1915	Turbidity 32 NTU	10 NTU	high flow
	91/06/19	1655	Turbidity 19.6 NTU	10 NTU	unknown
	91/08/06	1530	Turbidity 31 NTU	10 NTU	unknown
CHV1	90/10/10	1200	Turbidity 18.7 NTU	10 NTU	unknown
	90/11/07	0840	Turbidity 11.8 NTU	10 NTU	unknown
	90/11/07	0840	Cadmium, Total 1.1 ug/l	1 ug/l	unknown
	91/01/23	1050	Turbidity 19.0 NTU	10 NTU	unknown
	91/03/13	1030	Turbidity 14.8 NTU	10 NTU	unknown

At most sites in this basin, high turbidity was due to high-flow runoff events. Elevated turbidity and ammonia at SLC3 & SLC5 may also be due to agricultural return flow.

See Appendix B for detailed water quality listing.

ADEQ Fixed Station Network Sites

Verde River Basin



Legend

- Surface Water Basin Boundary
- Stream

Verde River Basin

BASIN SUMMARY

The Verde River Basin encompasses 6,590 square miles in Coconino, Yavapai, Maricopa and Gila counties. Desert grassland chaparral characterizes most of the drainage area. The basin is drained entirely by the Verde River and its tributaries. The Verde River is a significant recreational and water supply resource. Its flow is regulated by Bartlett and Horseshoe dams.

Site ID	Site Location Description
BTC1	Bitter Creek near Clarkdale. Site is located 0.1 mile upstream of the bridge at Broadway Road in Clarkdale.
DBC1	Dry Beaver Creek near Sedona Site is located 200 yards upstream of U.S. Highway 179 in the Coconino National Forest at USGS gaging station #09505350.
ELC1	Ellison Creek, at USFS Control Road near Tonto Village Site is 75 feet upstream of Control Rd. bridge.
EVR2	East Verde River at State Highway 87 Bridge. Site is approximately 0.1 mile downstream of Highway 87 bridge, just above Forest Service Road #622 crossing in the Tonto National Forest.
FOS1	Fossil Creek at Irvine Power Plant. Site is off Tonto National Forest Service Road #708 at the Irvine Power Plant road crossing above the power plant discharge.
MC1	Munds Creek at Indian Gardens. Site is located approximately 0.25 mile above the confluence with Oak Creek at the area where the left bank is flat, red, sandstone.
MC2	Munds Creek at Interstate 17 Bridge. Site is located approximately 30 feet upstream of the northbound I-17 bridge near Munds Park.
OC1	Oak Creek above confluence with West Fork of Oak Creek. Site is located on Oak Creek 700 feet above the confluence with West Fork of Oak Creek.
PW1	Pumphouse Wash at Highway 89 Bridge. Site is located approximately 10 feet upstream of the Highway 89 bridge near Sedona.
VRC2	Verde River below Camp Verde. Site is located 4.4 miles upstream of Chasm Creek at Beasley Flat, across from limestone caves in opposite cliffs. This site was designated a biomonitoring site from April 1990 to January 1991.

Verde River Basin, continued

Site ID	Site Location Description
VRC3	Verde River near Clarkdale. Site is located 1.7 miles downstream from Sycamore Creek approximately 300' downstream of USGS gaging station #09504000. This site was designated a biomonitoring site from April 1990 to January 1991.
VRP1	Verde River near Perkinsville. Site is located approximately 25 feet downstream of Perkinsville Road bridge in the Prescott National Forest.
VRP2	Verde River near Paulden. Site is located 0.3 mile upstream from Verde Valley Ranch, 0.7 mile east of Paulden at USGS gaging station #09503700. This site was designated a biomonitoring site from April 1990 to January 1991.
WBC1	Wet Beaver Creek at Camp Verde. Site is located just north of Camp Verde, and 0.5 mile above confluence with the Verde River, just below the W.D. Lane road crossing.
WBC2	Wet Beaver Creek near Rimrock. Site is 3 miles north of Rimrock within the Coconino National Forest wilderness area at USGS gaging station #09505200.
VRI17	Verde River at the Interstate 17 Bridge Site is located approximately 40 feet upstream of the southbound I-17 Interstate Bridge crossing on the left bank.
VRDH1	Verde River at Dead Horse Ranch State Park. Site is located on the upstream side of the Dead Horse Ranch State Park road crossing (ford) on the right river bank. Turbidity samples taken here.
VR1000	Verde River at Thousand Trails Mobile Home Park. Site is located on the Verde River 0.1 mile downstream of the confluence of the Verde River and Oak Creek. Turbidity samples taken here.
WOC1	West Fork of Oak Creek above confluence with Oak Creek. Site is located 900 feet upstream of the confluence with Oak Creek, where West Fork trail first nears West Fork, opposite a steep sandstone cliff.

Verde River Basin, continued

WATER QUALITY EXCEEDANCES

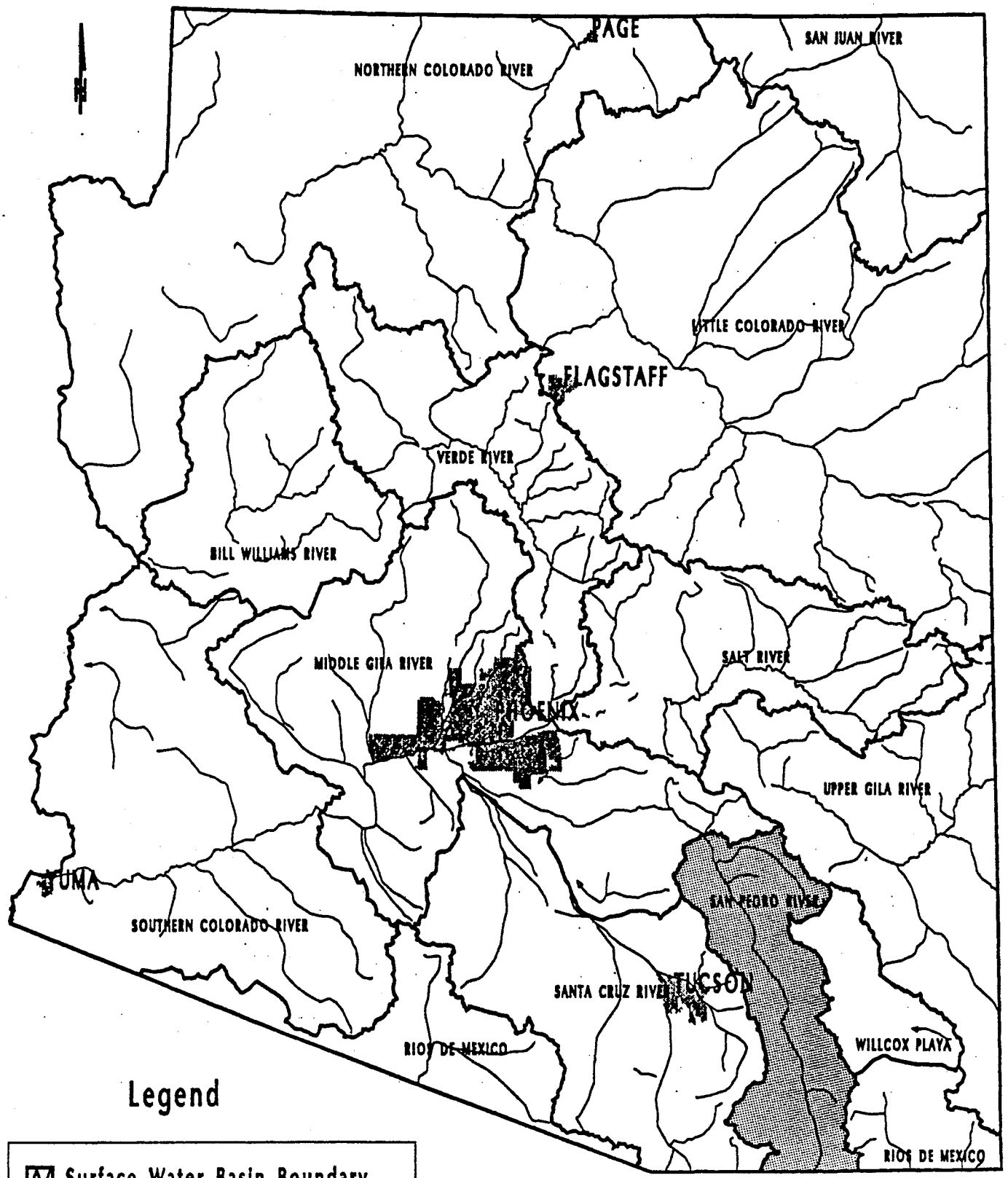
Site ID	Date	Time	Exceedance Value	Standard	Cause
ELC1	91/04/17	1510	Field/pH 9.20	9.00	Burned area
	91/04/17	1510	Lab pH	9.14	Burned area
	91/04/17	1511	Lab pH	9.12	Burned area
MC1	91/01/09	1500	Turbidity 39 NTU	10 NTU	unknown
	91/03/12	1355	Turbidity 32 NTU	10 NTU	high flow
MC2	91/01/09	0850	Turbidity 44 NTU	10 NTU	unknown
	91/03/12	1415	Turbidity 44 NTU	10 NTU	unknown
PW1	91/01/09	1030	Turbidity 53 NTU	10 NTU	high flow
	91/01/09	1031	Turbidity 53 NTU	10 NTU	high flow
	91/03/12	1605	Turbidity 21 NTU	10 NTU	high flow
VRC2	91/01/08	1130	Turbidity 75 NTU	50 NTU	unknown
	91/01/30	1405	Field pH 9.07	9.00	unknown
	91/03/27	1330	Turbidity 60 NTU	50 NTU	unknown
WBC1	91/01/08	1400	Turbidity 61 NTU	10 NTU	unknown
	91/03/27	1505	Turbidity 42 NTU	10 NTU	unknown
	91/05/06	1735	Turbidity 15.4 NTU	10 NTU	unknown
	91/07/17	0930	Turbidity 34 NTU	10 NTU	unknown
	91/07/17	0930	Diss. Oxygen 5.9 mg/l	6.0 mg/l	unknown
WBC2	91/01/08	1600	Turbidity 44 NTU	10 NTU	
	91/03/26	1230	Turbidity 27 NTU	10 NTU	
VRI17	91/03/27	1130	Turbidity 81 NTU	50 NTU	unknown

Turbidity is a persistent problem in the Verde River Basin. VRI17, VRDH1, and VR1000 were all chosen to monitor turbidity related to upstream sand and gravel operations; only one turbidity exceedance was found at these sites. Much of the turbidity exceedances at other sites may be a combination of high flow events and possible changes in land use (agriculture, residential development). pH at ELC1 is normally high because much of Ellison Creek's drainage was burned in the 1989 Dude Fire.

See Appendix C for detailed water quality listing.

ADEQ Fixed Station Network Sites

San Pedro River Basin



San Pedro River Basin

BASIN SUMMARY

The San Pedro River Basin encompasses 3,760 square miles in Cochise, Pima, Graham, Santa Cruz and Pinal counties. The drainage area consists primarily of desert grassland and Sonoran desert scrub vegetation. This basin contains no major lakes. The San Pedro Basin is drained entirely by the San Pedro River, which enters the United States from Sonora, Mexico. It flows northward to its confluence with the Gila River near Winkelman, Arizona. Where perennial flow exists, well-developed riparian habitats are found.

Site ID	Site Location Description
SP1	San Pedro River at Palominas. Site is just downstream of the State Highway 92 bridge, approximately 0.3 miles from the U.S. - Mexico border. International Boundary and Water Commission gaging station #09470500 is located here.
SP2	San Pedro River at U.S. Highway 80 Bridge. Site is near the river's confluence with Dragoon Wash, approximately 200 feet downstream of the U.S. Highway 80 bridge near St. David. Site is located downstream of the Apache Powder Superfund site.
SP5	San Pedro River 0.8 miles south of U.S. Highway 80 Bridge. Site is 0.8 miles upstream of the U.S. Highway 80 bridge, near St. David, where the river intersects an unnamed wash. Site is located adjacent to the Apache Powder Superfund site.
SP7	San Pedro River at Curtiss Siding. Site is located 1.5 miles upstream of the U.S. Highway 80 bridge near St. David at the Curtiss railroad siding. Site is located upstream of the Apache Powder superfund site.
SP10	San Pedro River at Fairbank. Site is located within the BLM San Pedro Riparian Conservation Area, 200 feet downstream of Highway 82 bridge.
SP11	San Pedro River at Lewis Springs Site is located at Highway 90 bridge immediately downstream of bridge in the BLM San Pedro Riparian National Conservation Area. This site is also a long-term biomonitoring site.

San Pedro River Basin, continued

Site ID	Site Location Description
SP12a	San Pedro River near Redington. Site is approximately 0.5 mile upstream of USGS gaging station #09472000 located south of Redington.
HSC1	Hot Springs Canyon near Cascabel. Site is located approximately 5.5 miles upstream of the confluence with the San Pedro River in a narrow canyon.
RFC1	Redfield Canyon near Redington. Site is located approximately 11 miles upstream of the confluence with the San Pedro River in a deep canyon. Sample point is directly below the abandoned "Hope Jones" cabin.

San Pedro River Basin, continued

WATER QUALITY EXCEEDANCES

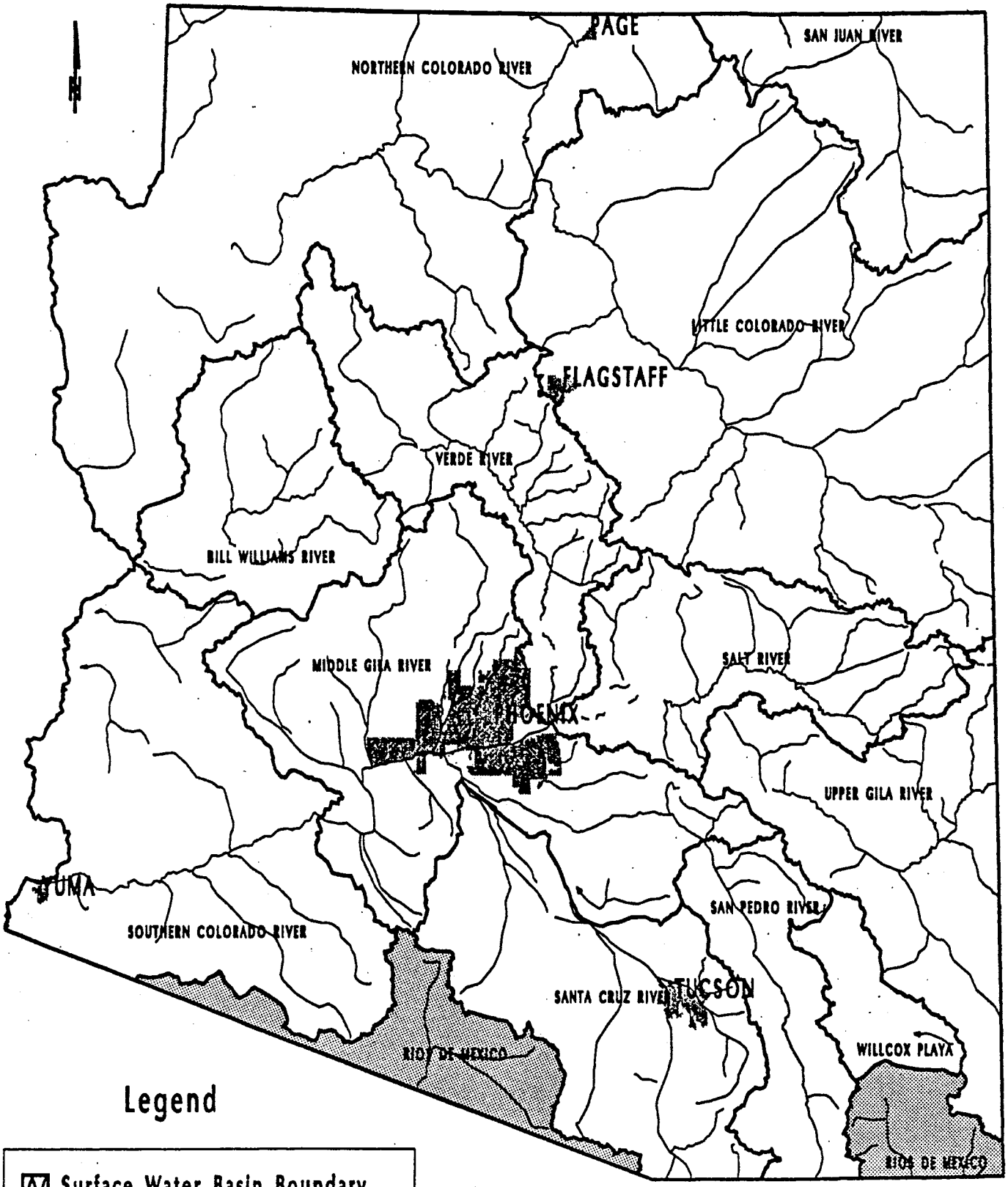
Site ID	Date	Time	Exceedance Value	Standard	Cause
SP1	91/08/26	1415	Diss. oxygen 5.72 ug/l	6.0 mg/l	unknown
	91/08/26	1415	Turbidity 220 NTU	50 NTU	unknown
	91/08/26	1416	Turbidity 210 NTU	50 NTU	unknown
SP2	90/10/24	1325	Unionized Ammonia 0.063	0.02 mg/l	blw. Superfund
	90/10/24	1325	Nitrate 13.1 mg/l	10.00 mg/l	blw. Superfund
	90/12/18	1230	Turbidity 140 NTU	50 NTU	unknown
	90/12/18	1230	Unionized Ammonia 0.032	0.02 mg/l	blw. Superfund
	90/12/18	1230	Nitrate 14 mg/l	10.00 mg/l	blw. Superfund
	90/12/18	1230	Mercury, Total 0.5 ug/l	0.2 ug/l	unknown
	91/02/26	1130	Unionized Ammonia 0.048	0.02 mg/l	blw. Superfund
	91/02/26	1130	Nitrate 11.4 mg/l	10.00 mg/l	blw. Superfund
	91/04/15	1230	Unionized Ammonia 0.113	0.02 mg/l	blw. Superfund
	91/04/15	1230	Nitrate 14 mg/l	10.00 mg/l	blw. Sueprfund
	91/06/18	1025	Unionized Ammonia 0.061	0.02 mg/l	blw. Superfund
	91/06/18	1025	Nitrate 21 mg/l	10.00 mg/l	blw. Superfund
	91/06/18	1027	Nitrate 21 mg/l	10.00 mg/l	blw. Superfund
	91/08/27	1040	Turbidity 9200 NTU	50 NTU	high flow
	91/08/27	1040	Fecal Coliform 9200 cfu	4000 cfu	high flow
	91/08/27	1040	Copper, Total 3930 ug/l	500 ug/l	high flow
	91/08/27	1040	Mercury, Total 1.2 ug/l	0.2 ug/l	high flow
	91/08/27	1040	Lead, Total 810	50 ug/l	high flow
SP5	90/06/20	1230	Unionized Ammonia 0.031	0.02 mg.l	at Superfund
	91/04/15	1110	Unionized Ammonia 0.028	0.02 mg/l	at Superfund
SP10	90/10/24	0930	Mercury, Total 0.6 ug/l	0.2 ug/l	unknown
	91/08/27	0835	Turbidity 1700 NTU	50 NTU	high flow
	91/08/27	0835	Lead, Total 120 ug/l	100 ug/l	high flow
SP11	91/08/26	1615	Turbidity 1800 NTU	50 NTU	high flow
	91/08/26	1615	Copper, Total 886 ug/l	500 ug/l	high flow
	91/08/26	1615	Mercury, Total 0.3 ug/l	0.2 ug/l	high flow
	91/08/26	1615	Lead, Total 230 ug/l	100 ug/l	high flow

High ammonia and nitrate at SP2 and SP5 are due to the migration of shallow contaminated groundwater from the nearby Apache Powder Superfund site. Nitrate values are listed under remarks in data listing (Appendix D). High turbidity and corresponding trace metals were the result of high-flow runoff events.

See Appendix D for detailed water quality listing.

ADEQ Fixed Station Network Sites

Rios de Mexico Basins



Rios De Mexico Basins

BASIN SUMMARY

Rios de Mexico includes, among numerous small basins along the U.S./Mexico Border, the Whitewater Draw basin, located in the Sulphur Springs Valley. The Whitewater Draw basin encompasses 1,584 square miles in Cochise County, Arizona and the drainage area is composed primarily of desert grassland. Fixed station network sites in this basin are located on Whitewater Draw and Mule Gulch. These sites were established in January 1987 to determine the need for setting water quality standards. Whitewater Draw discharges into the Rio Yaqui in Mexico, which ultimately drains into the Gulf of California.

Site ID	Site Location Description
MG1	Mule Gulch at Elfrida Cutoff. Site is located 500 feet upstream of the U.S. Highway 80 bridge 7 miles east of Bisbee in the eastern foothills of the Mule Mountains.
MG2	Mule Gulch at 'Inn at Castle Rock,' Bisbee, Arizona. Site is located directly in front of the Inn on Tombstone Canyon Road in Bisbee. Mule Gulch flows in a concrete lined ditch here.

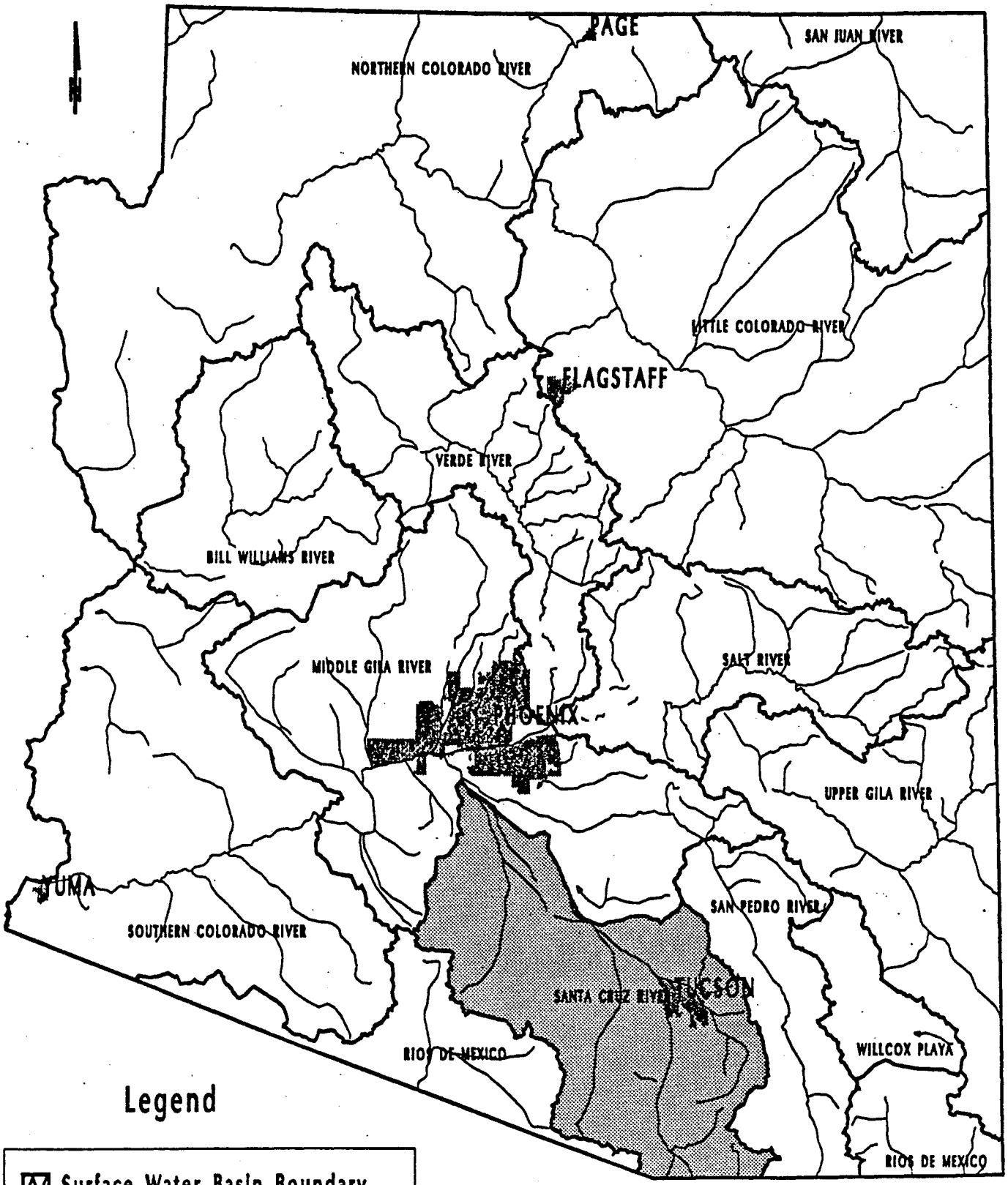
WATER QUALITY EXCEEDANCES

None were reported because there are no water quality standards for this basin.

See Appendix D for detailed water quality listing.

ADEQ Fixed Station Network Sites

Santa Cruz River Basin



Santa Cruz River Basin

BASIN SUMMARY

The Santa Cruz River Basin encompasses 8,188 square miles in Santa Cruz, Pima, and Pinal counties. Most of the drainage area consists of Sonoran desert scrub and dry grassland. The Santa Cruz River drains the entire basin. Perennial flow generally occurs only in effluent dominated sections. The river originates in the United States, flows into Mexico and re-enters the United States near Nogales.

Site ID	Site Location Description
SC1	Santa Cruz River at Cortaro Road Bridge. Site is downstream of the bridge at Cortaro Road where USGS gaging station #09486500 is located in an effluent dominated reach of the river. This site was designated as a biomonitoring site from April 1990 to January 1991.
SC2	Santa Cruz River at Rio Rico Bridge. Site is at Rio Rico, about 100 feet downstream of the Calabasas Road bridge in an effluent dominated reach of the river. This site was designated as a biomonitoring site from April 1990 to January 1991.
SC4	East Nogales Wash at Morley Avenue Tunnel. Site is located in Nogales, Arizona where the covered Nogales Wash conduit opens into a channel. Water enters Arizona from Mexico via this conduit.
SC5	Santa Cruz River at International Boundary. Site is located 300 feet downstream of barbed wire fence that marks the U.S. - Mexico border on the Buena Vista Ranch due east of Nogales.
SC6	Sonoita Creek below Patagonia Wastewater Treatment Plant. Site is 0.5 mile west of Patagonia below the wastewater treatment plant, within the Nature Conservancy's Patagonia-Sonoita Creek Sanctuary.
SC7	Cienega Creek at Marsh Station Road. Site is just below the Pantano Road (Marsh Station Road) bridge, 2.5 miles northeast of the Mountain View Interchange on Interstate 10 (Sonoita exit). It is within the Pima County Cienega Creek Natural Preserve and on the segment nominated for Unique Waters status.

Santa Cruz River Basin, continued

Site ID	Site Location Description
SC10	Sabino Creek at USGS Gage #09484000. Site is located on Sabino Creek at USGS gaging station #09484000, approximately 0.5 mile north of the Coronado National Forest boundary.
SC13	Santa Cruz River near Lochiel. Site is located downstream of USGS gaging station #09480000. This site was designated as a biomonitoring site from April 1990 to January 1991.
SC15	Sabino Creek below Summerhaven on Mount Lemmon Site is located adjacent to Marshall Gulch Winter Gate, approximately 0.7 miles downstream of the Mount Lemmon Post Office.
AVC1	Arivaca Creek near Headwater Spring. Site is located near the Headwater Spring, approximately 1 mile upstream of Arivaca. Site is located directly south of Arivaca Coop municipal wells.
AVC2	Arivaca Creek at Ruby Road. Site is located immediately upstream of dip crossing at Ruby Road in Arivaca.
AVC3	Arivaca Creek at Figueroa Spring. Site is located at Figueroa Springs approximately 6 miles downstream of Arivaca.
MAD1	Madera Canyon at Roundup. Site is located adjacent to Roundup picnic area in Madera Canyon recreation area in the Coronado National Forest.
MAD2	Madera Canyon at White House Site is located adjacent to the White House picnic area in Madera Canyon recreation area, Coronado National Forest.
PEC1	Peck Canyon Creek at Calabasas School Site is located adjacent to the Calabassas School in Rio Rico north of Nogales, Arizona and upstream of the I-17 bridge.

Santa Cruz River Basin, continued

WATER QUALITY EXCEEDANCES

Site ID	Date	Time	Exceedance Value	Standard	Cause
SC1	91/03/05	1000	Turbidity 220 NTU	50 NTU	effluent
SC4	90/11/14	1115	Turbidity 56 NTU	50 NTU	unknown
	91/06/19	1000	Fecal Coliform 4400 cfu	4000 cfu	unknown
SC6	90/11/13	1100	Diss. oxygen 5.25 mg/l	6.0 mg/l	springflow
	91/01/29	1630	Diss. oxygen 5.55 mg/l	6.0 mg/l	springflow
	91/09/19	1500	Diss. oxygen 5.12 mg/l	6.0 mg/l	springflow
SC15	91/03/05	1445	Turbidity 27 NTU	10 NTU	high flow
	91/03/05	1446	Turbidity 28 NTU	10 NTU	high flow
AVC1	91/01/28	0945	Diss. oxygen 5.57 mg/l	6.0 mg/l	springflow
	91/05/14	1005	Diss. oxygen 5.00 mg/l	6.0 mg/l	springflow
AVC2	91/09/26	1145	Diss. oxygen 5.90 mg/l	6.0 mg/l	unknown

Sites SC6 and AVC1 are fed by springs and hence tend to have low Dissolved Oxygen. High turbidity is the result of high-flow runoff events.

See Appendix E for detailed water quality listing.

APPENDIX A

Bill Williams
and
Salt River Basins

Field and Analytical Data
October 1990 - September 1991

Pages A-2 thru A-6 follow

BILL WILLIAMS RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
BOL1	910220	1145	BOL1	15030202-005	343828.00	1131213.00	ADEQ	21.0	9.0			576	8.14						545	8.32	183
BOL1	910403	1355	BOL1	15030202-005	343828.00	1131213.00	ADEQ	24.0	14.0	8.7	98.0%	102	7.35						99	7.63	36
BOL1	910611	1930	BOL1	15030202-005	343828.00	1131213.00	ADEQ	23.0	25.0			550	7.41					0.00	565	7.74	169
BOL2	910221	1505	BOL2	15030202-005	343729.00	1131237.00	ADEQ					583	8.72						569	8.38	191
BOL2	910403	1155	BOL2	15030202-005	343729.00	1131237.00	ADEQ	17.0	13.0	9.0	101.0%	101	7.82						103	7.56	36
BOL2	910611	1830	BOL2	15030202-005	343729.00	1131237.00	ADEQ	26.0	24.5			566	8.20					0.00	621	8.42	181
BS1	901128	1215	106700050005280	15030201-009	343445.00	1133947.00	ADEQ	17.5	15.5	8.5	93.0%	397	8.41		20.6	0.16	0.82	3.52	972	8.11	264
BS1	910219	1545	106700050005280	15030201-009	343445.00	1133947.00	ADEQ	21.0	20.5			863	8.45		13.2	0.34	1.83	6.73	882	8.37	267
BS1	910403	814	106700050005280	15030201-009	343445.00	1133947.00	ADEQ	11.0	11.5	9.3	91.6%	553	8.36		29.5	0.24	1.47	10.17	1070	8.21	329
BS1	910612	1700	106700050005280	15030201-009	343445.00	1133947.00	ADEQ	30.0	29.0			1479	7.84		6.4	0.10	0.42	0.35	1470	8.24	340
SM1	901128	1040	106708200003390	15030202-001	342203.00	1131111.00	ADEQ	5.0	12.0	9.5	94.6%	944			5.1	0.20	0.88	0.84	1030	8.02	329
SM1	910219	945	106708200003390	15030202-001	342203.00	1131111.00	ADEQ	12.0	9.0			792	8.55		9.7	0.48	1.21	5.14	785	8.24	229
SM1	910402	1515	106708200003390	15030202-001	342203.00	1131111.00	ADEQ	23.0	17.5	8.3	94.0%	262	8.12		43.4	1.18	3.27	176.19	241	8.14	90
SM1	910611	1430	106708200003390	15030202-001	342203.00	1131111.00	ADEQ	26.0	24.0			918	8.04		6.6	0.12	0.63	0.56	940	8.32	248
TR1	901128	1520	TR1	15030201-014	345557.00	1133728.00	ADEQ	14.0	6.5	11.0	97.8%	482			18.1	0.69	0.70	7.58	474	8.25	174
TR1	910219	1300	TR1	15030201-014	345557.00	1133728.00	ADEQ	22.5	8.5			485	8.73		18.2	0.69	0.66	7.67	468	8.51	172
TR1	910612	1420	TR1	15030201-014	345557.00	1133728.00	ADEQ	35.0	30.0			455	8.76		12.2	0.55	0.40	2.70	512	9.01	155

SALT RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	Hardness EDTA (mg/l)
CAN1	901010	1600	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	15.0	15.0	7.3	90.6%	248	8.36		15.9	0.66	0.31	3.12	244	8.45	126
CAN1	901212	1000	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	8.5	4.0	11.0	105.4%	230			15.2	0.83	0.27	3.06	254	8.28	131
CAN1	910207	1045	602700000005260	15060103-014	341535.00	1104737.00	ADEQ		5.0			178	8.65		16.6	0.89	0.73	9.85	176	8.39	89
CAN1	910207	1046	602700000005260	15060103-014	341535.00	1104737.00	ADEQ		5.0			178	8.65		16.6	0.89	0.73	9.85	176	8.38	90
CAN1	910417	1215	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	15.0	10.0	8.7	97.4%	95	7.70		27.8	1.05	1.84	64.88	93	8.03	46
CAN1	910625	1825	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	22.0	19.0	7.7	104.8%	186	7.83		22.6	0.59	0.54	5.91	183	8.12	94
CAN1	910625	1826	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	22.0	19.0	7.7	104.8%	186	7.83		22.6	0.59	0.54	5.91	186	8.15	94
CAN1	910807	1152	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	25.0	16.0			201	8.94		22.2	0.41	0.45	4.75	205	8.96	105
CAN1	910807	1153	602700000005260	15060103-014	341535.00	1104737.00	ADEQ	25.0	16.0			201	8.94		22.2	0.41	0.45	4.75			
CC2	901011	945	CC2	15060103-015	334315.00	1104902.00	ADEQ	18.0	22.0	7.1	88.7%	482	8.20		15.0	0.66	0.57	4.40	474	8.40	232
CC2	901011	946	CC2	15060103-015	334315.00	1104902.00	ADEQ	18.0	22.0	7.1	88.7%	482	8.20		15.0	0.66	0.57	4.40	474	8.39	226
CC2	901211	1525	CC2	15060103-015	334315.00	1104902.00	ADEQ	23.6	18.0	8.0	92.5%	457	8.11		16.0	0.53	0.54	3.60	462	8.28	229
CC2	910205	1250	CC2	15060103-015	334315.00	1104902.00	ADEQ	28.0	17.0	8.9	100.8%	472	8.44		18.1	0.74	0.79	10.58	453	8.44	227
CC2	910415	1630	CC2	15060103-015	334315.00	1104902.00	ADEQ	29.0	19.0	10.0	118.2%	367	8.62		24.8	1.44	1.11	35.27	314	8.60	167
CC2	910625	1430	CC2	15060103-015	334315.00	1104902.00	ADEQ	32.0	26.0	8.6	115.2%	431	8.20		20.6	0.50	0.72	6.99	399	8.46	192
CC2	910806	1612	CC2	15060103-015	334315.00	1104902.00	ADEQ	37.0	30.0	9.4	134.0%	385	8.54		21.9	0.27	0.80	4.90	373	8.56	185
CC2	910806	1613	CC2	15060103-015	334315.00	1104902.00	ADEQ	37.0	30.0	9.4	134.0%	385	8.54		21.9	0.27	0.80	4.90			
PC1	901011	1145	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	26.0	22.0	9.1	113.6%	1060	8.31		3.5	0.87	0.35	0.60	1060	8.34	560
PC1	901211	1230	604500000001070	15060103-018	333302.00	1105924.00	ADEQ		10.0	12.2	118.6%	875	8.20		14.1	0.45	0.27	1.05	1050	8.18	546
PC1	910205	1000	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	15.0	9.0			893	8.33		6.5	0.52	1.50	4.65	900	8.31	460
PC1	910415	1315	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	23.0	20.0	8.7	103.9%	522	8.35		20.9	0.52	1.83	20.30	630	8.35	314
PC1	910625	1230	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	32.0	26.0	8.5	114.0%	784	8.37		15.6	0.23	0.95	3.52	777	8.22	394
PC1	910806	1126	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	29.0	28.0			779	8.31		14.0	0.20	0.94	2.21	812	8.32	396
PC1	910806	1127	604500000001070	15060103-018	333302.00	1105924.00	ADEQ	29.0	28.0			779	8.31		14.0	0.20	0.94	2.21			
TC1	901009	1210	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	22.0	20.0	8.6	103.8%	488	8.22	4.25	44.0	0.98	0.10	4.90	637	8.53	206
TC1	901106	1130	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	13.0	13.0	9.9	102.6%	676	8.71		43.5	0.81	0.30	10.52	667	8.29	233
TC1	910124	920	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	3.0	5.0	10.2	87.6%	470	8.46	4.60	54.5	1.23	0.56	32.40	447	8.26	165
TC1	910314	1140	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	12.0	9.5	10.2	97.9%	298	8.44						305	8.20	128
TC1	910522	1120	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	25.0	20.0	8.2	98.0%	455	8.33		33.6	0.62	1.20	29.22	428	8.44	166
TC1	910709	1310	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	34.0	27.0	10.2	136.4%	460	8.22		16.0	0.49	1.21	8.29	442	8.71	126
TC1	910910	1630	605500000004360	15060101-006	335852.00	1111812.00	ADEQ	31.0	27.0	8.5	115.3%	460	8.31		18.3	0.54	1.05	9.56			
SLR1	901029	900	SLR1	15060106-001	332250.00	1121728.00	ADEQ	25.0	26.0	2.1	26.7%	2058	7.34						2030	7.41	377
SLR1	901126	955	SLR1	15060106-001	332250.00	1121728.00	ADEQ	18.0	23.0	2.2	26.0%	2038	7.29						1940	7.60	375
SLR1	901219	1000	SLR1	15060106-001	332250.00	1121728.00	ADEQ	18.5	20.0	2.6	29.4%	2164	7.45						2020	7.43	398

BILL WILLIAMS RIVER BASIN TDS Cations Anions

Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
BOL1	910220	1145	336	2	0.96	34.2	21.0	54.7	5.26		1.0	337	11.0	21.8	276	1.0	2.06	0.13	0.10 K	0.10 K		0.05 K
BOL1	910403	1355	93	2	17.8	9.9	3.2	6.4	1.49		1.0	44.2	5.0	3.2	36.2	1.0	0.71	0.25	0.10 K	0.10 K		0.05 K
BOL1	910611	1930	322	2	2.3	35.3	20.8	56.1	6.23		1.0	321	5.0	25.2	263	1.0	1.26	0.34	0.10 K	0.10 K		0.10 K
BOL2	910221	1505	363	2	2.6	37.6	22.3	63.0	5.44		3.2	325	29.0	22.9	272	2.7	2.19	0.12	0.10 K	0.10 K		0.05 K
BOL2	910403	1155	94	5	17.7	10.3	3.3	6.7	1.57		1.0	44	5.0	3.0	36.0	1.0	0.65	0.32	0.10 K	0.10 K		0.05 K
BOL2	910611	1830	352	4	0.78	34.9	23.1	66.8	7.00		3.8	286	54.8	26.8	241	3.2	2.17	0.45	0.16	0.10 K		0.10 K
BS1	901128	1215	652	77	40.0	71.0	26.3	129.0	8.31		1.0	393	105	82.5	322	1.0	1.77	0.5	0.10 K	0.10	0.006	0.19
BS1	910219	1545	567	24	12.5	63.8	24.0	106	6.53		3.4	356	98.8	71.8	297	2.8	1.6	0.12	0.10 K	0.10 K		0.12
BS1	910403	814	709	155	48	79.5	26.5	129	8.65		1.0	375	137	8.6	307	1.0	1.53	0.26	0.10 K	0.10 K		0.26
BS1	910612	1700	941	2	0.68	74.6	31.1	205	9.41		1.0	478	182	147	392	1.0	2.18	0.4	0.10 K	0.10 K		0.26
SM1	901128	1040	678	2	0.36	66.6	33.9	114	6.37		1.0	427	98.8	65.4	1	350	1.59	0.2	0.10 K	0.10 K		0.05 K
SM1	910219	945	502	6	1.56	45.4	24.1	87.3	4.81		1.0	333	78.9	59.2	273	1.0	1.45	0.13	0.10 K	0.10 K		0.06
SM1	910402	1515	177	14	17.2	21.9	7.7	20.6	2.33		1.0	116	16.5	11.4	96.6	1.0	0.61	0.15	0.32	0.10 K		0.33
SM1	910611	1430	566	2	0.59	62.1	25.5	100	6.33		1.0	326	104	83.2	267	1.0	1.32	0.25	0.14	0.10 K		0.10 K
TR1	901128	1520	334	5	4.4	41.9	17.5	42.8	6.69		1.0	279	11.6	19.7	1	229	0.54	0.2	0.10 K	0.10 K		0.06
TR1	910219	1300	303	6	3.7	36.2	16.5	37.4	5.21		6.0	266	11.6	19.4	230	5.0	0.52	0.11	0.10 K	0.10 K		0.05
TR1	910612	1420	327	2	0.63	35.6	14.7	53.6	8.15		26.5	234	16.5	24.4	236	22.1	0.77	0.31	0.10 K	0.10 K		0.12

SALT RIVER BASIN TDS Cations Anions

Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
CAN1	901010	1600	150	2	1.02	34.5	8.9	2.5	0.99		3.8	142	12.6	2.8	123	3.2	0.20 K	0.11	0.10 K			0.10 K
CAN1	901212	1000	149	2	0.83	39.2	9.47	2.5	0.99				11.6	2.20	123	1.0	0.20 K	0.1 K	0.51	0.10 K		0.09
CAN1	910207	1045	114	2	5.6	24.6	6.0	2.5	0.91		1.0	100	13.1	2.50	81.6	1.0	0.20 K	0.2 K	0.15	0.10 K		0.07
CAN1	910207	1046	110	7	5.6	24.0	5.8	2.5	0.80		1.0	99.3	12.2	2.50	81.4	1.0	0.20 K	0.2 K	8.20	0.10 K		0.05 K
CAN1	910417	1215	64	2	6.3	13.1	2.6	2.5	0.75		1.0	52.7	5.0	1.3	43.2	1.0	0.20 K	0.10	0.10 K	0.10 K		0.05 K
CAN1	910625	1625	104	6	5.6	26.0	6.6	2.5	1.03		1.0	113	5.0	2.6	92.7	1.0	0.20 K	0.49	0.51	0.10 K		0.10
CAN1	910625	1626	99	4	5.8	24.7	5.8	2.5	1.05		1.0	110	5.0	2.6	90.4	1.0	0.20 K	0.51	0.26	0.10 K		0.12
CAN1	910807	1152	133	2	2.1	31.8	7.8	2.5	0.84		9.4	107	5.0	2.6	103	7.8	0.20 K	0.23	0.30	0.10 K		0.10 K
CAN1	910807	1153																				
CC2	901011	945	291	2	0.46	53.8	25.5	14.4	1.82		3.6	267	15.5	20.3	225	3.0	0.24	0.10 K	0.10 K			0.10 K
CC2	901011	946	292	2	0.45	52.2	24.1	14.4	1.82		3.6	267	15.5	21.0	226	3.0	0.24	0.10 K	0.10 K			0.10 K
CC2	901211	1525	279	14	4.1	56.0	22.4	15.8	2.00				14.1	20.2	217	1.0	0.23	0.1	0.10 K	0.10 K		0.05 K
CC2	910205	1250	293	2	0.32	49.9	21.0	15.1	1.71		3.8	256	16.7	18.4	216	3.2	0.22	0.2 K	0.10 K	0.10 K		0.05 K
CC2	910415	1630	193	2	1.39	35.6	14.1	11.6	1.71		11.0	168	14.7	9.8	156	9.2	0.23	0.13	0.10 K	0.10 K		0.05 K
CC2	910625	1430	231	2	0.41	48.1	19.8	12.9	1.70		5.0	230	11.8	11.5	197	4.2	0.29	0.21	0.80	0.10 K		0.10 K
CC2	910806	1612	242	2	0.60	41.8	18.8	13.7	1.74		6.4	216	13.2	13.0	188	5.3	0.27	0.24	0.20	0.10 K		0.10 K
CC2	910806	1613																				
PC1	901011	1145	628	2	0.42	132	52.2	38.7	3.73		1.0	268	376	36.8	236	1.0	0.44	0.11	0.10 K			0.10 K
PC1	901211	1230	603	2	0.57	135	50.4	39.3	3.41				319	38.4	231	1.0	0.44	0.2	0.10 K	0.10 K		0.05 K
PC1	910205	1000	670	2	0.35	117	38.1	30.1	2.65		1.0	270	261	26.2	221	1.0	0.44	0.2 K	0.10 K	0.10 K		0.05 K
PC1	910415	1315	455	2	2.0	77.0	23.3	21.9	2.75		9.5	203	182	15.6	182	7.9	0.41	0.27	0.27	0.10 K		0.05 K
PC1	910625	1230	550	2	0.23	105	32.8	28.4	3.02		1.0	290	190	21.9	238	1.0	0.65	0.32	0.44	0.10 K		0.10 K
PC1	910806	1126	575	4	0.52	106	32.9	32.5	3.27		1.0	284	188	23.9	233	1.0	0.63	0.21	0.19	0.10 K		0.10 K
PC1	910806	1127																				
TC1	901009	1210	381	31	18.0	59.1	17.1	59.6	3.75		5.2	209	12.6	93.3	180	4	0.54	0.68	0.10 K			0.10
TC1	901106	1130	387	61	30.0	65.0	17.1	60.4	3.62		1.0	244	13.8	95.8	200	1	0.51	0.20	0.10 K	0.10 K		0.17
TC1	910124	920	257	2	3.3	44.1	11.5	29.7	1.99		1.0	178	17.8	48.8	146	1	0.39	0.10 K	0.10 K	0.10 K		0.05 K
TC1	910314	1140	194	2	3.7	36.2	8.7	13.2	1.59		1.0	142	13.6	19.5	116	1	0.22	0.14	0.24	0.10 K		0.14
TC1	910522	1120	261	2	0.89	46.7	10.4	26.2	2.35		3.7	190	15.2	38.4	162	3.1	0.39	0.24	0.10 K	0.10 K		0.10 K
TC1	910709	1310	242	4	1.19	38.5	11.5	39.1	2.77		16.1	136	13.1	55.0	138	13.4	0.43	0.36	0.57	0.10 K		0.10 K
TC1	910910	1630																				
SLR1	901029	900	1230	7	2.5	85.6	39.4	299	17.00		1.0	279	364	381	229	1.0	1.16		2.12			6.4
SLR1	901126	955	1110	5	3.2	83.2	40.5	262	14.20		0.5	301	200	370	301	0.5	0.91	15.6	1.62	14.3	0.166	5.8
SLR1	901219	1000	1210	2	3.6	98.6	42.1	247	19.70		1.0	349	235	361	286	1.0	1.67	21	3.60	21.9	0.294	

BILL WILLIAMS RIVER BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
BOL1	910220	1145	8	0	1 K		10 K		100 K		180		0.5 K		1.0 K		10 K		10 K		100
BOL1	910403	1355			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	13	10 K	950
BOL1	910611	1930			1 K		10 K		100 K		180		0.5 K		1.0 K		10 K		10 K		530
BOL2	910221	1505	4	10	1 K		17		100 K		140		0.5 K		1.0 K		10 K		13		660
BOL2	910403	1155			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	17	10 K	880
BOL2	910611	1830			1 K		12		100 K		190		0.5 K		1.0 K		10 K		10 K		100
BS1	901128	1215	28	68	1 K		10 K		100 K		430		0.5		1.0 K		10 K		28		2480
BS1	910219	1545	32	32	1 K		10 K		100 K		360		0.5 K		1.0 K		10 K		17		740
BS1	910403	814			1 K	1 K	10 K	10 K	160	120 K	360	330	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	17	10 K	3190
BS1	910612	1700			1 K		18		110		790		0.5 K		1.0 K		10 K		10 K		140
SM1	901128	1040	6	4	1 K		10 K		100 K		290		0.5 K		1.0 K		10 K		10 K		100
SM1	910219	945	100	270	1 K		10 K		100 K		250		0.5 K		1.0 K		10 K		10 K		100
SM1	910402	1515			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	14	10 K	890
SM1	910611	1430			1 K		10 K		100 K		300		0.5 K		1.0 K		10 K		10 K		100
TR1	901128	1520			1 K		10 K		100 K		170		0.5 K		1.0 K		10 K		10 K		390
TR1	910219	1300	0	20	1 K		10 K		100 K		190		0.5 K		1.0 K		10 K		15		190
TR1	910612	1420			1 K		12		100 K		250		0.5 K		1.0 K		10 K		10 K		100

SALT RIVER BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
CAN1	901010	1600	1	154	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		40		190
CAN1	901212	1000			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
CAN1	910207	1045			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		120
CAN1	910207	1046			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		15		180
CAN1	910417	1215	0	7	1 K		10 K		120		100 K		0.5 K		1.0 K		10 K		10		190
CAN1	910625	1825	6	61	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		170
CAN1	910625	1826			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		170
CAN1	910807	1152			1 K	1 K	18	13	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	210
CAN1	910807	1153				25 K		13		100 K		130		0.5 K		1.0 K		10 K		10 K	
CC2	901011	945	6	423	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		36		220
CC2	901011	946			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		240
CC2	901211	1525			1 K		10 K		100 K		260		0.5 K		1.0 K		22		10 K		330
CC2	910205	1250	2	165	1 K		10 K		1000		100 K		0.5 K		1.0 K		10 K		10 K		100
CC2	910415	1630			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		12		170
CC2	910625	1430	19	15	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
CC2	910806	1612			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	5.0 K	10 K	10 K	10 K	10 K	140
CC2	910806	1613				1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K	
PC1	901011	1145	106	134	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		190
PC1	901211	1230			1 K				100 K		520		0.5 K		1.0 K		11		79		290
PC1	910205	1000	12	120	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
PC1	910415	1315			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	130
PC1	910625	1230			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		110
PC1	910806	1126			1 K	1 K	10 K	14	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	170
PC1	910806	1127				1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K	
TC1	901009	1210	29	76	1 K		10 K		110		100 K		0.5 K		1.0 K		10 K		10 K		860
TC1	901106	1130			1 K		10 K		100 K		120		0.5 K		1.0 K		10 K		18		1520
TC1	910124	920			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	130
TC1	910314	1140			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		36		120
TC1	910522	1120	15	13	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
TC1	910709	1310			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
TC1	910910	1630																			
SLR1	901029	900	64	20	1 K		22		100 K		540		0.5 K		1.0 K		10 K		29		300
SLR1	901126	955	269	36	10 K		8		43		540		5 K		5 K		10		20 K		216
SLR1	901219	1000			1 K		10 K		100 K		630		0.5 K		1.1		10 K		10 K		200

BILL WILLIAMS RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
BOL1	910220	1145 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
BOL1	910403	1355	210	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
BOL1	910611	1930		0.5 K		140		100 K		10 K		5 K		5 K				5 K		50 K
BOL2	910221	1505		0.5 K		130		100 K		10 K		5 K		5 K				5 K		200
BOL2	910403	1155	170	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
BOL2	910611	1830 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
BS1	901128	1215		0.5 K		190		100 K		10 K		5 K		5 K				5 K		50 K
BS1	910219	1545		0.5 K		80		100 K		10 K		5 K		5 K				5 K		50 K
BS1	910403	814	100 K	0.5 K	0.5 K	250	100	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
BS1	910612	1700		0.5 K		190		100 K		10 K		5 K		5 K				5 K		50 K
SM1	901128	1040 K		0.5 K		80		100 K		10 K		5 K		5 K				5 K		50 K
SM1	910219	945 K		0.5 K		90		100 K		10 K		5 K		5 K				5 K		50 K
SM1	910402	1515	680	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K		50 K
SM1	910611	1430 K		0.5 K		120		100 K		10 K		5 K		5 K				5 K		50 K
TR1	901128	1520		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
TR1	910219	1300		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
TR1	910612	1420 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K

SALT RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
CAN1	901010	1600		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	901212	1000 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	910207	1045		0.5 K		50 K		100 K		20 K		5 K		5 K				5 K		50 K
CAN1	910207	1046		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	910417	1215		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	910625	1825		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	910625	1826		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CAN1	910807	1152	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
CAN1	910807	1153	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
CC2	901011	945		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CC2	901011	946		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CC2	901211	1525		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CC2	910205	1250 K		0.5 K		50 K		100 K		15		5 K		5 K				5 K		50 K
CC2	910415	1630		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CC2	910625	1430 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CC2	910806	1612	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
CC2	910806	1613	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
PC1	901011	1145		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
PC1	901211	1230		0.5 K		50 K		100 K		10 K		5 K						5 K		50 K
PC1	910205	1000 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
PC1	910415	1315	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
PC1	910625	1230		0.5 K		50 K		100 K		10 K		5 K		100 K				5 K		50 K
PC1	910806	1126	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	6	5 K			5 K	5 K	50 K
PC1	910806	1127	100 K		0.5 K		50 K		100 K		10 K		5 K		25				5 K	
TC1	901009	1210		0.5 K		50		100 K		10 K		5 K		5 K				5 K		50 K
TC1	901106	1130		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
TC1	910124	920	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
TC1	910314	1140		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
TC1	910522	1120 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
TC1	910709	1310 K	110	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
TC1	910910	1630																		
SLR1	901029	900		0.5 K		60		100 K		10 K		5 K		5 K				5 K		50 K
SLR1	901126	955		0.2 K		60		20 K		2 K		50 K		5 K				5 K		13
SLR1	901219	1000		0.5 K		60		100 K		10 K		5 K		5 K				5 K		50 K

BILL WILLIAMS RIVER BASIN Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
BOL1	910220	1145:		ADHS	24525	
BOL1	910403	1355	50 K	ADHS	25088	
BOL1	910611	1930:		ADHS	25905	
BOL2	910221	1505		ADHS	24543	
BOL2	910403	1155	50 K	ADHS	25088	
BOL2	910611	1830:		ADHS	25907	
BS1	901128	1215:		ADHS/ATI	23578	
BS1	910219	1545:		ADHS	24530	
BS1	910403	814	50 K	ADHS	25091	FLOOD
BS1	910612	1700:		ADHS	25911	
SM1	901128	1040:		ADHS/ATI	23577	
SM1	910219	945:		ADHS	24527	
SM1	910402	1515:		ADHS	25089	violation for turbidity (17.2 ntu) FLOOD
SM1	910611	1430:		ADHS	25906	
TR1	901128	1520:		ADHS	23576	
TR1	910219	1300:		ADHS	24526	
TR1	910612	1420:		ADHS	25910	violation for pH (9.01)

SALT RIVER BASIN Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
CAN1	901010	1600:		ADHS	22977	
CAN1	901212	1000:		ADHS-AT	23736	
CAN1	910207	1045:		ADHS-AT	24367	
CAN1	910207	1046:		ADHS-AT	24362	QC SAMPLE
CAN1	910417	1215:		ADHS	25261	FLOOD
CAN1	910625	1825:		ADHS	26057	
CAN1	910625	1826:		ADHS	26060	QC SAMPLE
CAN1	910807	1152	50 K	ADHS	26570	
CAN1	910807	1153	50 K		26569	LAB FILTERED
CC2	901011	945:		ADHS	22975	
CC2	901011	946:		ADHS	22974	QC SAMPLE
CC2	901211	1525:		ADHS	23737	
CC2	910205	1250:		ADHS	24364	
CC2	910415	1630:		ADHS	25264	FLOOD
CC2	910625	1430:		ADHS	26059	
CC2	910806	1612	50 K	ADHS	26564	
CC2	910806	1613	50 K	ADHS	26567	LAB FILTERED
PC1	901011	1145:		ADHS	22976	
PC1	901211	1230:		ADHS-AT	23735	
PC1	910205	1000:		ADHS-AT	24365	
PC1	910415	1315	50 K	ADHS	25263	FLOOD
PC1	910625	1230:		ADHS	26058	
PC1	910806	1126	50 K	ADHS	26572	
PC1	910806	1127	50 K	ADHS	26571	LAB FILTERED
TC1	901009	1210:		ADHS	22962	
TC1	901106	1130:		ADHS	23373	
TC1	910124	920	50 K	ADHS-AT	24199	FLOOD
TC1	910314	1140:		ADHS	24776	
TC1	910522	1120:		ADHS	25737	FLOOD
TC1	910709	1310	50 K	ADHS	26211	
TC1	910910	1630				
SLR1	901029	900:		ADHS	23208	
SLR1	901126	955		ATI	11761	
SLR1	901219	1000:		ADHS-AT	23665	

APPENDIX B

Middle Gila River
and
Little Colorado River Basins

Field and Analytical Data
October 1990 - September 1991

Pages B-2 thru B-6 follow

MIDDLE GILA RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	Hardness EDTA (mg/l)
HR1	901127	1450	406000000009180	15070103-002	335620.00	1124156.00	ADEQ	13.0	19.0	4.1	47.4%	676	7.56		13.7	0.19	0.59	1.66	629	7.60	246
HR1	910221	1125	406000000009180	15070103-002	335620.00	1124156.00	ADEQ	24.5	19.0			676	7.60		9.1	0.57	0.50	1.96	610	8.00	243
HR1	910404	1245	406000000009180	15070103-002	335620.00	1124156.00	ADEQ	27.0	23.5	7.3	92.0%	369	8.22		24.1	0.70	4.09	69.36	363	8.25	200
HR1	910613	1300	406000000009180	15070103-002	335620.00	1124156.00	ADEQ	24.0	24.0			643	7.61		6.4	0.23	1.37	2.19	663	8.12	250
HR2	901127	1615	406000000006600	15070103-004	340253.00	1124313.00	ADEQ	9.0	15.0	8.6	91.6%	475			6.7	0.26	0.67	1.79	544	7.97	224
HR2	910221	930	406000000006600	15070103-004	340253.00	1124313.00	ADEQ	17.0	17.0			519	8.65		8.2	0.19	0.69	0.86	513	8.44	216
HR2	910404	1020	406000000006600	15070103-004	340253.00	1124313.00	ADEQ	20.0	14.5	9.4	100.0%	186	8.61		75.6	0.53	3.73	159.06	351	8.32	160
HR2	910613	110	406000000006600	15070103-004	340253.00	1124313.00	ADEQ		27.5			475	8.37		23.7	0.10	0.56	1.54	497	8.52	213
HR3	910110	1330	HR3	15070103-007	341400.00	1123243.00	ADEQ												521	8.39	232
HR3	910220	1630	HR3	15070103-007	341400.00	1123243.00	ADEQ	21.5	18.0			519	8.01		6.7	0.16	0.73	0.55	509	8.26	230
HR3	910403	1910	HR3	15070103-007	341400.00	1123243.00	ADEQ	16.0	16.0	8.7	99.0%	230	7.75		34.4	0.66	3.64	79.06	294	8.06	156
HR3	910619	1706	HR3	15070103-007	341400.00	1123243.00	ADEQ												447	8.26	197
MGR1	901029	1050	MGR1	15070101-015	332245.00	1121832.00	ADEQ	29.0	25.0	4.3	53.3%	3000	7.27		52.2	0.65	2.37	96.60	2630	7.69	536
MGR1	901127	1100	MGR1	15070101-015	332245.00	1121832.00	ADEQ	11.0	19.0	4.0	44.6%	3243	7.51		55.2	0.66	2.20	104.00	2790	7.52	545
MGR1	901220	1155	MGR1	15070101-015	332245.00	1121832.00	ADEQ		21.5			3317	7.31		53.7	0.60	2.23	83.22	3230	7.77	665
MGR2	901029	930	MGR2	15070101-015	332242.00	1121832.00	ADEQ	27.0	18.0	11.0	120.6%	11529	8.05		25.5	0.56	0.45	5.63	11600	7.67	2660
MGR2	901127	920	MGR2	15070101-015	332242.00	1121832.00	ADEQ	8.0	13.5	8.6	85.3%	12926	7.63		27.0	0.60	0.45	6.56	12200	7.49	3140
MGR2	901220	1415	MGR2	15070101-015	332242.00	1121832.00	ADEQ	10.0	14.0			13716	7.72		32.5	0.40	0.59	8.63	12500	7.62	3020
MGR2	901220	1416	MGR2	15070101-015	332242.00	1121832.00	ADEQ	10.0	14.0			13716	7.72		32.5	0.40	0.59	8.63	12500	7.61	2940

LITTLE COLORADO RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	Hardness EDTA (mg/l)
WLC2	901019	1055	WLC2	15020001-006	335726.00	1093057.00	ADEQ		6.8	8.1	93.7%	30	6.80		6.5	0.39	1.06	2.46	39	7.94	12
WLC2	910619	1030	WLC2	15020001-006	335726.00	1093057.00	ADEQ	20.0	7.0	8.5	106.0%	30	6.70		12.6	0.71	2.40	23.52	27.8	7.04	6
WLC2	910607	940	WLC2	15020001-006	335726.00	1093057.00	ADEQ	17.5	9.0	7.9	96.0%	36	8.32		13.4	0.32	1.07	4.60	40.5	7.32	10
WLC2	910607	941	WLC2	15020001-006	335726.00	1093057.00	ADEQ	17.5	9.0	7.9	96.0%	36	8.32		13.4	0.32	1.07	4.60			
LC048	901019	855	LC048	15020001-009	340904.00	1091737.00	ADEQ	15.0	9.6	7.9	89.6%	582	8.19		6.5	0.22	0.31	0.36	596	8.19	244
LC048	910206	1120	LC048	15020001-009	340904.00	1091737.00	ADEQ	19.0	3.0			533	8.73		9.3	0.20	0.49	0.54	606	8.33	256
LC048	910416	1700	LC048	15020001-009	340904.00	1091737.00	ADEQ	15.0	11.0	8.2	95.9%	137	7.85		26.1	1.31	3.24	136.60	144	8.17	80
LC048	910619	1300	LC048	15020001-009	340904.00	1091737.00	ADEQ	26.0	21.0	8.7	126.0%	324	8.42		15.6	0.58	1.75	14.19	313	8.65	143
LC048	910607	1430	LC048	15020001-009	340904.00	1091737.00	ADEQ	26.0	26.0	9.0	142.5%	336	8.36		14.5	0.54	1.32	6.96	323	8.71	145
LC048	910607	1431	LC048	15020001-009	340904.00	1091737.00	ADEQ	26.0	26.0	9.0	142.5%	336	8.36		14.5	0.54	1.32	6.96			
SLC3	901018	1345	SCL3	15020005-003	344015.00	1100206.00	ADEQ	23.0	16.0	10.6	129.0%	629	8.68		5.4	0.47	0.26	0.66	634	8.61	296
SLC3	910620	1400	SCL3	15020005-003	344015.00	1100206.00	ADEQ	26.0	24.0	6.5	120.0%	520	8.66		14.1	0.52	1.00	7.06	470	8.75	266
SLC3	910606	1005	SCL3	15020005-003	344015.00	1100206.00	ADEQ	22.0	20.0	6.8	89.0%	507	8.47		8.5	0.49	0.65	2.30	491	8.55	262
SLC3	910606	1006	SCL3	15020005-003	344015.00	1100206.00	ADEQ	22.0	20.0	6.8	89.0%	507	8.47		8.5	0.49	0.65	2.30			
SLC5	901018	1050	SCL5	15020005-009	343530.00	1100455.00	ADEQ	21.0	13.0	7.92	90.0%	656	8.42		3.7	0.62	0.33	0.59	679	8.26	346
SLC5	910206	845	SCL5	15020005-009	343530.00	1100455.00	ADEQ														
SLC5	910620	1215	SCL5	15020005-009	343530.00	1100455.00	ADEQ														
SHL1	901018	841	SHL1	15020005-011	341555.00	1100130.00	ADEQ	18.0	12.0	6.4	75.0%	305	7.13		9.1	0.20	0.50	0.94	314	7.67	141
SHL1	910205	1700	SHL1	15020005-011	341555.00	1100130.00	ADEQ	21.0	8.0			261	7.69		11.0	0.23	0.21	0.46	264	7.93	124
SHL1	910416	1915	SHL1	15020005-011	341555.00	1100130.00	ADEQ	16.0	13.0			131	7.55		14.4	0.66	0.66	6.74	131	7.61	59
SHL1	910619	1655	SHL1	15020005-011	341555.00	1100130.00	ADEQ	26.0	22.0	8.2	122.0%	254	8.01		10.4	0.31	0.23	0.70	215	7.99	116
SHL1	910606	1530	SHL1	15020005-011	341555.00	1100130.00	ADEQ	26.0	24.0	6.5	97.0%	214	7.97		11.6	0.46	0.46	2.20	204	7.65	91.6
SHL1	910606	1531	SHL1	15020005-011	341555.00	1100130.00	ADEQ	26.0	24.0	6.5	97.0%	214	7.97		11.6	0.46	0.46	2.20			
CHV1	901010	1200	CHV1	15020010-001	345629.00	1103055.00	ADEQ	16.0	14.0	7.6	87.0%	3663	8.50		29.0	0.57	0.25	3.26	3710	8.46	364
CHV1	901107	840	CHV1	15020010-001	345629.00	1103055.00	ADEQ	2.0	8.0	8.9	89.0%	3162	8.59		34.0	0.84	0.14	3.86	3160	7.90	326
CHV1	910123	1050	CHV1	15020010-001	345629.00	1103055.00	ADEQ	2.5	0.0	13.8	112.5%	3590	8.69		34.2	0.63	0.16	3.74	3160	8.25	310
CHV1	910313	1030	CHV1	15020010-001	345629.00	1103055.00	ADEQ		8.0	9.8	96.0%	147							144	7.45	49.0
CHV1	910515	1322	CHV1	15020010-001	345629.00	1103055.00	ADEQ	20.0	20.0	7.9	102.0%	1743	8.36		26.5	0.26	0.65	4.44	1760	8.20	195
CHV1	910710	1416	CHV1	15020010-001	345629.00	1103055.00	ADEQ	27.0	26.0	7.30	107.3%	3920	8.54		27.1	0.14	0.65	2.60	3760	8.50	368
CHV1	910606	1350	CHV1	15020010-001	345629.00	1103055.00	ADEQ	34.0	27.0	8.10	119.0%	3916	8.42		26.5	0.10	0.56	1.69	3770	8.60	372
CHV1	910606	1351	CHV1	15020010-001	345629.00	1103055.00	ADEQ	34.0	27.0	8.10	119.0%	3916	8.42		26.5	0.10	0.56	1.69			
CHV1	910606	1352	CHV1	15020010-001	345629.00	1103055.00	ADEQ	34.0	27.0	8.10	119.0%	3916	8.42		26.5	0.10	0.56	1.69	3740	8.59	372

MIDDLE GILA RIVER BASIN			TDS			Cations					Anions											
Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
HR1	901127	1450	405	6	0.52	67.8	20.2	49.8	3.21		1.0	290	53.1	21.1	1	238	0.48	0.1 K	0.77	0.10 K		0.06
HR1	910221	1125	362	2	0.62	61.2	19.9	45.2	3.02		1.0	294	55.2	31.5	241	1.0	0.61	0.07	0.70	0.10 K		0.06
HR1	910404	1245	253	381	194	49.2	17.0	26.1	4.66		1.0	194	36.5	15.3	159	1.0	1.46	0.50	0.55	0.10 K		0.65
HR1	910613	1300	416	2	0.63	64.9	20.6	50.6	4.52		1.0	301	61.8	35.6	247	1.0	0.68	0.26	1.25	0.10 K		0.10 K
HR2	901127	1615	357	2	0.5	62.0	17.8	38.2	3.23		1.0	272	41.9	24.5	1	223	0.26	0.1 K	0.35	0.10 K		0.06
HR2	910221	930	325	2	0.3	54.0	16.7	33.4	2.99		4.6	262	43.6	17.5	224	3.8	0.43	0.09	0.24	0.10 k		0.05 K
HR2	910404	1020	229	96	65	39.9	13.5	20.6	2.65		1.0	172	36.8	12.6	141	1.0	0.44	0.4	0.21	0.10 K		0.25
HR2	910613	110	306	9	2.1	51.3	15.2	34.4	3.33		6.4	235	39.8	16.5	203	5.3	0.49	0.35	0.35	0.10 K		0.10 K
HR3	910110	1330	324	15	10.0	59.2	15.9	29.9	2.18		2.8	287	32.9	16.2	240	2.3	0.52		0.13	0.10 K		
HR3	910220	1630	327	4	1.6	58.6	16.7	27.5	1.78		1.0	292	32.9	14.9	239	1.0	0.51	0.07	0.10 K	0.10 K		0.05 K
HR3	910403	1910	204	192	91	37.3	12.2	12.3	1.69		1.0	137	36.5	9.0	112	1.0	0.26	0.19	0.16	0.10 K		0.25 K
HR3	910619	1706	312	6	0.4	56.7	15.3	24.6	1.38		1.0	261	48.3	11.8	214	1.0	0.47	0.31	0.17	0.10 K		0.10 K
MGR1	901029	1050	1140	41	22	123.0	61.0	406	16.90		1.0	290	304	629	238	1.0	1.15		2.03			4.6
MGR1	901127	1100	1690	23	17.1	133.0	54.6	366	21.20		1.0	332	314	760	272	1.0	1.45	21	1.61	16	0.256	4.6
MGR1	901220	1155	1930	25	14	166.0	69.5	422	22.60		1.0	350	330	744	287	1.0	1.56	19	2.09	19.5	0.212	
MGR2	901029	930	8200	42	25	693.0	269.0	1760	22.90		1.0	331	899	3670	271	1.0	0.82	0.65	2.12	0.1 K		0.13
MGR2	901127	920	8260	22	9.6	662.0	267.0	1660	2.57		1.0	309	1010	5000	253	1.0	0.85	0.5	2.07	0.1 K		0.05 K
MGR2	901220	1415	8180	59	32	764.0	266.0	1600	29.10		1.0	367	950	3880	301	1.0	0.84	0.8	2.00	0.1 K		
MGR2	901220	1416	8160	56	32	740.0	278.0	1740	30.70		1.0	365	950	3870	299	1.0	0.85	0.5	2.00	0.1 K		

LITTLE COLORADO RIVER BA			TDS			Cations					Anions											
Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
WLC2	901019	1055	37	4	0.78	2.5	1.0	2.5	1.74		1.0	20	5.0	0.5	16	1.0	0.20 K	0.10 K	0.10 K	0.10 K		0.10 K
WLC2	910619	1030	42	6	1.32	2.5	0.5	2.5	1.25		1.0	11.7	5.0	1.10	9.6	1.0	0.20 K	0.32	0.16	0.10 K		0.10 K
WLC2	910607	940	51	5	1.36	2.5	0.5	2.5	1.52		1.0	17.3	5.0	2.3	14.2	1.0	0.20 K	0.21	0.25	0.10 K		0.10 K
WLC2	910607	941																				
LC048	901019	855	375	4	5.1	54.1	27.4	52.3	1.47		1.0	356	20.0	19.4	292	1.0	0.41	0.22	0.10 K	0.10 K		0.10 K
LC048	910206	1120	384	2	4.3	55.8	25.5	46.8	2.54		1.0	366	21.3	20.6	300	1.0	0.35	0.3	0.10 K	0.10 K		0.05 K
LC048	910416	1700	116	5	34.0	16.3	5.2	9.2	1.67		1.0	76	11.2	49.0	63.9	1.0	0.20 K	0.33	0.10 K	0.10 K		0.16
LC048	910619	1300	229	7	6.6	33.7	12.2	19.3	3.19		7.0	191	12.2	5.4	166	5.8	0.26	0.57	0.29	0.10 K		0.10
LC048	910607	1430	223	29	14.4	36.7	13.6	20.2	2.62		8.2	192	5.0	6.9	171	6.8	0.24	0.59	0.23	0.10 K		0.11
LC048	910607	1431																				
SLC3	901016	1345	405	27	32.0	71.2	43.3	35.9	14.4		12.2	346	47.4	15.1	306	10.2	0.20 K	0.52	1.82	0.10 K		0.15
SLC3	910620	1400	363	63	110	57.4	26.4	20.1	6.07		16.3	310	26.5	7.5	261	13.6	0.20 K	0.72	0.20	0.10 K		0.27
SLC3	910606	1005	366	162	278	60.5	27.0	19.0	9.06		8.6	322	19.7	7.6	276	7.2	0.20 K	0.95	0.36	0.10 K		0.35
SLC3	910606	1006																				
SLC5	901016	1050	515	52	30.5	66.1	41.5	37.0	34.5		1.0	506	55.3	20.7	415	1.0	0.20 K	17.1	1.02	16.6	1.156	2.36
SLC5	910206	845																				
SLC5	910620	1215																				
SHL1	901016	841	194	15	16.9	34.1	14.2	15.9	4.02		1.0	177	5.0	6.3	145	1.0	0.20 K	0.36	0.10 K	0.11	0.000	0.10 K
SHL1	910205	1700	193	10	21	27.8	10.4	13.4	4.45		1.0	146	17.6	11.7	120	1.0	0.14	0.7	0.10 K	0.10 K		0.05
SHL1	910416	1915	116	8	32	13.1	5.5	5.6	1.62		1.0	71.4	10.1	3.8	58.5	1.0	0.20 K	0.34	0.10 K	0.10 K		0.05 K
SHL1	910619	1655	161	25	19.6	25.7	10.1	8.0	2.61		1.0	139	13.7	5.0	114	1.0	0.20 K	1.04	0.16	0.10 K		0.16
SHL1	910606	1530	166	27	31	21.9	9.0	6.8	2.65		1.0	117	5.0	6.0	96.2	1.0	0.20 K	1.01	0.41	0.10	0.006	0.16
SHL1	910606	1531																				
CHV1	901010	1200	2160	22	18.7	68.5	53.5	692	9.65		5.5	240	204	930	206	4.6	0.22	0.19	0.10 K			0.10 K
CHV1	901107	840	1630	15	11.8	56.9	39.8	583	7.14		1.0	226	155	816	185	1.0	0.22	0.21	0.10 K	0.10 K		0.10 K
CHV1	910123	1050	1810	22	19.0	57.6	44.9	566	8.20		1.0	215	162	857	176	1.0	0.20 K	0.10 K	0.10 K	0.10 K		0.07
CHV1	910313	1030	103	22	14.6	10.8	3.8	11.6	0.91		1.0	42	5	16	34.3	1.0	0.20 K	0.34	0.10 K	0.10 K		0.10 K
CHV1	910515	1322	990	19	7.5	39.3	19.2	302	5.16		1.0	139	96.9	396	114	1.0	0.20 K	0.26	0.10 K	0.10 K		0.05 K
CHV1	910710	1416	2170	21	9.5	69.0	45.4	660	9.33		5.8	235	190	897	202	4.8	0.25	0.52	0.13	0.10 K		0.16
CHV1	910606	1350	2190	31	9.4	66.0	45.9	675	9.46		7.8	220	161	1070	193	6.5	0.25	0.54	1.52	0.10 K		0.11
CHV1	910606	1351																				
CHV1	910606	1352	2160	30	9.5	70.3	47.6	666	9.85		7.6	221	160	1040	194	6.3	0.23	0.56	0.24	0.10 K		0.11

MIDDLE GILA RIVER BASIN Bacteria — Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
HR1	901127	1450	6	16	1 K		10 K		100 K		160		0.5 K		1.0 K		10 K		19		260
HR1	910221	1125	12	44	1 K		10 K		100 K		170		0.5 K		1.0 K		10 K		17		150
HR1	910404	1245			1 K	1 K	10 K	10 K	170	100 K	130	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	39	10 K	5700
HR1	910613	1300			1 K		10 K		100 K		160		0.5 K		1.0 K		10 K		10 K		100
HR2	901127	1615	0	12	1 K		10 K		100 K		140		0.5 K		1.0 K		10 K		10		260
HR2	910221	930	0	4	1 K		10 K		100 K		140		0.5 K		1.0 K		10 K		10 K		100
HR2	910404	1020			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	34	10 K	2960
HR2	910613	110			1 K		10 K		100 K		140		0.5 K		1.0 K		10 K		10 K		120
HR3	910110	1330			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		12		360
HR3	910220	1630	140	58	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
HR3	910403	1910			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	39	12	3340
HR3	910619	1708			1 K		10 K		100 K		140		0.5 K		1.0 K		10 K		10 K		110
MGR1	901029	1050	370	250	1 K		10 K		100 K		730		0.5 K		1.0 K		10 K		35		960
MGR1	901127	1100	390	36	1 K		10 K		100 K		170		0.5 K		1.0 K		10 K		24		730
MGR1	901220	1155			1 K		10 K		100 K		750		0.5 K		1.0 K		10 K		10 K		670
MGR2	901029	930			1 K		10 K		120		1770		0.5 K		1.0 K		10 K		17		850
MGR2	901127	920	441	100	1 K		10 K		100 K		1770		0.5 K		1.0 K		10 K		13		730
MGR2	901220	1415			1 K		10 K		130		1940		0.5 K		1.0 K		10 K		50 K		1330
MGR2	901220	1416			1 K		10 K		130		1670		0.5 K		1.0 K		10 K		10 K		1290

LITTLE COLORADO RIVER B/Bacteria — Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
WLC2	901019	1055			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		270
WLC2	910619	1030	2	0	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		160
WLC2	910607	940			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	240
WLC2	910607	941				1 K		10 K		100 K		330		0.5 K		1.0 K		10 K		10 K	
LC048	901019	855	42	37	1 K		10 K		100 K		100		0.5 K		1.0 K		10 K		10 K		260
LC048	910206	1120	10	0	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		13		310
LC048	910416	1700			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		18		1060
LC048	910619	1300	292	172	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		400
LC048	910607	1430			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K		810
LC048	910607	1431				1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K	
SLC3	901018	1345	25	61	1 K		10 K		380		100		0.5 K		1.0 K		10 K		17		450
SLC3	910620	1400	100	295	1 K		10 K		330		100 K		0.5 K		1.0 K		10 K		10		1050
SLC3	910608	1005			1 K	1 K	10 K	10 K	350	320	100 K	100 K	0.5 K	0.5 K		5.0 K	10 K	10 K			4620
SLC3	910608	1006				1 K		10 K		290		100		0.5 K		1.0 K		10 K		10 K	
SLC5	901018	1050	394	TNTC	1 K		1 K		450		130		0.1 K		1.0 K		10 K		22		350
SLC5	910206	845	20	0																	
SLC5	910620	1215	190	330																	
SHL1	901018	841	43	21	1 K		10 K		110		100 K		0.5 K		1.0 K		10 K		20		1290
SHL1	910205	1700	0	166	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		16		1030
SHL1	910416	1915			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		19		1020
SHL1	910619	1655	44	32	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		11		1260
SHL1	910608	1530			1 K	1 K	50 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K		1.0 K	10 K	10 K		10 K	1760
SHL1	910608	1531				1 K		10 K		100 K		230		0.5 K		1.0 K		10 K		500	
CHV1	901010	1200	6	11	1 K		10 K		130		100		0.5 K		1.0 K		10 K		33		750
CHV1	901107	840			1 K		10 K		100 K		130		0.5 K		1.1		10 K		10 K		570
CHV1	910123	1050			1 K	1 K	10 K	10 K	100 K	100 K	120	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K		550
CHV1	910313	1030			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		16		460
CHV1	910515	1322	25	44	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		260
CHV1	910710	1416			1 K	1 K	10 K	10 K	120	110	110	120	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	410
CHV1	910608	1350			1 K	1 K	10 K	10 K	110	100	110	100 K	0.5 K	0.5 K		1.0 K	10 K	10 K		10 K	460
CHV1	910608	1351				1 K		10 K		110		170		0.5 K		1.0 K		10 K		10 K	
CHV1	910608	1352			1 K		10 K		120		120		0.5 K				10 K				390

MIDDLE GILA RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
HR1	901127	1450		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR1	910221	1125		0.5 K		60		100 K		10 K		5 K		5 K				5 K		50 K
HR1	910404	1245	100 K	0.5 K	0.5 K	360	50 K	100 K	100 K	14	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
HR1	910613	1300 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR2	901127	1615		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR2	910221	930 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR2	910404	1020	100 K	0.5 K	0.5 K	130	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
HR2	910613	110		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR3	910110	1330		1.6		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR3	910220	1630 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
HR3	910403	1910	120	0.5 K	0.5 K	180	50 K	100 K	100 K	14	10 K	5 K	5 K	5 K	5 K			5 K	5 K	60
HR3	910619	1706		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MGR1	901029	1050		0.5 K		90		100 K		10 K		5 K		5 K				50 K		50 K
MGR1	901127	1100		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MGR1	901220	1155		0.5 K		110		100 K		10 K		5 K		5 K				5 K		50 K
MGR2	901029	930		0.5 K		120		100 K		10 K		5 K		5 K				5 K		50 K
MGR2	901127	920		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MGR2	901220	1415		0.5 K		270		100 K		10 K		5 K		5 K				50 K		50 K
MGR2	901220	1416		0.5 K		260		100 K		10 K		5 K		5 K				5 K		50 K

LITTLE COLORADO RIVER BA

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
WLC2	901019	1055		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WLC2	910619	1030		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WLC2	910607	940	160	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
WLC2	910607	941	150		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
LC048	901019	855		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
LC048	910206	1120		0.5 K		150		100 K		10 K		5 K		5 K				5 K		50 K
LC048	910416	1700		0.5 K		110		100 K		10 K		5 K		5 K				5 K		50 K
LC048	910619	1300		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
LC048	910607	1430		0.5 K		90	50 K	100 K		10 K		5 K	5 K	5 K	5 K			5 K	5 K	50 K
LC048	910607	1431	100 K		0.7		50 K		100 K		10 K		5 K		5 K				5 K	
SLC3	901018	1345		0.5 K		70		100 K		10 K		5 K		5 K				5 K		50 K
SLC3	910620	1400		0.5 K		110		100 K		10 K		5 K		5 K				5 K		50 K
SLC3	910606	1005	100 K			190	50 K	110	100 K			5 K	5 K	5 K	5 K			5 K	5 K	3150
SLC3	910606	1006	100 K		0.5 K		50 K		100 K		10 K		5 K		10 K				5 K	
SLC5	901018	1050		0.5 K		130		100 K		10 K		5 K		5 K				5 K		50 K
SLC5	910206	845																		
SLC5	910620	1215																		
SHL1	901018	841		0.5 K		140		100 K		10 K		5 K		5 K				5 K		50 K
SHL1	910205	1700		0.5 K		150		100 K		10 K		5 K		5 K				5 K		50 K
SHL1	910416	1915		0.5 K		60		100 K		10 K		5 K		5 K				5 K		50 K
SHL1	910619	1655		0.5 K		200		100 K		10 K		5 K		50 K				5 K		50 K
SHL1	910606	1530	180		0.5 K	170	110	100	100 K		10 K	5 K	5 K	5 K	5 K			5 K	5 K	3420
SHL1	910606	1531	200		0.5 K		70		100 K		10 K		5 K		5 K				5 K	
CHV1	901010	1200		0.5 K		100		100 K		10 K		5 K		5 K				5 K		50 K
CHV1	901107	840		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CHV1	910123	1050	100 K	0.5 K	0.5 K	150	120	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
CHV1	910313	1030		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
CHV1	910515	1322		1.0		100		100 K		10 K		5 K		5 K				5 K		50 K
CHV1	910710	1416	100	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
CHV1	910606	1350	120		0.5 K	90	50 K	130	100 K		10 K	5 K	5 K	5 K	5 K			5 K	5 K	2220
CHV1	910606	1351	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				250 K	
CHV1	910606	1352				90		140				5 K		5 K				5 K		2460

MIDDLE GILA RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
HR1	901127	1450:		adhs/atl	23574	
HR1	910221	1125:		adhs	24531	
HR1	910404	1245	50	Kadhs	25087	turbidity violation (194 ntu) FLOOD
HR1	910613	1300:		ADHS	25908	
HR2	901127	1615:		adhs/atl	23573	
HR2	910221	930:		adhs	24529	
HR2	910404	1020	50	Kadhs	25085	FLOOD
HR2	910613	110:		ADHS	25909	
HR3	910110	1330:		adhs	24066	
HR3	910220	1630:		adhs	24528	
HR3	910403	1910	50	Kadhs	25090	FLOOD
HR3	910619	1706:		adhs		
MGR1	901029	1050:		ADHS	23210	
MGR1	901127	1100:		ADHS	23575	
MGR1	901220	1155:		ADHS	23897	
MGR2	901029	930:		ADHS	23209	
MGR2	901127	920:		ADHS	23579	
MGR2	901220	1415:		ADHS-AT	23898	
MGR2	901220	1416:		ADHS-ATI	23899	

LITTLE COLORADO RIVER B/ Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
WLC2	901019	1055:		ADHS	23096	
WLC2	910619	1030:		ADHS	26004	FLOOD
WLC2	910607	940	50	KADHS	26590	
WLC2	910607	941	50	KADHS	26599	LAB FILTERED
LC048	901019	855:		ADHS	23095	
LC048	910206	1120:		ADHS	24366	
LC048	910416	1700:		ADHS	25265	FLOOD
LC048	910619	1300:		ADHS	26007	
LC048	910607	1430	2300	ADHS	26589	
LC048	910607	1431	50	KADHS		LAB FILTERED
SLC3	901016	1345:		ADHS	23094	
SLC3	910620	1400:		ADHS	26006	
SLC3	910608	1005	2410	ADHS	26593	
SLC3	910608	1006	50	KADHS	26594	LAB FILTERED
SLC5	901016	1050:		ADHS	23093	
SLC5	910206	845		ADHS		
SLC5	910620	1215				
SHL1	901016	841:		ADHS	23092	
SHL1	910205	1700:		ADHS	24363	
SHL1	910416	1915:		ADHS	25262	
SHL1	910619	1655:		ADHS	26005	
SHL1	910606	1530	50	KADHS	26591	
SHL1	910606	1531	50	KADHS	26596	LAB FILTERED
CHV1	901010	1200:		ADHS	22980	
CHV1	901107	840:		ADHS	23370	
CHV1	910123	1050	50	KADHS-AT	24196	
CHV1	910313	1030:		ADHS	24773	
CHV1	910515	1322:		ADHS	25634	
CHV1	910710	1416	50	KADHS	26213	
CHV1	910606	1350	50	KADHS	26588	
CHV1	910606	1351	50	KADHS	26603	LAB FILTERED
CHV1	910606	1352		ADHS	26592	QC SAMPLE

APPENDIX C

Verde River Basin

Field and Analytical Data
October 1990 - September 1991

Pages C-2 thru C-11 follow

APPENDIX C

Verde River Basin

Field and Analytical Data
October 1990 - September 1991

Pages C-2 thru C-11 follow

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
	Field Parameters																				Hardness
BTC1	901119	1445	702600000000095	15060202-025	344547.00	1120415.00	ADEQ	21.0	16.0	8.0	91.8%	774	8.47		4.9	0.42	0.13	0.30	758	8.3	361
BTC1	910122	1010	702600000000095	15060202-025	344547.00	1120415.00	ADEQ		6.0	12.5	113.6%	785			4.8	0.46	0.13	0.32	799	8.42	369
BTC1	910326	1525	702600000000095	15060202-025	344547.00	1120415.00	ADEQ	9.0	12.0	9.0	97.2%	678	8.79		4.5	0.64	0.19	0.48	769	8.48	374
BTC1	910507	915	702600000000095	15060202-025	344547.00	1120415.00	ADEQ	20.0	16.0	8.4	93.6%	847	8.66		6.4	0.58	0.19	0.40	844	8.40	436
BTC1	910717	1805	702600000000095	15060202-025	344547.00	1120415.00	ADEQ	32.0	21.0	6.2	83.9%	1090	8.34		6.6	0.54	0.05	0.13	1060	8.37	534
BTC1	910717	1806	702600000000095	15060202-025	344547.00	1120415.00	ADEQ	32.0	21.0	6.2	83.9%	1090	8.34		6.6	0.54	0.05	0.13	1050	8.36	530
DBC1	910122	1415	704600200000100	15060202-010	343628.00	1114342.00	ADEQ	13.0	7.0	13.2	123.0%	220	8.30		3.7	0.21	0.13	0.10	204	8.14	101
DBC1	910312	1130	704600200000100	15060202-010	343628.00	1114342.00	ADEQ		6.0			63	7.62						61.3	7.31	29.2
ELC1	901009	1500	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ	17.0	13.0	8.0	93.2%	351	8.10		2.8	0.24	0.10	0.07	336	8.55	167
ELC1	901212	1140	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ	6.0	2.0	10.7	95.0%	276	7.20		2.7	0.24	0.07	0.03	295	8.20	167
ELC1	910207	1230	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ	12.0	4.5			266	8.69		4.9	0.31	0.26	0.28	261	8.59	144
ELC1	910417	1510	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ	17.0	16.0	9.6	116.2%	133	9.20		9.9	0.52	0.77	4.22	152	9.14	78
ELC1	910417	1511	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ	17.0	16.0	9.6	116.2%	133	9.20		9.9	0.52	0.77	4.22	154	9.12	81
ELC1	910626	930	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ														
ELC1	910807	1300	ELC1	15060203-022 OFF	332046.00	1111127.00	ADEQ														
EVR2	901009	1630	706500000004300	15060203-022	331746.00	1112114.00	ADEQ												433	8.47	244
EVR2	901106	1445	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	14.0	10.0	10.4	105.8%	490	8.55		15.8	0.71	0.26	2.31	492	8.21	265
EVR2	910123	1710	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	6.0	6.0	11.4	104.8%	463	8.47		16.9	0.70	0.39	4.2	444	8.36	255
EVR2	910314	834	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	3.0	6.0	10.5	100.0%	364	8.40						358	8.27	197
EVR2	910521	1306	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	23.0	21.0	8.2	104.9%	302	8.2		13.0	0.62	2.26	20.15	316	8.44	177
EVR2	910710	900	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	21.0	20.5	6.9	89.2%	421	8.21		8.3	0.52	0.76	3.42	396	8.37	226
EVR2	910710	901	706500000004300	15060203-022	331746.00	1112114.00	ADEQ	21.0	20.5	6.9	89.2%	421	8.21		8.3	0.52	0.76	3.42			
FOS1	901009	1745	706000000001510	15060203-024	342413.00	1113703.00	ADEQ												575	8.45	302
FOS1	901106	1620	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	13.0	11.0	9.8	101.0%	573	8.46		4.7	0.27	0.44	0.38	566	8.17	311
FOS1	910123	1430	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	13.4	6.5	12.5	116.3%	555	8.65		7.8	0.33	0.59	1.10	570	8.32	302
FOS1	910313	1801	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	10.0	15.0	8.1	95.1%	546	8.45		45.3	1.04	0.96	52.38	496	8.55	305
FOS1	910313	1800	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	10.0	15.0	8.1	95.1%	546	8.45		45.3	1.04	0.96	52.38	516	8.57	303
FOS1	910521	1610	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	25.0	21.0	9.5	120.2%	540	8.19		10.2	0.10	0.38	0.47	526	8.48	296
FOS1	910709	1717	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	32.0	28.0	8.8	128.0%	513	8.19	0.26	3.8	0.23	0.52	0.40	517	8.34	244
FOS1	910709	1718	706000000001510	15060203-024	342413.00	1113703.00	ADEQ	32.0	28.0	8.8	128.0%	513	8.19	0.26	3.8	0.23	0.52	0.40			
MC1	901108	910	MC1	15060202-018	345433.00	1114317.00	ADEQ	2.5	14.0	8.1	95.0%	257	7.76		4.3	0.36	3.40	4.99	266	6.94	133
MC1	910109	1500	MC1	15060202-018	345433.00	1114317.00	ADEQ	17.0	6.0			79	7.55						111	7.80	53.2
MC1	910312	1355	MC1	15060202-018	345433.00	1114317.00	ADEQ	11.0	7.0	10.3	102.0%	106	7.51		10.2	1.26	2.14	33.74	104	7.82	48.6
MC1	910514	1314	MC1	15060202-018	345433.00	1114317.00	ADEQ	18.0	14.0	8.2	95.7%	267	7.86		5.3	0.46	1.80	5.43	254	8.07	129
MC1	910711	1100	MC1	15060202-018	345433.00	1114317.00	ADEQ	22.0	15.0	8.3	96.9%	263	8.09		5.1	0.41	2.65	5.74	257	8.18	130
MC1	910711	1101	MC1	15060202-018	345433.00	1114317.00	ADEQ	22.0	15.0	8.3	96.9%	263	8.09		5.1	0.41	2.65	5.74			
MC2	901107	1223	MC2	15060202-018	345555.00	1113840.00	ADEQ		6.0	9.4	97.7%	389							374	7.33	158
MC2	910109	850	MC2	15060202-018	345555.00	1113840.00	ADEQ	5.0	1.0			74	6.82						75.8	7.31	34.4
MC2	910312	1415	MC2	15060202-018	345555.00	1113840.00	ADEQ	7.0	8.0			77	7.50						73.0	7.26	35.2
MC2	910514	1600	MC2	15060202-018	345555.00	1113840.00	ADEQ	21.0	12.0	8.1	95.0%	332	8.2						336	8.18	157
OC1	901107	1631	VR-OC1	15060202-019	345917.00	1114448.00	ADEQ	3.5	8.0	9.9	101.4%	299	8.15		7.5	0.60	1.69	6.42	407	7.86	239
OC1	901107	1630	VR-OC1	15060202-019	345917.00	1114448.00	ADEQ	3.5	8.0	9.9	101.4%	299	8.15		7.5	0.60	1.69	6.42	301	7.71	166
PW1	910109	1031	704002000007910	15060202-019	350128.00	1114404.00	ADEQ	11.5	2.0			98	7.37		24.9	0.93	0.23	4.97	97.5	7.80	44.8
PW1	910109	1030	704002000007910	15060202-019	350128.00	1114404.00	ADEQ	11.5	2.0			98	7.37		24.9	0.93	0.23	4.97	97.7	7.62	45.6
PW1	910312	1605	704002000007910	15060202-019	350128.00	1114404.00	ADEQ	10.0	2.0	11.4	102.7%	105			13.0	0.96	1.60	18.11	99.2	7.73	45.2
VRC2	901030	1115	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	22.0	14.0	8.8	98.4%	698	8.35		57.0	1.58	1.79	150.91	690	8.36	309
VRC2	910108	1130	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	24.0	8.5			343	8.13						326	8.12	176
VRC2	910130	1405	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	12.0	6.5	12.2	109.8%	581	9.07		58.8	1.50	1.87	204.77	573	8.42	272
VRC2	910327	1330	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	5.0	8.5	10.4	97.9%	204	8.01						197	7.96	113
VRC2	910508	1905	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	27.0	24.0	7.5	96.0%	765	8.38		53.3	1.24	1.22	88.71	756	8.37	
VRC2	910716	1428	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	33.0	28.0			912	8.28		54.9	1.16	0.99	71.73	861	8.44	360
VRC2	910716	1429	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	33.0	28.0			912	8.28		54.9	1.16	0.99	71.73			
VRC2	910725	1400	700000000014410	15060203-025	342852.00	1114724.00	ADEQ	34.0	26.0	9.4	127.4%	833	8.50		54.6	1.17	1.03	94.13	784	8.43	339
VRC3	901030	1740	VRC3	15060202-025	345104.00	1120337.00	ADEQ	23.0	18.5			502			42.4	1.32	1.73	83.47	491	8.21	235
VRC3	910129	1545	VRC3	15060202-025	345104.00	1120337.00	ADEQ	10.0	12.0	11.7	120.4%	512	8.13	0.14				82.7	501	8.37	242
VRC3	910507	1240	VRC3	15060202-025	345104.00	1120337.00	ADEQ	28.0	20.0	9.6	118.5%	502	8.10		46.4	1.22	1.55	81.14	476	8.35	231
VRC3	910724	1300	VRC3	15060202-025	345104.00	1120337.00	ADEQ	30.0	21.0	8.1	102.3%	432	8.20		18.4	1.87	2.40	71.70	451	8.36	220
VRP1	901119	1710	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	16.5	13.0			533			41.5	0.81	0.88	24.58	541	8.2	209
VRP1	910110	845	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	20.0	8.0			599	8.53		20.0	0.84	1.40	24.1	586	8.32	224
VRP1	910326	1755	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	7.0	6.0	10.2	98.6%	157	8.18						161	7.94	63
VRP1	910507	1705	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	29.0	23.0	8.2	108.3%	525	8.39		49.8	1.10	0.35	19.22	537	8.39	198
VRP1	910717	1422	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	31.0	29.0			577	8.08		49.0	1.13	0.24	14.1	558	8.38	222
VRP1	910717	1423	700000000025860	15060202-038	345345.00	1121223.00	ADEQ	31.0	29.0			577	8.08		49.0	1.13	0.24	14.1			
VRP2	901031	930	VRP2	15060202-052	345340.00	1122032.00	ADEQ	17.0	16.0	8.6	102.2%	351		0.99	19.0	0.90	1.63	24.58	610	8.33	228
VRP2	910129	1135	VRP2	15060202-052	345340.00	1122032.00	ADEQ	7.0	10.0	10.4	107.0%	605	8.42		23.5	0.85	1.29	25.95	600	8.39	233
VRP2	910508	1131	VRP2	15060202-052	345340.00	1122032.00	ADEQ	28.0	20.0	10.4	131.6%	455	8.65	0.48	22.0	0.94	1.16	25.71	577	8.41	221
VRP2	910723	1500	VRP2	15060202-052	345340.00	1122032.00	ADEQ	31.0	24.0	9.5	130.0%	714	8.30	0.44	21.5	0.87	1.11	21.87	563	8.63	217
WBC1	901108	1345	704600100000105	15060202-002	343500.00	1115111.00	ADEQ		11.0	9.7	99.3%	460			47.0	1.11	0.16	8.40	502	8.14	248
WBC1	910108	1400	704600100000105	15060202-002	343500.00	1115111.00	ADEQ	27.0	7.0			160	8.21						157	8.13	83.6
WBC1	910327	1505	704600100000105	15060202-002	343500.00	1115111.00	ADEQ	10.0	6.5	10.9	99.1%	126	8.18						158	7.86	67
WBC1	910506	1735	704600100000105	15060202-002	343500.00	1115111.00	ADEQ	28.0	21.0	7.4	91.4%	497	8.49		24.0	0.48	0.33	3.95	481	8.36	247

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters: Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	Hardness: EDTA (mg/l)
WBC1	910717	930	704600100000105	15060202-002	343500.00	1115111.00	ADEQ	24.0	25.0	5.9	78.0%	500	8.35		21.5	0.50	0.36	3.83	497	8.45	250
WBC1	910717	931	704600100000105	15060202-002	343500.00	1115111.00	ADEQ	24.0	25.0	5.9	78.0%	500	8.35		21.5	0.50	0.36	3.83			
WBC2	901108	1055	704600100003870	15060202-004	344028.00	1114017.00	ADEQ		11.5	9.6	100.0%	246	8.08	3.02					247	7.65	124
WBC2	910108	1600	704600100003870	15060202-004	344028.00	1114017.00	ADEQ	17.0	7.0			99	7.80	3.54					105	7.90	51.6
WBC2	910326	1230	704600100003870	15060202-004	344028.00	1114017.00	ADEQ	4.0	4.0	11.2	101.6%	84							65	7.43	33
WBC2	910506	1510	704600100003870	15060202-004	344028.00	1114017.00	ADEQ	26.5	17.0	8.4	102.4%	238		3.04					235	8.35	116
WBC2	910711	1457	704600100003870	15060202-004	344028.00	1114017.00	ADEQ	26.0	22.0	7.5	99.1%	260	8.09	3.00					248	8.17	119
WBC2	910711	1458	704600100003870	15060202-004	344028.00	1114017.00	ADEQ	26.0	22.0	7.5	99.1%	260	8.09	3.00							
VRI17	901030	1300	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	28.0	22.0	9.4	121.4%	504	7.80								
VRI17	901119	1110	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	17.0	12.5	9.0	95.0%										
VRI17	901213	1610	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	16.0	10.5	10.4	104%	500									
VRI17	910130	1010	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	4.0	5.0	10.6	94.6%	486	8.76							8.36	
VRI17	910213	1040	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	13.5	10.5	9	95.4%	497	8.86								
VRI17	910327	1130	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	9.0	10.0	10.2	101.0%	196	8.42								
VRI17	910411	1015	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	14.5	13.0			281	8.05								
VRI17	910506	1630	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	29.0	24.0	10.4	137.6%	520	8.46								
VRI17	910620	1450	VRI-17	15060202-015	343512.00	1115243.00	ADEQ		27.0			586	8.57		32.9	0.75	0.23	11.02			
VRI17	910725	945	VRI-17	15060202-015	343512.00	1115243.00	ADEQ	24.0	21.0	7.65	96.6%	621	8.46		41.0	0.76	1.32	37.33			
VRDH1	901030	1445	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	29.0	17.0			531									
VRDH1	901119	1340	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	23.5	13.0	11.0	116.6%	523	7.11								
VRDH1	901213	1145	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	11.5	11.5												
VRDH1	910130	800	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	-10.0	4.0	10.8	91.9%	585	8.75							8.27	
VRDH1	910213	1405	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	22.0	13.0	11	121.2%	582	8.96							8.45	
VRDH1	910327	845	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	6.0	8.0	10.6	100.1%	185	7.81								
VRDH1	910411	1245	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	15.0	19.0			283	7.86								
VRDH1	910506	1355	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	30.0	23.0	7.1	93.9%	496	8.37								
VRDH1	910620	956	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	27.0	24.0			694	8.01		25.5	0.38	0.73	7.32			
VRDH1	910724	920	VRDH1	15060202-015	344459.00	1120103.00	ADEQ	26.0	21.0	7.0	86.4%	653	8.17		27.0	0.41	1.16	12.06			
VR1000	901030	1408	VR1000	15060202-015	344040.00	1115605.00	ADEQ	29.0	20.5			456									
VR1000	901119	1210	VR1000	15060202-015	344040.00	1115605.00	ADEQ	22.0	13.0	11.4	122.2%	526									
VR1000	901213	1500	VR1000	15060202-015	344040.00	1115605.00	ADEQ	17.5	11.5	11.6	120.4%	540									
VR1000	910130	920	VR1000	15060202-015	344040.00	1115605.00	ADEQ	1.0	6.0	11.2	100.6%	526	8.93							8.26	
VR1000	910213	1145	VR1000	15060202-015	344040.00	1115605.00	ADEQ	16.0	12.0	10.3	113.5%	537	8.72								
VR1000	910327	1015	VR1000	15060202-015	344040.00	1115605.00	ADEQ	8.5	6.0	10.0	94.4%	215	8.20								
VR1000	910411	1100	VR1000	15060202-015	344040.00	1115605.00	ADEQ	15.0	15.0			310	8.29								
VR1000	910506	1512	VR1000	15060202-015	344040.00	1115605.00	ADEQ	30.0	24.0	8.5	112.4%	510	8.44								
VR1000	910620	1319	VR1000	15060202-015	344040.00	1115605.00	ADEQ	33.0	23.5			536	8.38		58.3	0.84	1.58	96.9			
VR1000	910724	1620	VR1000	15060202-015	344040.00	1115605.00	ADEQ	26.0	26.0	8.2	112.4%	539	8.45		75.5	1.0	1.06	87.58			
WOC1	901107	1505	704000000000014	15060202-020	345918.00	1114452.00	ADEQ	3.0	4.0	10.2	94.2%	414	7.54		8.7	0.51	0.30	1.06	410	8.02	241

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	TDS Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Cations Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Anions OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
BTC1	901119	1445	490	5	0.44	77.4	40.7	40.0	2.0	0.5	0.5	256	140	43	256	0.5	0.37	0.1 K	0.66	0.03	0.003	0.05 K
BTC1	910122	1010	539	5	0.18	78.2	42.5	37.2	2.03		5.3	282	162	43.9	240	4.4	0.36	0.2 K	1.00	0.10 K		0.05 K
BTC1	910326	1525	544	14	7.7	85.0	39.9	34.6	3.23		6.4	245	170	41.3	214	5.3	0.34	0.29	0.70	0.10 K		0.10 K
BTC1	910507	915	640	4	0.89	95.3	48.2	39.8	2.14		9.4	263	196	48	231	7.8	0.37	0.10 K	0.70	0.10 K		0.10 K
BTC1	910717	1805	780	4	1.10	116	55.7	45.3	2.48		4.1	298	320	42.5	251	3.4	0.38	0.37	0.86	0.10 K		0.10 K
BTC1	910717	1806	782	4	1.23	116	55.2	46.4	2.54		4.0	296	310	41.6	249	3.3	0.37	0.32	0.33	0.10 K		0.10 K
DBC1	910122	1415	135	2	6.2	23.7	11.6	2.5	1.23		1.0	123	5.0	2.8	101	1.0	0.20 K	0.1	0.10 K			0.05 K
DBC1	910312	1130	87.0	2	20	6.0	3.0	2.5	0.77		1.0	34.2	5.0	1.4	28.0	1.0	0.20 K	0.20	0.10 K	0.10 K		0.10 K
ELC1	901009	1500	211	2	2.8	50.9	13.9	2.5	3.22		7.8	207	5.0	2.90	183	6.5	0.20 K	0.22	0.10 K			0.10 K
ELC1	901212	1140	181	2	3.1	46.4	11.5	2.5	1.86				5.0	3.0	157	1.0	0.20 K	0.2	0.10 K	0.10 K		0.05 K
ELC1	910207	1230	160	4	1.1	37.6	9.9	2.5	1.54		4.4	150	13.3	3.60	132	3.7	0.20 K	0.2 K	0.10 K	0.10 K		0.05 K
ELC1	910417	1510	99	2	3.5	21.1	4.9	2.5	1.19		9.7	61.6	13.7	3.4	66.7	8.1	0.20 K	0.26	0.10 K	0.10 K		0.05 K
ELC1	910417	1511	102	5	3.6	20.0	4.8	2.5	1.11		9.7	61.7	12.7	6.1	66.8	8.1	0.20 K	0.24	0.10 K	0.10 K		0.05 K
ELC1	910626	930																				
ELC1	910807	1300																				
EVR2	901009	1630	261	2	2.1	55.1	24.4	2.5	1.55		6.1	265	8.60	3.7	244	5.1	0.20 K	0.15	0.10 K			0.10 K
EVR2	901106	1445	290	2	3.6	59.6	27.8	2.5	1.91		1.0	338	5.0	4.55	277	1.0	0.20 K	0.24	0.10 K	0.10 K		0.10 K
EVR2	910123	1710	248	2	2.4	56.7	27.4	2.5	1.11		2.6	291	11.4	3.7	243	2.2	0.20 K	0.1 K	0.22	0.10 K		0.05 K
EVR2	910314	834	215	4.0	2.8	49.2	16.5	2.5	1.03		1.0	228	5.0	3.3	187	1.0	0.20 K	0.25	0.19	0.10 K		0.10 K
EVR2	910521	1306	196	2	3.3	41.6	15.1	2.5	1.00		4.3	202	5.0	4.6	173	3.6	0.20 K	0.14	0.10 K	0.10 K		0.10 K
EVR2	910710	900	228	4	2.0	49.7	22.9	2.5	1.13		2.6	267	5.0	3.0	223	2.2	0.20 K	0.20	0.10 K	0.17	0.013	0.10 K
EVR2	910710	901																				
FOS1	901009	1745	366	2	4.0	48.6	46.1	16.1	2.90		9.5	370	12.6	3.2	319	7.9	0.20 K	0.10 K	0.10 K			0.10 K
FOS1	901106	1620	358	6	2.5	47.6	41.8	17.4	2.57		1.0	373	13.3	11.7	306	1.0	0.20 K	0.15	0.10 K	0.10 K		0.23
FOS1	910123	1430	352	6	0.46	55.4	36.7	14.8	2.06		1.0	373	20.4	8.9	306	1.0	0.20 K	0.1 K	0.10 K	0.10 K		0.05 K
FOS1	910313	1801	324	2	1.6	71.3	30.2	8.8	1.59		10.3	336	23.8	9.0	294	8.6	0.20 K	0.10 K	0.10 K	0.10 K		0.10 K
FOS1	910313	1800	323	2	1.9	70.7	29.2	9.0	1.59		11.0	335	20.0	7.3	293	9.2	0.20 K	0.12	0.11	0.10 K		0.10 K
FOS1	910521	1610	360	2	1.05	50.4	37.2	15.8	2.74		6.8	353	16.8	9.6	301	5.7	0.20 K	0.31	0.10 K	0.10 K		0.10 K
FOS1	910709	1717	323	2	0.82	43.7	39.0	16.3	2.90		6.1	322	19.8	11.2	274	5.1	0.20 K	0.39	0.170	0.10 K		0.10 K
FOS1	910709	1718																				
MC1	901108	910	159	2	0.18	25.9	14.4	2.5	1.03		1.0	154	5.0	11.9	126	1.0	0.20 K	0.16	0.10 K	0.10 K		0.11
MC1	910109	1500	115	2	39	11.0	5.5	2.5	1.15		1.0	59.5	5.0	4.90	48.8	1.0	0.20 K	0.4	0.10 K	0.10 K		0.10
MC1	910312	1355	115	2	32	9.6	5.0	2.5	0.87		1.0	59.5	5.0	2.2	48.8	1.0	0.20 K	0.33	0.10 K	0.10 K		0.10 K
MC1	910514	1314	155	2	0.45	26.8	13.6	2.5	1.23		1.0	166	5.0	4.7	136	1.0	0.20 K	0.05 K	0.11	0.10 K		0.05 K
MC1	910711	1100	132	2	0.42	27.6	15.0	5.0	1.09		1.0	205	5.0	3.3	168	1.0	0.20 K	0.15	0.12	0.10 K		0.10 K
MC1	910711	1101																				
MC2	901107	1223	222	8	2.6	28.2	17.9	16.1	4.31		1.0	190	12.3	24.3	156	1.0	0.20 K	0.96	0.10 K	0.10 K		0.29
MC2	910109	850	106	2	44	7.3	3.7	2.5	1.25		1.0	35.6	5.0	5.80	29.2	1.0	0.20 K	0.6	0.11	0.10 K		0.15
MC2	910312	1415	114	4.0	44	6.7	3.6	2.5	0.89		1.0	38.4	5.0	2.7	31.5	1.0	0.20 K	0.42	0.10 K	0.10 K		0.13
MC2	910514	1600	197	24	6.2	29.8	16.3	13.0	2.00		1.0	184	11.4	14.4	151	1.0	0.20 K	0.50	0.10 K	0.10 K		0.13
OC1	901107	1631	240	9	2.8	54.7	23.9	2.5	0.87		1.0	283	5.0	4.2	232	1.0	0.20 K	0.10 K		0.10 K		0.11
OC1	901107	1630	182	2	0.31	32.3	17.4	2.5	0.75		1.0	201	5.0	7.5	165	1.0	0.20 K	0.10 K	0.10 K	0.10 K		0.10 K
PW1	910109	1031	128	2	53	10.6	4.5	2.5	1.16		1.0	47.2	5.0	6.35	38.7	1.0	0.20 K		0.10 K	0.10 K		
PW1	910109	1030	114	5	53	10.6	4.6	2.5	1.17		1.0	46.8	5.0	7.6	38.4	1.0	0.20 K	0.5	0.10 K	0.10 K		0.15
PW1	910312	1605	105	2	21	9.2	4.5	2.5	1.02		1.0	47.8	5.0	5.1	39.2	1.0	0.20 K	0.22	0.10 K	0.10 K		0.14
VRC2	901030	1115	436	14	8.4	58.9	37.6	45.8	3.42		4.1	326	86.4	29.3	274	3.4	0.40	0.18	0.10 K	0.10 K		0.10 K
VRC2	910108	1130	228	88	75	41.6	17.9	15.2	2.28		1.0	181	24.0	18.1	148	1.0	0.20 K	0.4	0.10 K	0.10 K		0.15
VRC2	910130	1405	358	34	17.8	49.8	33.3	30.7	2.58		5.3	296	51.6	18.9	251	4.4	0.29	0.2 K	0.10 K	0.10 K		0.05 K
VRC2	910327	1330	161	82	60	27.8	11.3	9.0	1.82		1.0	117	12.6	6.60	96.2	1.0	0.20 K	0.51	0.10 K	0.10 K		0.21
VRC2	910508	1905	520	12	5.2						3.5	321	140	34.0	269	2.9	0.35	0.17	0.10 K	0.10 K		0.05 K
VRC2	910716	1428	566	21	10.1	45.2	26.1	67.5	5.05		5.8	347	165	43.0	294	4.8	0.38	0.32	0.10 K	0.10 K		0.10 K
VRC2	910716	1429																				
VRC2	910725	1400	519	36	12.0	62.0	40.7	58.5	4.40		5.8	321	124	38.3	273	4.8	0.42	0.41	0.10 K	0.10 K		0.10 K
VRC3	901030	1740	291	28	13.0	52.8	24.5	27.4	2.65		1.0	307	11.8	14.6	252	1.0	0.33	0.10 K	0.15	0.10 K		0.11
VRC3	910129	1545	278	34	12.6	51.7	27.1	26.0	2.58		2.9	314	12.0	12.7	262	2.4	0.28	0.2 K	0.22	0.10 K		0.05 K
VRC3	910507	1240	294	7	2.6	50.8	23.2	24.8	2.48		1.0	306	12.5	14.3	251	1.0	0.25	0.05 K	0.10 K	0.10 K		0.05 K
VRC3	910724	1300	272	26	10.9	47.7	22.0	24.2	2.50		4.0	287	5.0	13.8	242	3.3	0.27	0.28	0.10 K	0.10 K		0.10 K
VRP1	901119	1710	300	5	9.6	41.0	25.8	56.1	3.3	0.5	0.5	297	16	24	297	0.5	0.51	0.1 K	0.59	0.03	0.000	0.05 K
VRP1	910110	845	362	27	12.1	44.7	23.8	52.4	4.50		1.0	345	17.2	22.7	283	1.0	0.49	0.2	0.71	0.10 K		0.05 K
VRP1	910326	1755	138	27	34	16.3	5.6	8.7	1.66		1.0	69.4	5.0	4.75	56.9	1.0	0.20 K	0.31	0.10 K	0.10 K		0.14
VRP1	910507	1705	341	11	4.3	39.1	23.8	53.9	4.28		3.1	302	20.0	23.4	253	2.6	0.50	0.15	0.248	0.10 K		0.05 K
VRP1	910717	1422	351	43	33	42.1	25.1	53.7	4.40		4.2	342	16.5	22.4	287	3.5	0.55	0.46	0.65	0.10 K		0.12
VRP1	910717	1423																				
VRP2	901031	930	373	8	2.9	50.9	23.8	60.8	4.27		1.0	357	19.9	22.9	293	1.0	0.58	0.13	0.93	0.10 K		0.10 K
VRP2	910129	1135	370	27	6.6	48.6	26.5	55.1	3.71		3.8	344	18.8	21.2	288	3.2	0.60	0.2 K	0.97	0.10 K		0.05 K
VRP2	910508	1131	372	13	3.4	48.5	23.3	55.9	4.16		18.1	312	21.5	26.5	286	15.1	0.54	0.12	0.73	0.10 K		0.05 K
VRP2	910723	1500	370	18	3.0	44.3	23.5	56.5	4.13		12.2	314	17.8	23.4	278	10.2	0.65	0.45	1.28	0.10 K		0.10 K
WBC1	901108	1345	313	5	9.0	51.0	28.3	21.6	2.54		1.0	303	20.0	16.1	248	1.0	0.21	0.13	0.10 K	0.10 K		0.10
WBC1	910108	1400	150	31	61	20.3	7.5	5.28	1.52		1.0	96.9	5.0	4.60	79.4	1.0	0.20 K	0.40	0.10 K	0.10 K		0.12
WBC1	910327	1505	127	13	42	17.3	6.2	2.5	1.50		1.0	77	5.0	4.30	63.4	1.0	0.20 K	0.30	0.10 K	0.10 K		0.14
WBC1	910506	1735	301	39	15.4	53.0	27.5	19.5	2.74		3.8	282	20.5	14.8	237	3.2	0.19	0.05 K	0.10 K	0.10 K		0.05 K

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	TDS Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Cations Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	Anions CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
WBC1	910717	930	306	44	34	84.8	20.2	22.5	3.19		6.0	296	25.0	15.2	253	5.0	0.23	0.33	0.10 K	0.10 K		0.10 K
WBC1	910717	931																				
WBC2	901108	1055	150	2	0.005	24.4	14.5	5.47	1.49		1.0	160	5.0	4.8	131	1.0	0.20 K	0.10 K	0.10 K	0.10 K		0.11
WBC2	910108	1600	123	2	44	10.2	6.0	2.5	1.18		1.0	61.4	5.0	2.90	50.3	1.0	0.20 K	0.4	0.10 K	0.10 K		0.09
WBC2	910326	1230	138	7	27	7.8	3.4	2.5	1.18		1.0	40.0	5.0	2.70	29.5	1.0	0.20 K	0.23	0.10 K	0.10 K		0.12
WBC2	910506	1510	147	2	0.29	24.2	14.1	5.65	1.65		1.0	145	5.0	3.4	119	1.0	0.20 K	0.05 K	0.10	0.10 K		0.05 K
WBC2	910711	1457	146	4	1.22	25.1	14.8	6.6	1.67		1.0	163	5.0	3.0	134	1.0	0.20 K	0.28	0.33	0.10 K		0.10 K
WBC2	910711	1458																				
VRI17	901030	1300	321	23	16.6																	
VRI17	901119	1110	250	20	18																	
VRI17	901213	1610	307	34	20.0																	
VRI17	910130	1010	277	17	14.2																	
VRI17	910213	1040	286	44	34																	
VRI17	910327	1130	166	110	81																	
VRI17	910411	1015	188	30	27																	
VRI17	910508	1630	331	18	7.9																	
VRI17	910620	1450	364	10	5.3																	
VRI17	910725	945			18.1																	
VRDH	901030	1445	322	21	9.8																	
VRDH	901119	1340	260	5	11																	
VRDH	901213	1145	352	16	12.4																	
VRDH	910130	800	330	11	11.2																	
VRDH	910213	1405	345	13	12.8																	
VRDH	910327	845	156	24	33																	
VRDH	910411	1245	200	26	21																	
VRDH	910508	1355	325	13	6.2																	
VRDH	910620	956	423	8	3.8																	
VRDH	910724	920			5.8																	
VR1000	901030	1406	312	14	4.8																	
VR1000	901119	1210	270	20	17																	
VR1000	901213	1500	333	16	13.9																	
VR1000	910130	920	296	19	15.2																	
VR1000	910213	1145	310	39	24																	
VR1000	910327	1015	168	68	45																	
VR1000	910411	1100	225	30	23																	
VR1000	910508	1512	303	23	9.8																	
VR1000	910620	1319	325	35	14.3																	
VR1000	910724	1620			18.0																	
WOC1	901107	1505	233	8	3.1	48.9	24.2	2.5	0.93		1.0	283	5.0	13.2	232	1.0	0.20 K	0.10 K	0.10 K	0.10 K		0.11

VERDE RIVER BASIN — Bacteria — Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
BTC1	901119	1445:		60	10 K		8		36		150		5 K		5 K		10 K		20 K		196
BTC1	910122	1010:			1 K	1 K	10 K	10 K	100 K	100 K	520	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
BTC1	910326	1525:			1 K		10 K		100 K		170		0.5 K		1		10 K		19		120
BTC1	910507	915	27	999999	1 K		10 K		100 K		180		0.5 K		25 K		10 K		10 K		100
BTC1	910717	1805:			1 K	1 K	10 K	10 K	100 K	100 K	200	180	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K		240
BTC1	910717	1806:			1 K	1 K	10 K	10 K	100 K	100 K	200	170	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	190
DBC1	910122	1415:			1 K	1 K	10 K	10 K	100 K	100 K	400	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	150
DBC1	910312	1130:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		17		810
ELC1	901009	1500	49	360	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		310
ELC1	901212	1140:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		300
ELC1	910207	1230:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		30		180
ELC1	910417	1510:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		13		200
ELC1	910417	1511:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		14		240
ELC1	910626	930																			
ELC1	910807	1300																			
EVR2	901009	1630:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		320
EVR2	901106	1445:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		170
EVR2	910123	1710:			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	120
EVR2	910314	834:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10		100
EVR2	910521	1306	71	1	1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		170
EVR2	910710	900:			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	120
EVR2	910710	901				1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K	
FOS1	901009	1745:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		320
FOS1	901106	1620			1 K		10 K		100 K		100 K		0.5 K		1.4		10 K		10 K		1050
FOS1	910123	1430:			1 K	1 K	10 K	10 K	100	100	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
FOS1	910313	1801:			1 K		10 K		130		100 K		0.5 K		3.2		10 K		12		100
FOS1	910313	1800:			1 K		10 K		130		100 K		0.5 K		1.0 K		10 K		15		100
FOS1	910521	1610	12	2	1 K		10 K		110		100 K		0.5 K		1.0 K		10 K		10 K		100
FOS1	910709	1717:			1 K	1 K	10 K	10 K	100	100	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
FOS1	910709	1718				1 K		10 K		100		100 K		0.5 K		1.0 K		10 K		10 K	
MC1	901108	910			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		130
MC1	910109	1500			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		22		1190
MC1	910312	1355:			1 K		10 K		100 K		100 K		0.5 K		1.6		10 K		11		1000
MC1	910514	1314	0	87	1 K		10 K		230		100 K		0.5 K		1.0 K		10 K		10 K		100
MC1	910711	1100:			1 K	1 K	10 K	10 K	220	220	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
MC1	910711	1101				1 K		10 K		210		490		0.5 K		1.0 K		10 K		100 K	
MC2	901107	1223			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		290
MC2	910109	850			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	12	10 K	1470
MC2	910312	1415			1 K		10 K		100 K		100 K		0.5 K		1.1		10 K		16		1400
MC2	910514	1600	0	6	1 K		20 K		100 K		100 K		0.5 K		1.2		10 K		10 K		820
OC1	901107	1631			1 K		10 K		100 K		100 K		0.5 K		1 K		10 K		10 K		140
OC1	901107	1630:			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		100
PW1	910109	1031			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	50 K	10 K	1690
PW1	910109	1030			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	1530
PW1	910312	1605			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		15		820
VRC2	901030	1115:			1 K		15		140		230		0.5 K		1 K		10 K		14		470
VRC2	910108	1130			1 K	1 K	11	10 K	130	100 K	120	100 K	0.5 K	0.5 K	1 K	1.0 K	10 K		13	10 K	1450
VRC2	910130	1405:			1 K		14		150		540		0.5 K		1 K		10 K		10 K		340
VRC2	910327	1330			1 K		10 K		100 K		100 K		0.5 K		1 K		10 K		23		1780
VRC2	910508	1905	5	11																	
VRC2	910716	1428:			1 K	1 K	23	24	110	100	260	260	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K		430
VRC2	910716	1429				1 K		25		100		260		0.5 K		1.0 K		10 K		10 K	
VRC2	910725	1400:			1 K	1 K	22	24	120	120	250	200	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	530
VRC3	901030	1740			1 K		15		190		210		0.5 K		1 K		10 K		10 K		420
VRC3	910129	1545	4	3	1 K		16		200		570		0.5 K		1 K		10 K		10 K		330
VRC3	910507	1240	9	3	1 K		16		190		190		0.5 K		1.0 K		10 K		10 K		150
VRC3	910724	1300:			1 K		16		180		150		0.5 K		2.5 K		10 K		10 K		340
VRP1	901119	1710:		16	10 K		20		72		230		5 K		5 K		10 K		20 K		746
VRP1	910110	845:			1 K		28		100 K		250		0.5 K		1.0 K		10 K		10 K		460
VRP1	910326	1755			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		1220
VRP1	910507	1705	1	3	1 K		22		100 K		280		0.5 K		1.0 K		10 K		10 K		260
VRP1	910717	1422			1 K	1 K	26	26	100 K	100 K	320	260	0.5 K	0.5 K	2.5 K	1.0 K	10 K	10 K	10 K	10 K	990
VRP1	910717	1423				1 K		25		100 K		280		0.5 K		1.0 K		10 K		10 K	
VRP2	901031	930:			1 K		21		100 K		300		0.5 K		1.0 K		10 K		24		200
VRP2	910129	1135:			1 K		22		100 K		680		0.5 K		1 K		10 K		10 K		250
VRP2	910508	1131	22	7	1 K		24		100 K		290		0.5 K		1.0 K		10 K		10 K		220
VRP2	910723	1500:			1 K		28		100 K		270		0.5 K		1.0 K		10 K		10 K		450
WBC1	901108	1345			1 K		15		100 K		190		0.5 K		1.0 K		10 K		10 K		390
WBC1	910108	1400			1 K	1 K	10 K	10 K	100 K	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	13	10 K	1710
WBC1	910327	1505			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		18		1110
WBC1	910506	1735	340	474	1 K		15		160		180		0.5 K		1.0 K		10 K		10 K		710

VERDE RIVER BASIN — Bacteria — Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
WBC1	910717	930			1 K	1 K	19	16	150	150	140	140	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	1200
WBC1	910717	931				1 K		18		130		260		0.5 K		1.0 K		10 K		10 K	
WBC2	901108	1055			1 K		11		100 K		100 K		0.5 K		1.0 K		10 K		14		240
WBC2	910108	1600			1 K	1 K	10 K	10 K	130	100 K	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	13	10 K	1270
WBC2	910326	1230			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		11		880
WBC2	910506	1510	2	126	1 K		10		290		100 K		0.5 K		1.0 K		10 K		10 K		100
WBC2	910711	1457			1 K	1 K	13	12	260	260	100 K	100 K	0.5 K	0.5 K	1.0 K	1.0 K	10 K	10 K	10 K	10 K	100
WBC2	910711	1458				1 K		13		240		1830		0.5 K		1.0 K		10 K		10 K	
VRI17	901030	1300																			
VRI17	901119	1110																			
VRI17	901213	1610																			
VRI17	910130	1010																			
VRI17	910213	1040																			
VRI17	910327	1130																			
VRI17	910411	1015																			
VRI17	910506	1630																			
VRI17	910620	1450																			
VRI17	910725	945																			
VRDH	901030	1445																			
VRDH	901119	1340																			
VRDH	901213	1145																			
VRDH	910130	800																			
VRDH	910213	1405																			
VRDH	910327	845																			
VRDH	910411	1245																			
VRDH	910506	1355																			
VRDH	910620	956																			
VRDH	910724	920																			
VR1000	901030	1408																			
VR1000	901119	1210																			
VR1000	901213	1500																			
VR1000	910130	920																			
VR1000	910213	1145																			
VR1000	910327	1015																			
VR1000	910411	1100																			
VR1000	910506	1512																			
VR1000	910620	1319																			
VR1000	910724	1620																			
WOC1	901107	1505			1 K		10 K		100 K		100 K		0.5 K		1.0 K		10 K		10 K		350

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
BTC1	901119	1445		0.2 K		10 K		20 K		2 K		50 K		5 K				5 K		28
BTC1	910122	1010 K	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	6	5			5 K	5 K	70
BTC1	910326	1525		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		110
BTC1	910507	915 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		80
BTC1	910717	1805	140	0.5 K		50 K	50 K	100 K	170	10 K		5 K	5 K	5 K	5 K			5 K	5 K	80
BTC1	910717	1806	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	80
DBC1	910122	1415	120	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
DBC1	910312	1130		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	901009	1500		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	901212	1140		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	910207	1230		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	910417	1510		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	910417	1511		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
ELC1	910626	930																		
ELC1	910607	1300																		
EVR2	901009	1630		0.5 K		50		100 K		10 K		5 K		5 K				5 K		50 K
EVR2	901106	1445		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
EVR2	910123	1710	100 K	0.5 K	0.5 K	70	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
EVR2	910314	834 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
EVR2	910521	1306		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
EVR2	910710	900	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
EVR2	910710	901	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
FOS1	901009	1745		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
FOS1	901106	1620		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
FOS1	910123	1430 K	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
FOS1	910313	1801 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
FOS1	910313	1800 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
FOS1	910521	1610 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
FOS1	910709	1717 K	150	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
FOS1	910709	1718	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
MC1	901108	910		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MC1	910109	1500		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MC1	910312	1355		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MC1	910514	1314 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MC1	910711	1100 K	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
MC1	910711	1101	130		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
MC2	901107	1223		0.5 K		250		100 K		10 K		5 K		5 K				5 K		50 K
MC2	910109	850	1160	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
MC2	910312	1415		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
MC2	910514	1600		0.5 K		210		100 K		10 K		5 K		5 K				5 K		50 K
OC1	901107	1631		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
OC1	901107	1630 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
PW1	910109	1031	1310	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
PW1	910109	1030	1360	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
PW1	910312	1605		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC2	901030	1115		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC2	910108	1130	120	0.5 K	0.5 K	70	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
VRC2	910130	1405		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC2	910327	1330		0.5 K		0.8		100 K		10 K		5 K		5 K				5 K		50 K
VRC2	910506	1905																		
VRC2	910716	1428	100 K	0.5 K	9.7	50 K	50 K	100 K	100 K	10 K		5 K	5 K	5 K	5 K			5 K	5 K	50 K
VRC2	910716	1429	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
VRC2	910725	1400	110	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
VRC3	901030	1740		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC3	910129	1545		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC3	910507	1240		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRC3	910724	1300		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP1	901119	1710		0.2 K		29		20 K		2 K		50 K		5 K				5 K		10 K
VRP1	910110	845		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP1	910326	1755		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP1	910507	1705		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP1	910717	1422	100 K	0.5 K	0.5 K	60	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	25 K			5 K	5 K	50 K
VRP1	910717	1423	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
VRP2	901031	930		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP2	910129	1135		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP2	910508	1131		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
VRP2	910723	1500		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC1	901108	1345		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC1	910108	1400	480	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
WBC1	910327	1505		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC1	910506	1735		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K

VERDE RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
WBC1	910717	930	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
WBC1	910717	931	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
WBC2	901108	1055		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC2	910108	1600	900	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
WBC2	910326	1230		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC2	910506	1510 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K
WBC2	910711	1457 K	100 K	0.5 K	0.5 K	50 K	50 K	100 K	100 K	10 K	10 K	5 K	5 K	5 K	5 K			5 K	5 K	50 K
WBC2	910711	1458	100 K		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K	
VRI17	901030	1300																		
VRI17	901119	1110																		
VRI17	901213	1610																		
VRI17	910130	1010																		
VRI17	910213	1040																		
VRI17	910327	1130																		
VRI17	910411	1015																		
VRI17	910506	1630																		
VRI17	910620	1450																		
VRI17	910725	945																		
VRDH	901030	1445																		
VRDH	901119	1340																		
VRDH	901213	1145																		
VRDH	910130	800																		
VRDH	910213	1405																		
VRDH	910327	845																		
VRDH	910411	1245																		
VRDH	910506	1355																		
VRDH	910620	956																		
VRDH	910724	920																		
VR1000	901030	1408																		
VR1000	901119	1210																		
VR1000	901213	1500																		
VR1000	910130	920																		
VR1000	910213	1145																		
VR1000	910327	1015																		
VR1000	910411	1100																		
VR1000	910506	1512																		
VR1000	910620	1319																		
VR1000	910724	1620																		
WOC1	901107	1505		0.5 K		50 K		100 K		10 K		5 K		5 K				5 K		50 K

VERDE RIVER BASIN — Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
BTC1	901119	1445		ATI		AMMONIA VIOLATES STATE STANDARDS
BTC1	910122	1010	310	ADHS/ATI		TKN/TOTAL PHOSPHORUS SENT TO ATI
BTC1	910326	1525		ADHS		
BTC1	910507	915		ADHS		
BTC1	910717	1805		ADHS		DISSOLVED COPPER, ZINC, LEAD AND MERCURY APPEAR TO VIOLATE ST
BTC1	910717	1806	50	KADHS		THE DISSOLVED METALS HERE WERE FROM A LAB FILTERED SAMPLE. R
DBC1	910122	1415	50	KADHS/ATI		TKN/TOTAL P SENT TO ATI
DBC1	910312	1130		ADHS		TDS/SPEC COND RATIO OUTSIDE NORMAL RANGE FOR NATURAL WATER
ELC1	901009	1500		ADHS	22979	
ELC1	901212	1140		ADHS	23736	
ELC1	910207	1230		ADHS-AT	24381	
ELC1	910417	1510		ADHS	25267	
ELC1	910417	1511		ADHS	25266	QC SAMPLE
ELC1	910626	930				THERE WAS NO FLOW ON THIS VISIT.
ELC1	910807	1300				THERE WAS NO FLOW ON THIS VISIT.
EVR2	901009	1630		ADHS		
EVR2	901106	1445		ADHS		
EVR2	910123	1710	50	KADHS		TKN/TOTAL PHOSPHORUS SENT TO ATI//
EVR2	910314	634		ADHS		
EVR2	910521	1306		ADHS		FLOOD
EVR2	910710	900	50	KADHS		DISSOLVED METALS LISTED IN THIS ROW ARE FROM A FIELD FILTERED S
EVR2	910710	901	50	KADHS		DISSOLVED METALS LISTED IN THIS ROW ARE FROM A LAB FILTERED SA
FOS1	901009	1745		ADHS		
FOS1	901106	1620		ADHS		
FOS1	910123	1430	50	KADHS		VALUES FOR DISSOLVED CONCENTRATIONS OF K, Na,Mg, AND Ca ARE I
FOS1	910313	1801		ADHS		FLOOD
FOS1	910313	1800		ADHS		FLOOD
FOS1	910521	1610		ADHS		
FOS1	910709	1717	50	KADHS		DISSOLVED METAL VALUES FROM FIELD FILTERED SAMPLE.
FOS1	910709	1718	50	KADHS		DISSOLVED METALS FROM A LAB FILTERED SAMPLE
MC1	901106	910		ADHS		SPIKE RECOVERY FOR TKN AT 62% AND TOTAL PHOSPHORUS AT 76%
MC1	910109	1500		ADHS		TURBIDITY VIOLATES STATE STANDARDS//TDS/SPECIFIC CONDUCTIVITY
MC1	910312	1355		ADHS		'STREAM WAS DIVIDED. AVERAGE DEPTH, VELOCITY ARE AVERAGES OF
MC1	910514	1314		ADHS		
MC1	910711	1100	50	KADHS		'DISSOLVED METALS FROM A FIELD FILTERED SAMPLE
MC1	910711	1101	50	KADHS		'DISSOLVED METALS FROM LAB FILTERED SAMPLE
MC2	901107	1223		ADHS		PHOSPHORUS VIOLATES STATE STANDARDS// stagnant water at site
MC2	910109	850	50	KADHS		TDS/SPEC COND OUTSIDE NORMAL RATIO FOR NAT. H20.//TURBIDITY VI
MC2	910312	1415		ADHS		TDS/CONDUCTIVITY RATIO OUTSIDE NORMAL RANGE FOR NATURAL WAT
MC2	910514	1600		ADHS		there is very little flow--- it mostly appears to be standing water
OC1	901107	1631		ADHS		
OC1	901107	1630		ADHS		
PW1	910109	1031	50	KADHS		TURBIDITY VIOLATES STATE STDS
PW1	910109	1030	50	KADHS		TDS/SPECIFIC CONDUCTIVITY RATIO OUTSIDE NORMAL RANGE FOR NAT
PW1	910312	1605		ADHS		TURBIDITY VIOLATES STATE STANDARDS FLOOD
VRC2	901030	1115		ADHS		FLOOD
VRC2	910108	1130	50	KADHS		TURBIDITY VIOLATES STATE STANDARDS
VRC2	910130	1405		ADHS-ATI		TDS/SPECIFIC CONDUCTIVITY RATIO OUTSIDE NORMAL RANGE FOR NAT
VRC2	910327	1330		ADHS		TURBIDITY VIOLATES STATE STANDARDS
VRC2	910506	1905		ADHS		METALS CANCELLED SINCE THERE WAS NOT A NITRIC ACID PRESERVED
VRC2	910716	1428		ADHS		DISSOLVED METALS WERE FROM A FIELD FILTERED SAMPLE. COPPER, L
VRC2	910716	1429	50	KADHS		'DISSOLVED METALS WERE FROM A LAB FILTERED SAMPLE.
VRC2	910725	1400	50	KADHS		'TOTAL PHOSPHORUS SPKE RECOVERY 112%//
VRC3	901030	1740		ADHS		
VRC3	910129	1545		ADHS-ATI		
VRC3	910507	1240		ADHS		
VRC3	910724	1300		ADHS		
VRP1	901119	1710		ATI		AMMONIA EXCEEDS STANDARDS
VRP1	910110	845		ADHS-ATI		
VRP1	910326	1755		ADHS		63% SPIKE RECOVERY FOR TKN
VRP1	910507	1705		ADHS		
VRP1	910717	1422	50	KADHS		DISSOLVED METALS FROM FIELD FILTERED SAMPLE
VRP1	910717	1423	50	KADHS		DISSOLVED METALS FROM A LAB FILTERED SAMPLE
VRP2	901031	930		ADHS		
VRP2	910129	1135		ADHS-ATI		
VRP2	910506	1131		ADHS		
VRP2	910723	1500		ADHS		
WBC1	901108	1345		ADHS		
WBC1	910108	1400	50	KADHS		TURBIDITY VIOLATES STATE STDS//TDS/SPECIFIC CONDUCTIVITY RATIOC
WBC1	910327	1505		ADHS		'TURBIDITY VIOLATES STATE STDS
WBC1	910506	1735		ADHS		TURBIDITY VIOLATES STATE STDS//

VERDE RIVER BASIN Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
WBC1	910717	930	50	KADHS		DO IS BELOW STATE STANDARD / TURBIDITY VIOLATES STATE STANDARD
WBC1	910717	931		KADHS		DISSOLVED METALS FROM A LAB FILTERED SAMPLE
WBC2	901108	1055		ADHS		
WBC2	910108	1600	50	KADHS		TDS/SPEC COND RATION OUTSIDE NORMAL RANGE FOR NAT H2OS // TUR
WBC2	910326	1230		ADHS		TURBIDITY VIOLATES STATE STDS.// TDS/SPECIFIC COND. RATIO OUTSID
WBC2	910506	1510		ADHS		
WBC2	910711	1457	50	KADHS		DISSOLVED METALS ARE FROM A FIELD FILTERED SAMPLE// no sample w
WBC2	910711	1458	50	KADHS		FILTERED METALS WERE FROM A LAB FILTERED SAMPLE
VRI17	901030	1300		ADHS		
VRI17	901119	1110		ATI		
VRI17	901213	1610		ADHS		
VRI17	910130	1010		ADHS		
VRI17	910213	1040		ADHS		
VRI17	910327	1130		ADHS		TURBIDITY VIOLATES STATE STANDARDS
VRI17	910411	1015		ADHS		
VRI17	910508	1630		ADHS		
VRI17	910620	1450		ADHS		
VRI17	910725	945		ADHS		
VRDH	901030	1445		ADHS		
VRDH	901119	1340		ATI		
VRDH	901213	1145		ADHS		
VRDH	910130	800		ADHS		
VRDH	910213	1405		ADHS		
VRDH	910327	845		ADHS		
VRDH	910411	1245		ADHS		
VRDH	910508	1355		ADHS		
VRDH	910620	956		ADHS		
VRDH	910724	920		ADHS		
VR1000	901030	1408		ADHS		
VR1000	901119	1210		ATI		
VR1000	901213	1500		ADHS		
VR1000	910130	920		ADHS		
VR1000	910213	1145		ADHS		
VR1000	910327	1015		ADHS		
VR1000	910411	1100		ADHS		
VR1000	910508	1512		ADHS		
VR1000	910620	1319		ADHS		
VR1000	910724	1620		ADHS		
WOC1	901107	1505		ADHS		

APPENDIX D

San Pedro River
and
Rios de Mexico Basisns

Field and Analytical Data
October 1990 - September 1991

Pages D-2 thru D-6 follow

SAN PEDRO RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters: Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Hardness: Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
SP1	901023	1040	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	29.0	22.0	9.10	109.6%	562	8.37		5.60	0.23	0.40	0.45	666	8.2	268
SP1	901217	1100	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	9.5	6.5	10.1	99.3%	530	8.53		10.20	0.37	0.91	3.98	526	8.3	235
SP1	910225	1300	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	21.0	16.5	8.30	99.0%	465	8.47		16.50	0.31	1.16	6.35	540	8.3	236
SP1	910416	1020	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	22.5	17.0			480	8.40		18.00	0.25	0.68	3.62	531	8.1	213
SP1	910617	1040	500000000022200	15050202-008	312248.00	1100636.00	ADEQ														
SP1	910826	1415	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	31.0	31.0	5.72	89.8%	351	7.90		14.10	0.28	0.93	4.076	373	8.1	172
SP1	910826	1416	500000000022200	15050202-008	312248.00	1100636.00	ADEQ	31.0	31.0	5.72	89.8%	351	7.90		14.10	0.28	0.93	4.076	374	8.0	173
SP2	901024	1325	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	26.0	25.5	6.80	92.0%	594	8.19		20.70	0.17	0.73	2.55	804	8.1	260
SP2	901218	1230	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	10.0	14.0	8.80	94.0%	787	8.09		27.10	0.20	0.69	4.20	820	8.1	293
SP2	910226	1130	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	18.0	14.5	8.00	89.3%	750	8.13		28.10	0.28	1.02	8.04	770	8.3	274
SP2	910415	1230	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	26.0	28.5	8.05	118.2%	831	8.19		63.50	0.12	0.51	4.90	781	8.1	259
SP2	910618	1025	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	27.0	25.0	8.35	100.4%	899	7.91		13.00	0.20	0.80	1.92	885	8.2	271
SP2	910618	1026	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	27.0	25.0	8.35	100.4%	899	7.91		13.00	0.20	0.80	1.92			
SP2	910618	1027	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	27.0	25.0	8.35	100.4%	899	7.91		13.00	0.20	0.80	1.92	880	8.2	270
SP2	910827	1040	500000000014480	15050202-003	315422.00	1101446.00	ADEQ	27.0	23.5	6.60	117.3%	391	7.74		13.00	0.77	2.09	22.02	395	7.8	187
SP5	900620	1230	500000000014610	15050202-003	315356.00	1101411.00	ADEQ	42.0	36.0	7.90	129.5%	812	8.58		2.50	0.10	0.23	0.13	794	8.4	262
SP5	910226	1015	500000000014610	15050202-003	315356.00	1101411.00	ADEQ	16.0	11.5	8.95	93.5%	624	8.10		22.00	0.31	1.04	7.29	640	8.4	236
SP5	910415	1110	500000000014610	15050202-003	315356.00	1101411.00	ADEQ	28.0	20.0	8.70	109.0%	699	8.47		35.50	0.24	0.94	5.03	676	8.2	215
SP5	910618	840	500000000014610	15050202-003	315356.00	1101411.00	ADEQ	21.0	18.0	8.70	104.6%	689	7.91		11.80	0.21	0.72	1.63	702	8.3	224
SP5	910618	841	500000000014610	15050202-003	315356.00	1101411.00	ADEQ	21.0	18.0	8.70	104.6%	689	7.91		11.80	0.21	0.72	1.63			
SP7	901024	1215	500000000014635	15050202-003	315356.00	1101411.00	ADEQ	27.5	16.5	8.00	108.3%	625	8.36		14.10	0.14	0.59	1.39	618	8.3	211
SP7	901218	1115	500000000014635	15050202-003	315356.00	1101411.00	ADEQ	10.0	12.0	8.90	91.8%	615	8.44		12.00	0.21	0.90	2.10	623	8.3	235
SP10	901024	930	SP10	15050202-005	314325.00	1100904.00	ADEQ	24.5	14.0	9.00	98.4%	422	8.74		24.20	0.30	0.91	6.77	469	8.5	191
SP10	901218	900	SP10	15050202-005	314325.00	1100904.00	ADEQ	0.0	1.5	11.95	96.8%	469	8.71		38.50	0.29	1.12	13.71	467	8.3	197
SP10	910226	1430	SP10	15050202-005	314325.00	1100904.00	ADEQ	18.0	16.0	9.03	105.4%	463	8.67		30.40	0.49	0.75	20.13	480	8.2	190
SP10	910226	1431	SP10	15050202-005	314325.00	1100904.00	ADEQ	18.0	16.0	9.03	105.4%	463	8.67		30.40	0.49	0.75	20.13	470	8.3	191
SP10	910416	1320	SP10	15050202-005	314325.00	1100904.00	ADEQ	25.5	24.5			417	8.44		26.30	0.49	1.23	15.53	455	8.2	166
SP10	910416	1321	SP10	15050202-005	314325.00	1100904.00	ADEQ	25.5	24.5			417	8.44		26.30	0.49	1.23	15.53	447	8.2	163
SP10	910617	1630	SP10	15050202-005	314325.00	1100904.00	ADEQ														
SP10	910827	835	SP10	15050202-005	314325.00	1100904.00	ADEQ	21.0	21.0	7.25	93.7%	273	7.79		20.20	0.62	1.46	24.15	296	8.0	149
SP11	901023	1340	SP11	15050202-008	313108.00	1100817.00	ADEQ	23.0	18.0	8.20	98.4%	511	8.30		10.40	0.36	1.18	5.06	530	8.2	219
SP11	901023	1341	SP11	15050202-008	313108.00	1100817.00	ADEQ	23.0	18.0	8.20	98.4%	511	8.30		10.40	0.36	1.18	5.06	526	8.2	221
SP11	901217	1300	SP11	15050202-008	313108.00	1100817.00	ADEQ	9.0	10.0	11.3	113.8%	507	8.57		13.00	0.70	0.85	9.53	529	8.3	220
SP11	901217	1301	SP11	15050202-008	313108.00	1100817.00	ADEQ	9.0	10.0	11.3	113.8%	507	8.57		13.00	0.70	0.85	9.53	513	8.3	220
SP11	910225	1545	SP11	15050202-008	313108.00	1100817.00	ADEQ	19.0	15.0	9.28	107.2%	533	8.14		11.10	0.59	1.60	15.18	540	8.4	235
SP11	910416	1140	SP11	15050202-008	313108.00	1100817.00	ADEQ	23.5	13.0			506	8.10		10.80	0.83	0.94	11.46	494	8.1	198
SP11	910506	1100	SP11	15050202-008	313108.00	1100817.00	ADEQ	28.0	19.5	8.40	106.6%	450	8.25		10.30	0.41	1.03	4.50	510	8.2	195
SP11	910617	1345	SP11	15050202-008	313108.00	1100817.00	ADEQ	31.5	24.5	6.30	88.0%	454	7.72		8.20	0.19	0.45	0.75	431	8.0	202
SP11	910617	1346	SP11	15050202-008	313108.00	1100817.00	ADEQ	31.5	24.5	6.30	88.0%	454	7.72		8.20	0.19	0.45	0.75			
SP11	910826	1615	SP11	15050202-008	313108.00	1100817.00	ADEQ	29.0	25.0	6.10	95.8%	263	7.63		19.60	0.64	1.84	31.86	339	7.8	166
SP12a	910813	1345	SP12a	15050203-011	322223.00	1102629.00	ADEQ	33.0	32.0	7.20	109.9%	590	8.40		16.70	0.24	1.11	4.60	550	8.2	196
HSC1	910204	1155	HSC1	15050203-013	322304.00	1101915.00	ADEQ	16.0	9.0	10.2	100.4%	318	8.54		8.80	0.27	1.27	3.57	340	8.5	114
HSC1	910429	1215	HSC1	15050203-013	322304.00	1101915.00	ADEQ	19.5	21.0	8.39	103.0%	300	8.74		10.50	0.23	1.14	3.24	297	8.5	110
HSC1	910626	945	HSC1	15050203-013	322304.00	1101915.00	ADEQ	26.0	23.0	8.29	110.1%	333	8.76		5.30	0.16	0.79	0.76	344	8.7	114
HSC1	910813	1045	HSC1	15050203-013	322304.00	1101915.00	ADEQ	29.0	27.0	7.50	107.1%	413	8.51		11.60	0.12	0.34	0.69	413	8.6	129
RFC1	910204	1600	RFC1	15050203-014	322641.00	1102036.00	ADEQ	16.0	9.5	9.02	91.9%	262	8.06		6.10	0.32	0.68	1.33	283	8.2	108
RFC1	910429	1700	RFC1	15050203-014	322641.00	1102036.00	ADEQ	23.0	18.0	7.90	94.2%	293	7.84		10.20	0.58	0.14	0.92	284	8.1	118
RFC1	910626	1300	RFC1	15050203-014	322641.00	1102036.00	ADEQ														

RIOS DE MEXICO BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters: Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Hardness: Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
MG1	910225	1045	510400000000825	15080301-004	312630.00	1094929.00	ADEQ	20	13	8.97	0.991	1326	8.17		4	0.25	0.64	0.64	1400	8.1	544
MG2	910225	1440	510400000001900	15080301-004	312629.00	1095540.00	ADEQ	18	13			416	8.83					LOW	440	8.5	190

SAN PEDRO RIVER BASIN TDS Cations Anions

Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
SP1	901023	1040	450	5	0.59	86.8	12.4	54.4	3.8	0.5	0.5	230	120	10.2	230	0.5	0.29	0.2	0.1	0.03	0.004	0.05 K
SP1	901217	1100	350	5	4.7	76.3	10.9	37.6	2.9	0.5	0.5	219	77	7.6	219	0.5	0.28	0.3	0.15	0.03	0.002	0.05 K
SP1	910225	1300	360	20	7.4	76.2	11.5	39.6	3.5	0.5	0.5	204	87	8.3	204	0.5	0.31	0.2	0.33	0.04	0.004	0.05 K
SP1	910416	1020	360	20	8.2	67.0	11.1	40.2	2.7	0.5	0.5	198	83	8.6	198	0.5	0.26	0.2	0.12	0.07	0.006	0.05 K
SP1	910617	1040																				
SP1	910826	1415	260	510	220	58.3	6.5	16.2	4.3	0.5	0.5	94	90	3.3	94	0.5	0.23	0.2 K	0.69	0.03 K		0.44
SP1	910826	1416	240	520	210	58.7	6.5	17.4	4.2	0.5	0.5	92	88	3.5	92	0.5	0.21	6.2	0.72	0.03 K		0.48
SP2	901024	1325	560	5	2.3	76.1	16.9	85.0	4.0	0.5	0.5	231	130	18	231	0.5	1.66	0.1 K	13.3	0.62	0.063	0.05 K
SP2	901218	1230	560	800	140	86.0	18.9	83.4	5.6	0.5	0.5	253	130	18	253	0.5	1.53	0.8	14	0.88	0.032	0.48
SP2	910226	1130	520	60	27	81.5	17.2	75.9	4.6	0.5	0.5	250	120	14.6	250	0.5	1.33	1.2	11.4	1.16	0.048	0.07
SP2	910415	1230	580	5	2.6	75.5	17.1	90.9	3.8	0.5	0.5	253	130	18	253	0.5	1.56	0.2 K	14	0.92	0.113	0.05 K
SP2	910618	1025	580	5	1.2	76.8	19.2	95.1	4.3	0.5	0.5	233	130	18	233	0.5	1.77	0.2 K	21	1.14	0.061	0.05 K
SP2	910618	1026																			0.000	
SP2	910618	1027	560	5	1.1	76.2	19.3	95.4	4.3	0.5	0.5	231	130	18	231	0.5	1.76	0.2 K	21	1.07	0.057	0.05 K
SP2	910827	1040	240	18000	9200	59.4	9.4	25.7	3.6	0.5	0.5	112	74	5.2	112	0.5	0.50	23	3.6	0.15	0.005	12
SP5	900620	1230	570	5	7.1	74.4	18.4	100	4.4	0.5	6	249	140	23	255	3	1.99	0.4	2.48	0.08	0.031	0.05 K
SP5	910226	1015	460	40	26	69.5	15.1	66.4	4.8	0.5	8	227	110	13.1	235	4	1.24	0.7	1.51	0.42	0.013	0.05 K
SP5	910415	1110	470	20	2.1	61.7	14.8	80.6	3.3	0.5	0.5	226	120	16	226	0.5	1.50	0.6	0.80	0.22	0.028	0.05 K
SP5	910618	840	450	5	1.3	63.4	16.0	85.3	4.2	0.5	0.5	231	130	17	231	0.5	1.64	0.43	0.76	0.23	0.006	0.05 K
SP5	910618	841																			0.000	
SP7	901024	1215	420	20	6.6	61.9	13.7	66.9	3.6	0.5	0.5	221	110	12.2	221	0.5	1.37	0.1	0.06	0.03 K		0.05 K
SP7	901218	1115	430	20	4.5	68.1	15.8	65.9	3.5	0.5	0.5	235	110	12.4	235	0.5	1.43	0.3	0.06	0.03 K		0.05 K
SP10	901024	930	320	10	5	56.3	12.4	36.7	2.6	0.5	8	204	42	9.0	212	0.5	0.46	0.1	0.06 K	0.03 K		0.05 K
SP10	901218	900	300	30	9.5	56.3	13.7	38.5	2.2	0.5	0.5	210	42	9.6	210	0.5	0.43	0.3	0.26	0.03 K		0.05 K
SP10	910226	1430	270	70	32	55.0	12.9	38.9	2.9	0.5	0.5	190	54	9.4	190	0.5	0.42	0.5	0.32	0.03	0.004	0.06
SP10	910226	1431	300	80	31	55.2	13.0	38.9	3.0	0.5	0.5	192	55	9.4	192	0.5	0.44	0.2	0.30	0.03	0.004	0.06
SP10	910416	1320	320	10	4.8	46.5	12.2	40.5	2.5	0.5	0.5	195	50	9.9	195	0.5	0.40	0.2 K	0.06 K	0.03 K		0.05 K
SP10	910416	1321	310	10	4.7	45.2	12.1	40.6	2.6	0.5	0.5	188	48	9.9	188	0.5	0.40	0.2 K	0.06 K	0.03 K		0.05 K
SP10	910617	1630																				
SP10	910827	835	200	3200	1700	49.2	6.3	12.4	3.1	0.5	0.5	90	50	3.9	90	0.5	0.27	1.1	1.05	0.03 K		3.0
SP11	901023	1340	350	10	8.9	65.0	16.9	38.4	2.4	0.5	0.5	230	55	10.9	230	0.5	0.38	0.3	0.10	0.03	0.002	0.05 K
SP11	901023	1341	350	20	8.8	65.6	14.0	39.1	2.4	0.5	0.5	225	55	10.8	225	0.5	0.38	0.2	0.09	0.05	0.004	0.05 K
SP11	901217	1300	350	20	7.0	67.3	12.6	39.2	2.4	0.5	0.5	230	57	10.2	230	0.5	0.34	0.2	0.41	0.03 K		0.05 K
SP11	901217	1301	330	20	6.9	67.5	12.6	39.2	2.4	0.5	0.5	222	59	10.2	222	0.5	0.33	0.2	0.40	0.03	0.002	0.05 K
SP11	910225	1545	360	60	28	73.1	12.7	40.7	2.9	0.5	6	216	70	10.1	222	3	0.34	0.3	0.55	0.04	0.002	0.06
SP11	910416	1140	340	5	3.5	58.1	12.8	42.9	2.5	0.5	0.5	211	65	11.1	211	0.5	0.31	0.2 K	0.06 K	0.03	0.001	0.05 K
SP11	910506	1100	320	5	2.6	56.5	13.2	38.4	3.0	0.5	0.5	205	55	9.9	205	0.5	0.39	0.2 K	0.06 K	0.05	0.004	0.05 K
SP11	910617	1345	280	10	4.4	56.6	14.8	28.8	2.5	0.5	0.5	213	25	6.9	213	0.5	0.44	0.26	0.11	0.12	0.004	0.05 K
SP11	910617	1346																				
SP11	910826	1615	250	4000	1800	63.9	6.5	7.2	3.9	0.5	0.5	69	94	3.3	69	0.5	0.20	1.2	1.39	0.03 K		2.4
SP12a	910813	1345	340	80	37	57.4	12.9	46.0	4.4	0.5	0.5	183	87	15	183	0.5	0.82	0.3	0.40	0.03 K		0.09
HSC1	910204	1155	240	20	0.79	31.7	8.4	36.8	3.3	0.5	10	153	15	5.8	163	5	0.91	0.2 K	0.06 K	0.03 K		0.05 K
HSC1	910429	1215	220	5	2.2	30.6	8.1	34.1	3.8	0.5	0.5	151	18	5.7	151	8	0.83	0.2 K	0.06 K	0.04	0.009	0.05 K
HSC1	910626	945	240	5	2.0	31.3	8.7	41.4	4.7	0.5	20	154	14	7.0	174	10	0.96	0.2	0.06 K	0.03 K		0.05 K
HSC1	910813	1045	280	5	0.39	35.5	9.8	49.0	5.7	0.5	13	187	12	7.6	200	7	0.96	0.2 K	0.06 K	0.03 K		0.05 K
RFC1	910204	1600	210	5	0.24	27.4	9.7	23.4	1.8	0.5	0.5	114	30	6.0	114	0.5	0.42	0.2 K	0.06 K	0.03 K		0.05 K
RFC1	910429	1700	210	5	2.3	29.6	10.6	25.0	2.4	0.5	0.5	116	31	6.0	116	0.5	0.39	0.2	0.06 K	0.03 K		0.05 K
RFC1	910626	1300																				

RIOS DE MEXICO BASIN TDS Cations Anions

Site ID	Date (yymmdd)	Time (hrs)	Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
MG1	910225	1045	990	5	3.3	173	27.2	107	8.4	0.5	0.5	128	390	160	128	0.5	0.48	4.2	7.1	2.75	0.112	1.0
MG2	910225	1440	290	5	0.54	55.7	12.4	23.1	4.8	0.5	4	135	61	18	139	2	0.53	0.3	1.48	0.06	0.010	0.07

SAN PEDRO RIVER BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
SP1	901023	1040			10 K	10 K	2 K	5	91	91	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	196
SP1	901217	1100	80	400	10 K		5 K		73		100 K		5 K		5 K		10 K		20 K		375
SP1	910225	1300			10 K	10 K	5 K	5 K	74	68	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	733
SP1	910416	1020	2	1	10 K		5 K		71		100 K		5 K		5 K		10 K		10 K		547
SP1	910617	1040																			
SP1	910826	1415			10 K		9		204		100 K		5 K		5 K		10 K		97		16900
SP1	910826	1416			10 K		10		208		100 K		5 K		15		16		95		16600
SP2	901024	1325			10 K	10 K	5	5	100	108	150	160	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	143
SP2	901218	1230	130	2100	10 K		9		325		140		5 K		5 K		10		20		16000
SP2	910226	1130			10 K	10 K	5 K	5 K	153	138	130	130	5 K	5 K	8	5 K	10 K	10 K	10 K	10 K	1600
SP2	910415	1230	30	70	10 K		5 K		118		120		5 K		5 K		10 K		10 K		236
SP2	910618	1025			10 K	10 K	5 K	5	91	89	190	170	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	73
SP2	910618	1026				10 K		5 K		87		160		5 K		5 K		10 K		10 K	
SP2	910618	1027			20 K	10 K	5 K	5 K	86	89	180	160	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	84
SP2	910827	1040	9200	7200	10 K		69		3630		100 K		45		14		112		3930		476000
SP5	900620	1230			10 K	10 K	5 K	5 K	68	74	200	200	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	41
SP5	910226	1015			10 K	10 K	5 K	5 K	138	129	100	100	5 K	5 K	5	5 K	10 K	10 K	10 K	10 K	1390
SP5	910415	1110	50	60	10 K		5 K		114		100 K		5 K		5 K		10 K		10 K		329
SP5	910618	840			20 K	10 K	5 K	5 K	92	91	120	130	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	56
SP5	910618	841				10 K		5 K		88		130		5 K		5 K		10 K		10 K	
SP7	901024	1215			10 K	10 K	4	7	110	108	100	110	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	408
SP7	901218	1115	50	300	10 K		6		98		100 K		5 K		5 K		10 K		20 K		274
SP10	901024	930			10 K	10 K	4	5	110	106	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	349
SP10	901218	900	50	100	10 K		5 K		120		100 K		5 K		5 K		10 K		20 K		584
SP10	910226	1430			10 K	10 K	5 K	5 K	135	113	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	15	10 K	2070
SP10	910226	1431			10 K		5 K		136		100 K		5 K		5 K		10 K		13		2030
SP10	910416	1320	11	280	10 K		5 K		108		100 K		5 K		5 K		10 K		10 K		187
SP10	910416	1321	4	60	10 K		5 K		108		100 K		5 K		5 K		10 K		10 K		205
SP10	910617	1630																			
SP10	910827	835	1800	4600	10 K		36		769		100 K		13		5 K		29		547		91600
SP11	901023	1340			10 K	10 K	5	3	97	110	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	702
SP11	901023	1341			10 K	10 K	3	3	116	118	100 K	100 K	5 K	5 K	5	5 K	10 K	10 K	20 K	20 K	674
SP11	901217	1300	30	300	10 K		5		100		100 K		5 K		5 K		10 K		20 K		534
SP11	901217	1301			10 K		5		101		100 K		5 K		5 K		10 K		20 K		496
SP11	910225	1545			10 K	10 K	5 K	5 K	115	100	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	72	10 K	1900
SP11	910416	1140	1	1	10 K		5 K		99		100 K		5 K		5 K		10 K		10 K		228
SP11	910506	1100			10 K		5 K		111		100 K		5 K		5 K		10 K		10 K		117
SP11	910617	1345			10 K	10 K	6	5	160	156	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	348
SP11	910617	1346				10 K		6		153		100 K		5 K		5 K		10 K		10 K	
SP11	910826	1615			10 K		62		879		100 K		17		8		28		886		107000
SP12a	910813	1345	60	128	10 K		5 K		99		100 K		5 K		5 K		10 K		10 K		2160
HSC1	910204	1155	1	12	10 K	10 K	6	6	19	18	100 K	100 K	5 K	5 K	5	5 K	10 K	10 K	10 K	10 K	44
HSC1	910429	1215			10 K		5 K		18		100 K		5 K		10 K		10 K		10 K		20
HSC1	910626	945			10 K	10 K	5 K	5 K	25	24	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	40
HSC1	910813	1045	66	146	10 K		5 K		30		100 K		5 K		5 K		26		10 K		125
RFC1	910204	1600	2	6	10 K	10 K	6	6	10 K	10 K	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	20
RFC1	910429	1700			10 K		5 K		10 K		100 K		5 K		10 K		10 K		10 K		20
RFC1	910626	1300																			

RIOS DE MEXICO BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
MG1	910225	1045			10 K		5 K		115		100 K		5 K		8		10 K		275		101
MG2	910225	1440			10 K		5 K		63		100 K		5 K		5 K		10 K		10 K		90

SAN PEDRO RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
SP1	901023	1040	10	0.2 K	0.2 K	82	67	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	614	594	5 K	5 K	12
SP1	901217	1100		0.2 K		44		20 K		2 K		50 K		5 K		521		5 K		12
SP1	910225	1300	20 K	0.2 K	0.2 K	36	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	512	501	5 K	5 K	24
SP1	910416	1020		0.2 K		29		20 K		2 K		50 K		5 K		516		5 K		10 K
SP1	910617	1040																		
SP1	910826	1415		0.2 K		432		20 K		23		50 K		5 K		288		5 K		91
SP1	910826	1416		0.2 K		430		20 K		24		50 K		5 K		291		5 K		87
SP2	901024	1325	10 K	0.2 K	0.2 K	12	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1800	1750	5 K	5 K	14
SP2	901218	1230		0.5		577		20 K		31		50 K		5 K		1800		5 K		74
SP2	910226	1130	20 K	0.2 K	0.2 K	56	10	20 K	20 K	2	2 K	50 K	50 K	5 K	5 K	1460	1410	5 K	5 K	68
SP2	910415	1230		0.2 K		17		20 K		2 K		50 K		5 K		1660		5 K		10 K
SP2	910618	1025	20 K	0.2 K	0.2 K	15	10 K	20 K	20 K	2 K	2 K	50 K	50 K	30 K	5 K	1980	1930	5 K	5 K	10 K
SP2	910618	1026	20 K		0.2 K		10 K		20 K		2 K		50 K		5 K		1910		5 K	
SP2	910618	1027	20 K	0.2 K	0.2 K	12	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1980	1960	5 K	5 K	10
SP2	910827	1040		1.2		10000		208		810		50 K		5 K		647		5 K		2270
SP5	900620	1230		0.2 K	0.2 K	37	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1770	1720	5 K	5 K	16
SP5	910226	1015	20 K	0.2 K	0.2 K	61	15	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1170	1140	5 K	5 K	32
SP5	910415	1110		0.2 K		18		26		2 K		50 K		5 K		1340		5 K		10 K
SP5	910618	840	20 K	0.2 K	0.2 K	27	16	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1550	1510	5 K	5 K	10 K
SP5	910618	841	20 K		0.2 K		10 K		20 K		2 K		50 K		5 K		1490		5 K	
SP7	901024	1215	10 K	0.2 K	0.2 K	92	68	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1400	1360	5 K	5 K	11
SP7	901218	1115		0.2 K		140		20 K		2 K		50 K		5 K		1560		5 K		10 K
SP10	901024	930	10 K	0.6	0.2 K	21	10 K	20 K	20 K	3	2 K	50 K	50 K	5 K	5 K	472	460	5 K	5 K	12
SP10	901218	900		0.2 K		32		20 K		3		50 K		5 K		521		5 K		10 K
SP10	910226	1430	20 K	0.2 K	0.2 K	72	10 K	20 K	20 K	3	2 K	50 K	50 K	5 K	5 K	497	482	5 K	5 K	20
SP10	910226	1431		0.2 K		73		20 K		4		50 K		5 K		499		5 K		20
SP10	910416	1320		0.2 K		12		20 K		2 K		50 K		5 K		8770		5 K		10 K
SP10	910416	1321		0.2 K		11		20 K		2 K		50 K		5 K		459		5 K		10 K
SP10	910617	1630																		
SP10	910827	835		0.2 K		1950		42		120		50 K		5 K		265		5 K		434
SP11	901023	1340	15	0.2 K	0.2 K	162	140	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	525	522	5 K	5 K	10 K
SP11	901023	1341	10 K	0.2 K	0.2 K	173	150	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	534	517	5 K	5 K	38
SP11	901217	1300		0.2 K		90		20 K		2 K		50 K		5 K		497		5 K		10 K
SP11	901217	1301		0.2 K		92		20 K		2 K		50 K		5 K		497		5 K		10 K
SP11	910225	1545	20 K	0.2 K	0.2 K	146	82	20 K	20 K	4	2 K	50 K	50 K	5 K	5 K	506	488	5 K	5 K	22
SP11	910416	1140		0.2 K		72		20 K		2 K		50 K		5 K		7490		5 K		10 K
SP11	910506	1100		0.2 K		80		20 K		2 K		50 K		5 K		489		5 K		10 K
SP11	910617	1345	20 K	0.2 K	0.2 K	168	137	20 K	20 K	2 K	2 K	50 K	50 K	30 K	5 K	476	456	5 K	5 K	12
SP11	910617	1346	20 K		0.2 K		61		20 K		2 K		50 K		5 K		451		5 K	
SP11	910826	1615		0.3		2220		49		230		50 K		5 K		287		5 K		655
SP12a	910813	1345		0.2 K		77		20 K		5		50 K		5 K		600		5 K		14
HSC1	910204	1155	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	144	143	5 K	5 K	98
HSC1	910429	1215 K		0.2 K		10 K		20 K		2 K		50 K		5 K		140		5 K		30
HSC1	910626	945	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	164	156	5 K	5 K	10 K
HSC1	910813	1045		0.2 K		10 K		20 K		2 K		50 K		5 K		192		5 K		10 K
RFC1	910204	1600 K	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	118	117	5 K	5 K	52
RFC1	910429	1700 K		0.2 K		10 K		20 K		2 K		50 K		5 K		129		5 K		10 K
RFC1	910626	1300																		

RIOS DE MEXICO BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
MG1	910225	1045		0.2 K		2070		20 K		2 K		50 K		5 K		469		5 K		522
MG2	910225	1440		0.2 K		12		20 K		2 K		50 K		5 K		187		5 K		41

SAN PEDRO RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
SP1	901023	1040	10 K	ATI	10798	F/L EC LOW, XCONT(As), NO3=.1mg/L
SP1	901217	1100		ATI	12767	E/S LOW
SP1	910225	1300	10 K	ATI	102826	
SP1	910416	1020:		ATI	104741	
SP1	910617	1040				SITE DRY
SP1	910826	1415		ATI	108880	
SP1	910826	1416		ATI	108880	FLOOD
SP2	901024	1325	10 K	ATI	10798	F/L EC LOW; NO3=13.1; Ba,Be X-CONT
SP2	901218	1230		ATI	12755	C/A HIGH, NO3=14.0, NH3, NO3, TURB, Hg VIOLS
SP2	910226	1130	10 K	ATI	102826	NO3 = 11.4
SP2	910415	1230:		ATI	104741	NO3 = 14
SP2	910618	1025	10 K	ATI	106773	NO3 =21; C/A HIGH
SP2	910618	1026	10 K	ATI	106773	
SP2	910618	1027	10 K	ATI	106773	NO3 =21; C/A HIGH
SP2	910827	1040		ATI	108880	
SP5	900620	1230	10 K	ATI	6807	XCONT (Ba, Fe); BAD DISSOLVED IRON VALUE
SP5	910226	1015	10 K	ATI	102826	NO3 = 1.51
SP5	910415	1110:		ATI	104741	NO3 = 0.80, E/S LOW
SP5	910618	840	10 K	ATI	106773	NO3 = 0.76, E/S LOW
SP5	910618	841	10 K	ATI	106773	
SP7	901024	1215	10 K	ATI	10798	NO3=0.06; As, B X-CONT
SP7	901218	1115:		ATI	12755	NO3=0.06, E/S LOW
SP10	901024	930	10 K	ATI	10798	XCONT(As), NO3=.06
SP10	901218	900:		ATI	12755	E/S LOW
SP10	910226	1430	47	ATI	102826	E/S LOW, X-CONT. Zn
SP10	910226	1431		ATI	102826	E/S LOW
SP10	910416	1320:		ATI	104741	
SP10	910416	1321:		ATI	104741	
SP10	910617	1630				SITE DRY
SP10	910827	835		ATI	108880	FLOOD
SP11	901023	1340	15	ATI	10798	XCONT(Ba, Zn); NO3=.1mg/L; E/S LOW
SP11	901023	1341	10 K	ATI	10798	E/S LOW, NO3=0.09
SP11	901217	1300:		ATI	12767	E/S LOW
SP11	901217	1301:		ATI	12767	E/S LOW
SP11	910225	1545	10 K	ATI	102826	E/S LOW
SP11	910416	1140:		ATI	104741	E/S LOW
SP11	910506	1100:		ATI	105638	E/S LOW
SP11	910617	1345	10 K	ATI	106773	E/S LOW
SP11	910617	1346	10 K	ATI	106773	
SP11	910826	1615		ATI	108880	FLOOD
SP12a	910813	1345		ATI	108679	E/S LOW
HSC1	910204	1155	10 K	ATI	12767	FLD TDS=290; NO3=<0.06
HSC1	910429	1215		ATI	104914	
HSC1	910626	945	10 K	ATI	106938	E/S LOW
HSC1	910813	1045:		ATI	108679	
RFC1	910204	1600	10 K	ATI	102566	FLD TDS=220; NO3=<0.06
RFC1	910429	1700:		ATI	104914	
RFC1	910626	1300				SITE DRY

RIOS DE MEXICO BASIN

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
MG1	910225	1045		ATI	102826	AMMONIA VIOLATION
MG2	910225	1440		ATI	102826	C/A HIGH

APPENDIX E

Santa Cruz River Basin

Field and Analytical Data
October 1990 - September 1991

Pages E-2 thru E-11 follow

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
	Field Parameters																				Hardness
SC1	901001	1220	800000000016960	15050301-001	322104.00	1110536.00	ADHS	36.0	24.0	6.00	77.7%	612	7.48		54.5	0.40	1.37	29.96			
SC1	901108	945	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	15.5	20.0	5.89	63.6%	866			24.3	0.58	1.51	22.97	872	7.1	140
SC1	901114	1154	800000000016960	15050301-001	322104.00	1110536.00	ADHS	19.0	23.0			874			39.0	0.52	1.59	40.34	835	7.4	123
SC1	910130	1615	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	17.5	22.0	5.95	72.0%	506	7.35		38.5	0.25	1.69	46.17	865	7.3	139
SC1	910305	1000	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	22.0	20.0	6.12	69.6%	370	7.63		34.0	0.68	1.42	45.19	405	7.2	116
SC1	910528	1015	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	26.0	25.5	9.42	125.4%	842	7.67		33.4	0.32	0.97	12.51	773	7.8	145.
SC1	910528	1016	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	26.0	25.5	9.42	125.4%	842	7.67		33.4	0.32	0.97	12.51			
SC1	910604		800000000016960	15050301-001	322104.00	1110536.00	ADEQ	30.5	29.0				7.70								
SC1	910716	1145	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	31.5	29.5			943	7.95		26.1	0.40	0.64	11.13	954	7.4	153
SC1	910924	805	800000000016960	15050301-001	322104.00	1110536.00	ADEQ	23.0	26.0	3.60	51.1%	862	7.30						859	7.7	152
SC2	901106	1415	800000000028170	15050301-010	312812.00	1105930.00	ADEQ	26.0	19.0	7.55	87.1%	461	7.82		29.4	0.37	1.52	16.50	634	7.6	164
SC2	901204	1145	800000000028170	15050301-010	312812.00	1105930.00	ADHS	17.0	11.0	6.70	69.8%	541	8.10		21.0	0.42	1.43	16.69	727	7.99	
SC2	910129	945	800000000028170	15050301-010	312812.00	1105930.00	ADEQ	10.0	9.0	9.10	90.6%	514	7.95		64.0	0.34	1.46	46.92	543	8.0	170
SC2	910319	1415	800000000028170	15050301-010	312812.00	1105930.00	ADEQ	24.5	16.5	6.90	80.4%	377	7.90		70.7	0.45	1.71	64.00	488	7.5	168
SC2	910523	1015	800000000030550	15050301-010	312812.00	1105930.00	ADEQ	23.0	24.0	5.25	71.0%	616	7.61		49.5	0.28	1.25	16.37	599	7.4	177
SC2	910523	1016	800000000030550	15050301-010	312812.00	1105930.00	ADEQ	23.0	24.0	5.25	71.0%	616	7.61		49.5	0.28	1.25	16.37			
SC2	910618	1200	800000000030550	15050301-010	312812.00	1105930.00	ADEQ	30.9	28.0				7.56								
SC4	901114	1115	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	26.0	18.5	6.10	110.1%	500	8.20						591	8.1	235
SC4	901205	1030	801005000001030	15050301-011	312030.00	1105557.00	ADHS	13.0	13.8	8.20	92.7%	660	8.36						642		
SC4	910129	1310	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	15.0	25.5	8.80	97.2%	444	8.30						586	8.2	218
SC4	910318	1515	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	22.0	19.3	7.00	88.7%	459	7.98						513	7.8	194
SC4	910523	1215	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	32.0	22.0	8.03	107.1%	507	8.48						521	8.4	214
SC4	910523	1216	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	32.0	22.0	8.03	107.1%	507	8.48								
SC4	910619	1000	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	27.8	21.8				7.92								
SC4	910715	915	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	24.0	21.5			519	8.36						532	8.4	207
SC4	910924	1020	801005000001030	15050301-011	312030.00	1105557.00	ADEQ	30.5	22.0	7.80	114.0%	541	8.27						543	8.4	212
SC5	901114	1000	800000000030550	15050301-012	312013.00	1105057.00	ADEQ	25.5	16.0	8.20	93.6%	326	8.34		11.2	0.27	1.33	4.25	398	8.2	165
SC5	910129	1445	800000000030550	15050301-012	312013.00	1105057.00	ADEQ	11.0	14.5	8.75	94.5%	248	8.23		46.0	0.43	1.58	31.07	336	8.3	130
SC5	910320	845	800000000030550	15050301-012	312013.00	1105057.00	ADEQ	6.0	9.0	9.90	98.5%	287	8.24		48.5	0.41	1.51	34.62	348	8.3	218
SC5	910523	1350	800000000030550	15050301-012	312013.00	1105057.00	ADEQ	30.0	26.5	6.80	97.4%	422	7.98		5.6	0.10	0.31	0.29	411	8.4	174
SC5	910523	1351	800000000030550	15050301-012	312013.00	1105057.00	ADEQ	30.0	26.5	6.80	97.4%	422	7.98		5.6	0.10	0.31	0.29			
SC5	910708	950	800000000030550	15050301-012	312013.00	1105057.00	ADEQ														
SC6	901113	1100	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	24.0	18.0	5.25	64.6%	776	7.33		6.8	0.13	0.61	0.40	849	7.9	456
SC6	901113	1101	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	24.0	18.0	5.25	64.6%	776	7.33		6.8	0.13	0.61	0.40	806	8.0	446
SC6	901204	1530	801500000002786	15050301-013	313210.00	1104536.00	ADHS	19.5	17.0	6.00	72.3%	791	7.28		7.0	0.09	0.53	0.43	822	7.03	
SC6	910129	1630	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	9.0	15.5	5.55	62.7%	860	7.33		8.3	0.13	0.68	0.95	902	7.8	482
SC6	910129	1631	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	9.0	15.5	5.55	62.7%	860	7.33		8.3	0.13	0.68	0.95	901	7.9	481
SC6	910320	1030	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	11.5	16.5	6.35	75.8%	845	7.36		4.9	0.22	1.26	1.65	997	7.8	522
SC6	910523	1540	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	27.0	20.0	6.80	87.2%	921	7.50		6.4	0.21	1.09	1.51	914	7.9	511
SC6	910523	1541	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	27.0	20.0	6.80	87.2%	921	7.50		6.4	0.21	1.09	1.51			
SC6	910618	1600	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	31.6	21.9				7.32								
SC6	910715	1130	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	26.5	21.0	7.57	99.0%	880	7.33		6.7	0.23	1.06	1.69	865	7.8	487
SC6	910715	1131	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	26.5	21.0			880	7.33		6.7	0.23	1.06	1.69	875	7.7	487
SC6	910919	1500	801500000002786	15050301-013	313210.00	1104536.00	ADEQ	24.0	22.0	5.12	62.9%	869	7.28		6.6	0.24	1.40	2.66	846	7.8	471
SC7	901001	1505	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	20.0	19.0	7.65	93.9%	961	7.87		4.5	0.24	1.34	1.79	912	8.3	372
SC7	901113	1345	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	25.0	21.0	8.10	101.5%	869	8.26		9.8	0.18	0.69	1.32	955	8.3	439
SC7	901114	1330	SC-SC7	15050302-005	320107.00	1103851.00	ADHS	25.0	22.0			986	8.28		8.5	0.21	0.54	1.78	961	8.12	419
SC7	910114	845	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	2.0	11.5	9.07	92.6%	945	8.24		14.2	0.21	0.85	2.25	1250	8.3	458
SC7	910306	1145	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	16.0	17.0	7.54	88.8%	836	8.34		6.8	0.24	1.22	2.41	973	8.1	473
SC7	910528	1245	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	27.0	23.5	7.87	105.5%	937	8.03		6.5	0.23	0.85	1.57	923	8.3	454
SC7	910528	1246	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	27.0	23.5	7.87	105.5%	937	8.03		6.5	0.23	0.85	1.57			
SC7	910716	950	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	23.0	20.5			980	7.79		6.1	0.19	0.93	0.96	960	8.2	430
SC7	910925	840	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	24.5	19.5	7.70	95.4%	1008	7.95		2.9	0.30	0.88	0.60	1010	8.1	459
SC7	910925	841	SC-SC7	15050302-005	320107.00	1103851.00	ADEQ	24.5	19.5	7.70	95.4%	1008	7.95		2.9	0.30	0.88	0.60	1010	8.1	469
SC10	901219	945	SC10	15050302-009off3	321849.00	1104839.00	ADEQ	12.0	5.0	13.0	122.0%	55	6.86	1.12				10.00	57.4	7.2	19.9
SC10	910522	1130	SC10	15050302-009off3	321849.00	1104839.00	ADEQ	34.5	21.0	7.90	98.6%										
SC13	910130	945	SC13	15050301-012off	312119.00	1103520.00	ADEQ	8.0	3.5	11.2	104.6%	258	8.64		7.2	0.24	0.48	0.95	318	8.4	155
SC15	901002	1045	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	13.0	9.0	8.10	93.5%	187	7.79		5.6	0.05	0.33	0.10	187	8.1	86
SC15	901115	1100	SC15	15050302-009off3	322610.00	1104528.00	ADHS	17.5	6.0			201	8.20		4.5	0.39	0.02	0.03	206	7.02	92
SC15	901130	1130	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	5.5	3.0	9.60	97.8%	193	7.80		2.8	0.05	0.33	0.04	210	8.1	98.7
SC15	901219	945	SC15	15050302-009off3	322610.00	1104528.00	ADEQ														
SC15	910114	1215	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	2.0	5.0	9.77	107.5%	112	7.80		6.4	0.25	0.72	1.65	151	7.9	48.4
SC15	910305	1445	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	11.5	5.0	9.58	118.7%	92	7.49		12.1	0.31	1.90	8.55	91.4	7.4	40.8
SC15	910305	1446	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	11.5	5.0	9.58	118.7%	92	7.49		12.1	0.31	1.90	8.55	90.7	7.5	40.8
SC15	910513	1045	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	21.0	11.0	8.30	100.5%	67	8.06		6.4	0.25	1.31	2.56	79.8	7.8	34.9
SC15	910513	1046	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	21.0	11.0	8.30	100.5%	67	8.06		6.4	0.25	1.31	2.56	81.4	7.9	34.9
SC15	910605		SC15	15050302-009off3	322610.00	1104528.00	ADEQ	23.0	8.0				7.45								
SC15	910723	1030	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	20.0	12.5			127	6.63		0.9	0.08	0.08	0.01	128	7.4	59.5
SC15	910925	1210	SC15	15050302-009off3	322610.00	1104528.00	ADEQ	16.0	11.5	8.65	96.1%	192	7.91		1.6	0.14	0.10	0.03	199	7.9	94.6
AVC1	901105	1045	807503055002194	15050304-008	313143.00	1111913.00	ADEQ	19.5	17.0	6.91	77.1%	293	6.83		1.3	0.18	0.56	0.19	362	7.9	187
AVC1	910128	945	807503055002194	15050304-008	313143.00	1111913.00	ADEQ	14.5	17.0	5.57	62.9%	351	7.01		0.8	0.23	0.75	0.21	366	8.0	175

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	STORET No.	HUC+REACH NUMBER	LATITUDE ddmmss.00	LONGITUDE dddmmss.00	Agency	Field Parameters: Air (oC)	H2O (oC)	DO (mgO2/l)	Sat. (%)	EC@25C (uS/cm)	Fld pH (SU)	Staff (ft)	Width (ft)	Depth (ft)	Velocity (ft/sec)	Discharge (ft3/sec)	Hardness: Lab EC (uS/cm)	Lab pH (SU)	EDTA (mg/l)
AVC1	910514	1005	807503055002194	15050304-008	313143.00	1111913.00	ADEQ	24.5	16.0	5.00	57.7%	351	6.57						351	8.0	200
AVC1	910514	1006	807503055002194	15050304-008	313143.00	1111913.00	ADEQ	24.5	16.0	5.00	57.7%	351	6.57								
AVC1	910926	1010	807503055002194	15050304-008	313143.00	1111913.00	ADEQ	27.0	17.5	6.80	81.0%	351	6.88		2.4	0.34	0.25	0.20	350	7.4	169
AVC2	901105	1215	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	28.0	9.0	10.2	113.8%	402	7.66		4.9	0.11	0.62	0.37	423	8.1	216
AVC2	901203	1530	807503055002072	15050304-008	313153.00	1111944.00	ADHS	21.0	8.0	12.1		429	7.95		4.2	0.14	0.64	0.53	437	7.82	
AVC2	910128	1115	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	17.0	5.5	10.55	119.1%	442	7.60						464	8.3	218
AVC2	910319	1030	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	6.0	8.0	9.40	74.0%	413							505	7.9	233
AVC2	910514	1005	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	26.0	17.0	8.18	96.3%	345	7.42						397	8.3	236
AVC2	910514	1006	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	26.0	17.0	8.18	96.3%	345	7.42								
AVC2	910617	1530	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	36.0	20.2				7.67								
AVC2	910709	910	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	26.0	19.5			470	7.10					2.00	451	7.8	229
AVC2	910926	1140	807503055002072	15050304-008	313153.00	1111944.00	ADEQ	29.0	15.0	5.90	66.6%	405	7.16						377	7.8	186
AVC3	901105	1315	807503055001493	15050304-008	313607.00	1112243.00	ADEQ	29.0	17.5	10.1	112.7%	350	8.62		5.3	0.33	0.41	0.94	361	8.3	176
AVC3	910128	1245	807503055001493	15050304-008	313607.00	1112243.00	ADEQ	22.5	15.0	10.05	113.4%	344	8.52		7.1	0.23	0.50	1.21	323	8.4	163
AVC3	910319		807503055001493	15050304-008	313607.00	1112243.00	ADEQ														
AVC3	910514	1130	807503055001493	15050304-008	313607.00	1112243.00	ADEQ	28.0	23.0	6.98	92.7%	304	7.95		9.0	0.27	0.21	0.59	366	8.4	168
AVC3	910514	1131	807503055001493	15050304-008	313607.00	1112243.00	ADEQ	28.0	23.0	6.98	92.7%	304	7.95		9.0	0.27	0.21	0.59			
AVC3	910709	1130	807503055001493	15050304-008	313607.00	1112243.00	ADEQ														
AVC3	910926	1300	807503055001493	15050304-008	313607.00	1112243.00	ADEQ														
MAD1	901219	1235		15050301-006off4			ADEQ	11.0	7.0	10.05	111.0%	447	8.42		0.8	0.02	0.22	0.01	470	8.3	260
MAD2	901219	1345		15050301-006off4			ADEQ	16.0	8.0	9.70	101.0%	441	8.35		3.2	0.12	0.26	0.17	445	8.3	230
PEC1	910404	1145		15050301-009off			ADEQ	27.0	23.0	11.0	146.0%	114	7.75		20.0	0.18	0.24	1.42	131	7.7	43.3

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	TDS Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Cations Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Anions OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
SC1	901001	1220																				
SC1	901108	945	470	5	5.2	46.5	5.8	116	13.9	0.5	0.5	177	68	80	177	0.5	0.41	22	1.52	13.6	0.000	6.2
SC1	901114	1154	447	18	8.9	41.8		95.4	15.8		1	300	73.7	69	250	1	0.43	16	0.70	20.3	0.000	6.2
SC1	910130	1615	480	40	24	46.2	5.8	97.1	11.9	0.5	0.5	159	73	90	159	0.5	1.12	24	5.0	14.9	0.164	6.4
SC1	910305	1000	290	380	220	37.6	5.3	40.0	5.7	0.5	0.5	102	42	36	102	0.5	0.33	7.0	1.25	4.00	0.061	1.9
SC1	910528	1015	450	20	6.1	47.2	6.5	107	11.4	0.5	0.5	242	67	67	242	0.5	0.40	34	1.07	13.66	0.452	7.4
SC1	910528	1016																				
SC1	910604																					
SC1	910716	1145	560	5	4.4	49.9	7.0	128	12.4	0.5	0.5	212	85	100	212	0.5	0.74	18	3.5	12.9	1.016	5:1
SC1	910924	805	530	30	13	49.3	7.0	109	12.3	0.5	0.5	214	80	77	214	0.5	0.57	16	3.9	12.6	0.164	7.1
SC2	901106	1415	380	10	14	57.6	9.9	64.1	9.8	0.5	0.5	239	52	37	239	0.5	0.56	23	0.67	7.43	0.215	5.0
SC2	901204	1145	446	44	22				12.1						261	1						
SC2	910129	945	340	40	20	54.3	8.5	42.3	5.6	0.5	0.5	200	48	25	200	0.5	0.47	7.4	0.84	4.77	0.066	3.9
SC2	910319	1415	320	44	16	53.7	8.3	39.3	5.4	0.5	0.5	174	45	19	174	0.5	0.43	4.6	0.82	3.77	0.109	1.5
SC2	910523	1015	380	20	14	55.9	9.0	59.2	8.1	0.5	0.5	184	53	28	184	0.5	0.48	22	0.48	9.60	0.252	4.6
SC2	910523	1016																				
SC2	910618	1200																				
SC4	901114	1115	370	100	56	72.2	13.3	49.4	6.9	0.5	0.5	231	43	41	231	0.5	0.36	1.4	3.7	0.04	0.003	0.69
SC4	901205	1030	426	32	21				8.27						232	1			3.81			
SC4	910129	1310	390	40	29	66.6	12.5	42.0	6.2	0.5	0.5	203	48	32	203	0.5	0.29	1.5	5.3	0.05	0.006	0.6
SC4	910318	1515	350	24	9.0	58.5	11.6	39.8	6.0	0.5	0.5	160	42	30	160	0.5	0.30	0.3	6.1	0.03 K		0.36
SC4	910523	1215	350	10	3.7	65.3	12.5	42.3	5.9	0.5	4	176	40	31	180	2	0.27	0.8	5.6	0.07	0.010	0.38
SC4	910523	1216																				
SC4	910619	1000																				
SC4	910715	915	340	20	5.4	63.1	11.9	40.4	6.6	0.5	5	194	41	29	199	2	0.30	0.2 K	4.5	0.09	0.010	0.42
SC4	910924	1020	370	20	12	64.2	12.6	40.8	6.0	0.5	2	195	40	27	197	1	0.31	0.27	4.0	0.07	0.007	0.43
SC5	901114	1000	270	5	1.3	55.4	6.6	32.4	2.6	0.5	0.5	178	42	8	178	0.5	0.52	0.1	0.08	0.03 K		0.13
SC5	910129	1445	230	20	14	43.1	5.5	24.7	2.0	0.5	0.5	138	33	7.6	138	0.5	0.45	0.2 K	0.32	0.03	0.002	0.15
SC5	910320	845	210	32	12	44.2	5.9	26.3	2.2	0.5	0.5	137	33	7.4	137	0.5	0.43	0.2	0.38	0.03 K		0.05 K
SC5	910523	1350	270	5	0.46	59.5	6.3	34.0	3.3	0.5	4	166	45	8.6	170	2	0.51	0.4	0.06 K	0.06	0.004	0.12
SC5	910523	1351																				
SC5	910708	950																				
SC6	901113	1100	580	5	0.23	139	26.5	19.9	2.5	0.5	0.5	238	210	11	238	0.5	0.22	0.1 K	0.72	0.03 K		0.05 K
SC6	901113	1101	590	5	0.21	136	25.7	19.2	2.5	0.5	0.5	236	210	11	236	0.5	0.22	0.1 K	0.71	0.03	0.000	0.05
SC6	901204	1530	608	2	0.13				2.66						229	1			0.71			
SC6	910129	1630	670	5	1.0	148	27.2	21.7	2.6	0.5	0.5	230	250	13.6	230	0.5	0.21	1.3	0.60	0.62	0.006	0.36
SC6	910129	1631	670	5	1.0	148	27.1	21.6	2.4	0.5	0.5	233	250	13.2	233	0.5	0.20	1.7	0.60	0.60	0.006	0.35
SC6	910320	1030	710	5	0.70	160	29.8	27.6	4.2	0.5	0.5	252	290	17	252	0.5	0.21	2.5	0.58	2.04	0.017	0.62
SC6	910523	1540	660	5	0.43	157	29.8	23.6	3.4	0.5	0.5	227	260	11.8	227	0.5	0.21	1.0	0.93	0.50	0.006	0.30
SC6	910523	1541																				
SC6	910618	1600																				
SC6	910715	1130	650	5	0.35	148	28.5	17.8	3.1	0.5	0.5	242	270	6.9	242	0.5	0.22	0.2 K	0.53	0.05	0.001	0.22
SC6	910715	1131	650	5	0.28	148	28.4	17.8	3.1	0.5	0.5	242	240	6.9	242	0.5	0.22	0.2 K	0.51	0.12	0.001	0.14
SC6	910919	1500	650	5	4.0	145	26.4	16.8	3.9	0.5	0.5	235	220	9.3	235	0.5	0.23	0.46	0.65	0.47	0.005	0.38
SC7	901001	1505	700	5	0.57	99.9	29.7	58.5	4.3	0.5	0.5	237	280	14.4	237	0.5	0.66	0.1 K	0.06	0.03 K		0.05 K
SC7	901113	1345	710	5	0.36	122	32.8	63.8	4.5	0.5	0.5	254	280	14	254	0.5	0.77	0.1	0.06 K	0.03	0.003	0.05 K
SC7	901114	1330	702	2	0.95	124		62.3	6.0		1	301	301	15.6	247	1	0.74	0.1 K	0.10 K	0.10 K		0.10 K
SC7	910114	845	760	5	1.1	129	33.1	59.1	4.1	0.5	0.5	245	320	14	245	0.5	0.75	0.01 K	0.06 K	0.03 K		0.05 K
SC7	910306	1145	720	5	0.86	134	33.7	61.3	4.0	0.5	0.5	236	300	14.1	236	0.5	0.72	0.2 K	0.08	0.03 K		0.05 K
SC7	910528	1245	660	5	0.22	125	34.5	61.1	3.7	0.5	0.5	229	270	16	229	0.5	0.63	0.2 K	0.06 K	0.05	0.003	0.05 K
SC7	910528	1246																				
SC7	910716	950	680	5	0.18	120	31.7	60.8	4.0	0.5	0.5	242	280	16	242	0.5	0.69	0.2 K	0.06 K	0.03 K		0.22
SC7	910925	840	700	5	0.37	125	35.8	62.2	3.7	0.5	0.5	246	300	15	246	0.5	0.65	0.2 K	0.06 K	0.03 K		0.05 K
SC7	910925	841	750	5	0.38	128	36.4	62.9	3.2	0.5	0.5	251	310	15	251	0.5	0.62	0.2 K	0.06 K	0.03 K		0.05 K
SC10	901219	945	70	10	5.2	5.5	1.5	4.3	0.5	0.5	0.5	17	6.0	3.2	17	0.5	0.09	0.4	0.06 K	0.03 K		0.05 K
SC10	910522	1130																				
SC13	910130	945	210	5	3.3	50.2	7.2	12.2	1.7	0.5	4	151	15	6.1	155	2	0.24	0.2 K	0.06 K	0.03 K		0.09
SC15	901002	1045	120	5	0.39	27.5	4.1	5.5	1.5	0.5	0.5	87	4.8	6.0	87	0.5	0.18	0.1 K	0.05 K	0.03 K		0.05 K
SC15	901115	1100	116	5	0.22	31.3		6.21	1.81		1	116	5.0	7.9	95	1	0.23	0.1 K	0.10 K	0.10 K		0.10 K
SC15	901130	1130	140	5	0.52	31.6	4.8	6.5	1.8	0.5	0.5	96	4.5	9	96	0.5	0.21	0.1 K	0.06 K	0.04	0.000	0.05 K
SC15	901219	945																				
SC15	910114	1215	100	5	5.6	15.1	2.6	3.8	1.3	0.5	0.5	48	7.2	5.4	48	0.5	0.15	0.11	0.09	0.03 K		0.05 K
SC15	910305	1445	90	50	27	12.4	2.4	3.6	1.2	0.5	0.5	34	5.4	5.3	34	0.5	0.12	0.4	0.10	0.03 K		0.12
SC15	910305	1446	80	70	28	12.4	2.4	3.6	1.1	0.5	0.5	36	5.3	5.4	36	0.5	0.12	0.6	0.10	0.03 K		0.13
SC15	910513	1045		5	8.0	11.0	1.8	2.3	0.5	0.5	0.5	32	5.6	2.1	32	0.5	0.13	0.3	0.06 K	0.03 K		0.05 K
SC15	910513	1046	60	5	7.7	11.0	1.8	2.3	0.5	0.5	0.5	30	5.5	2.1	30	0.5	0.13	0.4	0.06 K	0.03 K		0.05 K
SC15	910605																					
SC15	910723	1030	70	5	0.55	18.7	3.1	5.5	1.6	0.5	0.5	58	5.2	5.2	58	0.5	0.17	0.2 K	0.06 K	0.03 K		0.05 K
SC15	910925	1210	130	5	0.62	30.3	4.6	6.5	1.3	0.5	0.5	90	3.9	5.4	90	0.5	0.20	0.2 K	0.06 K	0.03 K		0.05 K
AVC1	901105	1045	230	5	0.69	61.4	8.1	14.4	2.4	0.5	0.5	179	10	8.0	179	0.5	0.14	0.1 K	1.73	0.03	0.000	0.06
AVC1	910128	945	240	5	0.30	57.6	7.6	12.9	1.8	0.5	0.5	172	11	8.5	172	0.5	0.14	0.2 K	1.69	0.03 K		0.05 K

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	TDS Evap (mg/l)	TSS (mg/l)	Turbidity (NTU's)	Cations Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Anions OH (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	SO4 (mg/l)	Cl (mg/l)	Alk, T (mg/l)	Alk, P (mg/l)	F (mg/l)	TKN (mgN/l)	NO2+NO3 (mgN/l)	Ammonia (mgN/l)	Unionized NH3 calc	TP (mgP/l)
AVC1	910514	1005	230	5	0.20	66.1	8.5	14.6	1.8	0.5	0.5	165	10	8.0	165	0.5	0.14	0.2 K	1.90	0.06	0.000	0.05 K
AVC1	910514	1006																				
AVC1	910926	1010	240	5	0.85	54.9	7.7	13.0	1.3	0.5	0.5	157	11	7.3	157	0.5	0.14	0.2 K	0.06 K	0.03 K		0.05
AVC2	901105	1215	260	5	0.80	69.5	10.3	18.0	4.5	0.5	0.5	211	12	15	211	0.5	0.15	0.4	0.06 K	0.03 K		0.11
AVC2	901203	1530	288	2	0.33				3.8						211	1			0.15			
AVC2	910128	1115	290	5	0.29	70.2	10.4	19.4	2.4	0.5	0.5	219	15	13.2	219	0.5	0.16	0.2 K	0.06	0.03 K		0.05
AVC2	910319	1030	300	5	0.44	74.2	11.6	24.6	2.3	0.5	0.5	222	20	18	222	0.5	0.17	0.4	0.06 K	0.03 K		0.05 K
AVC2	910514	1005	270	5	0.28	77.0	10.6	17.0	0.25	0.5	0.5	206	8.5	5.9	206	0.5	0.15	0.4	0.06 K	0.05	0.001	0.05 K
AVC2	910514	1006																				
AVC2	910617	1530																				
AVC2	910709	910	320	5	1.1	73.6	11.0	21.9	7.9	0.5	0.5	211	10	27	211	0.5	0.18	1.4	0.06 K	0.03 K		0.22
AVC2	910926	1140	220	5	0.48	59.2	9.2	15.4	1.9	0.5	0.5	186	8.0	9.3	186	0.5	0.15	0.2	0.06 K	0.03 K		0.12
AVC3	901105	1315	220	5	0.45	55.0	9.3	19.0	3.2	0.5	0.5	176	17	9	176	0.5	0.19	0.3	0.06 K	0.03 K		0.12
AVC3	910128	1245	230	5	0.23	51.2	8.6	15.8	2.4	0.5	4	162	16	10.6	166	0.5	0.17	0.2 K	0.06 K	0.03 K		0.05 K
AVC3	910319																					
AVC3	910514	1130	250	5	0.23	52.3	9.0	16.7	2.1	0.5	4	163	16	12	167	2	0.17	0.3	0.06	0.03	0.002	0.05 K
AVC3	910514	1131																				
AVC3	910709	1130																				
AVC3	910926	1300																				
MAD1	901219	1235	340	10	0.29	85.3	11.5	10.6	0.5	0.5	0.5	156	100	4.5	156	0.5	0.45	0.1 K	0.06 K	0.03 K		0.05 K
MAD2	901219	1345	320	10	0.28	71.3	12.6	17.7	1.1	0.5	0.5	141	100	6.9	141	0.5	0.36	0.1	0.06 K	0.03 K		0.05 K
PEC1	910404	1145	110	10	15	12.4	3.0	9.4	2.6	0.5	0.5	34	13	6.6	34	0.5	0.11	0.4	0.57	0.03 K		0.05 K

SANTA CRUZ RIVER BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
SC1	901001	1220	5	20																	
SC1	901108	945	500	100	10 K		5 K		51		280		5 K		5 K		10 K		20 K		286
SC1	901114	1154	60	60			10 K						0.5 K								260
SC1	910130	1615			10 K	10 K	5	5 K	65	49	210	210	5 K	5 K	5 K	5 K	10 K	10 K	23	18	707
SC1	910305	1000	84	570	10 K		11		180		100 K		5 K		5 K		10 K		63		14600
SC1	910528	1015			10 K	10 K	5 K	5 K	42	42	280	290	5 K	5 K	5 K	5 K	10 K	10 K	19	13	75900
SC1	910528	1016				10 K		5 K		54		290		5 K		5 K		10 K		10	
SC1	910604		300	20																	
SC1	910716	1145	90		10 K		5		42		270		5 K		5 K		10 K		14		125
SC1	910924	805			10 K	10 K	5 K	5 K	54	53	270	260	5 K	5 K	5 K	5 K	10 K	10 K	16	10 K	448
SC2	901106	1415	500	70	10 K		8		62		130		5 K		5 K		10 K		20 K		406
SC2	901204	1145	5	5																	
SC2	910129	945			10 K	10 K	8	7	64	50	100 K	100 K	5 K	5 K	5 K	5 K	12	10 K	11	10 K	1060
SC2	910319	1415	56	36	10 K		10		67		100 K		5 K		9		10 K		10		1550
SC2	910523	1015			10 K	10 K	6	6	64	56	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10	10 K	344
SC2	910523	1016				10 K		6		69		120		5 K		5 K		10 K		10 K	
SC2	910618	1200	64	250																	
SC4	901114	1115	1	1	10 K		5		143		100 K		5 K		5 K		10 K		20 K		3060
SC4	901205	1030	2	2																	
SC4	910129	1310			10 K	10 K	7	5	77	51	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	1480
SC4	910318	1515	2	2	10 K		8		62		100 K		5 K		5		10 K		55		811
SC4	910523	1215			10 K	10 K	5 K	5 K	57	46	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	376
SC4	910523	1216				10 K		5 K		54		100 K		5 K		5 K		10 K		10 K	
SC4	910619	1000	4400	880																	
SC4	910715	915	1	1	10 K		5 K		56		100 K		5 K		5 K		10 K		10 K		410
SC4	910924	1020			10 K	10 K	5 K	5 K	71	60	100	100	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	796
SC5	901114	1000	240	1	10 K		5		54		100 K		5 K		5 K		10 K		20 K		229
SC5	910129	1445			10 K	10 K	5 K	5 K	64	53	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	886
SC5	910320	845	4	100	10 K		5		66		100 K		5 K		7		10 K		10 K		1110
SC5	910523	1350			10 K	10 K	5 K	5 K	58	59	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	20
SC5	910523	1351				10 K		5 K		65		100 K		5 K		5 K		10 K		10 K	
SC5	910708	950																			
SC6	901113	1100	17	100	10 K		5 K		103		100 K		5 K		5 K		10 K		20 K		61
SC6	901113	1101			10 K		5 K		102		100 K		5 K		5 K		10 K		20 K		37
SC6	901204	1530	2	36																	
SC6	910129	1630			10 K	10 K	5 K	5 K	105	107	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	90
SC6	910129	1631			10 K	10 K	5 K	5 K	105	108	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	76
SC6	910320	1030	4	16	10 K		5 K		128		100 K		5 K		5 K		10 K		10 K		77
SC6	910523	1540			10 K	10 K	5 K	5 K	95	100	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	61
SC6	910523	1541				10 K		5 K		92		100 K		5 K		5 K		10 K		10 K	
SC6	910618	1600	100	480																	
SC6	910715	1130	200		10 K		5 K		87		100 K		5 K		5 K		10 K		10 K		42
SC6	910715	1131			10 K		5 K		88		100 K		5 K		5 K		10 K		10 K		47
SC6	910919	1500			10 K	10 K	5 K	5 K	141	63	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10	10 K	223
SC7	901001	1505	12	64	10 K	10 K	4	3	68	71	110	120	5 K	5 K	5 K	5 K	10 K	10 K	20 K	20 K	69
SC7	901113	1345	110	50	10 K		5 K		63		120		5 K		5 K		10 K		20 K		40
SC7	901114	1330	88	44			10 K						0.5 K								160
SC7	910114	845			10 K	10 K	5 K	5 K	46	46	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	20
SC7	910306	1145	8	120	10 K		5 K		85		100 K		5 K		5 K		10 K		10 K		76
SC7	910528	1245			10 K	10 K	5 K	5 K	67	67	100 K	100 K	5 K	5 K	5	5 K	10 K	10 K	10 K	10 K	453
SC7	910528	1246				10 K		5 K		66		100 K		5 K		5 K		10 K		10 K	
SC7	910716	950	160		10 K		5 K		61		120		5 K		5 K		10 K		10 K		31
SC7	910925	840			10 K	10 K	5 K	5 K	70	68	100	100	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	26
SC7	910925	841			10 K	10 K	5 K	5 K	67	66	130	130	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	27
SC10	901219	945	8	180	10 K		5 K		10 K		100 K		5 K		5 K		10 K		20 K		428
SC10	910522	1130	170	90																	
SC13	910130	945			10 K	10 K	5 K	5 K	127	126	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	268
SC15	901002	1045	5	140	10 K		2 K		22		100 K		5 K		5 K		10 K		20 K		50
SC15	901115	1100	2	16			10 K						0.5 K								100
SC15	901130	1130	1	70	10 K		5 K		24		100 K		5 K		5 K		10 K		20 K		232
SC15	901219	945	8	180																	
SC15	910114	1215	2	10	10 K		5 K		10 K		100 K		5 K		5 K		10 K		10 K		137
SC15	910305	1445	40	450	10 K		5 K		36		100 K		5 K		5 K		10 K		18		2740
SC15	910305	1446			10 K		5 K		33		100 K		5 K		5 K		10 K		14		2620
SC15	910513	1045	4	10	10 K		5 K		13		100 K		5 K		5 K		10 K		10 K		808
SC15	910513	1046	8	1	10 K		5 K		14		100 K		5 K		5 K		10 K		10 K		797
SC15	910605		5	5																	
SC15	910723	1030	17	30	10 K		5 K		21		100 K		5 K		5 K		10 K		10 K		295
SC15	910925	1210	92	68	10 K		5 K		26		100		5 K		5 K		10 K		11		110
AVC1	901105	1045	90	170	10 K		5 K		30		100 K		5 K		5 K		10 K		20 K		108
AVC1	910128	945	27	20	10 K	10 K	5 K	5 K	30	30	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	62

SANTA CRUZ RIVER BASIN Bacteria Trace Metals

Site ID	Date (yymmdd)	Time (hrs)	FC (cfu/100ml)	FS (cfu/100ml)	Ag, T (ug/l)	Ag, D (ug/l)	As, T (ug/l)	As, D (ug/l)	Ba, T (ug/l)	Ba, D (ug/l)	B, T (ug/l)	B, D (ug/l)	Be, T (ug/l)	Be, D (ug/l)	Cd, T (ug/l)	Cd, D (ug/l)	Cr, T (ug/l)	Cr, D (ug/l)	Cu, T (ug/l)	Cu, D (ug/l)	Fe, T (ug/l)
AVC1	910514	1005	170	300	10 K	10 K	5 K	5 K	30	29	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	45
AVC1	910514	1006				10 K		5 K		30		100 K		5 K		5 K		10 K		10 K	
AVC1	910926	1010	28	200	10 K	10 K	5 K	5 K	28	28	100	100	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	77
AVC2	901105	1215	80	220	10 K		5 K		59		100 K		5 K		5 K		10 K		20 K		141
AVC2	901203	1530	2	76																	
AVC2	910128	1115	600	200	10 K	10 K	5 K	5 K	56	57	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	69
AVC2	910319	1030	4	19	10 K		5 K		61		100 K		5 K		5 K		14		10 K		136
AVC2	910514	1005	90	20	10 K	10 K	5 K	5 K	50	50	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	39
AVC2	910514	1006				10 K		5 K		50		100 K		5 K		5 K		10 K		10 K	
AVC2	910617	1530	8	44																	
AVC2	910709	910	80	40	10 K		5 K		65		100 K		5 K		5 K		10 K		10 K		116
AVC2	910926	1140	32	248	10 K	10 K	5 K	5 K	45	45	100	100	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	69
AVC3	901105	1315	170	140	10 K		5 K		121		100 K		5 K		5 K		10 K		20 K		41
AVC3	910128	1245	40	15000	10 K	10 K	5 K	5 K	119	119	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	47
AVC3	910319																				
AVC3	910514	1130	500	100	10 K	10 K	5 K	5 K	128	132	100 K	100 K	5 K	5 K	5 K	5 K	10 K	10 K	10 K	10 K	32
AVC3	910514	1131				10 K		5 K		128		100 K		5 K		5 K		10 K		10 K	
AVC3	910709	1130																			
AVC3	910926	1300																			
MAD1	901219	1235	13	50	10 K		5 K		17		100 K		5 K		5 K		10 K		20 K		225
MAD2	901219	1345	2	20	10 K		5 K		24		100 K		5 K		5 K		10 K		20 K		52
PECI	910404	1145	2	80	10 K		5 K		10 K		100 K		5 K		5 K		10 K		10 K		626

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
SC1	901001	1220																		
SC1	901108	945		0.2 K		45		20 K		2 K		50 K		5 K		367		5 K		39
SC1	901114	1154		0.5 K		50 K		100 K		10 K				5 K						50 K
SC1	910130	1615	37	0.2 K	0.2 K	57	38	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	361	359	5 K	5 K	67
SC1	910305	1000		0.2 K		373		20 K		29		50 K		5 K		240		5 K		85
SC1	910528	1015	47	0.2 K	0.2 K	380	29	24	20 K	2	2 K	50 K	50 K	5 K	5 K	385	374	5 K	5 K	40
SC1	910528	1016	20 K				13		20 K		2 K		50 K		5 K		370		5 K	
SC1	910604																			
SC1	910716	1145		0.2 K		21		20 K		2 K		50 K		5 K		461		5 K		36
SC1	910924	805	67	0.2 K	0.2 K	51	48	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	406	394	5 K	5 K	38
SC2	901106	1415		0.2 K		689		20 K		2		50 K		5 K		299		5 K		26
SC2	901204	1145		0.5 K		430														
SC2	910129	945	31	0.2 K	0.2 K	317	261	20 K	20 K	2	2 K	50 K	50 K	5 K	5 K	291	279	5 K	5 K	38
SC2	910319	1415		0.2 K		240		20 K		4		50 K		5 K		290		5 K		20
SC2	910523	1015	79	0.2 K	0.2 K	936	910	20 K	20 K	3	2 K	50 K	50 K	5 K	5 K	286	264	5 K	5 K	22
SC2	910523	1016	92		0.2 K		796		20 K		3		50 K		5 K		278		5 K	
SC2	910618	1200																		
SC4	901114	1115		0.2 K		2100		20 K		19		50 K		5 K		421		5 K		64
SC4	901205	1030		0.5 K		630														
SC4	910129	1310	12	0.2 K	0.2 K	967	651	20 K	20 K	6	2 K	50 K	50 K	5 K	5 K	413	400	5 K	5 K	35
SC4	910318	1515		0.2 K		810		20 K		6		50 K		5 K		339		5 K		17
SC4	910523	1215	20 K	0.2 K	0.2 K	392	10 K	20 K	20 K	5	2 K	50 K	50 K	5 K	5 K	406	388	5 K	5 K	16
SC4	910523	1216	20 K				10 K		20 K		3		50 K		5 K		377		5 K	
SC4	910619	1000																		
SC4	910715	915		0.2 K		214		20 K		2 K		50 K		5 K		380		5 K		17
SC4	910924	1020	21	0.2 K	0.2 K	567	474	20 K	20 K	4	2 K	50 K	50 K	5 K	5 K	380	364	5 K	5 K	23
SC5	901114	1000		0.2 K		71		20 K		2 K		50 K		5 K		296		5 K		28
SC5	910129	1445	17	0.2 K	0.2 K	60	10 K	20 K	20 K	6	2 K	50 K	50 K	5 K	5 K	243	241	5 K	5 K	24
SC5	910320	845		0.2 K		65		20 K		2 K		50 K		5 K		248		5 K		11
SC5	910523	1350 K	20 K	0.2 K	0.2 K	133	131	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	302	290	5 K	5 K	17
SC5	910523	1351	20 K		0.2 K		131		20 K		2 K		50 K		5 K		288		5 K	
SC5	910708	950																		
SC6	901113	1100		0.2 K		166		20 K		2 K		50 K		5 K		1310		5 K		10 K
SC6	901113	1101		0.2 K		163		20 K		2 K		50 K		5 K		1260		5 K		10 K
SC6	901204	1530		0.5 K		50 K														
SC6	910129	1630	20 K	0.2 K	0.2 K	100	96	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1400	1380	5 K	5 K	13
SC6	910129	1631	77	0.2 K	0.2 K	100	99	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1400	1400	5 K	5 K	19
SC6	910320	1030		0.2 K		161		20 K		2 K		50 K		5 K		1430		5 K		10 K
SC6	910523	1540	20 K	0.2 K	0.2 K	140	136	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1450	1420	5 K	5 K	10 K
SC6	910523	1541	20 K		0.2 K		139		20 K		2		50 K		5 K		1450		5 K	
SC6	910618	1600																		
SC6	910715	1130		0.2 K		87		20 K		2 K		50 K		5 K		1390		5 K		10 K
SC6	910715	1131		0.2 K		87		20 K		2 K		50 K		5 K		1400		5 K		10 K
SC6	910919	1500	20 K	0.2 K	0.2 K	106	98	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	122	120	5 K	5 K	20
SC7	901001	1505	11	0.2 K	0.2	147	143	20 K	20 K	2 K	2 K	50 K	50 K	2 K	2 K	1640	1650	5 K	5 K	10 K
SC7	901113	1345		0.2 K		53		20 K		2 K		50 K		5 K		1820		5 K		10 K
SC7	901114	1330		0.5 K		50 K		100 K		10 K				5 K						50 K
SC7	910114	845 K	20 K	0.2 K	0.2 K	13	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1880	1790	5 K	5 K	10 K
SC7	910306	1145		0.2 K		59		20 K		2 K		50 K		5 K		1890		5 K		24
SC7	910528	1245	20 K	0.2 K	0.2 K	10	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1860	1790	5 K	5 K	10 K
SC7	910528	1246	20 K		0.2 K		10 K		20 K		2 K		50 K		5 K		1790		5 K	
SC7	910716	950		0.2 K		10 K		20 K		2 K		50 K		5 K		1760		5 K		10 K
SC7	910925	840	20 K	0.4 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	1810	1760	5 K	5 K	11
SC7	910925	841	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	11	2 K	50 K	50 K	5 K	5 K	1850	1810	5 K	5 K	10 K
SC10	901219	945		0.2 K		10 K		20 K		2 K		50 K		5 K		37		5 K		10
SC10	910522	1130																		
SC13	910130	945	20 K	0.2 K	0.2 K	104	83	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	370	364	5 K	5 K	16
SC15	901002	1045		0.2 K		15		20 K		18		50 K		2 K		138		5 K		19
SC15	901115	1100 K		0.5 K		50 K		100 K		10 K				5 K						50 K
SC15	901130	1130		0.2 K		17		20 K		2 K		50 K		5 K		161		5 K		14
SC15	901219	945																		
SC15	910114	1215		0.2 K		19		20 K		2 K		50 K		5 K		72		5 K		22
SC15	910305	1445		0.2 K		83		20 K		5		50 K		5 K		70		5 K		51
SC15	910305	1446		0.2 K		76		20 K		4		50 K		5 K		69		5 K		41
SC15	910513	1045		0.2 K		23		20 K		2 K		50 K		5 K		44		5 K		16
SC15	910513	1046		0.2 K		23		20 K		2 K		50 K		5 K		43		5 K		14
SC15	910605																			
SC15	910723	1030		0.2 K		26		20 K		2 K		50 K		5 K		109		5 K		11
SC15	910925	1210		0.2 K		10 K		20 K		2 K		50 K		5 K		155		5 K		11
AVC1	901105	1045		0.2 K		37		20 K		2 K		50 K		5 K		282		5 K		10 K
AVC1	910128	945	62	0.2 K	0.4	17	15	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	269	268	5 K	5 K	27

SANTA CRUZ RIVER BASIN

Site ID	Date (yymmdd)	Time (hrs)	Fe, D (ug/l)	Hg, T (ug/l)	Hg, D (ug/l)	Mn, T (ug/l)	Mn, D (ug/l)	Ni, T (ug/l)	Ni, D (ug/l)	Pb, T (ug/l)	Pb, D (ug/l)	Sb, T (ug/l)	Sb, D (ug/l)	Se, T (ug/l)	Se, D (ug/l)	Sr, T (ug/l)	Sr, D (ug/l)	Tl, T (ug/l)	Tl, D (ug/l)	Zn, T (ug/l)
AVC1	910514	1005	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	294	291	5 K	5 K	10
AVC1	910514	1006	20 K		0.2 K		10 K		20 K		2 K		50 K		5 K		280		5 K	
AVC1	910926	1010	20 K	0.2 K	0.2 K	10 K	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	254	244	5 K	5 K	10 K
AVC2	901105	1215		0.2 K		59		20 K		2 K		50 K		5 K		337		5 K		10 K
AVC2	901203	1530		0.5 K		50 K														
AVC2	910128	1115	45	0.2 K	0.2 K	41	44	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	350	348	5 K	5 K	59
AVC2	910319	1030		0.2 K		48		20 K		2 K		50 K		5 K		381		5 K		10 K
AVC2	910514	1005	20 K	0.2 K	0.2 K	18	16	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	366	357	5 K	5 K	10 K
AVC2	910514	1006	20 K		0.2 K		13		20 K		2 K		50 K		5 K		338		5 K	
AVC2	910617	1530																		
AVC2	910709	910		0.2 K		82		20 K		2 K		50 K		5 K		381		5 K		10 K
AVC2	910926	1140	29	0.2 K	0.2 K	10 K	10 K	20 K	20 K	3	2 K	50 K	50 K	5 K	5 K	293	283	5 K	5 K	10 K
AVC3	901105	1315		0.2 K		16		20 K		2 K		50 K		5 K		291		5 K		10 K
AVC3	910128	1245	20 K	0.2 K	0.2 K	11	10 K	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	278	275	5 K	5 K	105
AVC3	910319																			
AVC3	910514	1130	20 K	0.2 K	0.2 K	20	12	20 K	20 K	2 K	2 K	50 K	50 K	5 K	5 K	289	281	5 K	5 K	10 K
AVC3	910514	1131	20 K		0.2 K		12		20 K		2 K		50 K		5 K		278		5 K	
AVC3	910709	1130																		
AVC3	910926	1300																		
MAD1	901219	1235		0.2 K		10		20 K		2 K		50 K		5 K		364		5 K		46
MAD2	901219	1345		0.2 K		11		20 K		2 K		50 K		5 K		344		5 K		14
PEC1	910404	1145		0.2 K		11		20 K		2 K		50 K		5 K		69		5 K		10 K

SANTA CRUZ RIVER BASIN Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
SC1	901001	1220		ADHS		BAC-T BY ADHS
SC1	901108	945		ATI	11610	TDS/EC LOW, C/A HIGH, pH METER MALFUNCTION
SC1	901114	1154		ADHS	23413	INCOMPLETE ANALYSIS, pH METER MALFUNCTION
SC1	910130	1615	40	ATI	101880	EC F/L LOW
SC1	910305	1000		ATI	103602	C/A HIGH
SC1	910528	1015	29	ATI	105953	E/S LOW
SC1	910528	1016	32	ATI	105953	BAD DISSOLVED MERCURY VALUE
SC1	910604					
SC1	910716	1145		ATI	107754	D.O.METER MALF.; POWER FAILURE AT ADHS-SLS UNABLE TO
SC1	910924	805	29	ATI	109928	FREE CHLORINE = 0/02 MG/L
SC2	901106	1415		ATI	11610	F/L EC LOW, E/S LOW
SC2	901204	1145		ADHS	23636	INCOMPLETE ANALYSIS
SC2	910129	945	12	ATI	101880	
SC2	910319	1415		ATI	103840	BAD HARDNESS VALUE; F/L EC LOW, C/A HIGH
SC2	910523	1015	15	ATI	105921	C/A HIGH
SC2	910523	1016	17	ATI	105921	
SC2	910618	1200				
SC4	901114	1115		ATI	11672	TURBIDITY VIOLATION, LOW F/L EC & E/S, HIGH C/A
SC4	901205	1030		ADHS	23638	INCOMPLETE ANALYSIS
SC4	910129	1310	10 K	ATI	101880	EC F/L LOW, C/A HIGH FLOOD
SC4	910318	1515		ATI	103840	BAD HARDNESS VALUE; C/A HIGH FLOOD
SC4	910523	1215	10 K	ATI	105921	C/A HIGH
SC4	910523	1216	10 K	ATI	105921	BAD DISSOLVED MERCURY VALUE; LAB CONT.
SC4	910619	1000				
SC4	910715	915		ATI	107754	D.O. METER MALF.; C/A HIGH
SC4	910924	1020	10 K	ATI	109928	FREE CHLORINE = 0.12 MG/L
SC5	901114	1000		ATI	11672	F/L EC LOW, E/S LOW, C/A HIGH
SC5	910129	1445	10 K	ATI	101880	F/L EC LOW, C/A HIGH
SC5	910320	845		ATI	103840	F/L EC LOW, E/S LOW, C/A HIGH
SC5	910523	1350	10 K	ATI	105921	E/S LOW, C/A HIGH
SC5	910523	1351	10 K	ATI	105921	
SC5	910706	950				
SC6	901113	1100		ATI	11672	
SC6	901113	1101		ATI	11672	
SC6	901204	1530		ADHS	23639	INCOMPLETE ANALYSIS
SC6	910129	1630	10 K	ATI	101880	
SC6	910129	1631	10 K	ATI	101880	
SC6	910320	1030		ATI	103840	F/L EC LOW
SC6	910523	1540	10 K	ATI	105921	C/A HIGH
SC6	910523	1541	10 K	ATI	105921	
SC6	910618	1600				
SC6	910715	1130		ATI	107754	D.O.METER MALF.; POWER FAILURE @ ADHS-SLS UNABLE TO
SC6	910715	1131		ATI	107754	D.O. METER MALF.
SC6	910919	1500	10 K	ATI	109829	TOTAL CHLORINE= 0.23 mg/L, CHLORINE RESIDUAL= 0.09 mg/L
SC7	901001	1505	25	ATI	10543	XCONT(B,Ba,Hg,Sr,Zn)
SC7	901113	1345		ATI	11672	
SC7	901114	1330		ADHS	23414	INCOMPLETE ANALYSIS
SC7	910114	845	10 K	ATI	101880	F/L EC LOW
SC7	910306	1145		ATI	103602	C/A HIGH
SC7	910528	1245	10 K	ATI	105953	C/A HIGH
SC7	910528	1246	10 K	ATI	105953	
SC7	910716	950		ATI	107754	D.O.METER MALF.; POWER FAILURE AT ADHS-SLS UNABLE TO
SC7	910925	840	10 K	ATI	109928	
SC7	910925	841	10 K	ATI	109928	
SC10	901219	945		ATI	12799	TDS/EC HIGH, E/S HIGH
SC10	910522	1130				
SC13	910130	945	10 K	ATI	101880	EC F/L LOW, E/S LOW, C/A HIGH, EQUIP. BLANK OK
SC15	901002	1045		ATI	10543	
SC15	901115	1100		ADHS	23415	INCOMPLETE ANALYSIS
SC15	901130	1130		ATI	12546	C/A HIGH
SC15	901219	945				
SC15	910114	1215		ATI	101880	F/L EC LOW, E/S HIGH
SC15	910305	1445		ATI	103602	E/S HIGH, C/A HIGH SPRING RUNOFF
SC15	910305	1446		ATI	103602	E/S HIGH SPRING RUNOFF
SC15	910513	1045		ATI	105745	BAD TDS VALUE -- USE QC VALUE; F/L EC LOW
SC15	910513	1046		ATI	105745	F/L EC LOW, C/A HIGH
SC15	910605					
SC15	910723	1030		ATI	107840	D.O. METER MALF.; E/S LOW, C/A HIGH
SC15	910925	1210		ATI	109928	
AVC1	901105	1045		ATI	11610	F/L EC LOW, E/S LOW, C/A HIGH
AVC1	910128	945	10 K	ATI	101880	C/A HIGH

SANTA CRUZ RIVER BASIN — Lab Turnaround Time

Site ID	Date (yymmdd)	Time (hrs)	Zn, D (ug/l)	Lab	Lab No.	Remarks
AVC1	910514	1005	10 K	ATI	105745	F/L pH LOW, E/S LOW, C/A HIGH
AVC1	910514	1006	10 K	ATI	105745	
AVC1	910926	1010	10 K	ATI	109928	
AVC2	901105	1215		ATI	11610	E/S LOW, C/A HIGH
AVC2	901203	1530		ADHS	23637	INCOMPLETE ANALYSIS
AVC2	910128	1115	10 K	ATI	101880	E/S LOW, C/A HIGH
AVC2	910319	1030		ATI	103840	NO FIELD pH; F/L EC LOW, E/S LOW, C/A HIGH
AVC2	910514	1005	10 K	ATI	105745	E/S LOW, C/A HIGH
AVC2	910514	1006	10 K	ATI	105745	
AVC2	910617	1530				
AVC2	910709	910		ATI	107644	D.O.METER MALF.; EST.Q; CULV.BACT 900/250; C/A HIGH
AVC2	910926	1140	10 K	ATI	109928	
AVC3	901105	1315		ATI	11610	E/S LOW, C/A HIGH
AVC3	910128	1245	10 K	ATI	101880	E/S LOW, C/A HIGH
AVC3	910319					SITE NOT VISITED DUE TO ILLNESS IN FIELD
AVC3	910514	1130	10 K	ATI	105745	F/L EC LOW, C/A HIGH
AVC3	910514	1131	10 K	ATI	105745	
AVC3	910709	1130				SITE DRY
AVC3	910926	1300				SITE DRY
MAD1	901219	1235		ATI	12799	
MAD2	901219	1345		ATI	12799	
PEC1	910404	1145		ATI	104588	TDS/EC HIGH, E/S HIGH, C/A HIGH

APPENDIX F

ADEQ/USGS Cooperative

FSN Program Information

October 1990 - September 1991

Pages F-2 thru F-8 follow

BACKGROUND

Since 1977, the Arizona Department of Environmental Quality (ADEQ) and its predecessor agency, the Department of Health Services, have contracted with the U. S. Geological Survey (USGS) to operate the Cooperative Fixed Station Network (FSN). Until ADEQ initiated its supplemental FSN program in 1986, this constituted the entire FSN for surface water quality monitoring in Arizona. Data from this program has been routinely transferred to the U. S. Environmental Protection Agency (EPA) STORET data management system via the USGS WATSTOR system.

CURRENT PROGRAM

During Water Year 1991 ADEQ contracted with the USGS to conduct the ADEQ/USGS Cooperative FSN program. Following are excerpts from the contract listing the sites, sampling frequency, parameters and laboratory detection limits. The data has been uploaded to the U.S. EPA STORET data management system. Data from ADEQ/USGS Cooperative program were not reviewed for this report because it has been reviewed in ADEQ's 1992 Water Quality Assessment Report [Section 305(b)].

Sampling stations, parameter groups, and number of samples to be collected during the period October 1, 1990 through September 20, 1991.

USGS Station Number	Station Name	Parameter Group[1/] 1	2	3	4	5	6	7	8	9	10	11
* 09380000	Colorado River at Lees Ferry	0	0	0	2	6	0	6	4	0	0	0
* 09427520	Colorado River below Parker Dam	12	12	12	12	12	12	12	12	0	0	0
* 09466500	Gila River at Calva	8	8	8	8	12	8	12	11	0	0	0
* 09498500	Salt River near Roosevelt	6	6	6	6	12	6	12	12	0	0	0
* 09502000	Salt River below Stewart Mountain Dam	6	6	6	6	6	6	6	6	0	0	0
* 09508500	Verde River below Tangle Creek above Horseshoe Dam	6	6	6	8	12	6	12	12	0	0	0
* 09510000	Verde River below Bartlett Dam	6	6	6	6	6	6	6	6	0	0	0
* 09518000	Gila River above diversions, at Gillespie Dam	6	6	6	8	12	6	12	12	0	0	0
* 09522000	Colorado River at Northerly Int'l Boundary above Morelos Dam	6	6	6	8	12	6	12	12	0	0	0
09471000	San Pedro River at Charleston	0	0	0	2	6	0	6	4	6	0	0
# 09498400	Pinal Creek at Inspiration dam, near Globe	6	6	6	6	6	6	6	6	0	0	0
09504000	Verde River near Clarkdale	12	12	12	12	12	12	12	12	0	0	0
* 09504440	Oak Creek at Red Rock Crossing, near Sedona	12	12	12	12	12	12	12	12	0	6	0
09520500	Gila River near Dome	12	12	12	12	12	12	12	12	0	6	0
09402000	Little Colorado River near Cameron	6	6	6	6	6	6	6	6	0	6	0
09431500	Gila River near Redrock, NM	6	6	6	8	12	6	12	11	0	6	0
09444200	Blue River near Clifton	6	0	6	0	0	0	0	6	0	6	6
09444600	San Francisco River near Clifton	6	6	6	6	6	6	6	6	0	6	0
09448500	Gila River at Head of Safford Valley	6	6	6	6	6	6	6	6	0	6	0
09468500	San Carlos River near Peridot	6	0	6	0	0	0	0	6	0	6	6
##09506000	Verde River near Camp Verde	-	-	-	-	-	-	-	-	-	-	-
09507980	East Verde River near Childs	6	6	6	6	6	6	6	6	-	6	-
09395630	Puerco River at Manuelito	**	**	@@	**	@@	@@	@@	**	-	@@	-

[1/]Figures given under the parameter group numbers represent the number of samples analyzed per period.

* State of Arizona Primary Fixed Station Network.

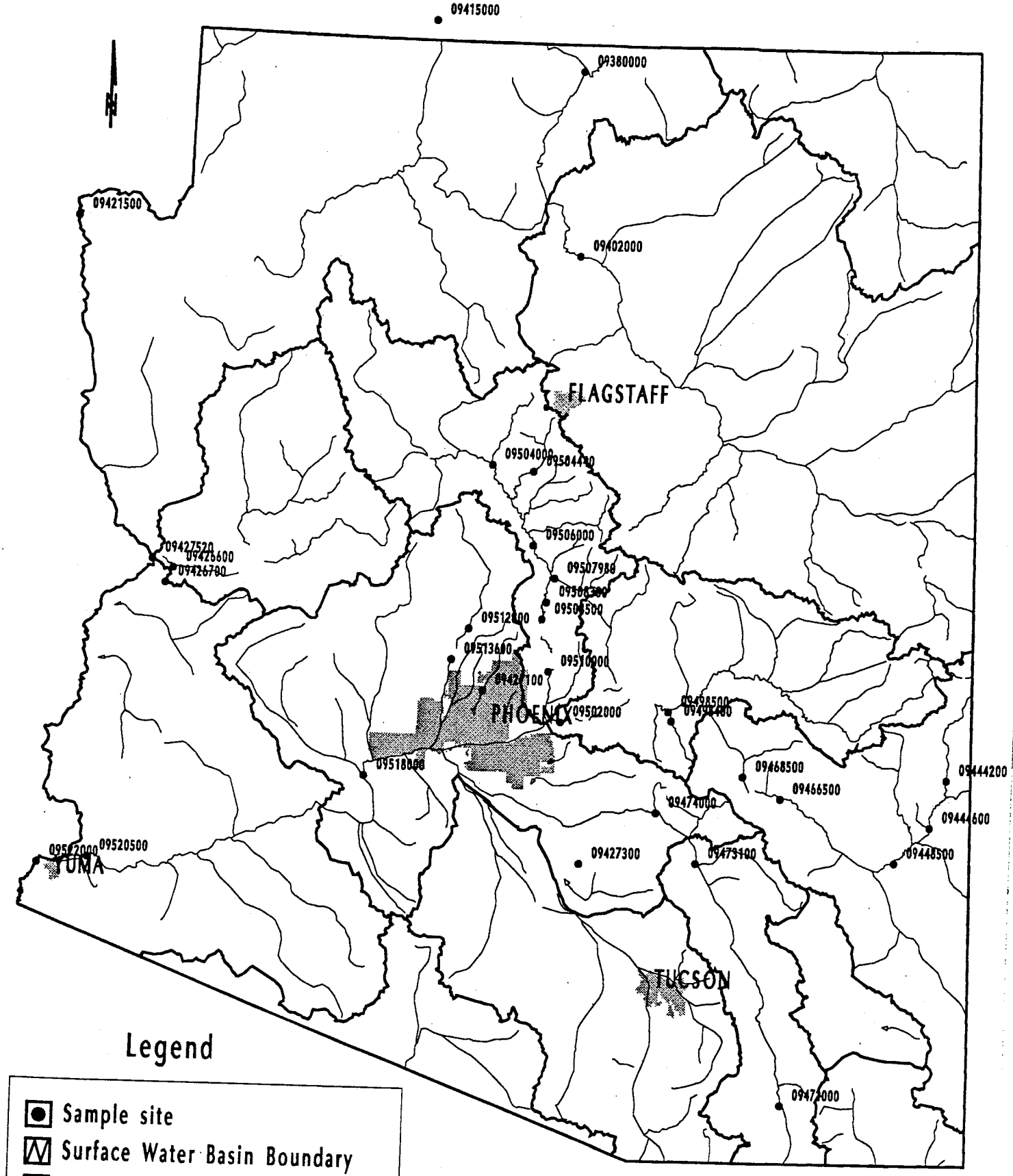
Funding for this station includes $4,000 for repair of control.

##USGS operates stream gage; ADEQ will collect water-quality samples for State laboratory analysis.

**Water samples collected on a flow event basis.

@@Water samples collected manually three times during the period.

General Location Map
ADEQ/USGS Cooperative FSN Program
October 1990 - September 1991



Parameter Groups

Group 1--Field Data

pH (00400)
Specific conductance (00095)
Discharge (00061)
Alkalinity (00410)
Water temperature (00010)
Dissolved oxygen (00300)
Carbonate (99445)
Bicarbonate (99440)

Group 2--General Physical Chemistry

Turbidity (00076)
Hardness (00900, 00902)
Calcium, dissolved (00915)
Potassium, dissolved (00935)
Sulfate, dissolved (00945)
Total dissolved solids (70300)
Sodium, dissolved (00930)
Magnesium, dissolved (00925)
Chloride, dissolved (00940)
Fluoride, dissolved (00950)

Group 3--Nutrients

Nitrogen, ammonia plus organic, total (00625)
Nitrogen, total NH_4 as N (00610)
Phosphorous, total (00665)

Group 4--dissolved Metals

Arsenic, dissolved (01000)
Barium, dissolved (01005)
Chromium, dissolved (01030)
Iron, dissolved (01046)
Lead, dissolved (01049)
Zinc, dissolved (01090)
Silver, dissolved (01075)
Cadmium, dissolved (01025)
Copper, dissolved (01040)
Manganese, dissolved (01056)
Selenium, dissolved (01145)

Group 5--Total Metals

Arsenic, total (01002)
Chromium, total (01034)
Iron, total (01045)
Manganese, total (01055)
Selenium, total (01147)
Cadmium, total (01027)
Copper, total (01042)
Mercury, total (71900)
Lead, total (01051)
Zinc, total (01092)

Group 6--Microbiological

Fecal coliform bacteria (31625)
Fecal streptococca bacteria (31673)

Group 7--General Physical Chemistry

Suspended solids (00530)
Chemical oxygen demand (00340)
Boron, dissolved (01020)

Group 8--Nutrients

Nitrogen, total, as N (00600)
Nitrogen, total, as NO_3 (71887)
Nitrogen, nitrite plus nitrate, total (00630)

Group 9--Total Metals

Stronium, total (01082)

Group 10--Total Metals

Antimony, total (01097)
Beryllium, total (01012)
Nickel, total (01067)

Group 11--General Physical Chemistry

Turbidity (00076)
Total dissolved solids (70300)
Suspended solid (00530)

Parameter Detection Levels

Parameter Name	Parameter Number	Detection Levels
Alkalinity	00410	1 mg/L
Antimony, total	01097	1 ug/L
Arsenic, dissolved	00100	1 ug/L
Arsenic, total	01002	1 ug/L
Barium, dissolved	01005	100 ug/L
Beryllium, total	01012	10 ug/L
Bicarbonate	99440	Calculated
Boron, dissolved	01020	10 ug/L
Boron, total	01022	10 ug/L
Cadmium, dissolved	01025	1 ug/L
Cadmium, total	01027	1 ug/L
Calcium, dissolved	00915	0.1 mg/L
Carbonate	99445	Calculated
Chemical oxygen demand	00340	10 mg/L
Chloride, dissolved	00940	0.1 mg/L
Chromium, dissolved	01030	1 ug/L
Chromium hexavalent, dissolved	01032	1 ug/L
Chromium, total	01034	1 ug/L
Copper, dissolved	01040	1 ug/L
Copper, total	01042	1 ug/L
Discharge, instantaneous	00061	.01 cfs
Dissolved oxygen	00300	.02 mg/L
Fecal coliform	31625	1 colony
Fecal steptococca	31673	1 colony
Fluoride, dissolved	00950	0.1 mg/L
Gross Alpha, dissolved (U-Nat)	01515	0.4 pCi/L
Gross Alpha, total (U-Nat)	80029	0.4 pCi/L
Gross Beta, dissolved (Cs 137)	03515	0.4 pCi/L
Gross Beta, total (Cs 137)	03519	0.4 pCi/L
Hardness, Carbonate	00900	Calculated
Hardness, Noncarbonate	00902	Calculated
Iron, dissolved	01046	10 ug/L
Iron, total	01045	10 ug/L
Lead, dissolved	01049	5 ug/L
Lead, total	01051	5 ug/L
Magnesium, dissolved	00925	0.1 mg/L
Manganese, dissolved	01056	10 ug/L
Manganese, total	01055	10 ug/L
Mercury, total	71900	0.1 ug/L
Nickel, total	01067	1 ug/L
Nitrogen, ammonia plus organic, total	00625	0.2 mg/L
Nitrogen, nitrite plus nitrate, total	00630	0.1 mg/L
Nitrogen, total as N	00600	Calculated
Nitrogen, total as $N0_3$	71887	Calculated
Nitrogen, total NH_4 as N	00610	0.1 mg/L

Parameter Detection Levels (continued)

Parameter Name	Parameter Number	Detection Levels
pH, field	00400	0.1 unit
Phenols, total	32730	1 ug/L
Phosphorous, orthophosphate, dissolved	00671	0.01 mg/L
Phosphorous, total	00665	0.01 mg/L
Potassium, dissolved	00935	0.1 mg/L
Radium 226, dissolved	09510	0.1 pCi/L
Selenium, dissolved	01145	1 ug/L
Selenium, total	01147	1 ug/L
Silica, dissolved	00955	0.1 mg/L
Silver, dissolved	01075	1 ug/L
Sodium, dissolved	00930	0.1 mg/L
Solids ROE 105°C, suspended	00530	1 mg/L
Solids ROE 180°C	70300	1 mg/L
Specific Conductance, field	00095	1 umho
Strontium, total	01082	10 ug/L
Sulfate, dissolved	00945	0.2 mg/L
Total Organic Carbon	00680	0.1 mg/L
Turbidity	00076	0.1 NTU
Water Temperature	00010	0.5°C
Zinc, dissolved	01090	10 ug/L
Zinc, total	01092	10 ug/L

APPENDIX G

SPECIAL TOPIC:

LAKE HAVASU BACTERIOLOGICAL SURVEY

Pages G-2 thru G-4 follow

LAKE HAVASU BACTERIOLOGICAL SURVEY

Along with Fixed Station Network monitoring, the Point Source and Monitoring Unit (PSMU) also conducts intensive surveys of water quality.

In August of 1991, PSMU staff were contacted by Mr. Larry Webert of the Mojave County Health Department (MCHD) regarding a confirmed case of Giardiasis traced to swimming in the London Bridge boat channel of Lake Havasu. Several days later, two PSMU environmental specialists conducted a weekend survey of water quality at several heavily used beaches in and around Lake Havasu City. Samples were analyzed for Giardia lamblia, the parasite that caused Giardiasis, and fecal coliform bacteria, commonly used as an indicator of other pathogens originating from human or animal feces.

Results of this two-day sampling effort showed Giardia lamblia concentrations at or below normal background levels; however, fecal coliform concentrations at one site exceeds state water quality standards (A.A.C. R18-11). The beach where the exceedance occurred was closed as a public health risk and planning began for a more intensive survey and investigation of possible contamination sources. During this planning period MCHD conducted daily sampling at beaches and shipped samples to the Arizona Department of Health Services (ADHS) State Laboratory, in Phoenix for analysis.

On September 13-16, 1991 staff from PSMU collected 114 samples at 43 locations in and around Lake Havasu City. These samples were analyzed for fecal coliform on-site by the ADHS mobile laboratory. Simultaneously, inspectors and sanitarians from the ADEQ Central Regional Office and MCHD searched sampling locations for potential contamination sources. Inspections of nearby wastewater treatment plants and transfer stations were also made.

Upon completion of the intensive survey, a briefing was held for community leaders and the media on preliminary results of the September field work. Data from the MCHD sampling and the 4-day intensive survey showed continued high levels of fecal coliform at three swimming beaches during weekends when recreational use was high. One of these three was the public beach closed since the initial sampling in August. The second, a private beach, was also closed to swimming pending further sampling. The third problem site was a heavily used boat channel beneath the London Bridge. All the open-water samples taken 50-100 yards off shore had fecal coliform counts well below the state standard.

After analysis of data from 246 samples, the following recommendations were made to MCHD by ADEQ:

1. The public beach closed in August should remain closed.

2. Close the private beach with high fecal coliform counts to swimming.

3. Take action to prevent swimming in the London Bridge boat channel.

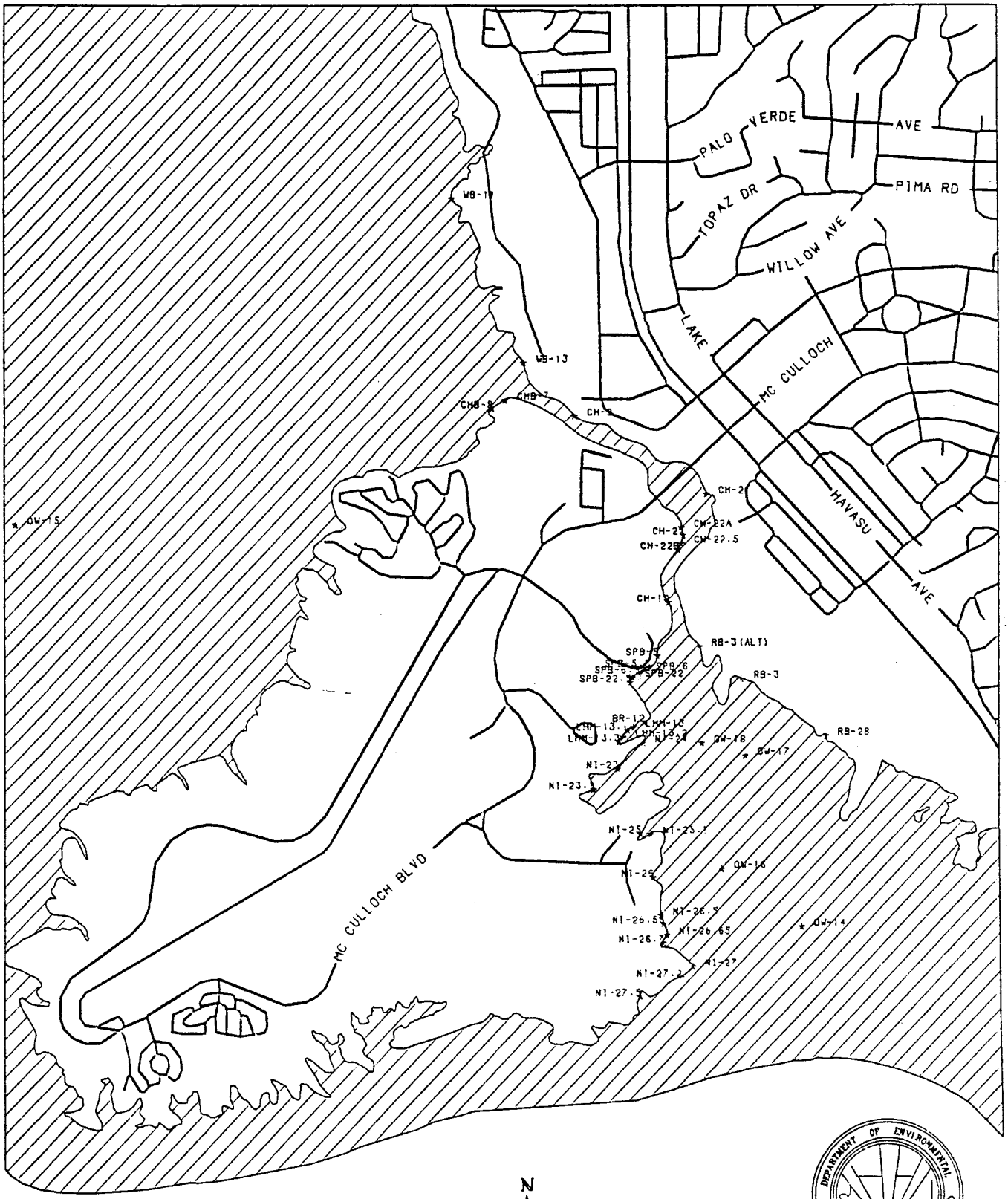
4. Set up an inspection program and test all possible sources of fecal matter in these three areas.

5. Set up an inspection program and test all possible sources of fecal matter in these three areas.

6. Re-open the closed beaches only when state standards for use are met over two consecutive weekends. Sampling should continue at those re-opened beaches at least one weekend per month, and the beach should again be closed whenever state standards are exceeded.

Part of the data analysis involved rating the possible contamination sources. Discharges from the Chemehuevi Wastewater Treatment Plant in California and seepage from local septic systems were eliminated because of the high die-off rate and short subsurface migration distances for fecal coliform bacteria. Leaky sewage systems, toilets near the shore-line, and illegal dumping from boats were considered and determined to be possible contributors but would only partially account for the high fecal coliform concentrations in swimming beaches. The most likely cause was the swimmers themselves. In almost all cases, high fecal coliform concentrations correlated with large numbers of people in the water at the time of sampling. This conclusion was supported by statistical analysis of all data that point.

On October 3, 1991 a public meeting was held in Lake Havasu City. Representatives from ADEQ, ADHS, and MCHD reviewed their recommendations and answered multitudinous questions from the public. Private citizens pledged to develop, with the help of ADEQ and MCHD, a campaign to educate boaters and recreationists on lake sanitation and hygiene. MCHD, with financial assistance from ADEQ, pledged to continue the weekend sampling through the 1992 boating season and report this data to ADEQ for inclusion in the State Water Quality Assessment Report. No significant exceedances have been recorded since the public meeting in October 1991. MCHD and ADEQ monitor the area periodically and work continues to inform lake users of steps they can take to reduce fecal contamination at bathing beaches.



WATER SAMPLING SITES
LAKE HAVASU BACTERIOLOGICAL SURVEY
SEPTEMBER 13-16, 1991

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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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