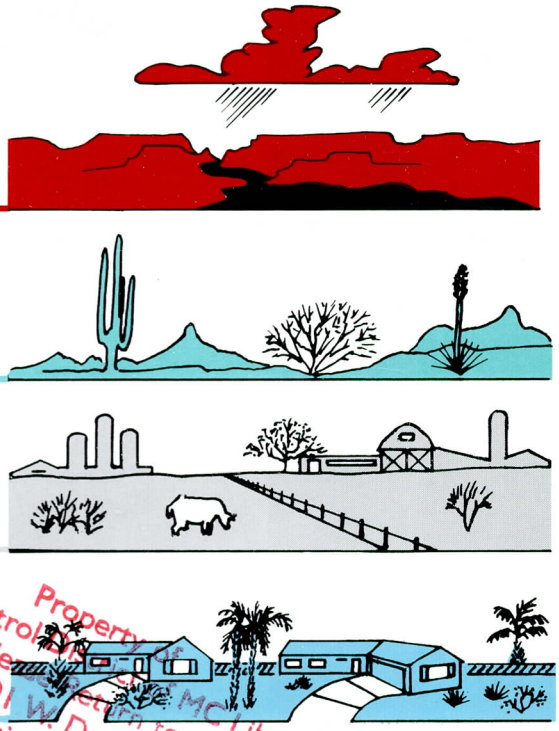

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Stormwater Quality Report
City of Phoenix, Arizona

Fourth Quarter

July 26, 1999

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Stormwater Quality Report

Fourth Quarter, Sampling Year 1999

April 1, 1999 through June 30, 1999

For

City of Phoenix, Arizona

July 26, 1999

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Stormwater Quality Report
City of Phoenix, Arizona

Fourth Quarter

July 26, 1999

Introduction

This report details the NPDES stormwater sampling activities during the spring of 1999. The period from April through June is typically the driest part of the year in Phoenix. There were a few rain events during this period, but none met the representative criteria.

The Flood Control District in cooperation with the U.S. Geological Survey operates and maintains six land based storm water quality monitoring stations. The USGS does all maintenance and sample collection at the six monitoring sites.

During storm events, only representative storm events are sampled. A representative storm event is defined in the following manner.

PHOENIX	RAINFALL	DURATION
SUMMER	0.2 – 0.7 INCH	2.2 – 6.5 HOURS
WINTER	0.2 – 0.7 INCH	5.2 – 15.6 HOURS

All storms are to be preceded by 72 hours with rainfall less than 0.10 inches. Summer months are April through September and winter months are October through March.

Summary of Sampled Storm Events

This is a summary of sampled storm events in the fourth quarter of the 1999 sample year, which is April 1 through June 30, 1999. Any troubleshooting of the equipment is mentioned in the Storm Summaries but is detailed in the Maintenance Summaries. Following are detailed descriptions of the sampled events. There were no representative events in this period and thus, no samples were taken.

Other Storm Events Not Sampled

SITE	DATE	RAIN	REASON NOT SAMPLED
SR03	4/2/1999	0.90	RAIN > 0.70 INCH, DURATION TOO LONG
SR30	4/2/1999	0.90	RAIN > 0.70 INCH, DURATION TOO LONG
SR45	4/2/1999	0.55	DURATION TOO LONG
SR49	4/2/1999	0.83	RAIN > 0.70 INCH, DURATION TOO LONG
IB08	4/2/1999	0.87	RAIN > 0.70 INCH, DURATION TOO LONG
ACDC43	4/2/1999	0.79	RAIN > 0.70 INCH, DURATION TOO LONG
ACDC43	6/2/1999	0.28	DURATION TOO SHORT

No storms were representative.

Maintenance Summary

This section details maintenance activities and problems during the first quarter.

SR03 – Salt River at 35th Avenue

The physical location of this sampler was moved in late May. Its location is now at the outfall to the Salt River. The District installed a new concrete pad and a new shelter box. The USGS installed their equipment at this site which includes an Isco sampler with a five-gallon glass container, a data logger, and a raingauge. Equipment was calibrated during the setup.

SR30 – Salt River at 27th Avenue

The USGS services the equipment before the summer rain and sample season. Equipment was calibrated during the service. No equipment problems were reported by the USGS.

SR45 – Salt River at 40th Street

Equipment was removed at this site during a major construction project at the airport. District equipment was removed on May 12. This site has not been set up by the USGS.

SR49 – Salt River at 67th Avenue

The USGS replaced the District's American Sigma equipment with their own water quality sampling set up which includes an Isco sampler with a five-gallon glass container, a data logger, and a raingauge. Equipment was calibrated during the setup.

IB08 – 40th Street at Indian Bend Wash

The American Sigma equipment remains at this site. The District will be sending this piece of equipment back to American Sigma for upgrade with an area-velocity meter. Equipment was serviced in June.

ACDC43 – ACDC near Peoria and 43rd Avenues

The USGS services the equipment before the summer rain and sample season. Equipment was calibrated during the service. No equipment problems were reported by the USGS.

Data from Spring 1999

The remainder of this report contains data. The following data are included:

- Rainfall Data from each monitoring site
- Copies of maintenance and storm sheets.

Rainfall Data

Gauge Rainfall

Gage Number		SR45											
Location		Salt River at 40th Street (FCD ALERT gauge 4515)											
		July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
	1										0.12		
	2										0.43		
	3												
	4	0.04		0.06					0.08		0.16		
	5	0.59							0.07				
	6	0.04	0.04	0.28			0.20						
	7												
	8												
	9												
	10												
	11												
	12												
	13												
	14												
	15		0.59				0.20						
	16												
	17		0.39										
	18	0.08											
	19												
	20	1.83											
	21												
	22												
	23												
	24												
	25				0.28								
	26				0.24								
	27												
	28					0.12							
	29												
	30				0.24								
	31												
	Month Total	2.58	1.02	0.34	0.76	0.12	0.40	0.00	0.15	0.00	0.71	0.00	0.00

Gauge Rainfall

Gage Number	SR49
Location	Salt River at 67th Avenue (FCD ALERT gauge 4755)

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1						0.04				0.20		
2										0.63		0.04
3												
4			0.16					0.20		0.04		
5	0.12							0.11				
6			0.51			0.28						
7	0.04											
8												
9												
10												
11			0.44									
12		0.12										
13												
14												
15						0.08						
16									0.31			
17	0.04	0.19										
18												
19	0.08											
20												
21												
22												
23												
24												
25				0.16								
26				0.04								
27												
28					0.04							
29												
30				0.24								
31												
Month Total	0.28	0.31	1.11	0.44	0.04	0.40	0.00	0.31	0.31	0.87	0.00	0.04

Gauge Rainfall

Gage Number	SR30 (Data from gauge and SR03)
Location	Salt River at 27th Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.23		
2						0.03				0.67		
3										0.18		
4			0.11					0.14				
5	0.06							0.07				
6	0.26		0.24			0.22						
7	0.42	0.01							0.02			
8												
9			0.02									
10												
11			0.09									
12												
13												
14												
15												
16									0.48			
17		0.05										
18												
19												
20												
21												
22	0.25		0.16									
23												
24												
25				0.48								
26												
27												
28					0.13							
29												
30				0.47								
31												
Month Total	0.99	0.06	0.62	0.95	0.13	0.25	0.00	0.21	0.50	1.08	0.00	0.00

Gauge Rainfall

Gage Number	SR03
Location	Salt River and 35th Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.23		
2						0.04				0.67		
3										0.18		
4			0.11					0.23				
5	0.06											
6	0.26		0.24			0.24						
7	0.42	0.01										
8												
9			0.02									
10												
11			0.09									
12												
13												
14												
15												
16									0.33			
17		0.05										
18												
19												
20												
21												
22	0.25		0.16									
23												
24												
25				0.24								
26				0.04								
27												
28					0.08							
29												
30				0.47								
31												
Month Total	0.99	0.06	0.62	0.75	0.08	0.28	0.00	0.23	0.33	1.08	0.00	0.00

Gauge Rainfall

Gage Number	IB08
Location	40th Street at Indian Bend Wash

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1												
2						0.24				0.87		0.04
3												
4			0.04					0.35		0.20		
5	0.04											
6	0.91		0.04			0.24						
7	0.55											
8	0.04											
9												
10												
11			0.08									
12												
13												
14												
15		0.39				0.08						
16									0.20			
17	0.28	0.12										
18												
19												
20												
21												
22			0.11									
23												
24												
25				0.28								
26				0.12								
27												
28					0.20							
29												
30				0.51								
31												
Month Total	1.82	0.51	0.27	0.91	0.20	0.56	0.00	0.35	0.20	1.07	0.00	0.04

Gauge Rainfall

Gage Number	ACDC43 (Data from sampler gauge and ALERT Gauge 4820)											
Location	ACDC at 43rd Avenue											
	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.15		
2						0.25				0.64		0.28
3												
4			0.12					0.18		0.04		
5	0.08							0.07				
6	0.87					0.31						
7	0.16	0.12										
8												
9												
10												
11			0.43									
12												
13										0.08		
14												
15						0.14						
16									0.04			
17	0.04											
18												
19												
20												
21				0.06								
22												
23												
24		0.04										
25				0.28			0.01					
26												
27												
28					0.06							
29												
30				0.18								
31												
Month Total	1.15	0.16	0.55	0.52	0.06	0.70	0.01	0.25	0.04	0.91	0.00	0.28

Gauge Rainfall

Gage Number: 4510

Location: Roeser at Second Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		
2	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		0.04
3	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		
4	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		
5	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		
6	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		
7	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
8	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
9	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
10	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
11	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
12	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
13	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
14	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
15	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
16	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
17	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
18	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
19	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
20	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
21	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
22	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
23	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
24	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
25	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
26	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
27	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
28	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
29	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
30	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
31	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down			
Month Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04

Gauge Rainfall

Gage Number	4600
Location	IBW at McKellips Road

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.12		
2						0.08				0.75		
3												
4			0.08					0.16		0.24		
5												
6	0.43		0.39									
7	0.04					0.12						
8						0.12						
9												
10												
11												
12		0.83										
13										0.04		
14												
15		0.83										
16									0.12			
17		0.12										
18												
19												
20												
21												
22	0.08		0.28									
23												
24												
25				0.47								
26				1.06								
27												
28		0.04			0.39							
29					0.04							
30				0.04								
31												
Month Total	0.55	1.82	0.75	1.57	0.43	0.32	0.00	0.16	0.12	1.15	0.00	0.00

Gauge Rainfall

Gage Number 4610

Location IBW at Indian Bend Road

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.28		
2						0.16				0.47		
3												
4			0.08					0.20		0.23		
5												
6	0.20		0.31			0.28						
7												
8												
9												
10												
11			0.04									
12												
13										0.04		
14												
15		0.16				0.24						
16									0.20			
17		0.20										
18												
19												
20												
21												
22	0.43		0.24									
23												
24												
25				0.12								
26				0.35								
27												
28		0.04			0.31							
29					0.04							
30				0.20								
31												
Month Total	0.63	0.40	0.67	0.67	0.35	0.68	0.00	0.20	0.20	1.02	0.00	0.00

Gauge Rainfall

Gage Number	4630
Location	Thunderbird Academy - near Thunderbird and Scottsdale Roads

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1												
2						0.31				0.63		
3												
4								0.28		0.20		
5			0.04					0.23				
6	0.12		0.12			0.28						
7												
8												
9					0.35							
10												
11			0.04									
12												
13										0.08		
14												
15												
16									0.20			
17		0.12										
18												
19												
20												
21												
22			0.12									
23												
24												
25				0.24								
26				0.12								
27												
28		0.12			0.16							
29												
30				0.31								
31												
Month Total	0.12	0.24	0.32	0.67	0.51	0.59	0.00	0.51	0.20	0.91	0.00	0.00

Gauge Rainfall

Gage Number	4640
Location	IBW and Sweetwater Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2						0.24				0.71		0.04
3												
4			0.04					0.24		0.20		
5								0.27				
6	0.43		0.04			0.24						
7	0.20											
8	0.08											
9					0.08							
10												
11			0.08									
12												
13										0.04		
14												
15		0.39				0.08						
16									0.16			
17	0.28	0.12										
18												
19												
20												
21												
22			0.04									
23												
24												
25				0.28								
26				0.12								
27												
28					0.20							
29												
30				0.51								
31												
Month Total	0.99	0.51	0.20	0.91	0.28	0.56	0.00	0.51	0.16	1.11	0.00	0.04

Gauge Rainfall

Gage Number	4650
Location	Paradise Valley Park - near Union Hills Drive at 32nd Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2						0.28				0.75		
3												
4			0.04					0.19		0.12		
5								0.31				
6	0.63	0.04				0.24						
7	0.28											
8												
9			0.04									
10												
11			0.08									
12												
13										0.08		
14												
15		0.12				0.20						
16									0.20			
17	0.24	0.04										
18												
19												
20												
21												
22			0.12									
23												
24		0.08										
25				0.35								
26				0.24								
27												
28					0.16							
29					0.08							
30				0.59								
31												
Month Total	1.15	0.28	0.28	1.18	0.24	0.72	0.00	0.50	0.20	1.11	0.00	0.00

Gauge Rainfall

Gage Number	4700
Location	FCD - Durango Street at 27th Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2						0.04				0.55		0.04
3												
4	0.04		0.12					0.16		0.12		
5	0.39							0.12				
6	0.43		0.47			0.24						
7												
8												
9			0.04									
10												
11			0.12									
12												
13										0.04		
14												
15												
16									0.28			
17		0.04							0.03			
18												
19												
20												
21												
22	0.24		0.12									
23												
24												
25				0.24								
26				0.04								
27												
28					0.08							
29												
30				0.47								
31												
Month Total	1.10	0.04	0.87	0.75	0.08	0.28	0.00	0.28	0.31	0.87	0.00	0.04

Gauge Rainfall

Gage Number	4730
Location	near Thomas Road and 32nd Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.20		
2						0.08				0.47		0.04
3												
4			0.04					0.12		0.16		
5	0.04							0.04				
6	0.67		0.12			0.28						
7	0.04											
8												
9												
10												
11			0.16									
12												
13										0.04		
14												
15		0.08				0.28						
16			0.04						0.08			
17		0.08										
18	0.08											
19	0.39											
20												
21												
22	0.43		0.16									
23												
24												
25				0.12								
26				0.08								
27												
28					0.16							
29												
30				0.16								
31												
Month Total	1.65	0.16	0.52	0.36	0.16	0.64	0.00	0.16	0.08	0.87	0.00	0.04

Gauge Rainfall

Gage Number	4740
Location	Papago Park - near McDowell Road and 52nd Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.24		
2						0.04				0.43		
3						0.04						
4			0.04					0.12		0.20		
5	0.04											
6	0.08		0.24			0.24						
7	0.04											
8												
9												
10												
11												
12		0.04										
13										0.04		
14												
15		0.24				0.31						
16									0.08			
17		0.35										
18												
19	0.24											
20												
21												
22	0.51		0.04									
23												
24												
25				0.24								
26				0.24								
27												
28					0.08							
29					0.08							
30				0.31								
31												
Month Total	0.91	0.63	0.32	0.79	0.16	0.63	0.00	0.12	0.08	0.91	0.00	0.00

Gauge Rainfall

Gage Number 4750

Location Thomas Road at 48th Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		0.20		
2	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		0.51		
3	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
4	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		0.20		
5	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
6	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
7	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
8	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
9	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
10	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
11	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
12	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
13	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down		0.08		
14	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
15	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
16	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down	0.08			
17	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
18	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
19	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
20	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
21	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
22	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
23	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
24	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
25	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
26	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
27	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
28	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
29	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
30	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
31	gage down	gage down	gage down	gage down	gage down	gage down	gage down	gage down				
Month Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.99	0.00	0.00

Gauge Rainfall

Gage Number: 4760

Location: Maryvale Municipal Golf Course - near Indian School Road and 59th Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2						0.08				0.67		0.04
3												
4			0.08					0.16		0.04		
5	0.12							0.16				
6	0.20		0.12			0.28		0.04				
7	0.35	0.04										
8												
9					0.16							
10												
11			0.24									
12												
13										0.08		
14												
15		0.12				0.04						
16									0.24			
17		0.08							0.04			
18												
19												
20												
21												
22	0.04											
23												
24												
25				0.31								
26				0.24								
27												
28					0.04							
29												
30				0.16								
31												
Month Total	0.71	0.24	0.44	0.71	0.20	0.40	0.00	0.36	0.28	0.95	0.00	0.04

Gauge Rainfall

Gage Number: 4780

Location: Missouri Avenue at 16th Street

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1						0.04				0.20		
2					0.04					0.51		0.04
3												
4			0.08					0.16		0.16		
5	0.04							0.15				
6	0.71		0.08			0.28		0.04				
7	0.04		0.04									
8												
9												
10												
11												
12												
13										0.08		
14												
15		0.16				0.16						
16			0.04						0.08			
17												
18												
19												
20												
21												
22			0.12									
23			0.04									
24												
25				0.04								
26												
27	0.04			0.04								
28					0.04							
29												
30												
31												
Month Total	0.83	0.16	0.40	0.08	0.08	0.48	0.00	0.35	0.08	0.95	0.00	0.04

Gauge Rainfall

Gage Number: 4800

Location: Dreamy Draw Dam

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2						0.16				0.55		0.04
3												
4			0.04					0.20		0.08		
5								0.24				
6	0.43		0.08			0.31						
7	0.08											
8												
9					0.16							
10												
11			0.08									
12												
13										0.04		
14												
15		0.63				0.20						
16									0.12			
17	0.08	0.12										
18												
19												
20												
21												
22			0.16									
23												
24		0.04										
25				0.16								
26				0.04								
27												
28					0.16							
29												
30				0.39								
31												
Month Total	0.59	0.79	0.36	0.59	0.32	0.67	0.00	0.44	0.12	0.83	0.00	0.04

Gauge Rainfall

Gage Number 4820

Location ACDC at 43rd Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.04		
2						0.20				0.63		0.28
3										0.04		
4			0.12					0.24		0.04		
5	0.08							0.04				
6	0.87					0.24						
7	0.16	0.12										
8												
9												
10												
11			0.43									
12												
13										0.08		
14												
15						0.08						
16												
17	0.04											
18												
19												
20												
21												
22												
23												
24		0.04										
25				0.20								
26				0.24								
27												
28					0.04							
29												
30				0.12								
31												
Month Total	1.15	0.16	0.55	0.56	0.04	0.52	0.00	0.28	0.00	0.83	0.00	0.28

Gauge Rainfall

Gage Number	4830
Location	Cave Creek Wash at Cactus Road

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.08		
2			0.04			0.24				0.51		0.04
3												
4			0.12					0.12		0.08		
5	0.08							0.20				
6	1.18		0.04			0.24						
7	0.16	0.35										
8												
9												
10												
11			0.47									
12												
13										0.08		
14												
15		0.04				0.12						
16									0.04			
17	0.04								0.04			
18												
19												
20												
21				0.04								
22			0.12									
23												
24												
25				0.20								
26				0.08								
27												
28					0.12							
29					0.04							
30				0.16								
31												
Month Total	1.46	0.39	0.79	0.48	0.16	0.60	0.00	0.32	0.08	0.75	0.00	0.04

Gauge Rainfall

Gage Number	4840
Location	Greenway Road at 32nd Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.12		
2						0.24				0.63		0.20
3												
4			0.12					0.28		0.04		
5	0.08							0.04				
6	1.85					0.28						
7	0.59											
8												
9												
10												
11			0.47									
12												
13										0.16		
14												
15		0.12				0.24						
16			0.04						0.04			
17	0.04											
18												
19												
20												
21												
22			0.16									
23												
24												
25				0.20								
26				0.20								
27												
28					0.04							
29					0.04							
30				0.08								
31												
Month Total	2.56	0.12	0.79	0.48	0.08	0.76	0.00	0.32	0.04	0.95	0.00	0.20

Gauge Rainfall

Gage Number: 4900

Location: Cave Buttes Dam

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.04		
2						0.20				0.71		0.04
3						0.04						
4			0.04					0.35		0.08		
5	0.04	0.04										
6	0.16					0.16						
7	0.04	0.35										
8												
9												
10												
11			0.08									
12												
13										0.04		
14												
15		0.43				0.12						
16									0.16			
17		0.08							0.04			
18												
19												
20												
21				0.04								
22			0.08									
23												
24												
25				0.20								
26				0.16								
27												
28					0.20							
29					0.04							
30				0.31								
31												
Month Total	0.24	0.90	0.20	0.71	0.24	0.52	0.00	0.35	0.20	0.87	0.00	0.04

Gauge Rainfall

Gage Number: 5400

Location: Agua Fria at Buckeye Road

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.24		
2						0.04				0.74		0.16
3												
4			0.16					0.40		0.08		
5	0.16							0.24				
6		0.04	0.08			0.24		0.04				
7	0.39	0.12										
8												
9			0.24		0.04							
10												
11			0.91									
12												
13										0.08		
14												
15						0.08						
16									0.04			
17	0.24	0.04										
18												
19												
20												
21				0.08								
22												
23	0.04											
24												
25				0.16			0.04					
26				0.04								
27							0.04					
28					0.12							
29					0.04							
30				0.08								
31												
Month Total	0.83	0.20	1.39	0.36	0.20	0.36	0.08	0.68	0.04	1.14	0.00	0.16

Gauge Rainfall

Gage Number 5505

Location New River at Glendale Avenue

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.12		
2						0.16				0.67		0.20
3												
4			0.12					0.24		0.04		
5	0.20							0.08				
6			0.08			0.31						
7	0.20	0.28										
8	0.04											
9			0.04									
10												
11			0.51									
12												
13										0.08		
14												
15												
16			0.08						0.43			
17												
18												
19												
20												
21												
22												
23												
24												
25				0.20			0.04					
26				0.43								
27												
28					0.08							
29					0.04							
30				0.24								
31												
Month Total	0.44	0.28	0.83	0.87	0.12	0.47	0.04	0.32	0.43	0.91	0.00	0.20

Gauge Rainfall

Gage Number 5535
Location Adobe Dam

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.12		
2						0.24				0.39		0.20
3												
4			0.08					0.08		0.08		
5	0.04							0.04				
6	1.14	0.20	0.16			0.24						
7	0.98	0.47										
8												
9												
10												
11			0.59									
12												
13										0.16		
14												
15		0.20				0.31						
16									0.04			
17									0.04			
18												
19												
20												
21												
22			0.08									
23												
24												
25				0.39			0.04					
26				0.51								
27												
28					0.08							
29												
30				0.08								
31												
Month Total	2.16	0.87	0.91	0.98	0.08	0.79	0.04	0.12	0.08	0.75	0.00	0.20

Gauge Rainfall

Gage Number 5550

Location Deer Valley Airport

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.16		
2			0.08			0.28				0.51		0.20
3												
4			0.08					0.16		0.08		
5								0.16				
6	1.34		0.04			0.31						
7	0.31	0.67										
8												
9												
10												
11			0.43									
12												
13										0.16		
14												
15		0.83				0.12						
16									0.12			
17									0.04			
18												
19												
20												
21				0.04								
22			0.16									
23												
24	0.04											
25				0.35			0.04					
26				0.12								
27												
28					0.16							
29					0.04							
30				0.39								
31												
Month Total	1.69	1.50	0.79	0.90	0.20	0.71	0.04	0.32	0.16	0.91	0.00	0.20

Gauge Rainfall

Gage Number: 5565

Location: Skunk Creek at I-17

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.28		
2						0.28				0.78		0.16
3												
4			0.08					0.04		0.12		
5		0.04										
6	1.77					0.24						
7	0.20	0.28										
8												
9												
10			0.04									
11			0.31									
12												
13										0.12		
14												
15						0.16						
16									0.16			
17									0.04			
18												
19												
20												
21												
22			0.04									
23												
24												
25				0.20			0.08					
26				0.04								
27												
28					0.20							
29												
30				0.16								
31												
Month Total	1.97	0.32	0.47	0.40	0.20	0.68	0.08	0.04	0.20	1.30	0.00	0.16

Gauge Rainfall

Gage Number: 5595

Location: New River and Bell Road

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.20		
2						0.28				0.31		0.12
3												
4			0.08					0.24		0.04		
5		0.28						0.12				
6	0.79	0.31				0.31						
7												
8												
9			0.08									
10												
11			0.47									
12												
13										0.16		
14												
15						0.04						
16									0.04			
17		0.12							0.04			
18												
19												
20												
21												
22	0.16											
23												
24												
25				0.08								
26				0.24								
27												
28					0.12							
29					0.04							
30				0.08								
31												
Month Total	0.95	0.71	0.63	0.40	0.16	0.63	0.00	0.36	0.08	0.71	0.00	0.12

Gauge Rainfall

Gage Number 6500

Location Guadalupe FRS

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1												
2										0.71		
3							0.04					
4								0.04		0.20		
5												
6	0.20		0.24			0.04						
7	0.04											
8												
9												
10												
11												
12		0.71										
13												
14												
15		0.12				0.16						
16												
17		0.51										
18							0.04					
19												
20												
21												
22			0.24									
23												
24												
25				0.08								
26				0.12								
27												
28					0.16							
29												
30				0.04								
31												
Month Total	0.24	1.34	0.48	0.24	0.16	0.20	0.08	0.04	0.00	0.91	0.00	0.00

Gauge Rainfall

Gage Number 6510

Location South Mountain Park

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.24		
2										0.47		
3												
4			0.12					0.16		0.12		
5	0.08											
6	0.83		0.47			0.16						
7	0.39											
8												
9												
10												
11												
12		0.20										
13												
14												
15		0.12										
16									0.08			
17		0.31							0.04			
18												
19												
20												
21												
22			0.16									
23												
24												
25				0.47								
26				0.75								
27												
28					0.16							
29												
30				0.16								
31												
Month Total	1.30	0.63	0.75	1.38	0.16	0.16	0.00	0.16	0.12	0.83	0.00	0.00

Gauge Rainfall

Gage Number: 6560
Location: South Mountain Fan

	July 1998	August 1998	September 1998	October 1998	November 1998	December 1998	January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
1										0.28		
2										0.63		0.04
3												
4			0.20					0.20		0.16		
5	0.08							0.04				
6	0.35		0.31			0.24						
7	0.31											
8												
9			0.04									
10												
11			0.04									
12												
13												
14												
15		0.24				0.12						
16									0.59			
17												
18												
19												
20												
21												
22			0.12									
23												
24												
25				0.39								
26				0.28								
27												
28					0.08							
29												
30				0.20								
31												
Month Total	0.74	0.24	0.71	0.87	0.08	0.36	0.00	0.24	0.59	1.07	0.00	0.04

Records

EQUIPMENT CLEANING CHECKLIST

Site	46th / 1st
Date	6/6/97
Time	
Serviced By:	

Yes	Data Downloaded to DTU?

Install Grab Sample Bottles.

1. Halt program
2. Connect extension tubing to the distributor tubing on the underside of the sampler.
3. Press the Purge Key on 800 models or the Manual key on 900 models.
4. On 900 models, press the Pump Operation key and then the select Purge.
5. Follow the steps below and check each as it is done.

	Pump approximately 1/2 gallon of Liquinox through tubing.
	Pump approximately 1/2 gallon tap water through tubing.
	Pump approximately 1/2 liter Nitric Acid (pH 3 - 4) through tubing.
	Pump approximately 1 - 2 gallons deionized water through tubing.

6. Disconnect the extension tubing and make sure the distributor tubing is seated properly.
7. Replace the base and clean bottles.
8. If the data has been downloaded to the DTU, START the program from the beginning.
9. If the data has not been downloaded, RESUME the program.

WATER QUALITY SAMPLER MAINTENANCE LOG SHEET

SITE	67th Ave @ Salt River	DATE	5/17/99
ARRIVAL TIME		DEPARTURE TIME	
SERVICED BY			
SAMPLER MODEL NUMBER		SAMPLER SERIAL/ ASSET NUMBER	
PT SERIAL NUMBER/ ASSET NUMBER		RAINGAGE SERIAL/ ASSET NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	volts
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	length (feet)
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	depth (inch)
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	mL
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS Sampler site to be serviced by USGS. Remove Sampler, battery & Rain gauge. Left Solar panel as it was glued. Removed in-take line and pressure transducer

WATER QUALITY SAMPLER MAINTENANCE LOG SHEET

SITE	35th ave @ Salt River	DATE	
ARRIVAL TIME		DEPARTURE TIME	
SERVICED BY			
SAMPLER MODEL NUMBER		SAMPLER SERIAL/ ASSET NUMBER	
PT SERIAL NUMBER/ ASSET NUMBER		RAINGAGE SERIAL/ ASSET NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	volts
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	length (feet)
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	depth (inch)
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	mL
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS Station to be moved to Drain on 35th ave at Salt River

USGS to take over operation. Removed Sampler, battery Phone

5/11/99 make ladder 5/12/99 Install ladder

5/13/99 Frame and pour concrete pad.

5/17/99 Install new station box, check site (Ready)

Date: 10/08/1998

WATER QUALITY SAMPLER MAINTENANCE LOG SHEET

SITE	Salt River 40th St	DATE	5/12/99
ARRIVAL TIME		DEPARTURE TIME	
SERVICED BY	RW		
SAMPLER MODEL NUMBER		SAMPLER SERIAL/ ASSET NUMBER	
PT SERIAL NUMBER/ ASSET NUMBER		RAINGAGE SERIAL/ ASSET NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	volts
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	destroyed by vandals
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	length (feet)
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	depth (inch)
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	mL
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS Station break down. Sampler Site to be serviced by the USGS. Removed Sampler, battery and phone. Solar panels were broken by vandalism prior to 5/12/99

DEG / RW

Return week of 5/24/99 to pull ill-tyke line and PT.

Water Quality Sampler Maintenance Log Sheet

SITE	35th ave @ Salt River		
DATE	4/14/99	TIME	0700
SERVICED BY	(Ray)		
MODEL NUMBER		SERIAL NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE volts	(YES) NO	GOOD FAIR POOR	YES NO	YES NO	
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING feet in length	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS Clean and flush intake line. Install clean bottles, restart program.

(Ray)

Water Quality Sampler Maintenance Log Sheet

SITE	40th st & Shea		
DATE	4/14/97	TIME	1040
SERVICED BY	RW		
MODEL NUMBER		SERIAL NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE volts	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING feet in length	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS Copy data, Replace battery, clean and flush in late line. Restart program

RW

STORM EVENT LOG SHEET

SITE	PHK IB-08
DATE	4-13-99
TIME	1220

DID EQUIPMENT OPERATE PROPERLY DURING EVENT: (YES) NO

IF NO, WHAT WERE PROBLEM(S):

- small flow
- 0.08" rain
- ~4 bottles collected.

FIELD PARAMETERS:

Discharge at time of Grabs		
Effluent pH		
Effluent Temperature		

GRAB SAMPLES: Take grab samples from discharge only!

Grab Samples Taken?	YES	NO
Proper Preservatives Added?	YES	NO

STORM EVENT LOG SHEET

SITE	SK03
DATE	4-13-99
TIME	1000

DID EQUIPMENT OPERATE PROPERLY DURING EVENT: YES NO

IF NO, WHAT WERE PROBLEM(S):

0.05" rain

started 4-7-99 @ 6PM - unsure why.

1 bottle

FIELD PARAMETERS:

Discharge at time of Grab		cfs
[illegible]		
Effluent Temperature		°C

GRAB SAMPLES: **Take grab samples from discharge only!**

Grab Samples Taken?	YES	NO
Preservatives added to samples?	YES	NO

STORM EVENT LOG SHEET

SITE	PHV SL45
DATE	4-13-99
TIME	1245

DID EQUIPMENT OPERATE PROPERLY DURING EVENT: YES NO

IF NO, WHAT WERE PROBLEM(S):

Construction causing false readings - 0.85" rain (85 tips); will shut equipment off until activities are complete.

FIELD PARAMETERS:

Discharge at time of Grabs		GPM
Effluent pH		
Effluent Temperature		°C

GRAB SAMPLES: **Take grab samples from discharge only!**

Grab Samples Taken?	YES	NO
Preservatives added to grabs?	YES	NO

STORM EVENT LOG SHEET

[redacted]	SR-49
[redacted]	4-13-99
[redacted]	1015

DID EQUIPMENT OPERATE PROPERLY DURING EVENT: YES NO

IF NO, WHAT WERE PROBLEM(S):

0.02" rain - no samples taken

ground dry, pipe dry

FIELD PARAMETERS:

[redacted]		
[redacted]		
[redacted]		

GRAB SAMPLES: **Take grab samples from discharge only!**

[redacted]	YES	NO
[redacted]	YES	NO

Water Quality Sampler Maintenance Log Sheet

SITE	40th St @ Salt River		
DATE	4/12/99	TIME	0830
SERVICED BY	[signature]		
MODEL NUMBER		SERIAL NUMBER	

	CHECKED / SERVICED / CALIBRATED	CONDITION	REPLACED?	NEEDS REPLACING?	NOTES
BATTERY VOLTAGE volts	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SOLAR PANEL	YES NO N/A	GOOD FAIR POOR	YES NO	YES NO	
CONNECTION CABLES	YES NO	GOOD FAIR POOR	YES NO	YES NO	
RAINGAGE	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLE INTAKE TUBING feet in length	YES NO	GOOD FAIR POOR	YES NO	YES NO	
SAMPLER PUMP TUBING	YES NO	GOOD FAIR POOR	YES NO	YES NO	
DEPTH SENSOR	YES NO	GOOD FAIR POOR	YES NO	YES NO	
CALIBRATE DEPTH SENSOR	YES NO	GOOD FAIR POOR	N/A	N/A	
CALIBRATE SAMPLE VOLUME	YES NO	GOOD FAIR POOR	N/A	N/A	
CLEANED SAMPLE INTAKE TUBING	YES NO	GOOD FAIR POOR	N/A	N/A	

NOTES / ACTIONS check site, reported rain of 0.45 inches. Did not rain and no samples were taken. Tips caused by heavy construction vehicles. Reset and start new program.

[signature]

EQUIPMENT CLEANING CHECKLIST

Site	35th ave & Galt
Date	4/5/99
Time	0720
Serviced By:	[signature]

✓	**Data Downloaded to DTU?**

1. Halt program — cell # 2 all bottles had samples. pump wired okay
2. Connect extension tubing to the distributor tubing on the underside of the sampler.
3. Press the Purge Key on 800 models or the Manual key on 900 models.
4. On 900 models, press the Pump Operation key and then the select Purge.
5. Follow the steps below and check each as it is done.

✓	**Pump approximately 1/2 gallon tap water through tubing.**
✓	**Pump approximately 1/2 gallon of Liquinox through tubing.**
✓	**Pump a large quantity of tap water through tubing.**
	Pump a small amount of Nitric Acid (pH 3 - 4) through tubing.
✓	**Pump approximately 1/2 - 1 gallon deionized water through tubing.**

6. Disconnect the extension tubing and make sure the distributor tubing is seated properly.
7. Replace the base and clean bottles.
8. If the data has been downloaded to the DTU, START the program from the beginning.
9. If the data has not been downloaded, RESUME the program.

EQUIPMENT CLEANING CHECKLIST

Site	40th ST Shea
Date	4/5/99
Time	1115
Serviced By:	[illegible]

Cell # 7 Tried to copy, having problems

?	Data Downloaded to DTU?

Take sample bottles for cleaning
7 sample bottles full, 1 with 2 inches

1. Halt program
2. Connect extension tubing to the distributor tubing on the underside of the sampler.
3. Press the Purge Key on 800 models or the Manual key on 900 models.
4. On 900 models, press the Pump Operation key and then the select Purge.
5. Follow the steps below and check each as it is done.

✓	Pump approximately 1/2 gallon of Liquinox through tubing.
✓	Pump approximately 1/2 gallon tap water through tubing.
	Pump approximately 1/2 liter Nitric Acid (pH 3 - 4) through tubing.
✓	Pump approximately 1 - 2 gallons deionized water through tubing.

6. Disconnect the extension tubing and make sure the distributor tubing is seated properly.
7. Replace the base and clean bottles.
8. If the data has been downloaded to the DTU, START the program from the beginning.
9. If the data has not been downloaded, RESUME the program.

EQUIPMENT CLEANING CHECKLIST

Site	Salt Run / Airport
Date	4/5/97
Time	
Serviced By:	(RW)

5 Bottles with water

?	Data Downloaded to DTU?

Cell & had trouble with getting data -

1. Halt program
2. Connect extension tubing to the distributor tubing on the underside of the sampler.
3. Press the Purge Key on 800 models or the Manual key on 900 models.
4. On 900 models, press the Pump Operation key and then the select Purge.
5. Follow the steps below and check each as it is done.

	Pump approximately 1/2 gallon of Liquinox through tubing.
	Pump approximately 1/2 gallon tap water through tubing.
	Pump approximately 1/2 liter Nitric Acid (pH 3 - 4) through tubing.
	Pump approximately 1 - 2 gallons deionized water through tubing.

6. Disconnect the extension tubing and make sure the distributor tubing is seated properly.
7. Replace the base and clean bottles.
8. If the data has been downloaded to the DTU, START the program from the beginning.
9. If the data has not been downloaded, RESUME the program.

EQUIPMENT CLEANING CHECKLIST

Site	67th ave & Salt		
Date	4/5/99	Time	0750
Serviced By:			

☑ **Data Downloaded to DTU?**

Copy to reel #1

1. Halt program — Sample bottles were full, gauge was iced okay
2. Connect extension tubing to the distributor tubing on the underside of the sampler.
3. Press the Purge Key on 800 models or the Manual key on 900 models.
4. On 900 models, press the Pump Operation key and then the select Purge.
5. Follow the steps below and check each as it is done.

Remove bottles for cleaning

- ☑ Pump approximately 1/2 gallon tap water through tubing.
- ☑ Pump approximately 1/2 gallon of Liquinox through tubing.
- ☑ Pump a large quantity of tap water through tubing.
- ☐ Pump a small amount of Nitric Acid (pH 3 - 4) through tubing.
- ☑ Pump approximately 1/2 - 1 gallon deionized water through tubing.

6. Disconnect the extension tubing and make sure the distributor tubing is seated properly.
7. Replace the base and clean bottles.
8. If the data has been downloaded to the DTU, START the program from the beginning.
9. If the data has not been downloaded, RESUME the program.