

Draft

**Cross Drainage Assessment
Along
Beardsley Canal
For
WESTCAPS**



**U.S. Department of the Interior
Bureau of Reclamation
Phoenix Area Office**

Executive Summary

WESTCAPS plans to use Maricopa Water District's (MWD) Beardsley Canal (Canal) to deliver Central Arizona Project (CAP) water to the proposed water treatment plant (WTP). The proposed WTP will be located either at CAP canal-side at north of Sarival Road or at east side of the Canal between Waddell Road and Cactus Road (Refer to Beardsley Canal and Vicinity Map in Chapter II. Overview of Current Beardsley Canal System).

It is desired to find out that whether or not the Canal is also suitable to transport water for municipal use with consistently high quality to the proposed WTP at the downstream location. This is an *appraisal* level study to access the possible sources of pollutants, specially sediment and fecal coli form. This study also explores to alleviate the possible direct sediment inflow *into* the Canal from the adjacent hillsides.

First, the Canal system is briefly described below. The Canal capacity to deliver water for agricultural as well as municipal use has been investigated in other study.

The Canal starts from the Hank Raymond Lake below New Waddell Dam and runs generally down southwesterly through the mountainous terrain up to Grand Avenue or Atchison Topeka & Santa Fe Rail Road, and runs down southerly from thereon up to Thomas Road (Refer to Beardsley Canal and Vicinity Map in Chapter II). The Canal was designed to deliver water for agricultural use from New Waddell Dam and Lake Pleasant. It is concrete trapezoidal channel for gravity flow. There are four (4) flumes (canal running *over* the cross drainage channels), and 10 inverted siphons *under* the cross drainage channels. Refer to Photographs 29, 43, 44 and 45 for flumes, and 46, 47, 48, etc. for inverted siphons in the Appendix A.

Also many cross drainage water run through the structures *under* the Canal. These cross drainage structures are in the forms of concrete box culvert (BC) or corrugated metal pipe (CMP) of various sizes. In many areas along the Canal, the cross drainage water runs *into* the Canal in the forms of sheet flow or direct runoff because there are no intercepting channels (capturing) along the Canal. The hills adjacent to the Canal in many areas are so steep that soils are prone to slide down to the Canal. Refer to Photographs 10, 11, 12, 40, etc. for concrete box culvert, Photographs 5 and 8 for CM pipes, and Photographs 14, 21, etc. for sheet flow in the Appendix A.

Along the Canal the cross drainage water has apparently been captured or directed uncontrollably *into* the Canal through pipes with or without a flap valve, and also through concrete collection ditches. Refer to Photographs 14, 26, 52, 63, 67, etc. for uncontrolled pipes and Photographs 31, 34, 36, etc. for concrete collection ditches in the Appendix A.

It also appears that water has apparently been diverted from the Trilby Wash Basin through a conduit with a sliding gate *into* the Canal. Historical records of operation and diversion are not available from MWD (Refer to Photographs 73 through 77 in the Appendix A).

The Canal has maintenance roads, and some portions of road are gated, or cross bar with posts are installed to prevent vehicular entry (refer to Photographs 68, 69 and 71 in the Appendix A). However, human access along the Canal seems very easy (Refer to the Photographs 43, 44, 45, 46, 79 and 80 with graffiti and pollutants left in the Canal in the Appendix A).

CAP water enters into the Canal at just downstream of the first flume over the Agua Fria River (Refer to Photograph 30).

Second, the cross drainage *over*, *under* and *into* the Canal is investigated in terms of frequency-discharges and hydraulic capacities of drainage structures (culverts and earth channel). The undersized structures mean that the cross drainage water may come into the Canal with pollutants. 17 major cross drainage (*over* and *under* Canal) locations and their structures are investigated hydrologically and hydraulically. 5 local cross drainages *into* Canal are investigated to divert water. Refer to Chapter IV for the locations, existing structures, and their hydraulic capacities.

Among 17 major cross drainage structures, 14 structures have a hydraulic capacity to pass at least 100-year return discharge (runoff). One 24 inches CM pipe at the location #5 has a very limited hydraulic capacity (30 cfs) which is less than 2-year return discharge, and it may cause a frequent inflow into the canal over the Canal bank. The two (2) 5 feet by 5 feet concrete box culvert at the location #8 has a hydraulic capacity of 50-year return discharge (1,141 cfs). The one 4 feet by 4 feet concrete box culvert at the location #10 has a hydraulic capacity of 10-year return discharge (268 cfs). The one 24 inches CM pipe at the location #11 has a hydraulic capacity of 5-year return discharge (43 cfs). Refer to Hydraulic Capacity Table in the Chapter IV.

The 5 local direct drainages *into* the Canal range from 33 cfs to 107 cfs for 100-year return discharges. It is recommended that these direct drainages should be either intercepted and rerouted into the major cross drainage channel or collected to divert over the Canal into the newly built channel parallel to the Canal within the right-of-way and reroute into the major drainage channel. Since peak discharge times are different from the major drainage watershed adjacent to the local drainage area, hydrologic and hydraulic impacts will **NOT** affected. These rerouting will minimize the sediment inflow at least. The cost for these improvements is approximately **\$5 million**. Refer to the Chapter V.

Third, the potential sources of pollutants (physical, chemical and biological contaminants) are identified from 1) steep canal bank and vehicular access ramps for easy sediment inflow, 2) unintercepted local sheet flow into the Canal, 3) street runoff into the Canal directly or through drainage pipe in urban area, and 4) easy human access to the Canal.

Fourth, water quality records along the Canal, spatially and temporally are **NOT** available from MWD (apparently no data have been taken). The water quality samples have been taken and published by United States Geological Survey (U.S.G.S) for Agua Fria River below Waddell Dam from December 1950 to October 1995. The CAP water quality samples have also been taken and published by U.S.G.S. from July 19, 1985 through

September 26, 1995 at the CAP mile post 162.3 at 7th street Bridge in Phoenix, Arizona, which is the closest to the Beardsley Canal. These records are duplicated and included in the Appendix C.

The fecal coli form and sediment (suspended and discharge-suspended) data from these two water quality records among many other data are summarized and included in the Chapter VI. The median sediment-suspended and sediment-suspended discharge for Agua Fria River are 7.5 mg/l and 2.2 tons/day, respectively. The median values for the CAP water are 4 mg/l and 2.4 tons/day, respectively.

Fifth, the water treatment capability for the various pollutants at the proposed WTP are **NOT** available yet from the Arizona-American Water Company.

Sixth, according to MWD, the Right-of-Way of the Beardsley Canal is 69.5 feet on each side of the Canal from the centerline from Camp Dyer Dam at Hank Raymond Lake to ½ miles (a half miles) south of Cactus Road. From ½ miles south of Cactus Road to the end of the Canal, the Right-of-Way is 75 feet east from the midsection lines of U.S.G.S. quadrangle topographic maps. The Canal centerline is 25 feet east of midsection lines which results in 50 feet on the east side and 25 feet on the west side of the Canal.

In summary,

1. The major cross drainage structures are generally (14 out 17) capable to pass at least 100-year return peak discharges. The 2 small sizes (24 inches CM pipes) are especially undersized to cause drainage overtop the Canal, and which may often bring the pollutants into the Canal.
2. The local direct drainage *into* the Canal may be rerouted at the expense of approximately \$5 million. The detail study is warranted for the final design. There will be no hydrologic and hydraulic impacts due to these drainage rerouting.
3. The local sheet flow *into* the Canal can be reduced by constructing the intercepting ditches along the Canal wherever applicable.
4. In the urban area, the street runoff should be intercepted to reduce the pollutants inflow by removing the drainage pipes and by installing street gutter.
5. The human access to the Canal should be restricted for recreation if possible. It could be very expensive to install the fence at both sides for approximately 32 miles at each side (64 miles total length).
6. Since the spatial and temporal water quality data are **NOT** available, it is **NOT** known how and where water quality has been changed and distributed along the Canal.

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I. Introduction

In the future, the Beardsley Canal (Canal) may be used to transport water not only for agricultural but also municipal use. If that happens, it is desired to deliver water of consistently acceptable quality to the water treatment plant (WTP). Therefore, it is necessary to find out whether or not the canal is suitable to transport municipal use.

This study is an *appraisal* level, and the detail study is warranted.

II. Overview of Current Beardsley Canal System

The Beardsley Canal (hereon called Canal) runs along the Agua Fria River from the New Waddell Dam and Lake Pleasant southerly. The Canal lies at the east side of the Agua Fria River from the Hank Raymond Diversion Lake to the first semicircular concrete-lined flume which runs (crosses) over the Agua Fria River at approximately 4.7 miles along the maintenance road. From this point on, the Canal runs along the west side of the Agua Fria River. Refer to attached map for Beardsley Canal and Vicinity.

The Canal crosses *over* and *under* the local drainage channels, large or small except the Canal flume #1 over the Agua Fria River. There are three more flumes *over* the cross drainage channels at approximately 8.4, 9.0, and 10.6 miles, respectively. Also there are 10 inverted siphons *under* the cross drainage channels between 12 miles and 30.1 miles. Some of the cross channels *over* the Canal are NOT well defined. Some inverted siphons are NOT inverted siphon by definition, but rather box culverts.

There are also numerous cross drainage structures *under* the Canal in the form of either box culvert or corrugated metal (CM) pipe.

There are also many local inflow structures into the Canal in the form of concrete lined waterway or pipe to capture the runoff.

The field reconnaissance was conducted along the Canal maintenance road from the Canal diversion work at Hank Raymond Lake to the point at approximately 0.8 miles south of Indian School Road. The water delivery through the Canal is practically ended at the Indian School Road. The following descriptions shall be referred to the photographs taken on June 24 and 25, 2003, and they are presented in Appendix A. Note that the photographs are generally taken from the maintenance road.

The Canal was dry but silted with sand, gravel and rocks falling from the Canal banks, and through the Canal access ramp from road. The Canal banks are almost same as side slope of Canal without any intercepting berms at either side. The local sheet flow occasionally directs into the Canal through the low points (dips) of maintenance road. These are general phenomena between the diversion work and the CAP inlet to the Canal at 5.3 miles. Refer to the photographs 1 through 30.

The Cowtown Bridge over the Canal functions as drainage channel as well. The bridge is 34.8 feet wide and has two 3.9 feet concrete side walls. The estimated channel flow are $Q_{50} = 755$ cfs and $Q_{100} = 881$ cfs (Refer to Reference cited). It appears that there is no danger of cross drainage water running directly into the Canal. Refer to photograph 17.

At 4.6 miles, the 90 degree bend basin below the second concrete chute are filled with lots of silts, mud and broken concrete pieces before the entrance to the first concrete lined flume *over* the Agua Fria River. Refer to the photograph 28.

The CAP water flows from northwest into the Canal at the 5.3 miles. Refer to photograph 30.

From this point on to the third flume *over* the cross drainage channel at 9 miles, the west side of Canal is steep, and has almost same as Canal side slope. There are numerous concrete lined waterways directly into the Canal to capture the local hillside runoff. At certain areas, the hillsides are so steep that rocks are sliding down into the Canal. Refer to photographs 31 through 44.

From this point on to the end of the Canal, the banks are generally flat. The major sediment and pollutants are originated from the maintenance road or major crossing streets.

At 12 miles, all kinds of floating debris are collected at the entrance of the first inverted siphon. Refer to photograph 46.

At 13.8 miles, another inverted siphon runs *under* the cross channel. The drainage channel has estimated flows of $Q_{50} = 2,201$ cfs and $Q_{100} = 2,718$ cfs (Refer to Reference, Wittman 123). The channel is 50.2 feet wide and has 5.8 feet wide by 11 feet high concrete side walls at each side. It appears that there is no danger of water running directly into the Canal. Refer to photograph 47.

At 14.6 miles, another inverted siphon runs *under* the cross channel. The drainage channel has estimated flows of $Q_{50} = 1,945$ cfs and $Q_{100} = 2,227$ cfs (Refer to Reference, Wittman 120). The cross channel is filled with broken concrete pieces, and some portion is filled with water. It appears that there is no danger of water running directly into the Canal. Refer to photograph 48.

At 15.6 miles and 15.8 miles, respectively, approximately 2 feet diameter of beveled CM pipe is at the west side of Canal. It may be to capture the local runoff. Refer to photograph 52.

At 16 miles, another concrete lined waterway leads into the Canal at the west side of the Canal. The estimated flows at this point are $Q_{50} = 511$ cfs and $Q_{100} = 683$ cfs (Refer to Reference, Wittman 118). Refer to photograph 54.

At 16.7 miles and at 100 feet downstream therefrom, one 2 feet diameter of CM pipe is at the west side of Canal, respectively. Refer to photograph 55.

At 17.1 miles under the Santa Fe Railroad, 24 inches CM pipe leads into the Canal from the west for local flow. Refer to photograph 57.

At 17.2 miles, another inverted siphon runs under the drainage channel. The channel is 50 feet wide, and 4.2 feet high and 11.6 feet wide concrete side walls at each side. The channel has estimated flows of $Q_{50} = 199$ cfs and $Q_{100} = 276$ cfs (Refer to Reference, Wittman 103). It appears that there is no danger of water running directly into the Canal. Refer to photograph 58.

At 17.8 miles, another inverted siphon runs *under* the concrete spillway from McMicken Dam. Note that the road slopes toward the Canal, and the erosion gullies on the west side of the Canal. Refer to photograph 60.

At 18.2 miles, concrete lined waterway inlet from the road runs into the Canal at the west side of the Canal. Note that the similar waterway inlet exists at 0.1 mile from this point on at the west side of the Canal. Refer to photograph 62.

At 18.4 miles and at an interval of approximately 0.1 mile from there on for the next one mile, 12 inches pipe are protruded at the west side of the Canal. Refer to photograph 63.

At 19.7 miles, 18 inches CM pipe leads into the Canal from the levee at the west. Refer to photograph 64.

At 20.4 miles, another inverted siphon runs *under* the cross drainage channel. Note that the Canal access ramp at the west from the road and channel, and development at the southeast side of the siphon and channel. Refer to photograph 65.

At 21.6 miles on Bell Road Bridge, 12 inches of CM pipe runs into the Canal at each corner of the bridge. The street sediment and pollutants may get into the Canal through these pipes. Refer to photograph 66.

At 22.2 miles, 18 inches CM pipe is protruding into the Canal from the east for local drainage. Refer to photograph 67.

At 22.8 miles, the Greenway Road runs over the Canal. Note that 18 inches of CM pipe into the Canal at the northwest and southwest corners of the bridge, the Canal access ramp at adjacent to the Greenway Road, and eroded Canal bank at the east. Refer to photograph 68.

At 25.5 miles, concrete box culvert Canal runs under the mound of dirt. This mound of dirt does not appear as drainage cross drainage channel. Refer to photograph 70.

At 26.5 miles between Peoria Avenue and Olive Avenue, there is another inverted siphon. No photograph is taken for this.

At 27 miles, the Olive Avenue runs over the Canal. Note that the erosions occurred from the street runoff at the southwest and southeast corners of the bridge. Refer to photograph 71.

At 28 miles, the Northern Avenue Bridge runs over the Canal. Note that erosions occurred from the road runoff at the northwest and southwest corners of the bridge. Refer to photograph 72.

At 28.4 miles, another inverted siphon runs under the mound of dirt without any visible cross drainage channel over. No photograph is taken.

At 29.3 miles, 36 inches of CM pipe exits into the Canal from the west. This pipe runs under the maintenance road at the west, and is connected to the rectangular concrete channel. This channel is connected to the 48 inches CM pipe under the Trilby Wash Detention Basin levee. The pipe is regulated with sliding gate at the detention basin side. Refer to photograph 73.

At 30.1 miles, another inverted siphon *under* the cross drainage channel between Bethany Home Road and Camelback Road. The siphon is exposed, and it appears that there is no danger of water running directly into the Canal. Refer to photograph 78.

At 31.1 miles, turnout and Canal drop exist at the Camelback Road. There is electrical panel box within the fence at the southeast side of the road, and pipe exits to the Canal from the electrical panel side. Abandoned pipe (disjoint) crosses the Canal diagonally. Also a pipe protrudes from the east, and pipe entrance could not be located. Refer to photograph 81, 82 and 83.

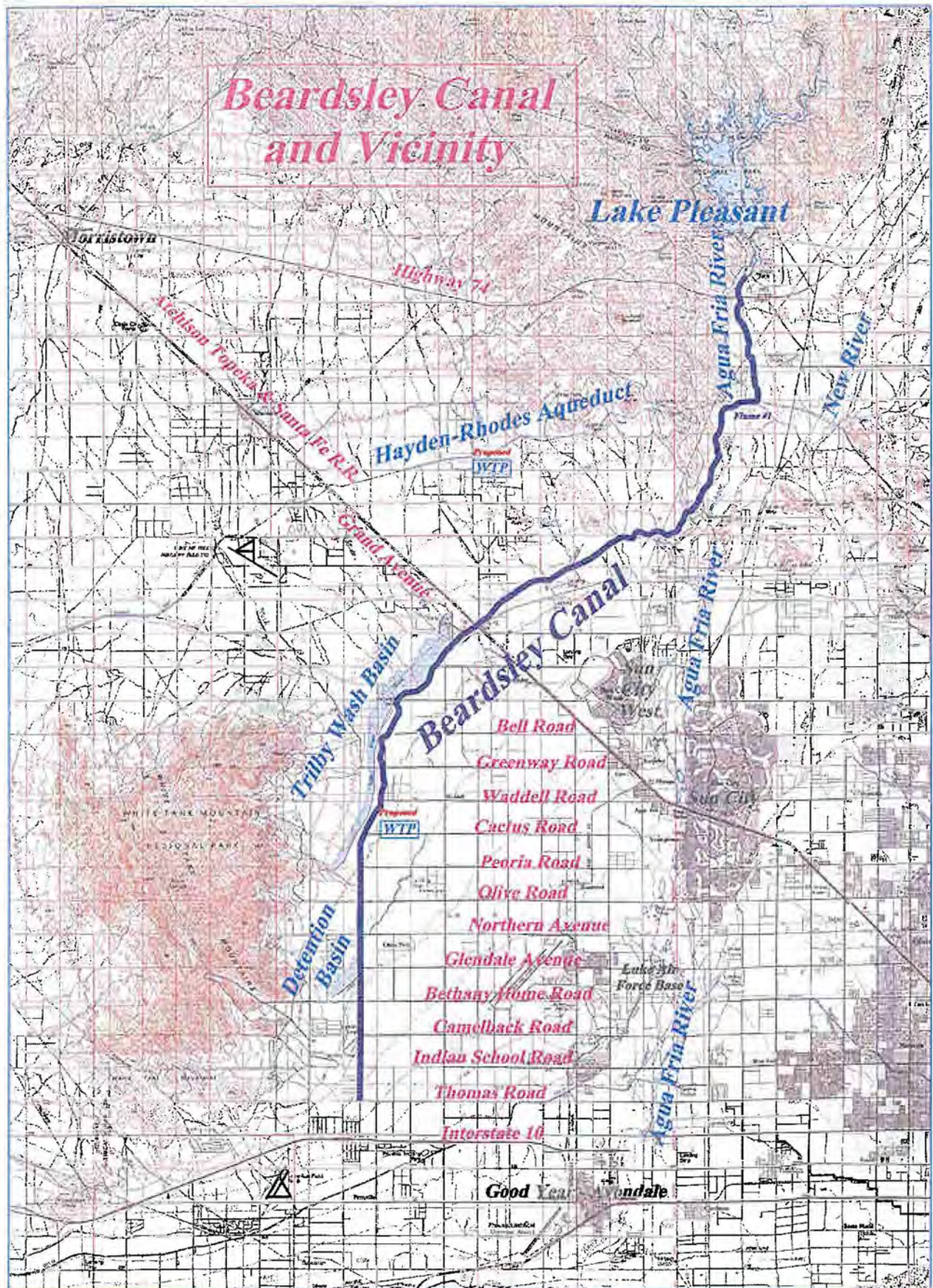
At 32 miles, Indian School Road crosses over the Canal and turnout to the east exists at the southeast corner of the bridge. No water was running to the south from this point on. Note that at approximately 0.2 miles north from the Indian School Road Bridge, Blue Sky Dairy Farm (entrance is at Indian School Road) exists, and smells awful. Refer to photograph 84.

From this point on to the south, the small rectangular concrete channel is broken, and filled with dirt and junks. It appears that the Canal has not been used for a long time. Refer to photograph 85.

At some point south from Indian School Road, another small inverted siphon runs *over* the cross drainage channel.

At 32.6 miles, small CM pipe exists under the dirt. The pipe is exposed and appears disjoint. It appears that local sheet flow runs over from the west to the east. Refer to photograph 86.

Beardsley Canal and Vicinity



III. Potential Sources of Sediment and Pollutant Inflow into Beardsley Canal

- a. The Canal banks are steep and there are no runoff-intercepting channels or ditches along the Canal between Flumes #1 and 2.
- b. The maintenance road slopes to the Canal at some places, and has low points to direct the local runoff into the Canal.
- c. At urban areas, street runoff directs into the Canal through the drainage pipe or directly.
- d. Although a certain area of the maintenance road is gated and blocked with cross bar for the vehicles, human access to the Canal along the way appears very easy as evidenced in the Photographs taken.

IV. Major Cross Drainage Channels and Estimated Discharges

The following 17 major cross drainage channels are examined upstream from Grand Avenue. Downstream from Grand Avenue, the major cross drainage runoffs are intercepted by the flood detention dikes. Refer to the general locations in the attached maps for Locations of Major Cross Drainage.

1. Frequency-Discharges

No	Runoff Concentration Point	Drainage Area (Mile ²)	Peak Discharge (cfs)					
			Frequency (Years)					
			100	50	25	10	5	2
1	R118	0.04	97	84	68	49	42	29
2	C710I	0.55	524	456	402	327	270	149
3	C713O	0.11	179	160	140	114	91	53
4	C712I	0.23	371	336	299	250	206	126
5	R121	0.14	322	275	219	157	133	91
6	C717	1.41	881	755	629	473	385	223
7	Flume #1	NA	NA	NA	NA	NA	NA	NA
8	C705	1.16	1,418	1,141	864	530	253	110
9	R104	0.13	282	239	185	132	109	76
10	C706	0.71	825	645	464	268	163	71
11	R105	0.04	95	82	67	50	43	32
12	C707 @ Flume #2	0.64	788	575	422	251	155	69
13	C403 @ Flume #3	2.99	1,572	1,240	920	561	339	102
14	C511 @ Flume #4	8.07	3,779	3,052	2,304	1,297	737	239
15	W125	10.19	4,535	3,747	NA	2,062	1,444	577
16	W123	9.34	2,718	2,201	NA	1,259	864	357
17	W120	31.36	2,227	1,945	NA	1,276	948	492

NA: Not available

Note

- Hydrology data were obtained from Flood Control District of Maricopa County.
- Hydrology data from No 1 through 14 are extracted from "North Peoria Area Drainage Master Plan" Attachment 2, Hydrologic and Hydraulic Technical Data Notebook, Book 1 of 3 and Plate 1, Watershed Map by Stantec Consulting, Inc., January 2002 for 6-hours storms which produced larger runoffs than from 24-hours storms.
- Hydrology data from No 15 through 17 are extracted from "Summary of Peak Cumulative Discharges", and Drainage Map, Wittman ADMS by the WLB Group

The general location (mileage from diversion work) of runoff concentration point and its associated hydraulic structures are:

1. located at 1 mile just upstream of HWY 74, the pipe runs under the Canal from east to west
2. located at 1.4 miles, 5 feet by 5 feet box culvert runs under the Canal from east to west
3. located at 1.5 miles, 4 feet by 4 feet box culvert runs under the Canal from east to west
4. located at 1.7 miles, 5 feet by 5 feet box culvert runs under the Canal from east to west
5. located at 1.9 miles, 24 inches CMP runs under the Canal.
6. located at 2.8 miles, the Cowtown Bridge runs over the Canal from east to west
7. located at 4.7 miles, and the Canal Flume #1 runs over the Agua Fria River
8. located at 6.5 miles, two 5 feet by 5 feet box culverts runs under the Canal from west to east at Bard Citrus Ranch area.
9. located at 6.9 miles, and runs from west to east. Hydraulic structure was not located.
10. located at 7.5 miles, 4 feet by 4 feet box culvert under the Canal from the west to east.
11. located at 8 miles, 24 inches corrugated metal pipe runs under the Canal from the west to east.
12. located at 8.4 miles, drainage channel runs from the west to the east under Flume #2.
13. located at 9 miles, drainage channel runs from the west to the east under Flume #3.
14. located at 10.6 miles, drainage channel runs from the west to the east under Flume #4.
15. located at 12 miles, drainage channel runs over the Canal (inverted siphon) from the west to east.
16. located at 13.8 miles, drainage channel runs over the Canal (inverted siphon) from the west to east.
17. located at 14.6 miles, drainage channel runs over the Canal (inverted siphon) from the west to east.

2. Existing Cross Drainage Structures and Hydraulic Capacities

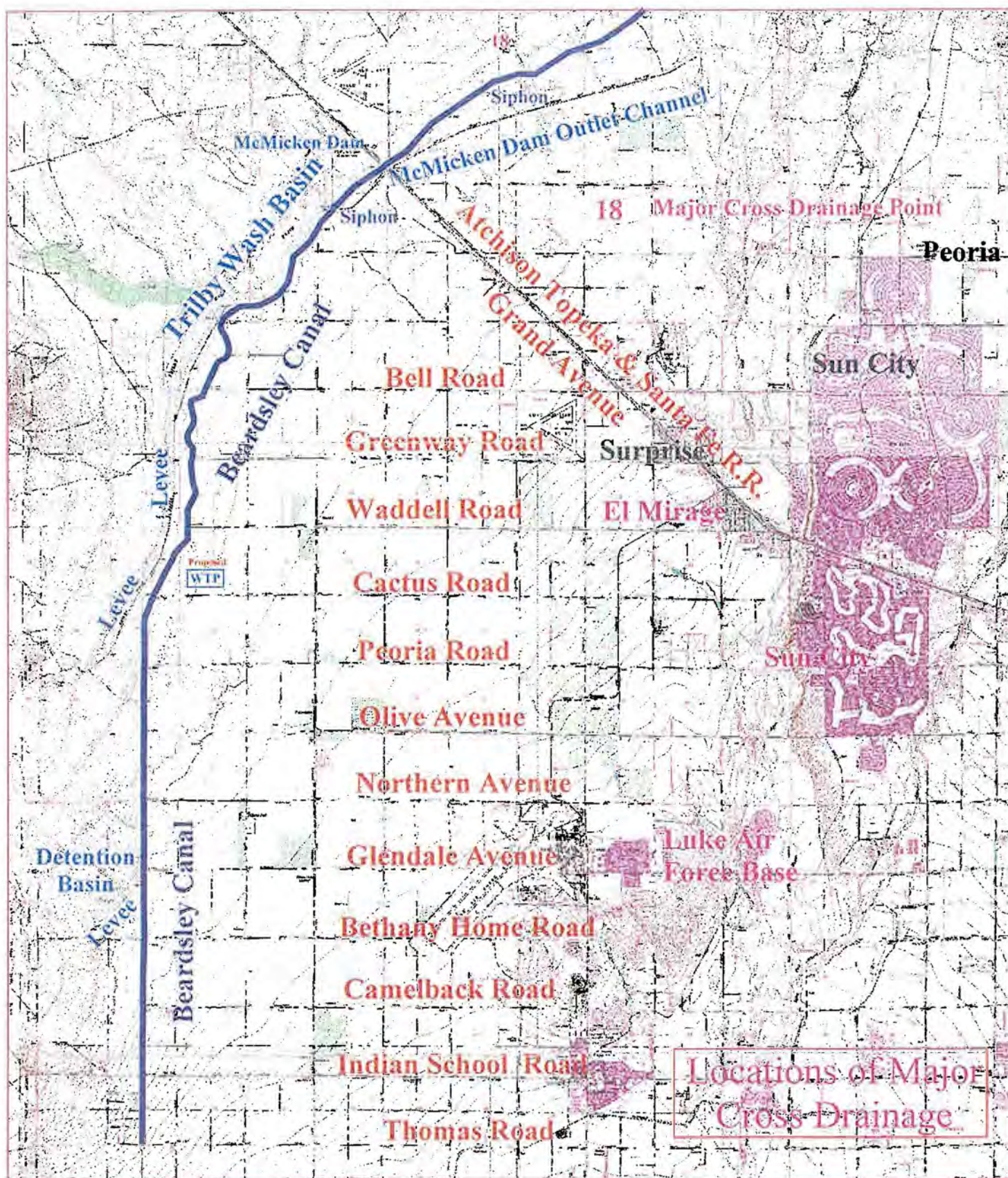
Hydraulic capacities of cross drainage structures shown in the following table are calculated by using HEC-RAS computer program, and their results are included in Appendix B.

The input data for culverts are in the following table.

No	Structures Sizes & Type	Length (Assumed) (feet)	Entrance				Manning's n	Slope (Assumed)
			Headwall Height (Feet)	Headwall Type Chart #	Headwall Shape Scale #	Loss Coefficient		
1	48" CMP	50	10	2	3	0.9	0.030	0.01
2	5'x5' BC	50	20	10	1	0.2	0.013	0.01
3	4'x4' BC	50	20	10	1	0.2	0.013	0.01
4	5'x5' BC	50	20	10	1	0.2	0.013	0.01
5	24" CMP	50	10	2	3	0.9	0.030	0.01
6	Earth Channel	50	-	-	-	-	0.024	0.01
8	Two 5'x5' BC	50	20	10	1	0.2	0.013	0.01
10	4'x4' BC	50	20	10	1	0.2	0.013	0.01
11	24" CMP	50	20	2	3	0.9	0.030	0.01
16	Earth Channel over Siphon	50	-	-	-	-	0.020	0.01

Note

1. Chart #: Federal Highway Administration chart number that corresponds to the type and shape of culvert
2. Scale #: Federal Highway Administration scale number that corresponds to the type of culvert entrance
3. Headwall heights are estimated from the photographs.
4. Cross drainage channels under the flumes (#1, 2, 3, and 4) are assumed to have enough capacity to pass at least 100 year-return flood. It is highly unlikely for the drainage flow to come into the canal.



V. Potential Local Runoff into Beardsley Canal

1. Hydrology

The following 5 areas are considered as direct runoff areas into the Canal. Refer to General Location in attached map for Locations of Proposed Local Drainage Areas.

No	Runoff I.D.	Drainage Area (Acres)	Peak Discharge (cfs)					
			Frequency (Years)					
			100	50	25	10	5	2
1	LF1	42.1	107	94	80	62	52	35
2	LF2	14.9	38	34	29	22	19	13
3	LF3	21.4	55	49	41	32	27	18
4	LF4	13.9	40	36	32	26	22	17
5	LF5	11.4	33	30	26	21	18	14

Note

1. Frequency-discharges are computed with Rational Method.
2. The runoff coefficients and rainfall intensities are based on, without adjusting data in the Report by Stantec Consulting, Inc., "North Peoria Area Drainage Master Plan, Attachment 2, Book 1 of 3.

The general locations of the area of interest are as follows:

1. The LF1 is situated at the west side of the Canal between 5.7 and 6.1 miles downstream of Canal Flume #1.
2. The LF2 is situated at the west side of the Canal between 6.5 and 6.9 miles south of Bard Citrus Ranch.
3. The LF3 is situated at the west side of the Canal between 6.95 and 7.45 miles.
4. The LF4 is situated at the west side of the Canal between 7.53 and 7.83 miles.
5. The LF5 is situated at the west side of the Canal between 7.91 and 8.31 miles north of Canal Flume #2.

These areas are generally very steep hills and sheet flows run directly into the Canal as evidenced by many concrete lined waterways constructed along the west side of the Canal. Refer to photographs 31 through 41.

The runoff intercepting channels must be constructed to divert flow to the neighboring major channels at each side or the collected runoff must be transported over the newly built overchute in order to avoid sediment and pollutant inflow into the Canal. Refer to photographs 31 through 43.

Earth Trapezoidal Channel						
No	Runoff Area I.D.	Half of Q_{100} (cfs)	Bottom Width (Feet)	Total Depth (Feet)	Top Width (Feet)	Total Length (Feet)
1	LF1	55	5	2.5	10	2,600
2	LF2	20	5	2.0	9	2,100
	LF3	30	7	2.0	11	2,100
4	LF4	20	6	2.0	10	2,100
5	LF5	17	5	2.5	9	2,100

Note

1. Manning's roughness value, $n = 0.03$
2. The slope of overchute, $s = 0.005$
3. The channel side slope is 1 (H) to 1 (V).
4. The total depth includes 0.5 feet of Free Board
5. The runoff is assumed to split into two directions.

4. Cost Estimation

- a. Concrete Overchute (Rectangular) – 5

$$\text{\$100/feet}^2 * 53 \text{ feet}^2 \text{ per foot} * 70 \text{ feet} = \text{\$371,000}$$

- b. Earth Interceptor Channel – 2.1 miles

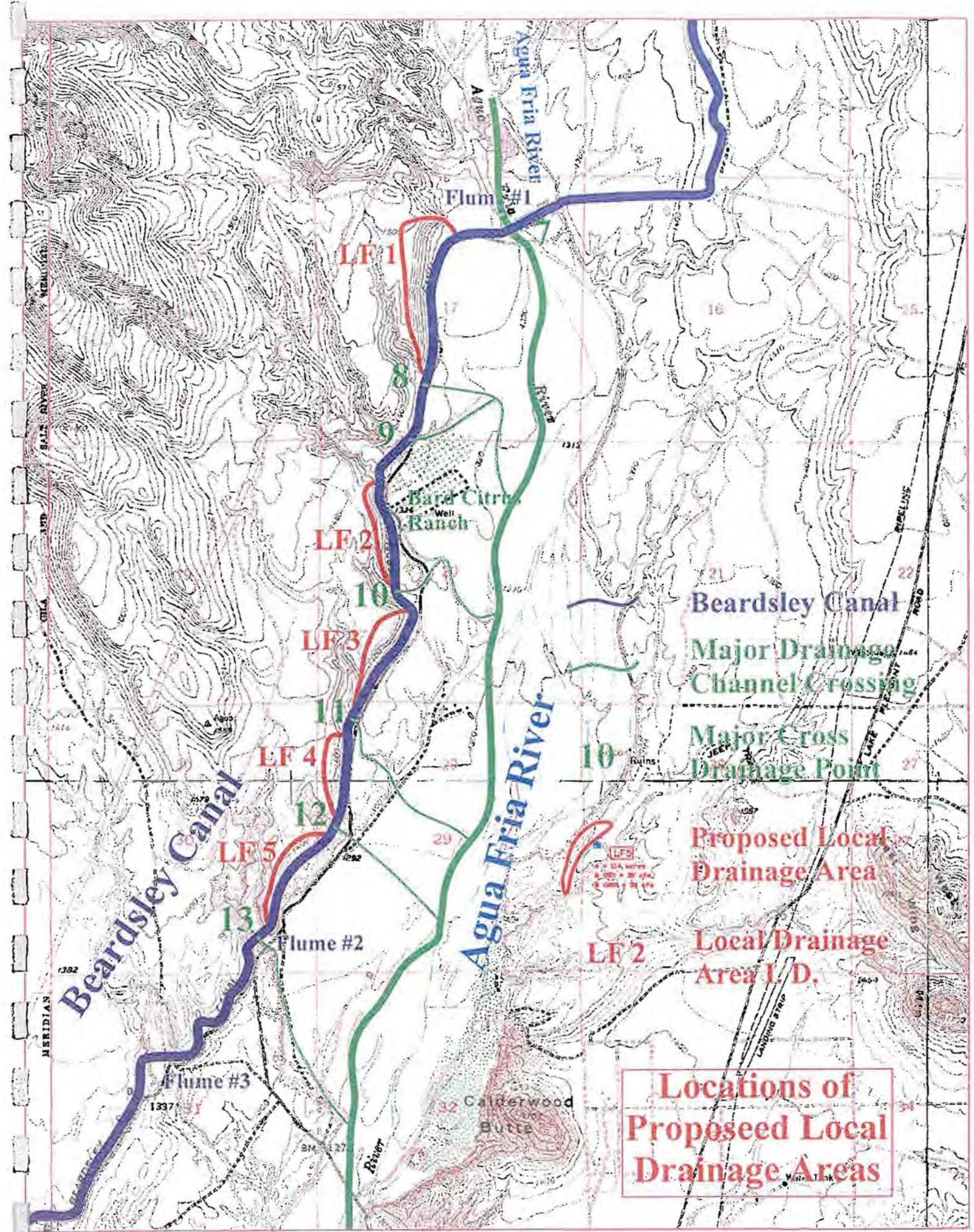
- 1) Along the Drainage Area at the west

$$\text{\$40/c.y.} * 107,963 \text{ c.y.} = \text{\$4,318,520}$$

- 2) Along the Canal at the east side

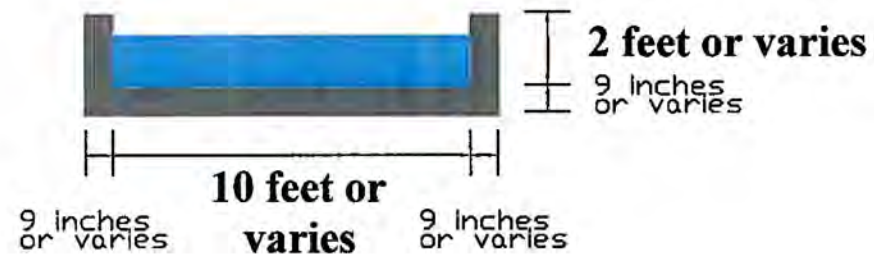
$$\text{\$20/c.y.} * 8,660 \text{ c.y.} = \text{\$173,200}$$

- c. Total cost = $\text{\$4,862,520}$, Use **\\$5 million** ($\pm$)

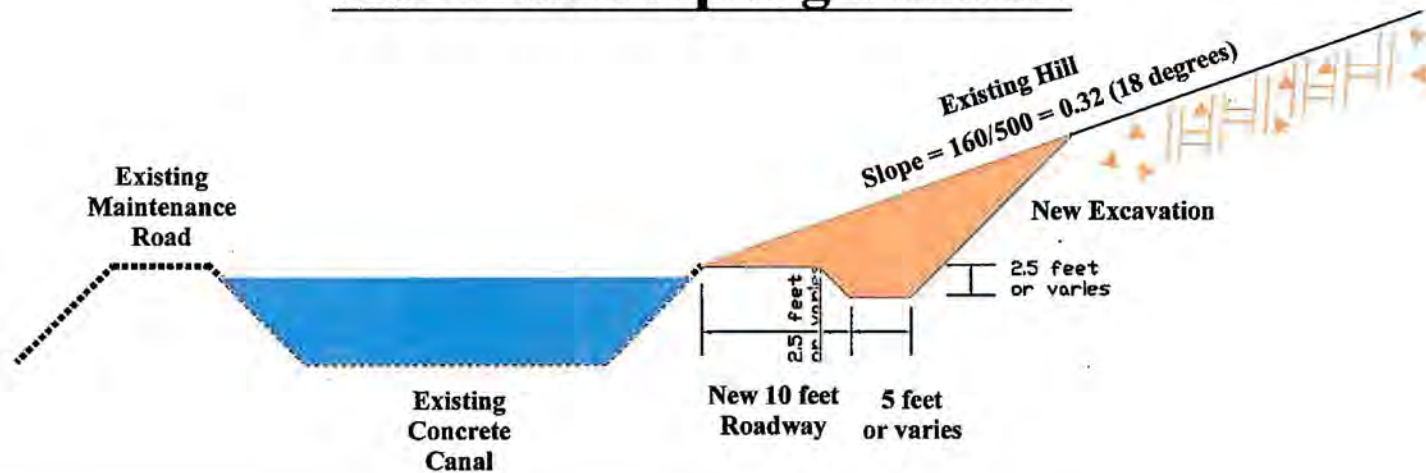


**Locations of
Proposed Local
Drainage Areas**

Typical Rectangular Reinforced Concrete Overchute



Typical Trapezoidal Earth Intercepting Channel



The hydraulic capacities are based on that cross drainage will not overtop the Beardsley Canal on the estimated headwall height.

No	Structures Sizes & Type	Peak Discharge To Pass (cfs)						
		Frequency (Years)						
		100	50	25	10	5	2	NA
1	48" CMP	97	-	-	-	-	-	-
2	5'x5' BC	524	-	-	-	-	-	-
3	4'x4' BC	179	-	-	-	-	-	-
4	5'x5' BC	371	-	-	-	-	-	-
5	24" CMP	-	-	-	-	-	-	30
6	Earth Channel	881	-	-	-	-	-	-
7	Agua Fria River under Flume #1	NA	NA	NA	NA	NA	NA	NA
8	Two 5'x5' BC	-	1,141	-	-	-	-	-
9	Not Available							
10	4'x4' BC	-	-	-	268	-	-	-
11	24" CMP	-	-	-	-	43	-	-
12	Channel under Flume #2	NA	NA	NA	NA	NA	NA	NA
13	Channel under Flume #3	NA	NA	NA	NA	NA	NA	NA
14	Channel under Flume #4	NA	NA	NA	NA	NA	NA	NA
15	Earth Channel over Siphon	4,535	-	-	-	-	-	-
16	Earth Channel over Siphon	2,718	-	-	-	-	-	-
17	Earth Channel over Siphon	2,227	-	-	-	-	-	-

The structure sizes and type are from

1. Flood Control District of Maricopa County
North Peoria Area Drainage Master Plan, FCD No. 99-45
Plate 8 Existing Facilities Map
Prepared by Stantec Consulting, Inc.
2. No. 6 and No. 16 earth channels are based on the channel size measurement in the field during reconnaissance.
3. No. 15 and No. 17 earth channel were evaluated as having hydraulic capacity of 4,950 cfs and 4,410 cfs, respectively according to Wittman DMS by WLB Group, 1989.

It appears that

1. The 24 inches CMP at the location #5 is grossly undersized, and it can only pass 30 cfs. It is likely that the cross drainage may often overtop the canal at this location.
2. The 24 inches CMP at the location #11 is only capable to pass 5-year return runoff, 43 cfs.
3. The 4' x 4' box culvert at the location #10 is capable to pass 10-year return runoff, 268 cfs.

15

Beardsley Canal
Major Cross
Drainage Point



Proposed Local
Drainage Area

Lake Pleasant

Agua Fria River

Beardsley Canal

Flume #1

Flume #2

Flume #3

Flume #4

Siphon

Siphon

Siphon

Beardsley Canal

McMicken Dam Outlet Channel

Locations of Major
Cross Drainage

VI. Water Quality

According to MWD, the water quality of Lake Pleasant has been taken or published by U.S.G.S. at Gaging Station 09513600 Agua Fria River below Waddell Dam, AZ. At 1.5 miles downstream from old Lake Pleasant, more specifically in SE ¼ Section 29, T. 6 N., R. 1 E., Maricopa County, Arizona from December 1950 to October 1995. The water quality of CAP water has been taken and published by U.S.G.S. at Gaging Station 09427100 CAP Canal at MP 162.3 at 7th street at Phoenix, AZ on upstream side of 7th street Bridge in Phoenix, more specifically in NE ¼ SE ¼ SE ¼, Section 8, T. 4 N., R. 3. E., Maricopa County, AZ from July 19, 1985 to September 26, 1995.

a. Water Quality of Agua Fria River below Waddell Dam

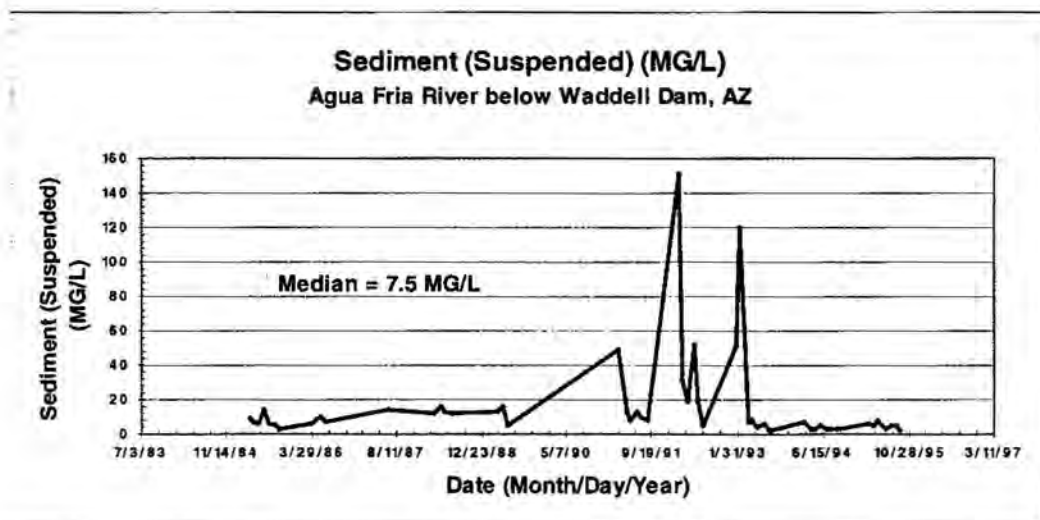
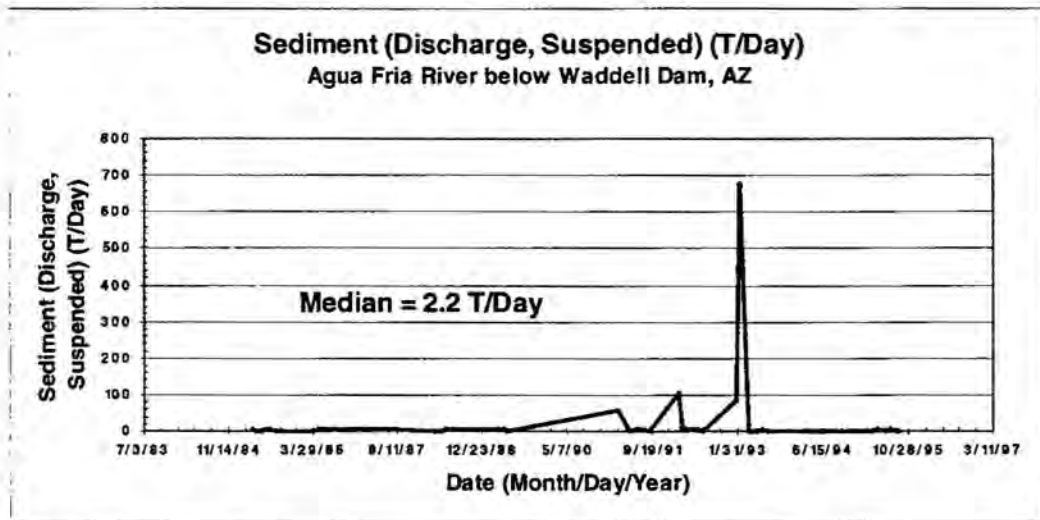
The historical records from April 2, 1985 through August 29, 1995 are attached in the Appendix C. However, the records of coli form fecal and sediment (suspended and discharge) during the period above are extracted and presented in the following table. The sediments (suspended and discharge) for the period are also presented as graphs below. The median value of sediment (suspended) is 7.5 MG/L, and the median value of sediment (discharge, suspended) is 2.2 T/Day.

Water Quality
Agua Fria River below Waddell Dam, AZ

No	Date	Coli form, Fecal 0.7 UM-MF (COLS./100 ML)	Sediment	
			Suspended (MG/L)	Discharge, Suspended (T/Day)
1	April 2, 1985	K10	9	2.9
2	April 24, 1985	K13	7	1.4
3	May 24, 1985	K18	6	1.4
4	June 25, 1985	K15	14	5.8
5	July 17, 1985	K27	6	2.9
6	August 28, 1985	K19	5	2.2
7	September 24, 1985	K11	3	0.09
8	March 31, 1986	35	6	1.3
9	April 23, 1986	K20	8	3.2
10	May 20, 1986	K6	10	2.7
11	June 25, 1986	K12	7	2.5
12	June 23, 1987	K10	14	5.3
13	March 16, 1988	K10	12	1.2
14	May 2, 1988	K10	16	2.1
15	May 20, 1988	K12	13	4.3
16	June 29, 1988	K17	12	4.7
17	March 24, 1989	K6	13	4
18	April 27, 1989	K4	16	3.4

19	May 25, 1989	K5	5	0.01
20	March 8, 1991	45	49	58
21	April 29, 1991	K5	13	2.6
22	May 17, 1991	K4	8	1.1
23	June 26, 1991	K3	13	4.4
24	July 18, 1991	K4	10	4.2
25	August 30, 1991	K15	8	1.5
26	February 21, 1992	K30	151	102
27	March 16, 1992	48	31	9.9
28	April 16, 1992	29	19	5.1
29	May 22, 1992	K8	52	4.1
30	June 12, 1992	K8	19	4
31	July 16, 1992	K6	5	0.1
32	January 22, 1993	K22	51	84
33	February 11, 1993	46	120	679
34	April 1, 1993	K6	7	1.3
35	April 20, 1993	K14	8	2.2
36	May 26, 1993	42	4	1
37	June 30, 1993	K11	6	2.5
38	July 30, 1993	21	2	0.91
39	February 24, 1994	48	7	1.1
40	March 31, 1994	26	3	0.6
41	April 27, 1994	K9	3	0.85
42	May 25, 1994	K18	5	1.6
43	June 29, 1994	K14	3	1.6
44	July 27, 1994	20	3	1.2
45	August 30, 1994	49	3	0.94
46	March 1, 1995	K42	6	1.2
47	March 29, 1995	K18	5	1.7
48	April 27, 1995	K18	8	2.4
49	June 15, 1995	K9	3	1.1
50	July 14, 1995	K7	5	2.8
51	August 16, 1995	K59	5	2.2
52	August 29, 1995	34	2	0.64
Median			7.5	2.2

Note From U.S.G.S. Water Resources Data Arizona



b. Water Quality of CAP Water

The historical records from July 19, 1985 through September 26, 1995 are attached in the Appendix C. However, the records of coli form fecal and sediment (suspended and discharge) during the period above are extracted and presented in the following table. The sediments (suspended and discharge) for the period are also presented as graphs below. The median value of sediment (suspended) is 4 MG/L, and the median value of sediment (discharge, suspended) is 2.4 T/Day.

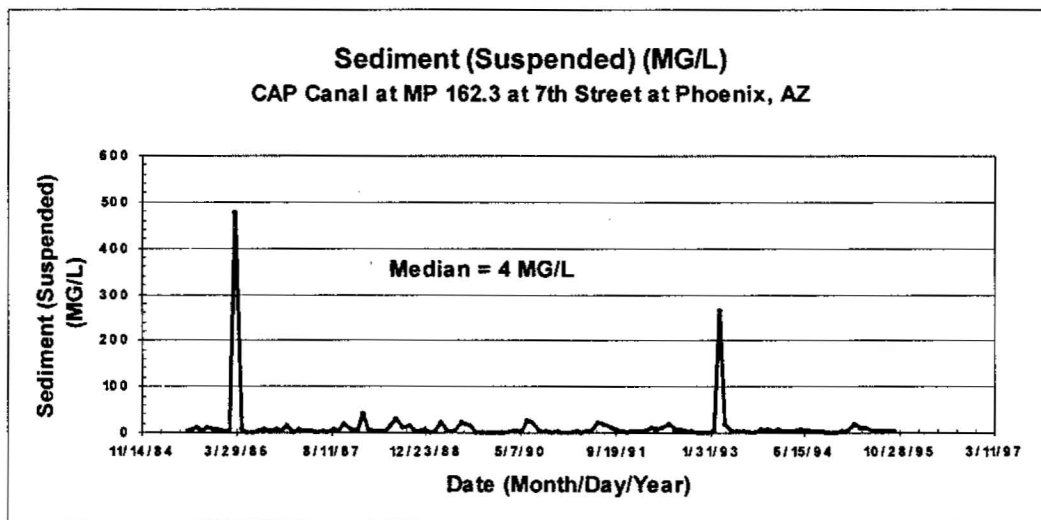
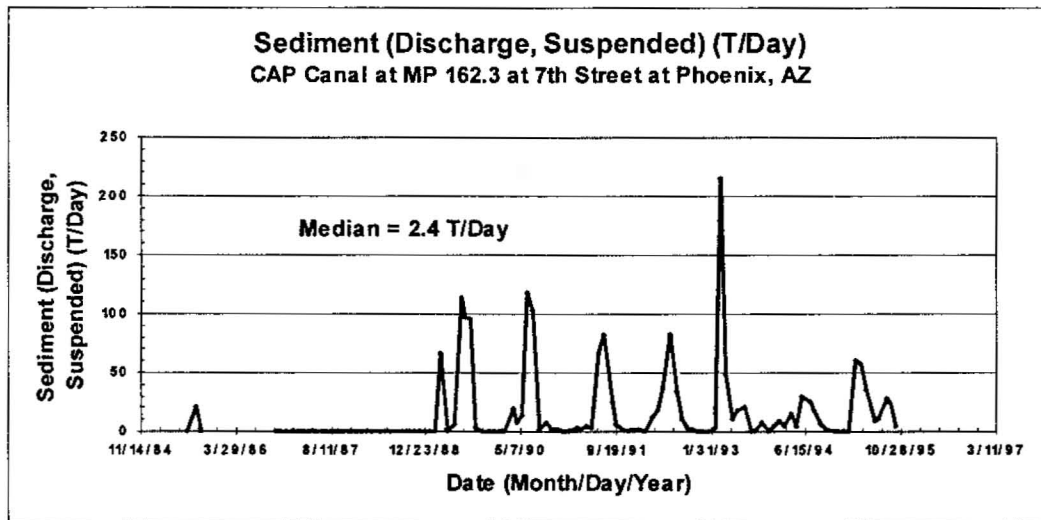
Water Quality
CAP Canal at MP 162.3 at 7th street at Phoenix, AZ

No	Date	Coliform, Fecal 0.7 UM-MF (COLS./100 ML)	Sediment	
			Suspended (MG/L)	Discharge, Suspended (T/Day)
1	July 19, 1985	-	5	-
2	August 30, 1985	K8	13	20
3	September 26, 1985	-	3	-
4	October 31, 1985	-	12	
5	November 27, 1985	-	6	
6	December 17, 1985	-	6	
7	January 27, 1986	-	3	
8	February 24, 1986	-	2	
9	March 24, 1986	-	478	
10	April 28, 1986	-	9	
11	May 28, 1986	-	1	
12	June 27, 1986	-	-	
13	July 25, 1986	-	3	
14	August 20, 1986	44	6	
15	September 30, 1986	-	3	
16	October 24, 1986	-	8	0
17	November 21, 1986	-	4	0
18	December 17, 1986	-	15	0
19	January 23, 1987	-	1	0
20	February 24, 1987	-	8	0
21	March 26, 1987	-	5	0
22	April 24, 1987	-	2	0
23	May 22, 1987	-	-	-
24	June 26, 1987	-	3	0
25	July 17, 1987	100	1	0
26	August 25, 1987	-	6	0
27	September 24, 1987	-	2	0
28	October 22, 1987	-	17	0
29	November 20, 1987	-	8	0
30	December 31, 1987	-	3	0
31	January 25, 1988	-	41	0
32	February 26, 1988	-	7	0
33	March 25, 1988	-	3	0
34	April 25, 1988	-	3	0
35	May 25, 1988	-	5	0
36	June 24, 1988	-	15	0
37	July 21, 1988	K17	30	0
38	August 22, 1988	-	12	0
39	September 27, 1988	-	16	0
40	October 27, 1988		2	-
41	November 27, 1988		5	-
42	December 20, 1988		7	-

43	January 20, 1989		1	-
44	February 17, 1989		2	-
45	March 16, 1989		23	66
46	April 21, 1989		4	-
47	May 23, 1989		3	5.9
48	June 27, 1989		21	113
49	July 19, 1989	K14	20	97
50	August 18, 1989		15	96
51	September 14, 1989		1	2.4
52	October 16, 1989		0	0
53	November 27, 1989		0	0
54	December 20, 1989		0	0
55	January 19, 1990		0	0
56	February 15, 1990		0	0
57	March 28, 1990		5	19
58	April 18, 1990		3	7.3
59	May 16, 1990		5	13
60	June 13, 1990		25	118
61	July 12, 1990	23	22	103
62	August 17, 1990		2	2.1
63	September 19, 1990		4	7.8
64	October 18, 1990		1	0.91
65	November 19, 1990		2	1.2
66	December 13, 1990		<0.5	0.32
67	January 17, 1991		<0.5	-
68	February 28, 1991		3	2.9
69	March 21, 1991		1	1.1
70	April 19, 1991		2	4.1
71	May 16, 1991		2	2.9
72	June 21, 1991		22	66
73	July 19, 1991	28	19	83
74	September 3, 1991		10	25
75	September 19, 1991		6	5.5
76	October 24, 1991		4	1.3
77	November 21, 1991		0	0.14
78	December 11, 1991		3	2.2
79	January 14, 1992		2	0.74
80	February 21, 1992		4	0.28
81	March 27, 1992		13	12
82	April 23, 1992		8	18
83	May 21, 1992		12	37
84	June 25, 1992		20	82
85	July 31, 1992	K14	8	34
86	August 28, 1992		6	10
87	September 28, 1992		3	3.3
88	October 28, 1992		2	0.97
89	November 19, 1992		1	0.57
90	December 16, 1992		1	0.56

91	January 27, 1993		0	0.08
92	February 18, 1993		5	2.4
93	March 25, 1993		266	215
94	April 21, 1993		17	48
95	May 28, 1993		3	9.6
96	June 24, 1993		4	18
97	July 29, 1993	K17	4	20
98	August 30, 1993		0	0.18
99	September 23, 1993		0	0.43
100	October 28, 1993	-	6	7
101	November 29, 1993	-	6	0.68
102	December 28, 1993	-	4	4.8
103	January 25, 1994	-	7	8.5
104	February 22, 1994	-	3	4.7
105	March 30, 1994	-	4	14
106	April 26, 1994	-	2	3.8
107	May 24, 1994	-	8	30
108	July 8, 1994	-	4	25
109	July 28, 1994	K8	2	18
110	September 2, 1994	-	2	5.3
111	September 30, 1994	-	1	0.95
112	November 9, 1994	-	1	-
113	November 29, 1994	-	1	-
114	December 29, 1994	-	2	0.6
115	January 24, 1995	-	2	0.73
116	March 6, 1995	-	18	61
117	April 3, 1995	-	13	57
118	April 26, 1995	-	10	36
119	June 13, 1995	-	2	9.4
120	July 3, 1995	-	2	11
121	August 15, 1995	110	5	28
122	August 30, 1995	-	4	23
123	September 26, 1995	-	2	4.5
Median			4	2.4

Note From U.S.G.S. Water Resources Data Arizona, AZ



VII. Right-of-Way

According to MWD, the Beardsley Canal's right-of-way from Camp Dyer Dam to ½ miles south of Cactus Road is 69.5 feet on each side of the centerline of the canal. From ½ miles south of Cactus Road to the end of the canal, the right-of-way is from the midsection lines of U.S.G.S quadrangle maps to 75 feet east. Through the 75 feet right-of-way, the canal centerline is 25 feet east of the midsection lines.

VIII. References

1. North Peoria Area Drainage Master Plan
Attachment 2, Hydrologic and Hydraulic Technical Data Notebook
Book 1 of 3 and Plate 1, Watershed Map and Plate 8, Existing Facilities
Map by Stantec Consulting, Inc.
January 2002 for 6-hours storms which produced larger runoffs than from
24-hours storms
2. Summary of Peak Cumulative Discharges , and Drainage Map, Wittman
ADMS by WLB Group
3. Water Resources Data, Arizona
United States Geological Survey

Appendix A

Photographs Along The Beardsley Canal (1 to 89)

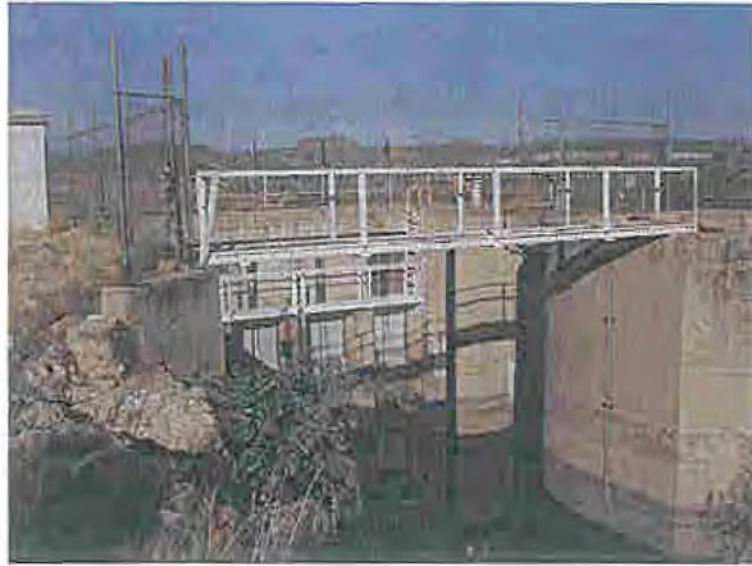


Photo 1
At zero mile, diversion works to the Beardsley Canal at the left side of the Hank Raymond Lake



Photo 2
At just downstream of the diversion works, Canal silted with falling dirt from the west bank, looking downstream



Photo 3

At 0.4 miles, recording gage in the front, Canal access ramp at the lower right corner, and access road to the diversion works at the back, looking southwesterly to the downstream of the Canal



Photo 4

At 0.5 miles, looking at Canal and access ramp southwesterly to the downstream direction. Note that Canal is filled with silt through ramp and from the banks



Photo 5

At 0.6 miles, looking at the concrete headwall for drainage pipe in the middle of photo from east side of the Canal.



Photo 6

Steel pipe (10 inches) into the Canal from the east. Note that silt and plant growing in the Canal



Photo 7

Pipe outlet in the middle of the lower left. Channel runs toward Agua Fria River to the west. The pipe outlet may be connected to the pipe inlet in the Photo 5.



Photo 8

At 1 mile north from Highway 74, looking northwesterly from the east side of the Canal at corrugated metal pipe (36 inches) inlet of the cross drainage to the west. No pipe exit to the Canal is found.



Photo 9
CM pipe exit under the Canal in the middle of the Photo
to the Agua Fria River



Photo 10
At 1.4 miles, looking from east side of Canal at the 5 feet by 5
feet box culvert inlet under the Canal road. The protruding 12
inches CM pipe is a drain pipe from the 2 feet by 2 feet grate
catch basin at the east edge of the road to capture road runoff.



Photo 11

At 1.5 miles, looking from the east side of the Canal Road at 5 feet by 5 feet concrete box culvert entrance blocked with junk truck. No exit to the Canal is found.



Photo 12

At 1.7 miles, looking from the east side of the Canal at 5 feet by 5 feet box culvert entrance under the Canal road. No exit to the Canal is found.



Photo 13
At 1.8 miles, looking from the east side of the
Canal road at 24 inches CM pipe entrance



Photo 14
24 inches CM pipe with flap valve at the east side of the
Canal. Behind the truck, concrete lined waterway into the
Canal from the road. Note that the Canal is silted and
mounded with dirt and tumble weed. There are many low
points of road along the way to the Cowtown Bridge to
drain some sheet runoff.



Photo 15

At 2.8 miles, looking at the concrete box culvert at the upstream of the Cowtown Bridge. Note that the Canal is silted with sliding dirt and rocks from the banks



Photo 16

Cowtown Bridge and Canal with silt



Photo 17

Looking from the east of the cross drainage channel at the Cowtown Bridge. The bridge is 34.8 feet wide and has two 3.9 feet high concrete side walls. It appears that no water runs directly into the Canal from the channel.



Photo 18

Steel bridge (16 feet wide with 2.8 feet concrete barrier at each side) over the Canal. Road runoff may run over the bridge from the east to the west.



Photo 19
Close look at the steel bridge over Canal



Photo 20
At 2.9 miles, looking northwesterly at the access ramp to the upstream direction. Canal is silted with mud and loose rocks from the east side bank



Photo 21

At 3.1 miles, looking northeasterly at the road low points to the upstream direction. The local runoff may run into the Canal through these low points along the road.



Photo 22

At 3.1 miles, looking southerly to the downstream direction at the Canal silted with mud, and loose gravel and rocks on east bank



Photo 23

At 3.5 miles, looking from the east side of the Canal at road low point, and at the Cowtown at the west



Photo 24

At 4.1 miles, looking at unused check drop weir before the steep Canal (chute #1)



Photo 25
At 4.2 miles, looking at Canal chute (steep) #1



Photo 26
At 4.5 miles, looking westerly at 24 inches pipe into the
Canal with flap valve removed. Canal is silted.



Photo 27

At 4.6 miles, looking to the upstream at the Canal chute #2. Photo is laid sideways. The bottom of the chute is stilling basin deposited and mounded with gravel and rocks. The Canal turns 90 degrees to the right and 90 degrees again to the right into the Canal Flume #1



Photo 28

Looking easterly at the first 90 degrees bend from the stilling basin. The second 90 degrees bend is to the right. Note mounded dirt and broken concrete in the stilling basin



Photo 29

At 4.7 miles, looking southwesterly at the entrance of the semi-circular Canal Flume #1 (13 feet diameter) over Agua Fria River. Agua Fria River runs from the right to left of the photo.

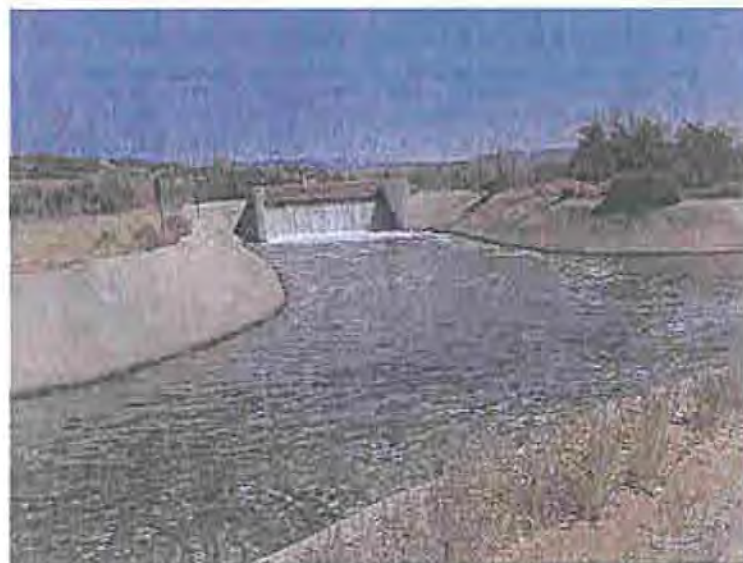


Photo 30

At 5.3 miles, looking northwesterly at CAP inlet into the Canal. The Canal runs from the right to the left of this photograph. The water reached a halfway of the Flume #1 at the right.



Photo 31

At 5.9 miles, looking westerly at concrete lined waterway into the Canal for local runoff



Photo 32

At 6.5 miles, looking westerly at the entrance of two 4 feet by 6 feet concrete box culverts under the Canal. The Canal runs from the right to the left of the photo. This is located at around Bard Citrus Ranch at the east side of the Canal.



Photo 33

At 6.6 miles, looking northwesterly at the Canal west bank to the upstream direction. The Canal bank is very steep and rocks are sliding into the Canal. Note the drainage gullies into the Canal.



Photo 34

At 6.9 miles, looking southwesterly at the concrete lined waterway into the Canal at west side



Photo 35

At 6.9 miles, looking southwesterly at the access ramp with silt and gravel from runoff. Note that the west side of the Canal is steep and there is no protection from runoff into the Canal.



Photo 36

At 7.1 miles, looking westerly at the concrete waterway into the Canal from hill



Photo 37

At 7.3 miles, looking southwesterly at two concrete waterways into the Canal from the hill



Photo 38

At 7.8 miles, looking northwesterly at the concrete waterway into the Canal from hill



Photo 39

At 7.5 miles, looking northwesterly at the concrete waterway
into the Canal from the hill

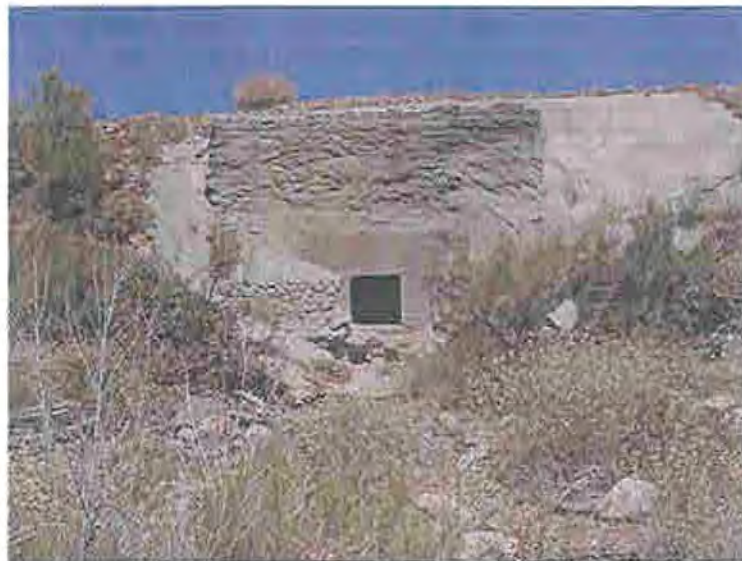


Photo 40

At 7.5 miles, looking from the east side of the Canal at the 4
feet by 4 feet concrete box culvert under the Canal



Photo 41
At 7.6 miles, looking westerly at the concrete waterway into
the Canal from the hill



Photo 42
At 8.0 miles, looking southwesterly from east side of the
Canal at the 18 inches CM pipe exit under the Canal



Photo 43

At 8.4 miles, looking southwesterly at the entrance of the Canal Flume #2 over the cross drainage channel running from the right to the left of the photo.



Photo 44

At 9.0 miles, looking southwesterly at the entrance of the Canal Flume #3 over the cross drainage channel running from the right to the left of the photo



Photo 45

At 10.6 miles, looking southwesterly at the entrance of the Canal Flume #4 over the cross drainage channel. The channel runs from the right to the left of the photo. Note that graffiti on the Canal. Human access to the Canal appears to be easy.



Photo 46

At 12.0 miles, looking at the entrance of the inverted siphon under the cross drainage channel. Note that all kind of junky debris is floating at the entrance, which demonstrate the easy human access to the Canal. A big urban development is under way at the west side of the Canal.



Photo 47

At 13.8 miles, looking westerly from the east side of the Canal under the inverted siphon at the cross drainage channel. Inverted siphon runs from the right to the left of the photo. The channel is 50.2 feet wide and has concrete side wall of 5.8 feet wide and 11 feet high at each side.



Photo 48

At 14.6 miles, looking at the entrance of the inverted siphon under the cross drainage channel which runs from the right to the left of the photo.

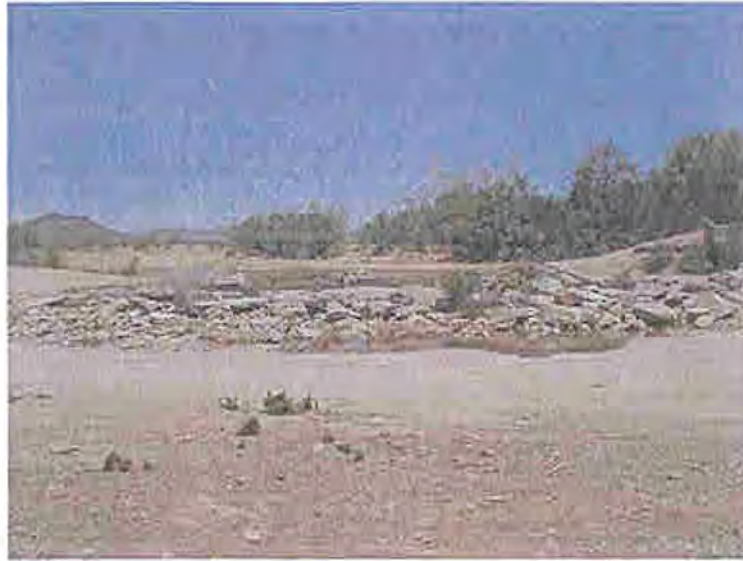


Photo 49
Looking westerly at the cross drainage channel in the Photo 48.



Photo 50
Looking northerly at the headwall of the inverted siphon in the Photo 48.



Photo 51
At 14.6 miles, looking at the radial gate.



Photo 52
At 15.6 miles, looking northwesterly at 24 inches CM pipe
at the west side of the Canal.



Photo 53
At 15.8 miles, looking northwesterly at the 24 inches CM
pipe at the west side of the Canal



Photo 54
At 16.0 miles, looking westerly at the concrete lined
waterway into the Canal at the west side



Photo 55
At 16.7 miles, looking southerly at the two beveled 24 inches CM pipes at the west side of the Canal



Photo 56
At 17.0 miles, looking at the two radial gates

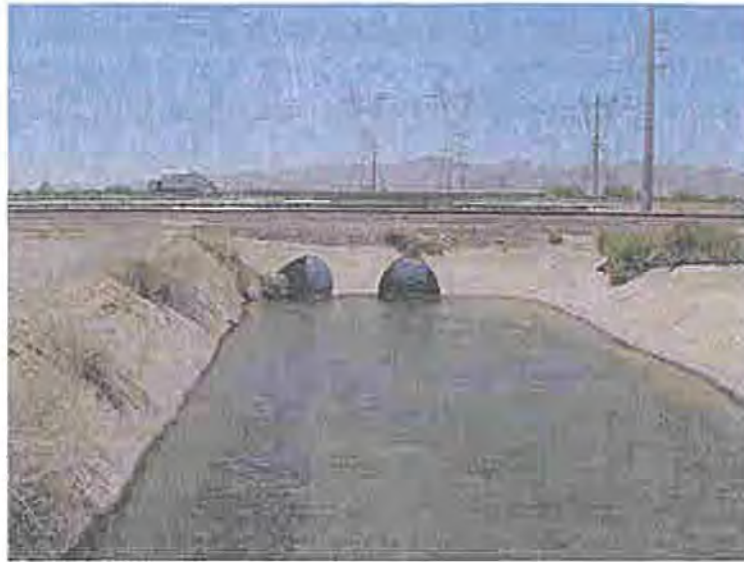


Photo 57

At 17.1 miles, looking at the entrance of two 8 feet CM pipes under the Santa Fe Railroad. Note that 24 inches CM pipe exits into the Canal at the right side under the bush.



Photo 58

At 17.2 miles, looking southerly at the entrance of the inverted siphon under the cross drainage channel. Note that access ramp at the west side adjoining the channel which runs from the right to the left in photo.



Photo 59

Looking northwesterly at the cross drainage channel over the siphon in the Photo 58. The channel is 50 feet wide and concrete side wall of 4.2 feet high and 11.6 feet wide at each side.



Photo 60

At 17.8 miles, looking at the entrance of the inverted siphon under the concrete spillway from McMicken Dam at the right. Note that Canal road slopes to the Canal and erosions.



Photo 61
Looking westerly at McMicken Dam Spillway



Photo 62
At 18.2 miles, looking southeasterly at the concrete spillway inlet from the road to the Canal. The similar inlet is placed at the 0.1 miles downstream from this point. No photo is taken.



Photo 63

At 18.4 miles, looking southeasterly at the protruding 12 inches PVC pipes at the west side of the Canal. Note that this kind of pipe is found at about 0.1 mile interval from this point for the next one mile. There are also many concrete spillway inlets from the road along the way.



Photo 64

At 19.7 miles, looking at the 18 inches CM pipe from the levee at the west side of the Canal



Photo 65

At 20.4 miles, looking southerly at the inverted siphon under the cross drainage channel. Note that access ramp adjoining the channel. Note also that urban development is under way at the east side of the Canal



Photo 66

At 21.6 miles, looking westerly at the Bell Road Bridge. Note that 12 inches pipe going into the Canal from the street at southeast corner. The other three corners have same sizes pipes going into the Canal from the street.



Photo 67

At 22.2 miles, looking southerly at the protruding 18 inches CM pipe from the east into the Canal. At 22.7 miles, MWD maintenance yard is located at the west side of the Canal. Photo is not taken.



Photo 68

At 22.8 miles, looking southeasterly at the Greenway Road Bridge. Note that 18 inches CM pipe exits into the Canal at the northwest corner of the bridge, and the access ramp is adjoined with the street. Note also the Canal bank erosion at the east side.



Photo 69

At 22.8 miles, looking at the southwest corner of the bridge and CM pipe exit into the Canal and access ramp



Photo 70

At 25.5 miles, looking northerly at the culvert (inverted siphon?) exit under the channel (?). At 26.5 miles between Peoria Avenue and Olive Avenue, there is another inverted siphon. The photo is not taken.



Photo 71

At 27.9 miles, looking upstream of the Canal at the Olive Avenue. Note the erosions at southwest and southeast corners.



Photo 72

At 28.0 miles, looking northeasterly at the Northern Avenue. Note the erosions at the northwest and southwest corners of the bridge.



Photo 73

**At 29.3 miles, looking northwesterly to the upstream direction
at the 36 inches CM pipe exit into the Canal from the west.**



Photo 74

**At the same location with Photo 73, looking easterly at the
36 inches CM pipe entrance to the Canal.**



Photo 75

At the same location of Photos 73 and 75, looking westerly at the concrete trapezoidal channel and 48 inches pipe exit under the levee from the Trilby Wash Detention Basin



Photo 76

Looking northwesterly at the sliding gate control shaft from the top of the Trilby Wash Levee.



Photo 77
Looking at the sliding gate and shaft in the Trilby Wash
Detention Basin.



Photo 78
At 30.1 miles, looking southeasterly at the turnout and
inverted siphon under the cross drainage channel between
Bethany Home Road and Camelback Road



Photo 79

At the same location of Photo 78, looking northwesterly from the downstream of the cross drainage channel over the exposed inverted siphon. The drainage channel runs from the west to the east.



Photo 80

At the same location of the Photos 78 and 79, looking northerly at the exposed inverted siphon and mound of dirt in the channel. Note the graffiti on the siphon.



Photo 81

At 31.1 miles, looking easterly at the turnout and piping net with electrical panel within the fence at the Camelback Road



Photo 82

At Camelback Road, looking at the turnout, Canal Drop, and pipe into the Canal from the electrical panel area (groundwater pumping?)



Photo 83

At the same location of the Photos 81 and 82, looking southerly at the pipe exit into and abandoned (disjoint) pipe crossing the Canal. The pipe entrance could not be located.



Photo 84

At 32.0 miles, looking southerly at the Indian School Road Bridge and the turnout at the southeast corner of the bridge. Practically water delivery to the south is ended at this point. Note that at the 0.2 miles north from this point, the Blue Sky Dairy Cattle and Feed Farm is located at the east side of the Canal. The odor smells awful. The Farm entrance is located at the left of this Photo.



Photo 85

At some point south of the Indian School Road, looking easterly at the cross channel over the inverted siphon. The channel runs from the west to the east.



Photo 86

At 32.6 miles south of Indian School Road, looking at the inverted siphon (?) with concrete trapezoidal Canal filled with debris and tumble weeds.



Photo 87

Looking westerly at the cross drainage channel over the exposed broken CM pipe (siphon in the Photo 86). The channel runs from the west to the east.



Photo 88

At 33.1 miles, looking southeasterly at the Canal exit at south of Thomas Road



Photo 89

At 33.4 miles, looking southerly at the disjoint small concrete trapezoidal Canal silted with mud and tumble weeds. The end of the trip.

Appendix B

Cross Drainage Structure Capacities

1. HEC-RAS Hydraulic Profile

2. HEC-RAS Hydraulic Table

For

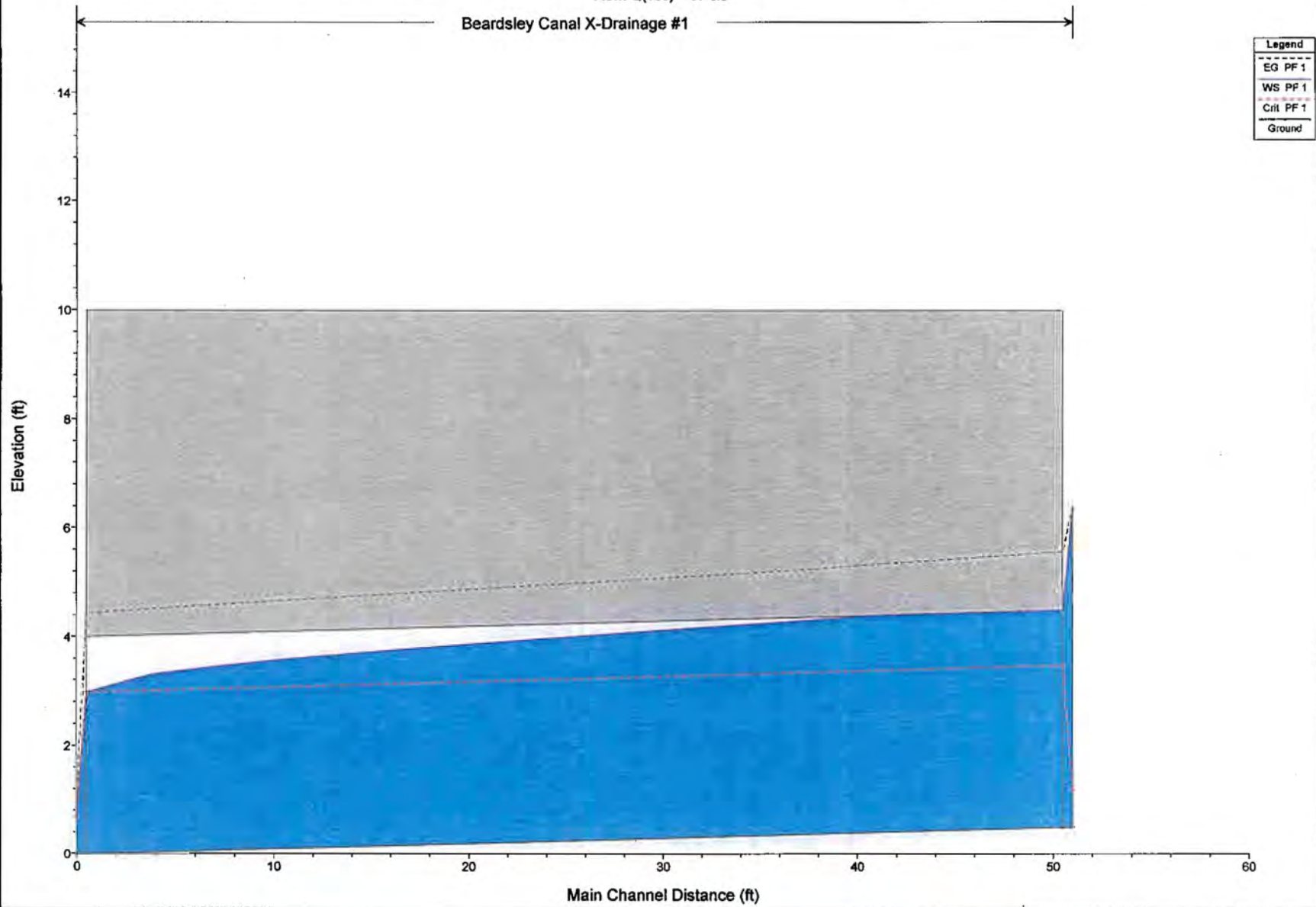
#1, 2, 3, 4, 5, 6, 8, 10, 11, 16

Hydraulic Capacity for Culverts

Plan: X Drainage #1 for 48 Inches CMP 10/24/2003

Flow: $Q(100) = 97$ cfs

Beardsley Canal X-Drainage #1



Plan: XDrain#1 Beardsley Canal X-Drainage #1 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	97.00	Culv Full Len (ft)	10.06
# Barrels	1	Culv Vel US (ft/s)	7.72
Q Barrel (cfs)	97.00	Culv Vel DS (ft/s)	9.64
E.G. US. (ft)	6.40	Culv Inv El Up (ft)	0.50
W.S. US. (ft)	6.40	Culv Inv El Dri (ft)	0.00
E.G. DS (ft)	1.03	Culv Frctn Ls (ft)	1.14
W.S. DS (ft)	0.77	Culv Exit Loss (ft)	3.40
Delta EG (ft)	5.37	Culv Entr Loss (ft)	0.83
Delta WS (ft)	5.63	Q Weir (cfs)	
E.G. IC (ft)	5.94	Weir Sta Lft (ft)	
E.G. OC (ft)	6.40	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	4.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	2.98	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	4.00	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.98	Min El Weir Flow (ft)	10.01

Errors Warnings and Notes

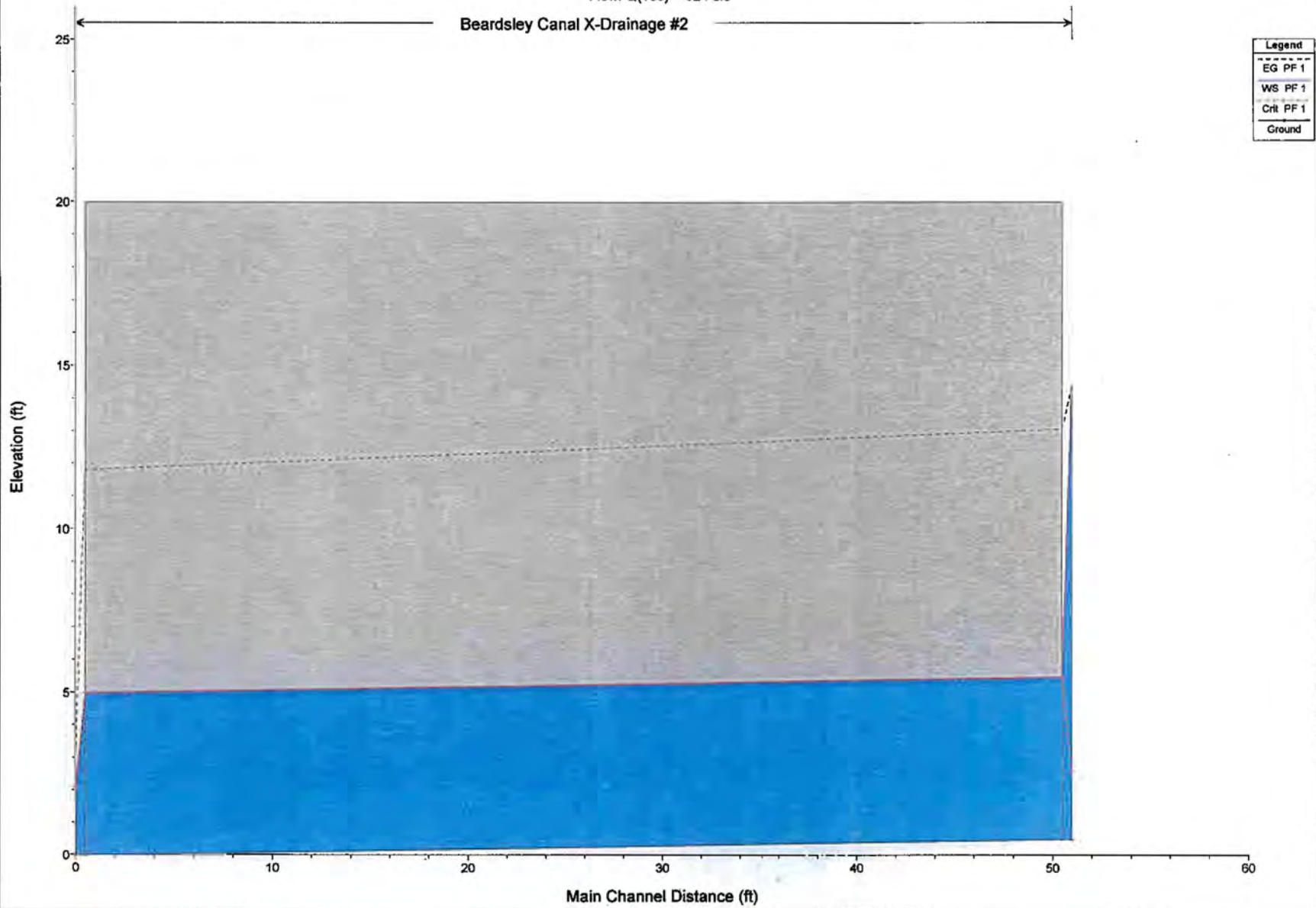
Note:	The normal depth exceeds the height of the culvert. The program assumes that the normal depth is equal to the height of the culvert.
--------------	--

Hydraulic Capacity for Culverts

Plan: X-Drainage #2 for 5' x 5' Box Culvert 10/24/2003

Flow: $Q(100) = 524$ cfs

Beardsley Canal X-Drainage #2



Plan: 5x5 Box Culv Beardsley Canal X-Drainage #2 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	524.00	Culv Full Len (ft)	50.00
# Barrels	1	Culv Vel US (ft/s)	20.96
Q Barrel (cfs)	524.00	Culv Vel DS (ft/s)	20.96
E.G. US (ft)	14.43	Culv Inv El Up (ft)	0.50
W.S. US (ft)	14.42	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	3.14	Culv Frctn Ls (ft)	1.25
W.S. DS (ft)	2.11	Culv Exit Loss (ft)	8.69
Delta EG (ft)	11.30	Culv Entr Loss (ft)	1.36
Delta WS (ft)	12.30	Q Weir (cfs)	
E.G. IC (ft)	20.92	Weir Sta Lft (ft)	
E.G. OC (ft)	14.43	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	5.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	5.00	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	5.00	Weir Flow Area (sq ft)	
Culv Crit Depth (ft)	5.00	Min El Weir Flow (ft)	20.01

Errors Warnings and Notes

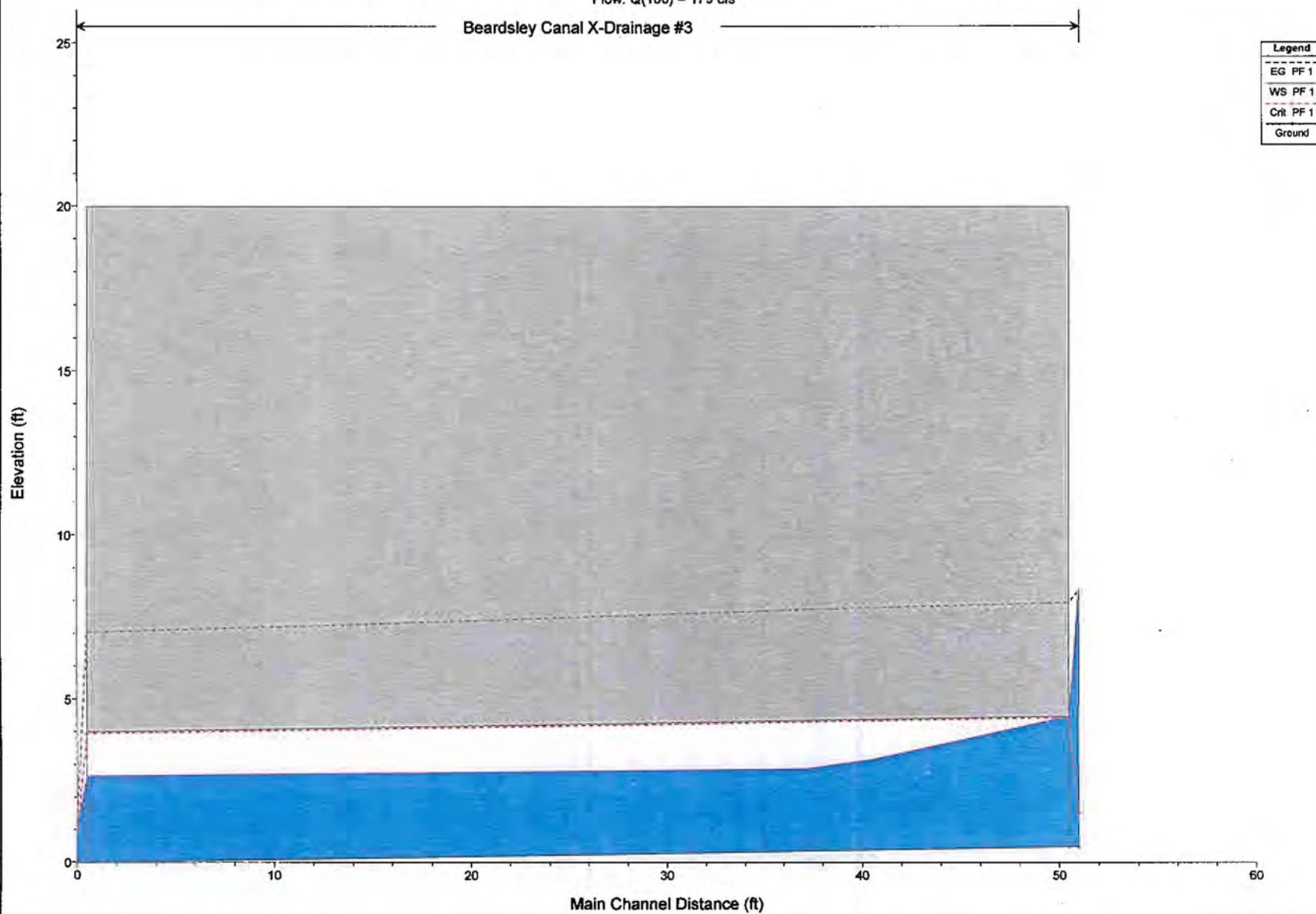
Note: Culvert critical depth exceeds the height of the culvert.

Hydraulic Capacity for Culverts

Plan: X-Drainage #3 for 4' x 4' Box Culvert 10/24/2003

Flow: $Q(100) = 179$ cfs

Beardsley Canal X-Drainage #3



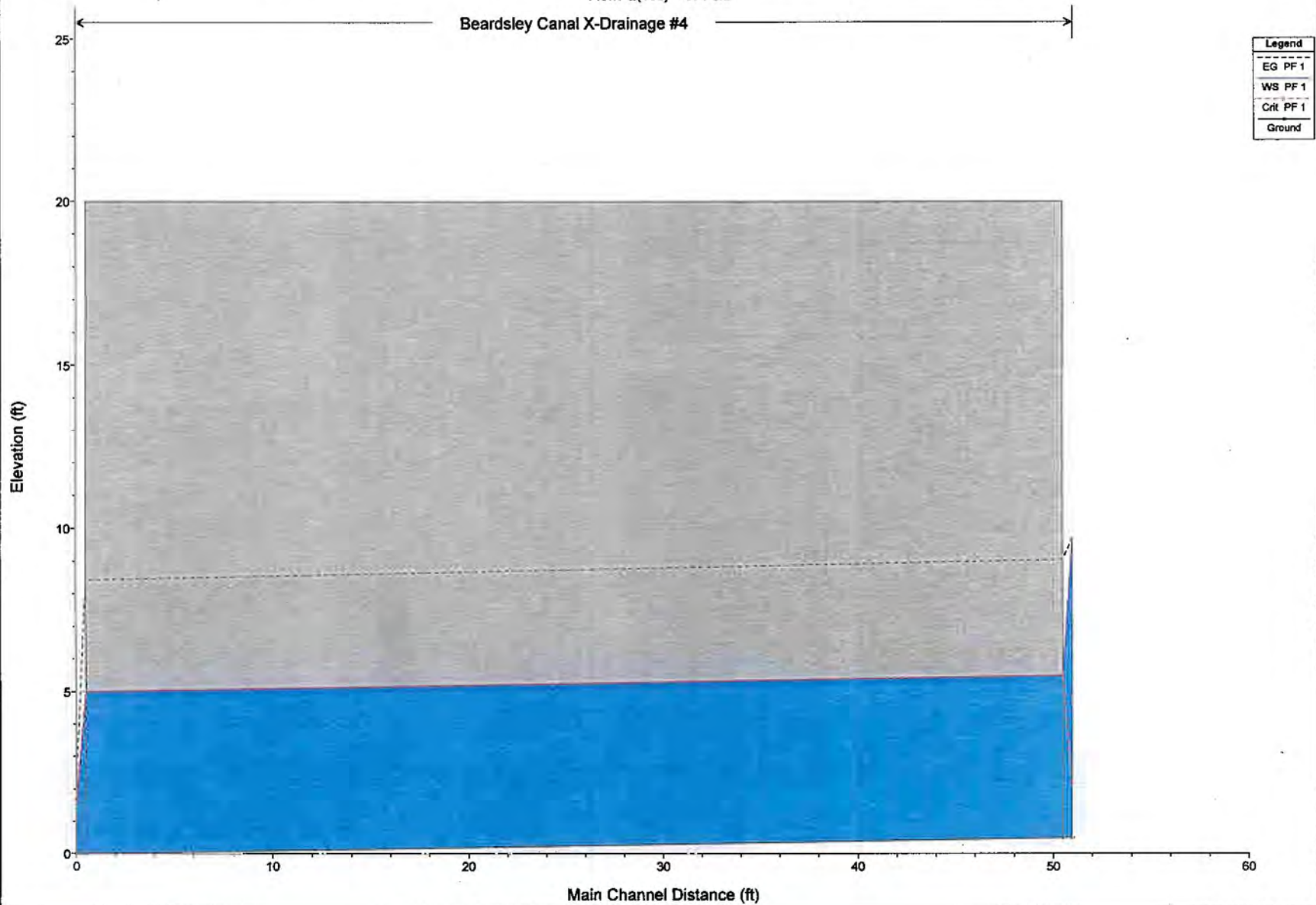
Plan: #3 for 4x4 Beardsley Canal X-Drainage #3 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	179.00	Culv Full Len (ft)	
# Barrels	1	Culv Vel US (ft/s)	11.19
Q Barrel (cfs)	179.00	Culv Vel DS (ft/s)	16.79
E.G. US (ft)	8.35	Culv Inv El Up (ft)	0.50
W.S. US (ft)	8.35	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	1.55	Culv Frctn Ls (ft)	0.92
W.S. DS (ft)	1.11	Culv Exit Loss (ft)	5.49
Delta EG (ft)	6.80	Culv Entr Loss (ft)	0.39
Delta WS (ft)	7.23	Q Weir (cfs)	
E.G. IC (ft)	8.35	Weir Sta Lft (ft)	
E.G. OC (ft)	6.84	Weir Sta Rgt (ft)	
Culvert Control	Inlet	Weir Submerg	
Culv WS Inlet (ft)	4.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	2.67	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.36	Weir Flow Area (sq ft)	
Culv Crl Depth (ft)	3.96	Min El Weir Flow (ft)	20.01

Hydraulic Capacity for Culverts Plan: X-Drainage #4 for 5' x 5' Box Culvert 10/24/2003

Flow: $Q(100) = 371$ cfs

Beardsley Canal X-Drainage #4



Plan: #4 5x5 Box C Beardsley Canal X-Drainage #4 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	371.00	Culv Full Len (ft)	50.00
# Barrels	1	Culv Vel US (ft/s)	14.84
Q Barrel (cfs)	371.00	Culv Vel DS (ft/s)	14.84
E.G. US (ft)	9.73	Culv Inv El Up (ft)	0.50
W.S. US (ft)	9.71	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	2.50	Culv Frctn Ls (ft)	0.63
W.S. DS (ft)	1.72	Culv Exit Loss (ft)	5.92
Delta EG (ft)	7.23	Culv Entr Loss (ft)	0.68
Delta WS (ft)	7.99	Q Weir (cfs)	
E.G. IC (ft)	12.71	Weir Sta Lft (ft)	
E.G. OC (ft)	9.73	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	5.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	5.00	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	4.68	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	5.00	Min El Weir Flow (ft)	20.01

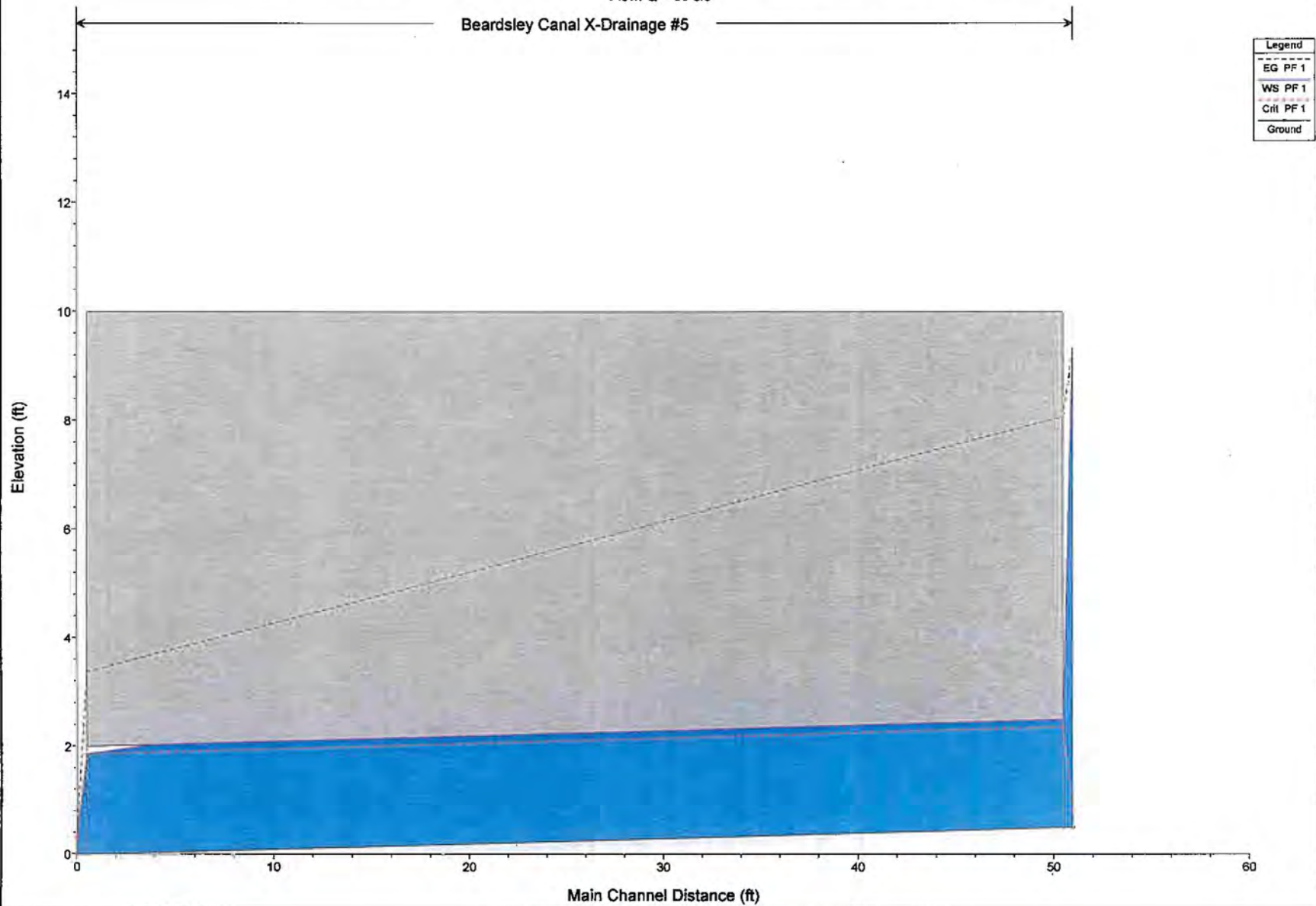
Errors Warnings and Notes

Note: Culvert critical depth exceeds the height of the culvert.

Hydraulic Capacity for Culverts Plan: X-Drainage #5 for 24 Inches CMP 10/28/2003

Flow: Q = 30 cfs

Beardsley Canal X-Drainage #5



Plan: #5 w 24"CMP Beardsley Canal X-Drainage #5 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	30.00	Culv Full Len (ft)	49.52
# Barrels	1	Culv Vel US (ft/s)	9.55
Q Barrel (cfs)	30.00	Culv Vel DS (ft/s)	9.84
E.G. US. (ft)	9.33	Culv Inv El Up (ft)	0.50
W.S. US. (ft)	9.33	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	0.49	Culv Frctn Ls (ft)	4.69
W.S. DS (ft)	0.38	Culv Exit Loss (ft)	2.88
Delta EG (ft)	8.85	Culv Entr Loss (ft)	1.27
Delta WS (ft)	8.95	Q Weir (cfs)	
E.G. IC (ft)	6.61	Weir Sta Lft (ft)	
E.G. OC (ft)	9.33	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	2.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	1.86	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.00	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	10.01

Errors Warnings and Notes

Note:	The normal depth exceeds the height of the culvert. The program assumes that the normal depth is equal to the height of the culvert.
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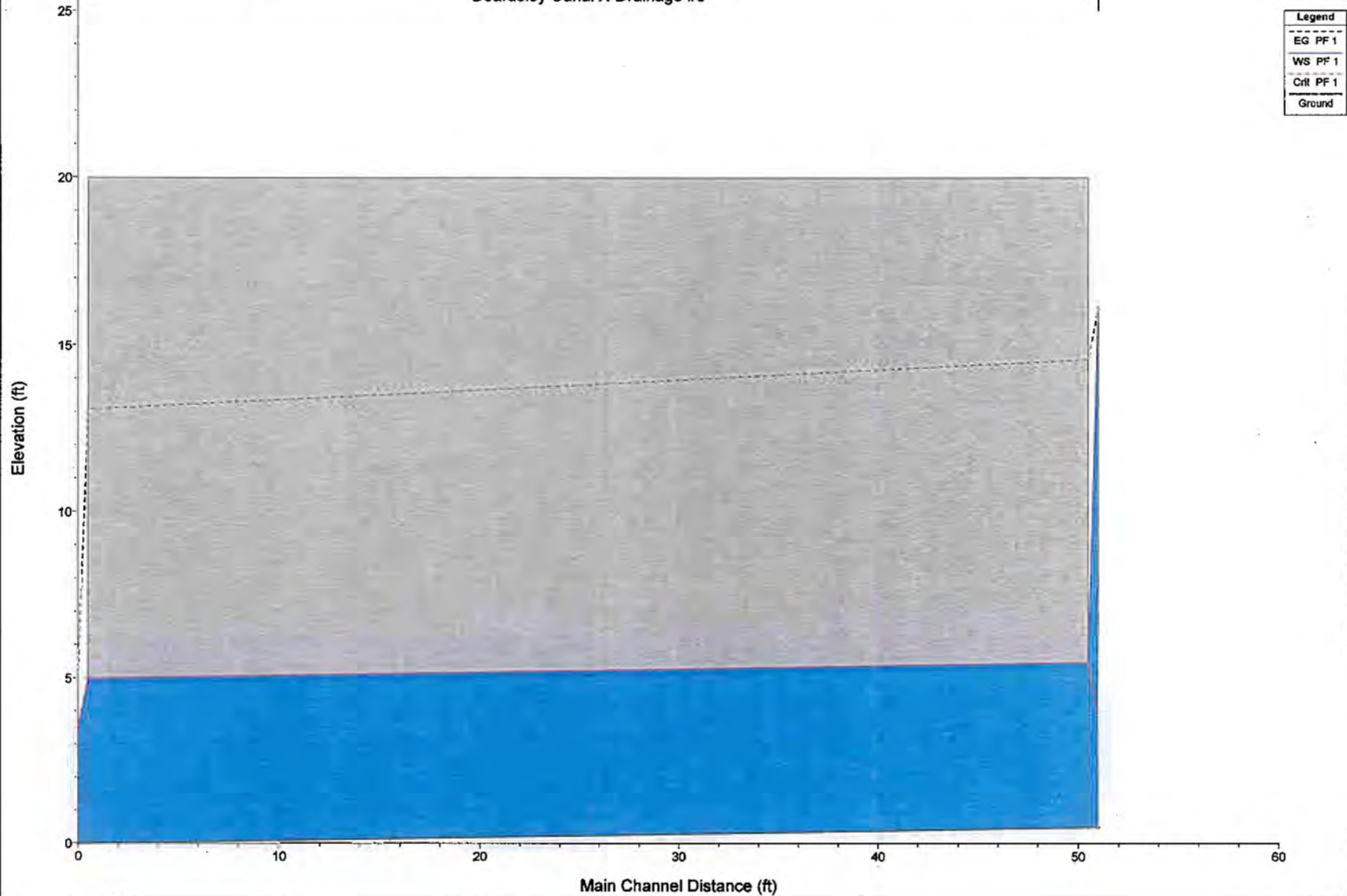
Hydraulic Capacity for Culverts

Plan: X-Drainage #8 w/2-5' x 5' Box Culverts

10/24/2003

Flow: $Q(50) = 1,141$ cfs

Beardsley Canal X-Drainage #8



Plan: #8 Beardsley Canal X-Drainage #8 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	1141.00	Culv Full Len (ft)	50.00
# Barrels	2	Culv Vel US (ft/s)	22.82
Q Barrel (cfs)	570.50	Culv Vel DS (ft/s)	22.82
E.G. US (ft)	16.18	Culv Inv El Up (ft)	0.50
W.S. US (ft)	16.11	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	5.23	Culv Frctn Ls (ft)	1.48
W.S. DS (ft)	3.50	Culv Exit Loss (ft)	7.86
Delta EG (ft)	10.96	Culv Entr Loss (ft)	1.62
Delta WS (ft)	12.61	Q Weir (cfs)	
E.G. IC (ft)	23.98	Weir Sta Lft (ft)	
E.G. OC (ft)	16.18	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	5.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	5.00	Weir Avg Depth (ft)	
Culv Nmi Depth (ft)	5.00	Weir Flow Area (sq ft)	
Culv Crl Depth (ft)	5.00	Min El Weir Flow (ft)	20.01

Errors Warnings and Notes

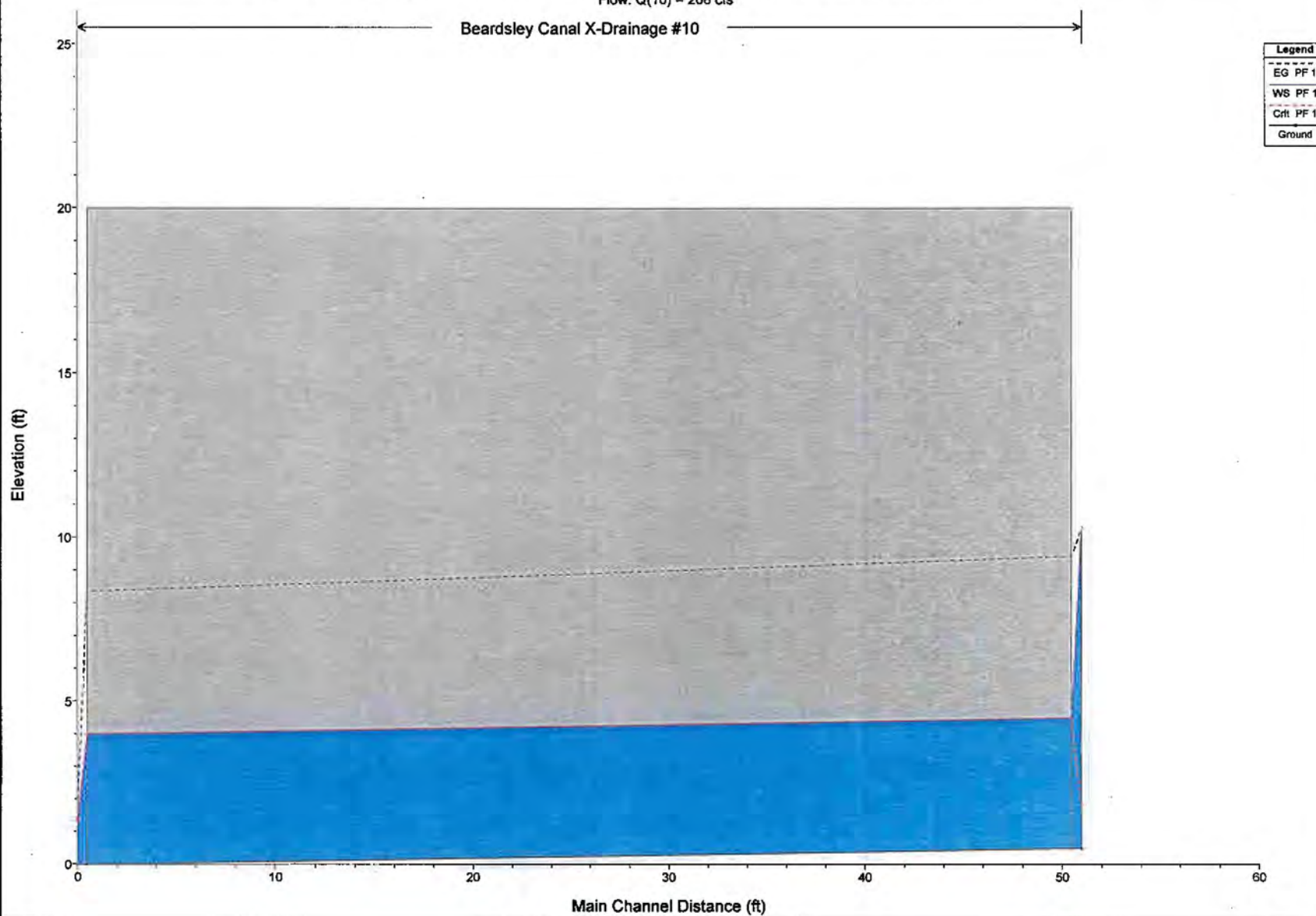
Note: Culvert critical depth exceeds the height of the culvert.

Hydraulic Capacity for Culverts

Plan: X Drainage #10 w/ 4'x4' Box Culvert 10/24/2003

Flow: $Q(10) = 268$ cfs

Beardsley Canal X-Drainage #10



Plan: #10 Beardsley Canal X-Drainage #10 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	268.00	Culv Full Len (ft)	50.00
# Barrels	1	Culv Vel US (ft/s)	16.75
Q Barrel (cfs)	268.00	Culv Vel DS (ft/s)	16.75
E.G. US (ft)	10.30	Culv Inv El Up (ft)	0.50
W.S. US (ft)	10.29	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	2.02	Culv Frctn Ls (ft)	1.07
W.S. DS (ft)	1.42	Culv Exit Loss (ft)	6.34
Delta EG (ft)	8.28	Culv Entr Loss (ft)	0.87
Delta WS (ft)	8.87	Q Weir (cfs)	
E.G. IC (ft)	14.18	Weir Sta Lft (ft)	
E.G. OC (ft)	10.30	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	4.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	4.00	Weir Avg Depth (ft)	
Culv Nmt Depth (ft)	4.00	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	4.00	Min El Weir Flow (ft)	20.01

Errors Warnings and Notes

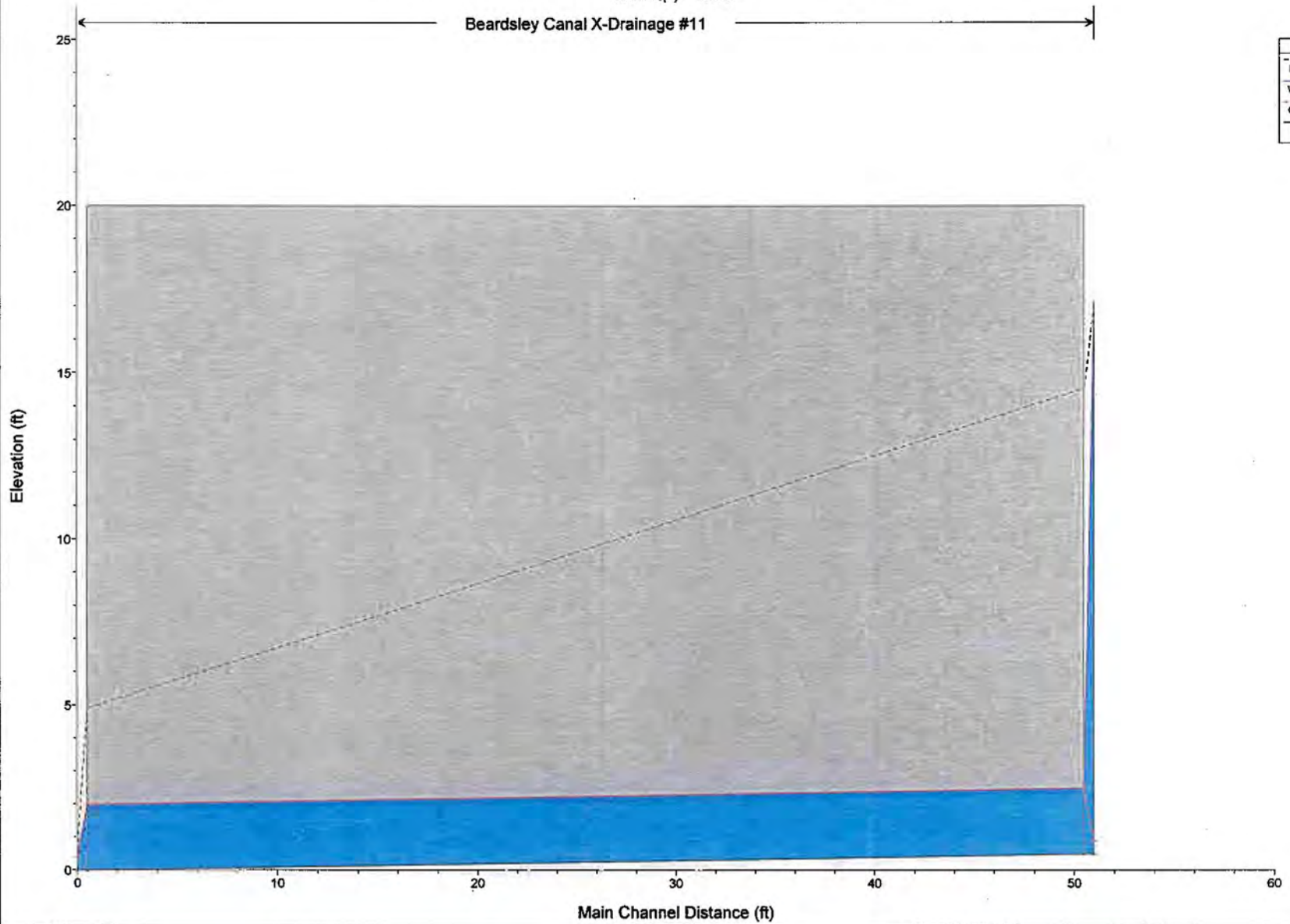
Note: Culvert critical depth exceeds the height of the culvert.

Hydraulic Capacity for Culverts

Plan: X Drainage #11 w/ 24 inches CMP 10/24/2003

Flow: $Q(5) = 43$ cfs

Beardsley Canal X-Drainage #11



Legend
EG PF 1
WS PF 1
Crit PF 1
Ground

Plan: #11 Beardsley Canal X-Drainage #11 RS: 1 Culv Group: Culvert #1 Profile: PF 1

Q Culv Group (cfs)	43.00	Culv Full Len (ft)	50.00
# Barrels	1	Culv Vel US (ft/s)	13.69
Q Barrel (cfs)	43.00	Culv Vel DS (ft/s)	13.69
E.G. US (ft)	17.15	Culv Inv El Up (ft)	0.50
W.S. US (ft)	17.15	Culv Inv El Dn (ft)	0.00
E.G. DS (ft)	0.61	Culv Frctn Ls (ft)	9.62
W.S. DS (ft)	0.47	Culv Exit Loss (ft)	4.29
Delta EG (ft)	16.53	Culv Entr Loss (ft)	2.62
Delta WS (ft)	16.67	Q Weir (cfs)	
E.G. IC (ft)	11.93	Weir Sta Lft (ft)	
E.G. OC (ft)	17.15	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	2.50	Weir Max Depth (ft)	
Culv WS Outlet (ft)	2.00	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	2.00	Weir Flow Area (sq ft)	
Culv Crit Depth (ft)	2.00	Min El Weir Flow (ft)	20.01

Errors Warnings and Notes

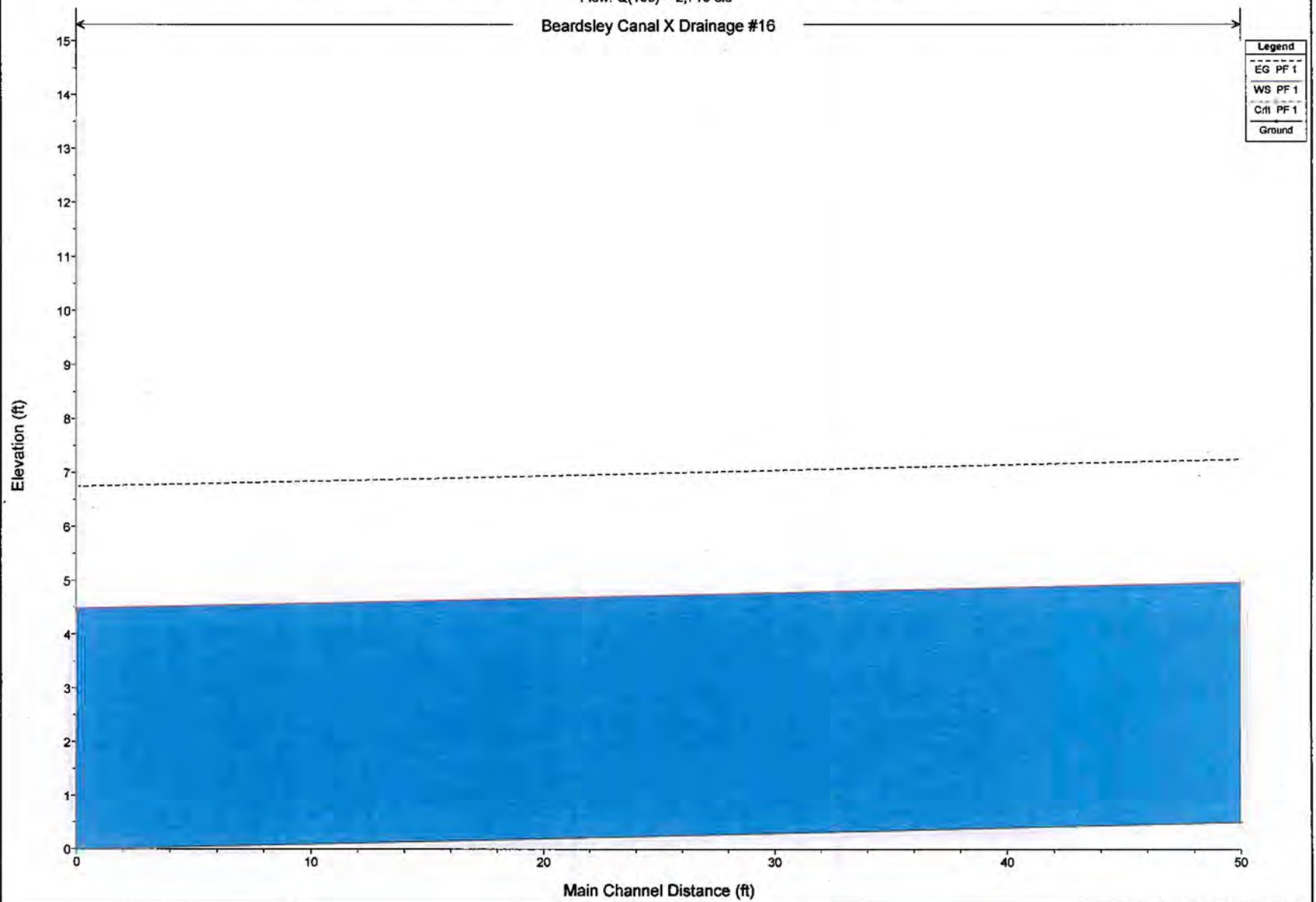
Note: Culvert critical depth exceeds the height of the culvert.

Hydraulic Capacity for Culverts

Plan: X-Drainage #16 w/Earth Channel at Siphon 10/28/2003

Flow: $Q(100) = 2,718$ cfs

Beardsley Canal X Drainage #16



Plan: #16 Beardsley Canal X Drainage #16 RS: 1 Profile: PF 1

E.G. Elev (ft)	7.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.26	Wt. n-Val.	0.020	0.020	0.020
W.S. Elev (ft)	4.98	Reach Len. (ft)	50.00	50.00	50.00
Crit W.S. (ft)	4.98	Flow Area (sq ft)	0.48	225.06	0.48
E.G. Slope (ft/ft)	0.003572	Area (sq ft)	0.48	225.06	0.48
Q Total (cfs)	2718.00	Flow (cfs)	0.48	2717.04	0.48
Top Width (ft)	50.63	Top Width (ft)	0.21	50.20	0.21
Vel Total (ft/s)	12.03	Avg. Vel. (ft/s)	1.00	12.07	1.00
Max Chi Dpth (ft)	4.48	Hydr. Depth (ft)	2.24	4.48	2.24
Conv. Total (cfs)	45480.3	Conv. (cfs)	8.0	45464.4	8.0
Length Wtd. (ft)	50.00	Wetted Per. (ft)	4.49	50.20	4.49
Min Ch El (ft)	0.50	Shear (lb/sq ft)	0.02	1.00	0.02
Alpha	1.01	Stream Power (lb/ft s)	0.02	12.07	0.02
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	0.00	0.26	0.00
C & E Loss (ft)	0.00	Cum SA (acres)	0.00	0.06	0.00

Errors Warnings and Notes

Warning:	The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning:	During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Appendix C

Water Quality Records

- 1. Agua Fria River below Waddell Dam, AZ**
- 2. CAP Canal at MP 162.3 at 7th Street at
Phoenix, AZ**

1. Agua Fria River below Waddell Dam, AZ

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, April 1975, March 1982 to May 1989.

REVISED RECORDS.--WDR AZ-88-1; Drainage area.

REMARKS.--No flow in channel or diversions to Beardsley Canal during the year.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", long 112°16'24", in SE 1/4 sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 1985												
02...	0950	119	465	8.40	25.0	13.0	5.7	727	10.3	103	K10	33
24...	1230	74	466	8.58	28.0	16.0	4.8	720	10.8	116	K13	20
MAY												
24...	0835	86	472	8.41	27.0	18.5	4.5	722	9.6	109	K18	K10
JUN												
25...	1045	153	483	7.50	28.5	16.0	13	721	10.1	108	K15	22
JUL												
17...	1200	177	480	8.00	32.0	20.0	5.4	719	8.2	96	K27	23
AUG												
28...	0950	160	490	8.08	33.0	19.5	2.8	722	7.7	89	K19	21
SEP												
24...	1115	12	485	7.30	29.5	24.0	1.3	725	--	--	K11	K9

DATE	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WE WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WE WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR 1985												
02...	180	15	42	18	33	1	2.7	198	1.0	164	56	22
24...	180	12	43	18	33	1	2.8	185	12	168	54	22
MAY												
24...	180	25	44	18	33	1	2.8	192	1.0	158	55	23
JUN												
25...	190	30	44	19	34	1	2.8	193	0	157	54	22
JUL												
17...	180	22	42	18	35	1	3.0	--	--	157	56	24
AUG												
28...	180	7	42	18	34	1	3.0	210	0	166	52	24
SEP												
24...	180	14	44	18	34	1	3.0	207	0	167	49	24

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (TONS PER AC-FT) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00655)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00656)
APR 1985												
02...	0.4	20	284	290	0.39	0.10	0.10	0.5	0.6	2.7	0.03	<0.01
24...	0.1	20	290	310	0.39	<0.10	<0.10	0.6	--	--	0.03	<0.01
MAY												
24...	0.4	20	280	290	0.38	<0.10	<0.10	0.4	--	--	0.04	0.01
JUN												
25...	0.4	15	288	290	0.39	<0.10	<0.10	0.4	--	--	0.07	0.04
JUL												
17...	0.4	21	280	290	0.38	<0.10	<0.10	0.5	--	--	0.06	0.03
AUG												
28...	0.4	21	285	300	0.39	<0.10	<0.10	0.4	--	--	0.04	0.04
SEP												
24...	0.4	21	295	300	0.4	<0.10	0.12	0.5	--	--	0.05	0.03

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER QUALITY DATA

DATE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
APR 1985												
02...	0.02	0.06	9	8	200	56	110	80	<1	<1	4	10
24...	0.02	0.06	9	8	--	61	100	80	<1	<1	<1	<10
MAY												
24...	<0.01	--	10	10	400	57	140	90	1	<1	2	<10
JUN												
25...	0.03	0.09	13	11	<100	61	110	70	<1	<1	4	<10
JUL												
17...	0.03	0.09	14	13	<100	66	60	50	1	<1	10	<10
AUG												
28...	0.02	0.06	15	14	<100	61	160	90	<1	<1	<1	<10
SEP												
24...	<0.01	--	15	15	<100	52	100	90	<1	<1	6	<10

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
APR 1985											
02...	10	3	430	<3	1	2	80	11	0.1	<0.1	<1
24...	4	4	320	<3	4	3	90	5	<0.1	<0.1	<1
MAY											
24...	15	3	220	4	3	<1	80	3	<0.1	<0.1	<1
JUN											
25...	9	5	600	5	5	5	290	130	<0.1	<0.1	<1
JUL											
17...	7	4	440	3	1	1	300	200	<0.1	<0.1	<1
AUG											
28...	6	1	320	5	4	<1	390	280	<0.1	<0.1	<1
SEP											
24...	4	3	130	<3	<1	<1	70	28	<0.1	<0.1	<1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY) (80155)
APR 1985											
02...	<1	1	<1	<10	<3	4.1	0.4	<0.01	<0.01	9	2.9
24...	<1	<1	<1	20	<3	4.7	0.5	<0.01	<0.01	7	1.4
MAY											
24...	<1	<1	<1	10	<3	4.5	0.4	<0.01	<0.01	6	1.4
JUN											
25...	<1	<1	<1	<10	13	4.0	0.7	<0.01	<0.01	14	5.8
JUL											
17...	<1	<1	<1	30	11	--	0.6	--	--	6	2.9
AUG											
28...	<1	<1	<1	<10	18	4.9	0.4	<0.01	<0.01	5	2.2
SEP											
24...	<1	<1	<1	10	<3	4.9	0.4	<0.01	<0.01	3	0.09

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal July 16 to Sept. 30, 1986.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
MAR 1986													
31...	0925	83	511	8.42	22.0	16.5	4.5	723	9.7	105	35	94	
APR													
23...	0920	146	516	8.35	24.0	16.0	6.1	723	9.4	101	K20	37	
MAY													
20...	1210	101	524	8.21	34.0	18.0	5.0	721	9.0	101	K6	73	
JUN													
25...	1055	131	525	8.21	34.0	21.5	3.5	721	8.3	100	K12	180	
DATE		HARD- NESS WH WAT (MG/L AS CACO3) (00900)	NONCARB TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAR 1986													
31...	190	0	42	20	39	1	3.3	217	7.0	184	65	30	
APR													
23...	180	20	41	20	38	1	3.1	192	5.0	167	61	27	
MAY													
20...	180	9	40	20	37	1	3.2	211	0	179	62	24	
JUN													
25...	180	3	39	19	38	1	3.0	211	0	173	62	29	
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	
MAR 1986													
31...	0.60	20	318	340	0.43	<0.100	<0.100	0.50	0.030	0.010	<0.010		
APR													
23...	0.60	20	314	320	0.43	<0.100	<0.100	0.50	0.040	0.020	0.010		
MAY													
20...	0.50	20	315	310	0.43	<0.100	<0.100	0.30	0.050	0.020	0.020		
JUN													
25...	0.40	20	321	310	0.44	<0.100	<0.100	0.50	0.060	0.030	0.020		
DATE		PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	
MAR 1986													
31...	--	11	11	<100	57	80	110	<1	<1	<1	<10		
APR													
23...	0.03	11	10	<100	57	130	100	<1	<1	12	<10		
MAY													
20...	0.06	14	13	100	55	100	110	<1	<1	5	<10		
JUN													
25...	0.06	15	15	<100	53	120	110	<1	<1	<1	<10		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER QUALITY DATA

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
MAR 1986											
31...	10	3	260	<3	3	1	70	1	<0.10	<0.1	<1
APR											
23...	12	3	380	<3	4	4	140	13	<0.10	<0.1	<1
MAY											
20...	6	1	450	<3	3	3	210	27	<0.10	<0.1	<1
JUN											
25...	15	2	370	5	6	<5	200	55	<0.10	<0.1	<1
DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
MAR 1986											
31...	<1	<1	<1	20	5	4.4	0.6	<0.010	--	6	1.3
APR											
23...	<1	<1	<1	<10	7	5.5	0.5	<0.010	<0.01	8	3.2
MAY											
20...	<1	<1	<1	<10	9	4.6	0.6	<0.010	<0.01	10	2.7
JUN											
25...	<1	<1	<1	<10	9	5.0	0.5	<0.010	<0.01	7	2.5

< Actual value is known to be less than value shown.

09513500 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", long 112°16'24", in SE 1/4 sec. 29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal Oct. 1, 1986 to June 15, 1987 and July 8 to Sept. 30, 1987.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-FE (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
JUN 1987 23...	0815	140	568	8.09	27.0	19.0	7.8	722	8.5	98	K10	42	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (MG/L AS K) (00935)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS ECO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
JUN 1987 23...	190	12	43	21	41	1	3.4	230	0	67	33	0.50	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)
JUN 1987 23...	19	340	339	0.46	<0.100	<0.100	0.50	0.070	0.060	0.030	0.09	0.07	
DATE		PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	
JUN 1987 23...	0.03	18	16	<100	61	120	120	<1	<1	<1	<10		
DATE		COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	
JUN 1987 23...	8	5	420	<3	77	16	320	140	<0.10	<0.1	<1		
DATE		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	
JUN 1987 23...	<1	<1	1.0	40	16	7.0	0.6	<0.010	<0.01	14	5.3		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", Long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal Oct. 1 to Mar. 8, Apr. 23-25, July 14 to Sept. 30.

WATER QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00051)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)		
MAR 1988												
16...	0930	37	540	8.42	13.5	12.0	6.7	723	9.7	96 K10		
MAY												
02...	1105	48	544	8.40	20.0	17.0	13	727	9.2	100 K10		
20...	0925	122	528	8.19	28.0	18.0	12	721	8.4	94 K12		
JUN												
29...	0905	144	530	8.08	31.5	19.0	7.6	727	8.2	93 K17		
DATE	TIME	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB WE TOT FLD (MG/L AS CaCO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	HY-DROXIDE WATER DIS IT FIELD (MG/L AS OH) (71834)
MAR 1988												
16...	140	190	10	41	21	40	1	3.6	255	6	0	
MAY												
02...	36	200	21	44	22	40	1	3.4	212	4	0	
20...	57	190	15	42	21	38	1	2.8	209	0	0	
JUN												
29...	44	190	15	42	21	39	1	3.3	218	0	0	
DATE	TIME	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 DIS-SOLVED TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED TOTAL (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAR 1988												
16...	219	65	28	0.40	19	330	326	0.45	<0.100	<0.100	0.30	
MAY												
02...	180	61	29	0.40	19	327	327	0.44	<0.100	<0.100	0.60	
20...	171	60	27	0.50	19	320	317	0.44	0.100	<0.100	0.40	
JUN												
29...	179	55	26	0.40	19	317	312	0.43	<0.100	<0.100	0.40	
DATE	TIME	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, TOTAL (MG/L AS NO3) (71887)	PHOS-PHOROUS TOTAL (MG/L AS P) (00665)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	PHOS-PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS-PHOROUS ORGANIC DIS-SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	
MAR 1988												
16...	--	--	0.050	0.030	0.010	0.03	0.05	0.02	8	9		
MAY												
02...	--	--	0.050	0.020	0.010	0.03	0.05	0.01	13	12		
20...	0.50	2.2	0.080	0.050	0.030	0.08	0.08	0.02	15	14		
JUN												
29...	--	--	0.070	0.060	0.050	0.15	0.07	0.01	14	15		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER QUALITY DATA

DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM, TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM, DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
MAR 1988										
16...	100	59	120	110	<1	<1	3	1	14	6
MAY										
02...	<100	57	100	110	1	<1	3	<1	8	5
20...	<100	52	120	120	2	<1	2	2	8	3
JUN										
29...	<100	54	100	100	<1	2	2	1	4	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71800)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
MAR 1988										
16...	510	12	<5	<5	130	2	0.30	<0.1	<1	<1
MAY										
02...	620	3	<5	<5	160	4	<0.10	<0.1	<1	<1
20...	690	5	<5	<5	230	10	<0.10	<0.1	<1	<1
JUN										
29...	530	63	<5	<5	260	56	<0.10	<0.1	<1	<1

DATE	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
MAR 1988										
16...	1	<1.0	20	<3	5.0	0.7	<0.010	<0.01	12	1.2
MAY										
02...	1	<1.0	20	14	5.1	0.8	<0.010	<0.01	16	2.1
20...	<1	<1.0	10	9	4.8	0.6	<0.010	<0.01	13	4.3
JUN										
29...	<1	<1.0	<10	8	5.7	--	<0.010	<0.01	12	4.7

The following data were omitted from the 1987 report.

DATE	TIME	ALKA- LINITY WAT WE TOT FET FIELD MG/L AS CACO3 (00410)
JUNE 1987		
23...	0815	182

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,433 mi², revised.

PERIOD OF RECORD.--December 1950 to September 1958, April 1975, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal Oct. 1, 1988 to Mar. 6, 1989, and May 24 to Sept. 30, 1989.

WATER QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
MAR 1989													
24...	1200	113	525	8.37	24.0	13.0	9.5	724	11.4	114	K6	30	
APR 27...	0845	79	531	8.25	18.0	16.0	12	725	9.3	99	K4	--	
MAY 25...	1200	0.72	543	8.61	34.0	28.5	3.5	719	11.3	155	K5	92	
DATE		HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB WE WAT TOT FLD MG/L AS CaCO3 (00902)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	HY-DROKIDE WATER DIS IT FIELD (MG/L AS OH) (71834)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
MAR 1989													
24...	190	8	41	21	39	1	3.8	203	8	0	180	55	
APR 27...	200	15	43	22	41	1	4.1	237	0	0	194	53	
MAY 25...	200	15	43	23	42	1	4.0	210	36	0	232	54	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P) (00665)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
MAR 1989													
24...	27	0.40	17	317	312	0.43	<0.100	<0.100	0.50	0.030	0.010	<0.010	
APR 27...	27	0.40	18	311	318	0.42	<0.100	<0.100	0.40	0.050	0.010	<0.010	
MAY 25...	29	0.40	19	326	327	0.44	*<0.100	<0.100	0.60	0.050	0.030	0.020	
DATE		PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	PHOS-PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS-PHOROUS ORGANIC DIS-SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR 1989													
24...	--	0.03	0.01	7	7	200	59	100	110	1	<1	2	
APR 27...	--	0.05	0.01	8	7	200	64	*100	*120	1	<1	3	
MAY 25...	0.06	0.05	0.01	13	13	<100	58	120	110	<1	<1	2	

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER QUALITY DATA

DATE	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
MAR 1989												
24...	<1	4	2	580	9	<5	<5	100	9	<0.10	<0.1	<1
APR												
27...	1	8	3	810	6	<5	<5	160	13	<0.10	<0.1	<1
MAY												
25...	2	3	3	260	7	1	3	100	20	<0.10	<0.1	<1

DATE	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDIMENT, SUS- PENDED (MG/L) (80154)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
MAR 1989											
24...	<1	1	1.0	<10	5	5.0	0.5	<0.010	<0.01	13	4.0
APR											
27...	<1	<1	<1.0	<10	7	5.0	1.0	<0.010	<0.01	16	3.4
MAY											
25...	<1	<1	<1.0	<10	6	5.7	0.5	<0.010	<0.01	5	0.01

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, April 1975, March 1982 to May 1989, March to August 1991.

REMARKS.--No flow in channel or diversions to Beardsley Canal Oct. 1 to Mar. 4 and Sept. 18-30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)
MAR 08...	1135	435	430	8.3	16.0	13.0	22	726	9.8	98	45	180
APR 29...	1045	71	345	8.5	22.0	14.0	13	723	11.0	112	K5	K10
MAY 17...	1000	52	360	8.7	22.0	19.0	8.3	721	10.0	115	K4	K4
JUN 26...	0720	121	360	8.3	19.0	16.0	11	718	--	--	K3	K14
JUL 18...	0735	148	380	8.2	35.0	17.0	6.5	721	8.8	96	K4	K18
AUG 30...	0650	71	375	8.1	26.0	21.0	5.9	722	7.6	90	K15	66

DATE	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	HY-DROXIDE WATER DIS IT FIELD (MG/L AS OH) (71834)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
MAR 08...	150	7	32	16	35	1	4.2	159	5	0	139	46
APR 29...	120	7	30	12	23	0.9	3.5	135	4	0	117	35
MAY 17...	130	4	31	13	25	1	3.4	140	7	0	126	34
JUN 26...	130	0	31	13	24	0.9	3.4	148	7	0	133	35
JUL 18...	140	6	32	14	25	0.9	3.3	160	0	0	131	32
AUG 30...	140	1	34	14	25	0.9	3.3	173	0	0	142	24

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAR 08...	29	0.30	12	254	260	0.35	0.440	--	--	0.020	<0.010	*0.460
APR 29...	20	0.30	13	220	209	0.30	0.410	0.360	1.8	0.030	0.020	0.440
MAY 17...	18	0.30	14	225	216	0.31	0.120	--	--	0.020	<0.010	0.140
JUN 26...	20	0.30	14	221	222	0.30	0.160	0.160	0.71	0.020	0.020	0.180
JUL 18...	17	0.30	15	223	218	0.30	--	0.038	0.17	0.010	0.020	<0.050
AUG 30...	16	0.10	15	239	218	0.33	0.080	0.077	0.34	0.030	0.020	0.110

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 08...	0.480	0.040	0.050	0.66	0.70	1.2	5.1	0.140	0.18	0.050	0.060	0.040
APR 29...	*0.380	0.040	0.010	0.66	0.70	1.1	5.0	0.130	0.25	0.060	0.080	0.040
MAY 17...	0.140	0.020	0.020	0.68	0.70	0.84	3.7	0.130	0.09	0.040	0.030	0.010
JUN 26...	0.180	0.060	0.050	0.74	0.80	0.98	4.3	0.140	0.25	0.090	0.080	0.070
JUL 18...	0.058	0.120	0.140	0.98	1.1	--	--	0.140	0.31	0.110	0.100	0.090
AUG 30...	0.097	0.240	0.250	0.76	1.0	1.1	4.9	0.170	0.28	0.110	0.090	0.080

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
MAR 08...	0.12	6	6	<100	50	120	100	<1	<1.0	3	<1
APR 29...	0.12	9	8	200	38	50	80	<1	<1.0	2	<1
MAY 17...	0.03	9	8	<100	42	50	80	<1	<1.0	<1	<1
JUN 26...	0.21	10	11	<100	43	80	80	<1	1.0	<1	1
JUL 18...	0.28	10	10	<100	44	--	70	<1	<1.0	<1	<1
AUG 30...	0.25	11	9	<100	48	90	70	<1	<1.0	<1	<1

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
MAR 08...	9	5	*1600	11	2	1	60	5	<0.10	<0.1	<1
APR 29...	7	3	570	11	3	<1	60	4	<0.10	<0.1	<1
MAY 17...	9	5	310	9	3	<1	100	7	<0.10	<0.1	<1
JUN 26...	7	2	470	8	5	<1	230	43	<0.10	<0.1	<1
JUL 18...	4	3	460	9	3	<1	230	14	<0.10	<0.1	<1
AUG 30...	3	1	390	36	<1	<1	380	200	<0.10	<0.1	<1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
MAR 08...	<1	<1	1.0	<10	<3	6.7	1.1	<0.010	<0.01	49	58
APR 29...	<1	<1	<1.0	<10	13	6.8	1.3	<0.010	<0.01	13	2.6
MAY 17...	<1	<1	<1.0	<10	<3	7.0	1.5	<0.010	<0.01	8	1.1
JUN 26...	<1	<1	<1.0	<10	<3	6.4	0.9	<0.010	<0.01	13	4.4
JUL 18...	<1	<1	<1.0	<10	<3	6.8	0.3	<0.010	<0.01	10	4.2
AUG 30...	<1	<1	<1.0	<10	4	6.7	0.5	<0.010	<0.01	8	1.5

* Value verified.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

LOCATION.—Lat 33°49'55", long 112°16'24", in SE 1/4, sec. 29, T. 6 N., R. 1 E., Maricopa County, Hydrologic Unit 15079102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.—1,459 mi².

PERIOD OF RECORD.—December 1950 to September 1958, April 1975, March 1982 to May 1983, March 1991 to current year.

REMARKS.—No flow in channel or diversions to Beardsley Canal Oct. 1 to Feb. 14 and July 17 to Sept. 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	FR WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATU- RATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MY (COLS./ 100 ML) (31625)	STREP- TOCOC- CI, EF AGAR, (COLS. PER 100 ML) (31673)	
FEB 21...	1050	251	394	8.4	19.0	12.0	44	730	10.4	101	E30	260	
MAR 16...	1300	120	377	8.2	23.0	14.5	25	723	9.9	103	48	180	
APR 16...	1200	101	373	8.3	26.0	17.0	17	723	10.4	114	29	108	
MAY 22...	1020	29	390	8.1	25.8	18.0	22	724	8.2	91	E8	K14	
JUN 12...	1020	79	387	8.1	30.0	20.5	16	729	8.2	96	E8	K11	
JUL 16...	0900	8.4	402	8.4	33.0	24.0	2.3	722	9.2	115	E6	E3	
DATE		HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DIS-SOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	HY- DROXIDE WATER DIS IT FIELD (MG/L AS OH (71834)	ALKA- LINITTY MAT DIS TOT IT FIELD (MG/L AS CaCO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
FEB 21...	150	7	37	14	26	0.9	3.2	170	2	0	143	35	
MAR 16...	140	6	35	13	23	0.8	3.1	165	0	0	135	37	
APR 16...	150	11	36	14	24	0.9	2.9	163	2	0	137	33	
MAY 22...	150	16	36	14	24	0.9	3.0	161	0	0	132	34	
JUN 12...	140	0	36	13	22	0.8	2.9	161	0	0	148	33	
JUL 16...	150	7	37	14	25	0.9	3.1	170	2	0	143	32	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLOO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00619)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00615)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
FEB 21...	20	0.30	15	235	237	0.32	0.200	—	—	0.030	<0.010	0.230	
MAR 16...	19	0.30	16	225	229	0.31	0.180	—	—	0.030	<0.010	0.210	
APR 16...	17	0.30	16	224	226	0.30	0.140	—	—	0.020	<0.010	0.160	
MAY 22...	17	0.40	17	228	226	0.31	0.150	0.180	0.80	0.040	0.010	0.190	
JUN 12...	20	0.30	16	224	233	0.30	—	—	—	0.020	<0.010	<0.050	
JUL 16...	20	0.30	17	222	234	0.30	—	—	—	<0.010	<0.010	<0.050	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS TOTAL (MG/L AS P) (00645)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00646)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70307)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
FEB 21...	0.220	0.080	0.070	0.42	0.50	0.73	3.2	0.120	0.15	0.040	0.050	0.030	
MAR 16...	0.230	0.050	0.036	0.25	0.30	0.51	2.3	0.080	0.25	0.030	0.080	0.030	
APR 16...	0.170	0.040	0.030	0.46	0.50	0.66	2.9	0.070	0.15	<0.010	0.050	0.030	
MAY 22...	0.190	0.046	0.030	0.36	0.40	0.59	2.6	0.100	0.25	*0.050	*0.080	0.030	
JUN 12...	<0.050	0.040	0.010	0.36	0.40	—	—	0.070	0.25	0.030	0.080	0.040	
JUL 16...	<0.050	*0.050	*0.020	0.35	0.40	—	—	0.050	0.06	<0.010	0.020	0.020	

* Value verified.

E Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDILL DAM, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
FEB 21...	0.09	6	—	<100	45	60	80	<1	<1.0	3	<1
MAR 16...	0.09	7	6	<100	41	60	70	<1	<1.0	2	<1
APR 16...	0.09	7	7	<100	42	60	70	<1	<1.0	1	<1
MAY 22...	0.09	8	8	100	46	80	70	<1	<1.0	<1	<1
JUN 12...	0.12	12	9	<100	38	70	70	<1	<1.0	<1	<1
JUL 16...	0.06	9	10	<100	41	130	80	<1	<1.0	<1	<1
DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71990)	MERCURY DIS- SOLVED (UG/L AS HG) (71990)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
FEB 21...	4	2	*3080	18	2	<1	260	6	<0.10	*0.1	<1
MAR 16...	5	3	*1600	<1	<1	<1	170	11	<0.10	<0.1	<1
APR 16...	6	2	980	5	3	<1	160	25	<0.10	<0.1	<1
MAY 22...	4	2	1080	5	1	<1	330	99	<0.10	<0.1	<1
JUN 12...	4	1	750	5	2	<1	290	73	<0.10	<0.1	<1
JUL 16...	2	<1	150	<1	1	<1	90	1	<0.10	<0.1	<1
DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00691)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00699)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (00154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (00155)
FEB 21...	<1	<1	<1.0	10	<1	6.3	1.2	<0.010	<0.01	151	102
MAR 16...	<1	<1	<1.0	<10	<1	6.2	8.9	<0.010	<0.01	31	9.9
APR 16...	<1	<1	<1.0	10	<1	6.1	0.7	<0.010	<0.01	19	5.1
MAY 22...	<1	<1	<1.0	<10	7	3.2	8.8	<0.010	<0.01	52	4.1
JUN 12...	<1	<1	<1.0	<10	5	6.5	0.7	<0.010	<0.01	19	4.0
JUL 16...	<1	<1	<1.0	<10	4	6.0	8.5	<0.010	<0.01	5	0.10

* Values verified.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADSWELL DAM, AZ

LOCATION.—Lat 33°49'55", long 112°16'24", in SE 1/4, sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.—1,459 mi².

PERIOD OF RECORD.—December 1950 to September 1958, April 1975, March 1982 to May 1985, March 1991 to current year.

REMARKS.—Except for brief diversions into Beardsley Canal on Oct. 1, 12, and 29, no flow in channel or diversions to Beardsley Canal Oct. 1 to Jan. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD AND UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	HAR-D-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 CM-MW (COLS./100 ML) (31625)	
JAN 22...	1400	614	529	8.3	19.0	12.5	31	726	10.5	104	K22
FEB 11...	1430	2090	406	8.1	17.0	12.0	31	729	11.0	107	46
APR 01...	1155	71	351	8.8	23.0	16.0	10	720	12.2	131	K6
20...	1130	101	363	8.9	27.5	15.0	7.6	725	13.6	142	K16
MAY 26...	1310	86	425	8.2	40.0	17.0	3.7	718	9.6	106	42
JUN 30...	0955	150	421	8.3	32.5	16.5	1.0	719	11.4	124	K11
JUL 30...	1105	160	437	8.2	36.0	17.5	2.5	725	10.8	119	21

DATE	STREP-TOCOCOI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO ₃) (00900)	HARD-NESS BOWENB DIS-SOLV FLD. AS CaCO ₃ (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE, WATER DIS IT FIELD (MG/L AS HCO ₃) (00453)	CAR-BONATE, WATER DIS IT FIELD (MG/L AS CO ₃) (00452)	HY-DRICIDE, WATER DIS IT FIELD (MG/L AS CH) (71834)
JAN 22...	150	160	47	40	15	42	1	3.2	140	0	0
FEB 11...	230	130	28	33	12	28	1	2.8	127	0	0
APR 01...	K6	120	16	31	11	22	0.9	2.5	114	8	0
20...	46	130	0	33	11	24	0.9	2.6	135	11	0
MAY 26...	K4	140	8	38	12	26	0.9	2.7	166	0	0
JUN 30...	K10	150	29	37	13	30	1	2.8	135	4	0
JUL 30...	21	150	17	40	13	30	1	2.7	142	0	0

DATE	ALKALI-LIMITY MAY DIS TOT IT FIELD (MG/L AS CaCO ₃) (39086)	SULFATE DIS-SOLVED (MG/L AS SO ₄) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLOO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO ₂) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00620)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO ₃) (71831)
JAN 22...	115	97	34	0.30	14	328	316	0.45	0.270	0.270	1.2
FEB 11...	104	61	23	0.20	17	250	241	0.34	0.280	0.280	1.2
APR 01...	106	51	16	0.30	18	233	216	0.32	0.070	—	—
20...	129	52	17	0.30	18	229	236	0.31	—	—	—
MAY 26...	136	59	20	0.30	17	235	258	0.32	0.260	—	—
JUN 30...	118	63	21	0.30	18	260	256	0.35	0.097	—	—
JUL 30...	116	64	21	0.30	17	267	259	0.34	0.210	—	—

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO ₄) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)
JAN 22...	0.020	0.290	0.040	0.46	0.30	0.79	0.160	0.060	0.060	0.18	7
FEB 11...	0.010	0.290	0.030	0.35	0.40	0.69	0.190	0.070	0.080	0.25	8
APR 01...	<0.010	0.070	<0.010	0.40	0.40	0.47	0.070	<0.010	0.030	0.09	7
20...	<0.010	<0.050	0.010	0.69	0.70	0.70	0.110	0.040	0.040	0.12	6
MAY 26...	<0.010	0.260	0.038	0.27	0.30	0.56	0.100	0.110	0.080	0.25	7
JUN 30...	<0.010	0.097	0.038	0.17	0.20	0.30	0.070	0.070	0.060	0.19	6
JUL 30...	<0.010	0.210	0.060	0.34	0.40	0.61	0.130	0.100	0.090	0.28	8

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW MADDELL DAM, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CERO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CERO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
JAN 22...	5	<100	54	90	90	<1	<1.0	6	<1	6	3
FEB 11...	6	<100	37	70	70	<1	<1.0	9	<1	9	4
APR 01...	7	<100	33	60	60	<1	<1.0	<1	<1	3	4
20...	7	<100	35	60	60	<1	<1.0	<1	<1	4	4
MAY 26...	6	<100	41	70	70	<1	<1.0	<1	<1	4	3
JUN 30...	6	<100	41	60	80	<1	<1.0	<1	<1	3	2
JUL 30...	7	<100	40	60	78	<1	<1.0	<1	<1	3	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
JAN 22...	1600	6	2	<1	130	6	<0.10	<0.1	<1	<1
FEB 11...	2600	17	3	<1	120	9	<0.10	<0.1	<1	<1
APR 01...	340	14	1	<1	40	2	<0.10	<0.1	<1	<1
20...	300	10	<1	<1	50	9	<0.10	<0.1	<1	<1
MAY 26...	150	5	<1	<1	100	10	<0.10	<0.1	<1	<1
JUN 30...	210	6	<1	<1	100	12	<0.10	<0.1	<1	<1
JUL 30...	110	3	<1	<1	70	2	<0.10	<0.1	<1	<1

DATE	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
JAN 22...	<1	<1.0	<10	<3	5.4	0.7	<0.010	<0.01	51	84
FEB 11...	<1	<1.0	10	<3	—	0.6	<0.010	<0.01	120	679
APR 01...	<1	<1.0	<10	<3	5.6	3.8	<0.010	<0.01	7	1.3
20...	<1	<1.0	<10	<3	5.4	2.1	<0.010	<0.01	8	2.2
MAY 26...	<1	<1.0	<10	4	4.9	0.4	<0.010	<0.01	4	1.0
JUN 30...	<1	<1.0	<10	<3	4.9	1.0	<0.010	<0.01	6	2.5
JUL 30...	<1	<1.0	<10	<3	4.9	0.5	<0.010	<0.01	2	0.91

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

LOCATION.--Lat 33°49'55", long 112°16'24", in SE 1/4, sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, April 1975, March 1982 to May 1989, March 1991 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal Nov. 16 to Jan. 31, and Mar. 25, 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS./100 ML) (31673)
FEB 24...	1015	61	852	8.5	13.0	10.0	1.9	724	11.4	107	48	170
MAR 31...	0930	76	794	8.6	22.0	14.0	0.90	725	12.1	124	26	33
APR 27...	0935	108	773	8.4	13.5	13.0	1.9	720	11.4	115	K9	23
MAY 25...	0955	114	803	8.3	20.0	14.0	0.20	720	11.2	115	K18	46
JUN 29...	0935	177	811	8.3	38.5	16.0	1.2	721	11.6	125	K14	K8
JUL 27...	0915	163	822	8.4	35.0	15.0	1.0	723	12.4	130	20	21
AUG 30...	1030	116	829	8.3	33.5	17.0	0.50	721	11.0	121	49	46
DATE	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT (MG/L AS CO3) (00452)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	ALKA-LINITY MAT DIS TOT IT (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)
FEB 24...	250	*64	22	*72	38	2	*4.3	2	159	134	*190	*66
MAR 31...	200	52	18	57	37	2	3.5	7	150	134	170	60
APR 27...	230	57	21	64	37	2	4.0	3	161	137	170	59
MAY 25...	250	62	23	69	37	2	2.6	3	158	134	170	59
JUN 29...	240	61	22	66	37	2	4.1	0	162	133	180	59
JUL 27...	250	61	23	67	37	2	4.1	4	159	136	170	59
AUG 30...	250	62	22	69	38	2	3.8	1	169	140	180	62
DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUN OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00605)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
FEB 24...	0.40	*11	536	510	0.73	<0.010	<0.050	0.010	0.39	0.40	0.40	0.040
MAR 31...	0.30	12	526	454	0.72	*0.030	<0.050	0.030	0.27	0.30	0.30	0.030
APR 27...	0.30	*13	510	471	0.69	<0.010	<0.050	0.010	0.49	0.50	0.50	0.040
MAY 25...	0.30	13	507	480	0.69	<0.010	<0.050	0.010	0.39	0.40	0.40	0.040
JUN 29...	0.40	13	504	487	0.69	0.010	<0.050	0.020	0.38	0.40	0.40	0.050
JUL 27...	0.40	13	528	480	0.72	<0.010	<0.050	0.020	0.38	0.40	0.40	0.040
AUG 30...	0.30	14	518	498	0.70	<0.010	<0.050	<0.010	0.30	0.30	0.30	0.050
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
FEB 24...	<0.010	<0.010	--	*4	*4	100	91	120	110	<1	<1.0	1
MAR 31...	0.030	0.030	0.09	4	4	<100	76	110	110	<1	<1.0	<1
APR 27...	<0.010	<0.010	--	5	4	<100	*85	120	110	<1	<1.0	<1
MAY 25...	<0.010	0.010	0.03	5	4	<100	96	110	120	<1	<1.0	<1
JUN 29...	0.010	<0.010	--	5	5	<100	89	110	110	<1	<1.0	<1
JUL 27...	0.020	<0.010	--	5	5	100	89	120	120	<1	<1.0	<1
AUG 30...	0.030	0.030	0.09	7	7	100	90	120	110	<1	<1.0	<1

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71990)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
FEB 24...	<1	2	1	200	<3	<1	<1	60	3	<0.10	<0.1	1
MAR 31...	<1	<1	<1	120	<3	<1	<1	50	5	<0.10	<0.1	1
APR 27...	<1	1	1	150	<3	<1	<1	90	7	<0.10	<0.1	1
MAY 25...	<1	1	<1	150	<3	<1	<1	70	5	<0.10	<0.1	1
JUN 29...	<1	<1	<1	100	<3	<1	<1	70	6	<0.10	<0.1	<1
JUL 27...	<1	1	2	90	<3	<1	<1	60	12	<0.10	<0.1	<2
AUG 30...	<1	<1	<1	70	3	<1	<1	180	2	<0.10	<0.1	1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
FEB 24...	1	<1	<1.0	<10	<3	3.8	0.8	<0.010	<0.01	7	1.1
MAR 31...	<1	<1	<1.0	<10	11	6.2	0.4	<0.010	<0.01	3	0.60
APR 27...	1	<1	<1.0	<10	11	3.8	1.5	<0.010	<0.01	3	0.85
MAY 25...	<1	<1	<1.0	<10	<3	*7.3	1.1	<0.010	<0.01	5	1.6
JUN 29...	1	<1	<1.0	<10	<3	3.5	1.4	<0.010	<0.01	3	1.6
JUL 27...	<1	<1	<1.0	<10	<3	3.5	0.5	<0.010	<0.01	3	1.2
AUG 30...	<1	<1	<1.0	<10	7	3.6	1.2	<0.010	<0.01	3	0.94

* Value verified.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW MARSHALL DAM, AZ

LOCATION.—Lat 33°49'55", long 112°16'24", in SE 1/4, sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 13070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.—1,459 mi².

PERIOD OF RECORD.—December 1950 to September 1958, April 1975, March 1982 to May 1983, March 1991 to current year.

REMARKS.—No flow in channel or diversions to Beardsley Canal Nov. 16 to Jan. 31, and Mar. 25, 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CONIC FEET PER SECOND (00041)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	HARD-NESS, PRES-SURE (PSI) (00025)	CHLORINE, DIS-SOLVED (MG/L) (00300)	CHLORINE, SATUR-ATED (MG/L) (00301)	COLI-FORM, FCAL, 0.7 US-MF (COLS./100 ML) (31625)
MAR											
01...	0920	77	980	8.4	17.0	15.0	2.5	727	10.4	109	K42
29...	1105	126	950	8.3	10.0	14.0	2.5	726	11.0	112	K18
APR											
27...	1900	120	910	8.1	26.5	15.0	2.2	722	10.0	105	K18
JUN											
15...	1810	163	905	8.5	32.5	15.0	0.80	715	12.6	134	K9
JUL											
14...	1625	208	900	8.3	36.0	15.0	1.3	728	12.5	131	K7
AUG											
16...	1530	170	900	8.2	37.0	15.0	0.80	724	12.1	127	K59
29...	1640	119	905	8.3	37.5	17.0	1.4	724	12.4	136	34

DATE	STREPTOCOCCI, FCAL, 100 ML (31673)	HARD-NESS, TOTAL (MG/L) AS CaCO ₃ (00900)	HARD-NESS, DIS-SOLV FLD. AS CaCO ₃ (MG/L) AS CaCO ₃ (00904)	CALCIUM, DIS-SOLVED (MG/L) AS Ca (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS Mg (00925)	SODIUM, DIS-SOLVED (MG/L) AS Na (00930)	SODIUM, DIS-SOLVED (MG/L) AS Na (00931)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	BICAR-BONATE, DIS-SOLVED (MG/L) AS CO ₃ (00453)	CAR-BONATE, DIS-SOLVED (MG/L) AS CO ₃ (00452)	HY-DRICHLIDE, DIS-SOLVED (MG/L) AS Cl (71834)
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MAR											
01...	61	290	150	*71	*27	*89	2	4.8	162	3	0
29...	54	290	150	70	27	84	2	4.9	156	4	0
APR											
27...	24	270	140	67	26	83	2	4.7	161	0	0
JUN											
15...	24	270	140	67	25	84	2	4.6	152	3	0
JUL											
14...	21	260	130	63	24	79	2	4.9	149	2	0
AUG											
16...	K20	270	130	65	25	79	2	4.9	164	0	0
29...	22	260	120	64	24	75	2	4.6	160	3	0

DATE	ALKALI-NITY, TOT IT FLD. (MG/L) AS CaCO ₃ (39086)	SULFATE, DIS-SOLVED (MG/L) AS SO ₄ (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) AS Cl (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	SILICA, DIS-SOLVED (MG/L) AS SiO ₂ (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, DIS-SOLVED (MG/L) AS N (00620)	NITRO-GEN, DIS-SOLVED (MG/L) AS N (00618)	NITRO-GEN, DIS-SOLVED (MG/L) AS N (00615)
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MAR											
01...	138	230	81	0.40	*8.7	624	595	0.85	0.080	0.080	0.35
29...	135	220	78	0.40	9.0	596	575	0.81	0.130	0.130	0.58
APR											
27...	132	220	72	0.40	8.5	588	562	0.80	0.140	—	—
JUN											
15...	132	210	71	0.38	9.6	590	552	0.80	0.070	—	—
JUL											
14...	126	210	75	0.30	10	594	543	0.81	0.200	—	—
AUG											
16...	134	200	73	0.40	10	566	539	0.77	0.200	—	—
29...	135	210	78	0.30	11	552	549	0.75	—	—	—

DATE	NITRO-GEN, NITRATE, DIS-SOLVED (MG/L) AS N (00613)	NITRO-GEN, NO ₂ +NO ₃ , DIS-SOLVED (MG/L) AS N (00630)	NITRO-GEN, NO ₂ +NO ₃ , DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA, DIS-SOLVED (MG/L) AS N (00608)	NITRO-GEN, ORGANIC, TOTAL (MG/L) AS N (00605)	NITRO-GEN, AM-MONIA + ORGANIC, TOTAL (MG/L) AS N (00623)	NITRO-GEN, TOTAL (MG/L) AS N (00600)	PHOS-PHORUS, TOTAL (MG/L) AS P (00663)	PHOS-PHORUS, DIS-SOLVED (MG/L) AS P (00664)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L) AS P (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L) AS PO ₄ (00660)
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MAR											
01...	0.025	0.180	0.100	<0.015	0.20	0.20	0.30	0.020	<0.010	0.010	0.03
29...	0.010	0.140	0.140	<0.015	0.50	0.38	0.44	0.020	<0.010	0.020	0.06
APR											
27...	<0.010	0.140	0.140	<0.015	0.30	0.30	0.44	0.040	<0.010	<0.010	—
JUN											
15...	<0.010	0.070	0.070	0.020	0.28	0.30	0.37	0.020	0.010	<0.010	—
JUL											
14...	<0.010	0.200	0.200	0.040	0.26	0.30	0.50	0.050	0.030	0.030	0.09
AUG											
16...	<0.010	0.200	0.200	<0.015	0.20	0.20	0.40	0.030	0.030	0.020	0.06
29...	<0.010	—	<0.050	<0.015	0.30	0.30	0.30	0.030	<0.010	<0.010	—

* Value verified.

x Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09513600 AGUA FRIA RIVER BELOW WADSWORTH DAM, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAR 01...	4	4	<100	*120	130	130	<1	<1.0	<1	<1	1
29...	5	4	<100	110	140	130	<1	<1.0	<1	<1	1
APR 27...	4	4	<100	110	130	130	<1	<1.0	<1	<1	2
JUN 15...	3	3	100	110	120	110	<1	<1.0	1	<1	1
JUL 14...	4	4	100	97	120	110	<1	<1.0	<1	<1	<1
AUG 16...	5	4	<100	99	130	130	<1	<1.0	<1	<1	1
29...	5	4	<100	92	130	130	<1	<1.0	<1	<1	1

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71990)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
MAR 01...	<1	180	<3	<1	<1	60	3	<0.10	<0.1	2	*2
29...	<1	210	<3	1	<1	80	8	<0.10	<0.1	2	2
APR 27...	<1	150	<3	<1	<1	50	5	<0.10	<0.1	2	2
JUN 15...	<1	90	4	<1	<1	40	8	<0.10	<0.1	1	1
JUL 14...	<1	50	<3	<1	<1	40	10	<0.10	<0.1	<2	1
AUG 16...	<1	60	<3	<1	<1	100	30	<0.10	<0.1	<2	<2
29...	<1	130	<3	<1	<1	130	29	<0.10	<0.1	1	<1

DATE	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDED (MG/L) (00154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (00155)
MAR 01...	<1	<1.0	<10	<3	3.6	0.4	<0.010	<0.01	6	1.2
29...	<1	<1.0	<10	<3	3.5	0.4	<0.010	<0.01	5	1.7
APR 27...	<1	<1.0	<10	3	*8.3	0.3	<0.010	<0.01	8	2.4
JUN 15...	<1	<1.0	<10	<3	3.7	0.4	<0.010	<0.01	3	1.1
JUL 14...	<1	<1.0	<10	<3	3.7	0.7	<0.010	<0.01	5	2.8
AUG 16...	<1	<1.0	<10	<3	3.6	0.3	<0.010	<0.01	5	2.2
29...	<1	<1.0	<10	5	3.4	0.7	<0.010	<0.01	2	0.64

* Value verified.

< Actual value is known to be less than value shown.

**2. CAP Canal at MP 162.3 at 7th Street at
Phoenix, AZ**

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE¼SE¼ sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15050106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to September 1985.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
JUL 1985													
19...	1230	0.0	338	8.00	40.0	29.5	--	721	8.1	--	--	--	
AUG													
30...	1045	569	953	8.90	39.0	31.0	7	720	9.4	--	40	K8	
SEP													
26...	0955	0.0	1010	8.50	31.0	25.0	--	720	8.0	104	--	--	
DATE		HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JUL 1985													
19...	57	0	13	6.0	47	3	9.1	--	--	--	--	36	
AUG													
30...	180	85	33	23	130	4	19	86	13	91	<0.5	240	
SEP													
26...	280	170	63	31	100	3	7.4	120	7.0	108	--	290	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)
JUL 1985													
19...	17	1.0	17	217	210	0.3	<0.10	<0.10	--	0.8	0.01	--	
AUG													
30...	85	1.1	17	602	620	0.82	<0.10	<0.10	0.02	1.1	0.02	<0.01	
SEP													
26...	81	0.4	9.6	678	660	0.92	<0.10	<0.10	--	0.5	0.02	--	
DATE		PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
JUL 1985													
19...	0.01	0.03	--	--	--	--	--	60	--	--	--	--	
AUG													
30...	<0.01	--	4	4	<100	120	320	230	1	10	<1	8	
SEP													
26...	0.01	0.03	--	--	--	--	--	150	--	--	--	--	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER-QUALITY DATA

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 1985 19...	--	--	<3	--	--	--	--	--	--	--	--
AUG 30...	2	190	4	<100	<1	20	<0.1	7	<1	<1	40
SEP 26...	--	--	<3	--	--	--	--	--	--	--	--
DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
JUL 1985 19...	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	14	<0.01	<1	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 26...	--	--	--	--	--	--	--	--	--	--	--
DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUL 1985 19...	--	--	--	--	--	--	--	--	--	5	--
AUG 30...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<1	13	20
SEP 26...	--	--	--	--	--	--	--	--	--	3	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE&SE&SE& sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
OCT 1985													
31...	1100	0.0	1040	8.30	21.0	21.0	--	714	8.3	100	--	--	
NOV													
27...	0915	0.0	1030	8.52	13.5	13.5	--	725	9.8	99	--	--	
DEC													
17...	0930	0.0	1010	8.50	9.5	10.0	--	729	10.6	98	43	--	
JAN 1986													
27...	0920	0.0	1010	8.39	13.0	13.0	--	724	10	100	--	--	
FEB													
24...	1020	0.0	972	8.18	21.5	16.0	--	728	7.3	78	--	--	
MAR													
24...	1035	0.0	435	8.19	24.5	18.0	--	727	5.8	64	68	--	
APR													
28...	0900	0.0	994	8.36	28.0	21.5	--	723	7.8	94	--	--	
MAY													
28...	1510	0.0	1020	8.70	40.5	27.0	--	717	9.8	132	--	--	
JUN													
27...	0850	0.0	972	8.58	38.0	29.0	--	721	8.4	116	35	--	
JUL													
25...	1200	0.0	870	8.40	33.0	29.0	--	720	9.2	127	--	--	
AUG													
20...	0835	0.0	824	8.49	34.0	30.0	10	721	7.3	103	22	44	
SEP													
30...	0855	0.0	822	8.49	25.0	23.0	--	721	8.9	110	--	--	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
OCT 1985													
31...	--	280	190	62	31	110	3	8.0	--	--	91	--	
NOV													
27...	--	280	170	55	31	100	3	7.9	103	5.0	92	--	
DEC													
17...	--	270	180	58	31	110	3	8.1	101	4.0	90	--	
JAN 1986													
27...	--	260	170	51	31	110	3	8.1	105	1.0	86	--	
FEB													
24...	--	270	160	59	29	100	3	7.8	128	0	104	--	
MAR													
24...	--	130	14	33	11	35	1	6.8	139	0	112	--	
APR													
28...	--	270	170	60	29	97	3	6.8	118	4.0	104	--	
MAY													
28...	--	250	160	50	30	100	3	7.4	98	2.0	86	--	
JUN													
27...	--	260	150	56	29	98	3	6.7	134	2.0	109	--	
JUL													
25...	--	240	140	54	26	84	2	5.7	112	7.0	103	--	
AUG													
20...	35	250	130	57	25	76	2	3.9	132	2.0	113	<0.5	
SEP													
30...	--	230	130	53	24	70	2	4.2	118	1.0	100	--	

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 152.3 AT 7TH STREET AT PHOENIX, AZ-Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN TOTAL (MG/L AS N) (00600)
OCT 1985												
31...	310	90	0.40	2.3	696	680	0.95	<0.100	<0.100	--	0.50	--
NOV												
27...	240	74	0.40	8.1	622	580	0.85	<0.100	<0.100	--	0.50	--
DEC												
17...	280	78	0.40	7.7	644	630	0.88	<0.100	<0.100	0.040	0.50	--
JAN 1986												
27...	310	87	0.40	3.5	846	650	0.88	<0.100	<0.100	--	0.60	--
FEB												
24...	290	81	0.40	3.8	630	630	0.86	<0.100	<0.100	--	0.60	--
MAR												
24...	77	21	0.30	3.2	284	260	0.39	0.100	0.110	1.40	2.8	2.9
APR												
28...	290	78	0.40	2.6	654	630	0.89	<0.100	<0.100	--	0.50	--
MAY												
28...	270	79	0.40	4.4	855	590	0.90	<0.100	<0.100	--	0.50	--
JUN												
27...	270	74	0.40	9.2	651	610	0.89	<0.100	<0.100	0.020	0.50	--
JUL												
25...	210	63	0.30	9.4	579	520	0.79	<0.100	<0.100	--	0.50	--
AUG												
20...	220	61	0.30	7.8	516	520	0.70	<0.100	<0.100	0.020	0.60	--
SEP												
30...	220	59	0.30	6.3	520	500	0.71	<0.100	<0.100	--	0.80	--

DATE	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1985											
31...	--	0.020	--	<0.010	--	--	--	--	--	--	170
NOV											
27...	--	0.020	--	<0.010	--	--	--	--	--	--	160
DEC											
17...	--	0.010	<0.010	<0.010	--	2	2	<100	98	--	150
JAN 1986											
27...	--	0.020	--	0.010	0.03	--	--	--	--	--	150
FEB											
24...	--	0.010	--	<0.010	--	--	--	--	--	--	150
MAR											
24...	13	0.040	0.010	<0.010	--	4	4	100	59	--	70
APR											
28...	--	0.010	--	<0.010	--	--	--	--	--	--	150
MAY											
28...	--	0.020	--	<0.010	--	--	--	--	--	--	160
JUN											
27...	--	0.010	<0.010	0.020	0.06	2	2	100	91	--	150
JUL											
25...	--	0.010	--	<0.010	--	--	--	--	--	--	120
AUG											
20...	--	0.020	0.020	<0.010	--	2	2	100	92	200	120
SEP											
30...	--	0.010	--	<0.010	--	--	--	--	--	--	110

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01048)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1985											
31...	--	--	--	--	--	--	36	--	--	--	--
NOV											
27...	--	--	--	--	--	--	12	--	--	--	--
DEC											
17...	<1	10	<1	--	<1	--	<3	<100	<1	--	<0.10
JAN 1986											
27...	--	--	--	--	--	--	6	--	--	--	--
FEB											
24...	--	--	--	--	--	--	<3	--	--	--	--
MAR											
24...	<1	11	<1	--	2	--	22	100	1	--	<0.10
APR											
28...	--	--	--	--	--	--	8	--	--	--	--
MAY											
28...	--	--	--	--	--	--	9	--	--	--	--
JUN											
27...	<1	17	<1	--	1	--	4	<100	<5	--	<0.10
JUL											
25...	--	--	--	--	--	--	6	--	--	--	--
AUG											
20...	<1	<1	<1	5	<1	60	3	<100	<5	<10	<0.10
SEP											
30...	--	--	--	--	--	--	3	--	--	--	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01082)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
OCT 1985											
31...	--	--	--	--	--	--	--	--	--	--	12
NOV											
27...	--	--	--	--	--	--	--	--	--	--	6
DEC											
17...	--	<1	<1	--	13	--	13	<0.010	<1	--	6
JAN 1986											
27...	--	--	--	--	--	--	--	--	--	--	3
FEB											
24...	--	--	--	--	--	--	--	--	--	--	2
MAR											
24...	--	<1	<1	--	11	--	--	--	<1	--	478
APR											
28...	--	--	--	--	--	--	--	--	--	--	9
MAY											
28...	--	--	--	--	--	--	--	--	--	--	1
JUN											
27...	--	<1	<1	--	10	8.6	19	<0.010	2	--	--
JUL											
25...	--	--	--	--	--	--	--	--	--	--	3
AUG											
20...	8	<1	<1	20	10	5.3	20	<0.010	1	0.05	6
SEP											
30...	--	--	--	--	--	--	--	--	--	--	3

PESTICIDE ANALYSES

DATE	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
AUG 1986									
20...	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)
AUG 1986								
20...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE1/4SE1/4 sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15050105, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year.

REMARKS.--Water ponded in canal on dates sampled.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
OCT 1986													
24...	0805	0.0	774	8.70	15.5	18.0	--	726	10.4	118	41	--	
NOV													
21...	0745	0.0	820	8.79	18.5	17.0	--	721	10.1	111	--	--	
DEC													
17...	1105	0.0	820	8.29	15.5	12.0	--	722	8.8	86	--	--	
JAN 1987													
23...	0810	0.0	847	8.10	8.0	9.0	--	720	9.5	87	22	--	
FEB													
24...	1000	0.0	830	8.32	8.0	13.0	--	714	--	--	--	--	
MAR													
26...	1200	0.0	830	8.36	20.0	16.0	--	722	13.2	142	--	--	
APR													
24...	0910	0.0	825	8.70	25.5	21.0	--	721	10.4	124	12	--	
MAY													
22...	0830	0.0	852	8.59	22.0	25.0	--	722	9.8	126	--	--	
JUN													
26...	0835	0.0	852	8.42	35.0	28.0	--	720	9.6	131	--	--	
JUL													
17...	1030	0.0	845	8.42	32.0	27.0	2	718	8.0	107	32	100	
AUG													
25...	0945	0.0	846	8.29	32.5	28.0	--	721	7.8	106	--	--	
SEP													
24...	1015	0.0	832	8.11	24.0	25.0	--	723	9.6	123	--	--	
DATE		STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WE WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WE FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WE FET FIELD MG/L AS CO3 (00445)	ALKA- LINITY WAT WE TOT FET FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
OCT 1986													
24...	--	230	140	51	25	77	2	4.3	100	6	92	--	--
NOV													
21...	--	230	140	48	26	80	2	4.4	95	10	93	--	--
DEC													
17...	--	220	130	47	25	78	2	4.5	100	0	86	--	--
JAN 1987													
23...	--	240	150	52	26	82	2	4.9	100	0	88	--	--
FEB													
24...	--	220	140	47	26	81	2	4.4	99	4	88	--	--
MAR													
26...	--	260	140	63	25	75	2	3.9	140	6	124	--	--
APR													
24...	--	260	140	62	26	74	2	3.9	150	1	124	--	--
MAY													
22...	--	250	130	58	25	76	2	3.8	120	6	115	--	--
JUN													
26...	--	260	140	61	25	73	2	3.9	140	4	120	--	--
JUL													
17...	31	260	140	62	25	74	2	3.8	140	3	120	<0.5	--
AUG													
25...	--	250	150	60	25	75	2	4.1	130	0	105	--	--
SEP													
24...	--	250	140	57	25	74	2	1.9	130	0	108	--	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 182.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)
OCT 1986												
24...	230	63	0.30	5.7	532	518	0.72	<0.100	<0.100	0.060	0.90	<0.010
NOV												
21...	230	61	0.30	5.3	525	523	0.71	<0.100	<0.100	--	0.20	0.020
DEC												
17...	220	60	0.30	4.8	531	491	0.72	<0.100	<0.100	--	0.80	0.010
JAN 1987												
23...	240	66	0.30	4.9	524	528	0.71	<0.100	<0.100	0.100	0.60	0.020
FEB												
24...	250	61	0.30	6.3	522	533	0.71	<0.100	<0.100	--	0.70	0.010
MAR												
26...	210	59	0.40	6.0	527	524	0.72	<0.100	<0.100	--	0.20	<0.010
APR												
24...	220	59	0.30	6.3	543	528	0.74	<0.100	<0.100	0.010	0.60	0.010
MAY												
22...	230	59	0.30	6.7	529	533	0.72	<0.100	<0.100	--	0.80	0.010
JUN												
26...	220	60	0.30	7.3	547	529	0.74	<0.100	<0.100	--	1.2	0.040
JUL												
17...	200	57	0.30	6.6	536	506	0.73	<0.100	<0.100	<0.010	1.4	0.020
AUG												
25...	190	100	0.30	9.4	--	528	0.72	<0.100	<0.100	--	0.30	<0.010
SEP												
24...	230	61	0.30	8.2	544	520	0.74	<0.100	<0.100	--	0.50	0.020

DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHOROUS ORGANIC TOTAL (MG/L AS P) (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P) (00673)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
OCT 1986												
24...	0.010	<0.010	--	--	0.01	2	2	<100	89	--	110	<1
NOV												
21...	--	<0.010	--	0.02	--	--	--	--	--	--	110	--
DEC												
17...	--	<0.010	--	0.01	--	--	--	--	--	--	110	--
JAN 1987												
23...	0.010	0.010	0.03	0.02	0.0	2	2	100	85	--	110	<1
FEB												
24...	--	<0.010	--	0.01	--	--	--	--	--	--	120	--
MAR												
26...	--	0.010	0.03	--	--	--	--	--	--	--	100	--
APR												
24...	0.010	<0.010	--	0.01	0.01	2	2	<100	93	--	110	<1
MAY												
22...	--	<0.010	--	0.01	--	--	--	--	--	--	110	--
JUN												
26...	--	0.010	0.03	0.04	--	--	--	--	--	--	100	--
JUL												
17...	0.060	<0.010	--	0.02	0.06	2	1	200	95	90	100	<1
AUG												
25...	--	<0.010	--	--	--	--	--	--	--	--	110	--
SEP												
24...	--	<0.010	--	0.02	--	--	--	--	--	--	110	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR) (01032)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01048)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)
OCT 1986											
24...	<1	<1	--	2	--	4	<100	<5	--	<0.10	--
NOV											
21...	--	--	--	--	--	6	--	--	--	--	--
DEC											
17...	--	--	--	--	--	<3	--	--	--	--	--
JAN 1987											
23...	2	<1	--	3	--	4	<100	<5	--	<0.10	--
FEB											
24...	--	--	--	--	--	5	--	--	--	--	--
MAR											
26...	--	--	--	--	--	4	--	--	--	--	--
APR											
24...	<1	<1	--	5	--	<3	<100	8	--	0.10	--
MAY											
22...	--	--	--	--	--	<3	--	--	--	--	--
JUN											
26...	--	--	--	--	--	<3	--	--	--	--	--
JUL											
17...	<1	<1	4	3	60	4	<100	<5	20	<0.10	2
AUG											
25...	--	--	--	--	--	13	--	--	--	--	--
SEP											
24...	--	--	--	--	--	7	--	--	--	--	--

DATE	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1986											
24...	<1	<1.0	--	<3	6.4	16	<0.010	<1	--	8	0.0
NOV											
21...	--	--	--	--	--	--	--	--	--	4	0.0
DEC											
17...	--	--	--	--	--	--	--	--	--	15	0.0
JAN 1987											
23...	<1	<1.0	--	10	--	16	<0.010	<1	--	1	0.0
FEB											
24...	--	--	--	--	--	--	--	--	--	8	0.0
MAR											
26...	--	--	--	--	--	--	--	--	--	5	0.0
APR											
24...	<1	<1.0	--	<3	--	18	<0.010	3	--	2	0.0
MAY											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN											
26...	--	--	--	--	--	--	--	--	--	3	0.0
JUL											
17...	2	<1.0	10	16	4.0	20	<0.010	--	0.03	1	0.0
AUG											
25...	--	--	--	--	--	--	--	--	--	6	0.0
SEP											
24...	--	--	--	--	--	--	--	--	--	2	0.0

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE&SE&SE sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year.

REMARKS.--Water ponded in canal on dates sampled.

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	
OCT 1987												
22...	1045	0.0	800	8.10	26.0	22.5	--	720	11.3	139	17	
NOV												
20...	0840	0.0	793	8.58	11.5	14.0	--	729	10.4	106	--	
DEC												
31...	1305	0.0	820	8.00	11.0	9.0	--	729	11.6	105	--	
JAN 1988												
25...	0935	0.0	830	8.01	15.5	9.0	--	732	12.0	108	<10	
FEB												
26...	1045	0.0	820	8.46	20.0	15.0	--	722	10.2	107	--	
MAR												
25...	1040	0.0	868	8.51	24.5	18.0	--	723	10.2	114	--	
APR												
25...	1115	0.0	850	8.25	24.0	21.0	--	722	8.2	88	<10	
MAY												
25...	1030	0.0	860	8.39	29.0	26.0	--	721	9.0	117	--	
JUN												
24...	1100	0.0	855	8.29	32.5	28.5	--	718	8.0	110	--	
JUL												
21...	1105	0.0	860	8.38	37.0	29.0	2	725	7.8	107	22	
AUG												
22...	1020	0.0	870	8.21	33.0	29.0	--	725	7.7	106	--	
SEP												
27...	1040	0.0	855	8.25	32.0	26.0	--	723	9.5	124	--	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	HY- DROXIDE WATER DIS IT FIELD MG/L AS OH (71834)
OCT 1987												
22...	--	250	140	57	25	74	2	4.0	119	0	0	0
NOV												
20...	--	230	140	50	25	75	2	4.1	110	3	0	0
DEC												
31...	--	250	150	57	26	74	2	3.8	124	0	0	0
JAN 1988												
25...	--	270	140	65	26	74	2	4.0	150	0	0	0
FEB												
26...	--	260	140	64	25	75	2	3.8	123	4	0	0
MAR												
25...	--	260	120	63	25	85	2	3.5	140	4	0	0
APR												
25...	--	270	140	64	26	75	2	3.8	150	0	0	0
MAY												
25...	--	270	140	64	26	78	2	4.1	139	5	0	0
JUN												
24...	--	270	140	64	26	75	2	4.1	149	0	0	0
JUL												
21...	K17	270	140	64	26	77	2	3.7	143	1	0	0
AUG												
22...	--	250	130	59	25	72	2	3.6	145	0	0	0
SEP												
27...	--	260	140	58	27	80	2	4.0	124	0	0	0

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39085)	SULFATE DIS- SOLVED MG/L AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED MG/L AS CL (00940)	FLUO- RIDE, DIS- SOLVED MG/L AS F (00950)	SILICA, DIS- SOLVED MG/L AS SiO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED MG/L (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED MG/L (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL MG/L AS N (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED MG/L AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED MG/L AS N (00608)
OCT 1987											
22...	98	190	60	0.30	7.9	532	479	0.72	<0.100	<0.100	0.010
NOV											
20...	95	210	61	0.30	7.4	522	489	0.71	<0.100	<0.100	--
DEC											
31...	102	230	59	0.40	8.5	523	521	0.71	<0.100	<0.100	--
JAN 1988											
25...	123	220	60	0.30	8.6	546	539	0.74	0.100	<0.100	0.020
FEB											
26...	108	230	59	0.30	8.0	539	536	0.73	<0.100	<0.100	--
MAR											
25...	121	220	63	0.40	7.8	552	551	0.75	<0.100	0.120	--
APR											
25...	123	230	61	0.30	6.8	556	543	0.76	<0.100	<0.100	0.050
MAY											
25...	122	230	63	0.40	7.6	561	550	0.76	0.100	0.120	--
JUN											
24...	122	230	62	0.30	7.9	567	546	0.77	0.100	<0.100	--
JUL											
21...	119	230	62	0.30	8.0	557	548	0.76	<0.100	0.140	0.010
AUG											
22...	119	220	60	0.30	8.9	543	520	0.74	<0.100	<0.100	--
SEP											
27...	102	230	64	0.30	8.5	548	539	0.75	<0.100	<0.100	--
DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL MG/L AS N (00625)	NITRO- GEN, TOTAL MG/L AS N (00600)	NITRO- GEN, TOTAL MG/L AS NO3 (71887)	PHOS- PHOROUS TOTAL MG/L AS P (00665)	PHOS- PHOROUS DIS- SOLVED MG/L AS P (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED MG/L AS P (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED MG/L AS PO4 (00660)	PHOS- PHOROUS ORGANIC TOTAL MG/L AS P (00670)	PHOS- PHOROUS ORGANIC DIS- SOLVED MG/L AS P (00673)	ARSENIC TOTAL UG/L AS AS (01002)	ARSENIC DIS- SOLVED UG/L AS AS (01000)
OCT 1987											
22...	0.40	--	--	<0.010	<0.010	<0.010	--	--	--	2	2
NOV											
20...	0.90	--	--	0.010	--	<0.010	--	0.01	--	--	--
DEC											
31...	0.20	--	--	0.010	--	<0.010	--	0.01	--	--	--
JAN 1988											
25...	0.30	0.40	1.8	<0.010	0.010	<0.010	--	--	0.01	2	2
FEB											
26...	0.20	--	--	0.020	--	<0.010	--	0.02	--	--	--
MAR											
25...	0.30	--	--	<0.010	--	<0.010	--	--	--	--	--
APR											
25...	0.30	--	--	0.030	0.020	0.020	0.06	0.03	0.0	2	2
MAY											
25...	0.40	0.50	2.2	0.020	--	<0.010	--	0.02	--	--	--
JUN											
24...	0.70	0.80	3.5	<0.010	--	<0.010	--	--	--	--	--
JUL											
21...	<0.20	--	--	0.020	0.020	<0.010	--	0.02	0.02	3	2
AUG											
22...	0.30	--	--	0.020	--	<0.010	--	0.02	--	--	--
SEP											
27...	0.80	--	--	0.010	--	<0.010	--	0.01	--	--	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM, TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1987											
22...	100	92	--	100	<1	<1	<1	--	5	--	4
NOV											
20...	--	--	--	100	--	--	--	--	--	--	<3
DEC											
31...	--	--	--	90	--	--	--	--	--	--	<3
JAN 1988											
25...	200	97	--	90	1	4	1	--	6	--	8
FEB											
26...	--	--	--	100	--	--	--	--	--	--	5
MAR											
25...	--	--	--	130	--	--	--	--	--	--	12
APR											
25...	<100	94	--	110	1	5	<1	--	7	--	7
MAY											
25...	--	--	--	110	--	--	--	--	--	--	4
JUN											
24...	--	--	--	100	--	--	--	--	--	--	12
JUL											
21...	<100	100	80	100	1	3	<1	9	2	300	6
AUG											
22...	--	--	--	100	--	--	--	--	--	--	<3
SEP											
27...	--	--	--	110	--	--	--	--	--	--	<3

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)
OCT 1987											
22...	<100	<5	--	<0.10	--	<1	<1.0	--	11	7.1	22
NOV											
20...	--	--	--	--	--	--	--	--	--	--	--
DEC											
31...	--	--	--	--	--	--	--	--	--	--	--
JAN 1988											
25...	<100	<5	--	<0.10	--	<1	<1.0	--	6	--	22
FEB											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
25...	<100	<5	--	<0.10	--	<1	<1.0	--	8	--	20
MAY											
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<100	<5	20	<0.10	5	<1	2.0	<10	11	--	20
AUG											
22...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
OCT 1987											
22...	<0.010	1	--	--	--	--	--	--	--	--	--
NOV											
20...	--	--	--	--	--	--	--	--	--	--	--
DEC											
31...	--	--	--	--	--	--	--	--	--	--	--
JAN 1988											
25...	<0.010	1	--	--	--	--	--	--	--	--	--
FEB											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
25...	<0.010	2	--	--	--	--	--	--	--	--	--
MAY											
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	--	3	0.02	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
AUG											
22...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TCX- APRENE, TOTAL (UG/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1987											
22...	--	--	--	--	--	--	--	--	--	17	0.0
NOV											
20...	--	--	--	--	--	--	--	--	--	8	0.0
DEC											
31...	--	--	--	--	--	--	--	--	--	3	0.0
JAN 1988											
25...	--	--	--	--	--	--	--	--	--	41	0.0
FEB											
26...	--	--	--	--	--	--	--	--	--	7	0.0
MAR											
25...	--	--	--	--	--	--	--	--	--	3	0.0
APR											
25...	--	--	--	--	--	--	--	--	--	3	0.0
MAY											
25...	--	--	--	--	--	--	--	--	--	5	0.0
JUN											
24...	--	--	--	--	--	--	--	--	--	15	0.0
JUL											
21...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1	30	0.0
AUG											
22...	--	--	--	--	--	--	--	--	--	12	0.0
SEP											
27...	--	--	--	--	--	--	--	--	--	16	0.0

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ
(Formerly published as CAP Canal at MP 162.3 at 7th Street at Phoenix, AZ)

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE¼SE¼ sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15080106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year.

REMARKS.--Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of water pumped in the canal at the Hassayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant and the sampling site.

WATER QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	
OCT 1988													
27...	0955	*0.0	862	8.4	22.0	23.0	725	10.9	134	22	260	160	
NOV 17...	1020	*0.0	860	8.3	12.5	17.5	720	9.9	110	--	270	160	
DEC 20...	1230	*0.0	870	8.4	12.5	12.0	726	11.2	109	--	270	140	
JAN 1989													
20...	1030	*0.0	835	8.4	17.0	10.0	727	11.2	104	19	270	140	
FEB 17...	1205	*0.0	860	8.5	23.5	14.0	743	12.0	120	--	260	140	
MAR 16...	1015	1060	894	8.4	25.5	18.0	721	8.9	100	--	270	139	
APR 21...	0930	*0.0	920	8.4	33.5	24.5	718	8.0	102	31	280	160	
MAY 23...	1045	727	872	8.3	37.0	25.0	720	8.4	108	--	270	170	
JUN 27...	1105	1990	913	8.4	38.0	26.0	719	8.5	112	--	280	150	
JUL 19...	1015	1790	910	8.5	41.0	28.0	720	8.2	112	--	280	170	
AUG 18...	0840	2360	932	8.4	31.0	29.0	721	7.6	105	--	280	150	
SEP 14...	0925	878	930	8.1	31.0	25.0	721	8.3	106	--	280	150	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	HY-DROXIDE WATER DIS IT FIELD (MG/L AS OH) (71834)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 1988													
27...	58	29	85	2	4.2	116	5	0	103	230	67	0.30	
NOV 17...	60	29	82	2	3.8	121	5	0	107	230	64	0.30	
DEC 20...	64	26	75	2	3.4	151	1	0	125	230	64	0.30	
JAN 1989													
20...	64	26	79	2	4.0	143	8	0	131	230	63	0.30	
FEB 17...	61	26	81	2	3.9	143	1	0	119	230	64	0.30	
MAR 16...	67	26	80	2	3.8	161	6	0	142	230	64	0.30	
APR 21...	69	26	80	2	4.4	143	2	0	121	230	65	0.30	
MAY 23...	65	27	82	2	4.1	120	2	0	102	240	68	0.30	
JUN 27...	66	27	83	2	4.1	151	1	0	125	240	71	0.30	
JUL 19...	68	27	84	2	4.1	135	2	0	114	240	70	0.30	
AUG 18...	66	27	85	2	4.0	151	4	0	130	240	64	0.30	
SEP 14...	66	27	85	2	4.0	150	0	0	123	240	64	0.30	

* No velocity observed in canal at this time.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)
OCT 1988												
27...	1.3	553	542	0.75	<0.100	<0.100	<0.010	0.40	--	--	0.010	0.010
NOV												
17...	7.8	551	547	0.75	<0.100	<0.100	--	0.50	--	--	0.010	--
DEC												
20...	7.8	569	547	0.77	<0.100	<0.100	--	0.60	--	--	0.020	--
JAN 1989												
20...	7.6	560	561	0.76	<0.100	<0.100	0.020	0.30	--	--	<0.010	<0.010
FEB												
17...	6.2	550	545	0.75	<0.100	<0.100	--	0.30	--	--	0.010	--
MAR												
16...	8.6	577	572	0.78	0.200	0.150	--	0.20	0.40	1.8	0.020	--
APR												
21...	8.4	574	558	0.78	0.150	*0.160	0.020	0.20	0.35	1.5	<0.010	<0.010
MAY												
23...	7.5	583	558	0.79	<0.100	0.110	--	0.30	--	--	0.010	--
JUN												
27...	8.4	611	576	0.83	<0.100	<0.100	--	0.30	--	--	0.010	--
JUL												
19...	9.2	588	573	0.81	<0.100	<0.100	0.010	0.90	--	--	0.040	0.020
AUG												
18...	9.0	589	578	0.80	<0.100	<0.100	--	1.4	--	--	0.020	--
SEP												
14...	9.2	572	569	0.78	<0.100	<0.100	--	0.30	--	--	<0.010	--
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1988												
27...	<0.010	--	3	2	100	99	120	<1	<1	<1	<1	7
NOV												
17...	<0.010	--	--	--	--	--	110	--	--	--	--	7
DEC												
20...	<0.010	--	--	--	--	--	100	--	--	--	--	5
JAN 1989												
20...	<0.010	--	2	2	<100	99	--	<1	2	<1	1	10
FEB												
17...	<0.010	--	--	--	--	--	110	--	--	--	--	4
MAR												
16...	0.010	0.03	--	--	--	--	100	--	--	--	--	<3
APR												
21...	<0.010	--	3	3	100	100	110	<1	<1	<1	3	5
MAY												
23...	<0.010	--	--	--	--	--	120	--	--	--	--	16
JUN												
27...	<0.010	--	--	--	--	--	120	--	--	--	--	10
JUL												
19...	0.010	0.03	2	2	100	100	110	<1	4	2	1	5
AUG												
18...	0.030	0.09	--	--	--	--	130	--	--	--	--	<3
SEP												
14...	0.010	0.03	--	--	--	--	140	--	--	--	--	4

* Value confirmed.

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1988											
27...	<100	<5	<0.10	<1	<1.0	5	10	<0.010	2	2	--
NOV											
17...	--	--	--	--	--	--	--	--	--	5	--
DEC											
20...	--	--	--	--	--	--	--	--	--	7	--
JAN 1989											
20...	<100	5	<0.10	<1	<1.0	17	27	<0.010	1	1	--
FEB											
17...	--	--	--	--	--	--	--	--	--	2	--
MAR											
16...	--	--	--	--	--	--	--	--	--	23	66
APR											
21...	<100	<5	<0.10	<1	<1.0	24	28	<0.010	--	4	--
MAY											
23...	--	--	--	--	--	--	--	--	2	3	5.9
JUN											
27...	--	--	--	--	--	--	--	--	--	21	113
JUL											
19...	<100	2	<0.10	1	<1.0	8	28	0.040	2	20	97
AUG											
18...	--	--	--	--	--	--	--	--	--	15	96
SEP											
14...	--	--	--	--	--	--	--	--	--	1	2.4

ADDITIONAL ANALYSES

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	SULFIDE TOTAL (MG/L AS S) (00745)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 1989										
19...	1015	12	K14	<0.5	170	7	280	20	4	20

PESTICIDE ANALYSES

DATE	TIME	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
JUL 1989										
19...	1015	0.04	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)
JUL 1989									
19...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE¼SE¼ sec. 8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year. Prior to October 1988, published as CAP Canal at MP 162.3 at 7th Street at Phoenix, AZ.

REMARKS.--Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of water pumped in the canal at the Hassayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant and the sampling site.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
OCT													
16...	0940	275	935	8.3	24.0	22.0	719	8.2	100	31	270	160	
NOV													
27...	0900	264	945	8.3	14.0	15.0	728	9.7	102	--	270	160	
DEC													
20...	0830	265	950	8.3	7.0	8.0	725	10.1	92	--	270	150	
JAN													
19...	0845	120	932	8.3	4.0	11.0	725	8.7	84	<10	270	150	
FEB													
15...	0815	250	968	8.3	-2.0	11.0	722	9.6	93	--	290	150	
MAR													
28...	0800	1400	950	8.2	17.0	18.0	717	8.9	100	--	280	160	
APR													
18...	0715	900	950	8.3	17.0	21.0	719	8.4	101	33	280	150	
MAY													
16...	0830	950	980	8.7	27.0	22.0	722	8.7	106	--	290	170	
JUN													
13...	1000	1750	1000	8.4	35.0	26.0	719	7.6	100	--	290	160	
JUL													
12...	0600	1730	975	8.3	36.0	28.0	720	7.6	103	15	290	160	
AUG													
17...	1000	325	950	8.4	32.0	29.0	720	7.3	101	--	270	160	
SEP													
19...	0740	800	1000	8.4	27.0	28.0	719	8.5	116	--	280	150	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	HY- DROXIDE WATER DIS IT FIELD MG/L AS OH (71834)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT													
16...	63	28	90	2	4.3	132	0	0	108	250	71	0.30	
NOV													
27...	64	27	86	2	4.5	133	1	0	111	250	71	0.30	
DEC													
20...	65	27	86	2	4.0	155	0	0	127	250	73	0.30	
JAN													
19...	65	27	87	2	3.8	149	0	0	122	250	74	0.30	
FEB													
15...	69	28	87	2	4.3	163	0	0	134	250	73	0.30	
MAR													
28...	70	27	84	2	4.4	156	0	0	128	210	62	0.10	
APR													
18...	68	27	85	2	3.9	161	0	0	132	250	75	0.30	
MAY													
16...	72	27	87	2	4.2	145	4	0	126	260	84	0.20	
JUN													
13...	71	28	85	2	4.0	159	1	0	132	260	77	0.30	
JUL													
12...	71	27	89	2	3.9	161	0	0	132	230	72	0.30	
AUG													
17...	65	26	85	2	4.3	133	1	0	111	250	77	0.30	
SEP													
19...	66	27	89	2	4.6	143	4	0	124	230	74	0.30	

* Value verified.

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	SILICA, DIS- SOLVED (MG/L AS STO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00500)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
OCT 16...	8.8	580	581	0.79	<0.100	<0.100	0.020	0.30	--	--	0.020	<0.010
NOV 27...	7.4	597	577	0.81	<0.100	<0.100	--	0.30	--	--	0.060	--
DEC 20...	7.5	608	589	0.83	<0.100	<0.100	--	<0.20	--	--	0.020	--
JAN 19...	6.4	616	587	0.84	<0.100	<0.100	0.020	0.30	--	--	0.040	<0.010
FEB 15...	6.1	628	598	0.85	<0.100	<0.100	--	*3.7	--	--	0.010	--
MAR 28...	7.9	633	543	0.86	0.200	0.200	--	<0.20	--	--	<0.010	--
APR 18...	7.9	604	596	0.82	0.100	<0.100	<0.010	0.20	0.30	1.3	<0.010	<0.010
MAY 16...	7.4	612	618	0.83	0.100	0.100	--	0.50	0.60	2.7	0.020	--
JUN 13...	8.0	622	613	0.85	0.100	0.100	--	0.30	0.40	1.8	<0.010	--
JUL 12...	9.1	621	583	0.84	0.100	0.200	<0.010	0.30	0.40	1.8	0.020	<0.010
AUG 17...	9.3	614	583	0.84	<0.100	<0.100	--	0.40	--	--	0.020	--
SEP 19...	9.3	607	575	0.83	<0.100	<0.100	--	0.30	--	--	0.010	--
DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 16...	<0.010	--	3	2	<100	100	120	<1	<1	1	2	6
NOV 27...	0.010	0.03	--	--	--	--	130	--	--	--	--	4
DEC 20...	<0.010	--	--	--	--	--	120	--	--	--	--	<3
JAN 19...	<0.010	--	2	2	100	100	120	<1	<1	<1	<10	<3
FEB 15...	<0.010	--	--	--	--	--	120	--	--	--	--	<3
MAR 28...	<0.010	--	--	--	--	--	120	--	--	--	--	<3
APR 18...	<0.010	--	2	2	100	100	120	<1	1	1	2	4
MAY 16...	<0.010	--	--	--	--	--	130	--	--	--	--	<3
JUN 13...	<0.010	--	--	--	--	--	130	--	--	--	--	<3
JUL 12...	0.030	0.09	3	2	<100	110	120	<1	1	<1	1	<3
AUG 17...	<0.010	--	--	--	--	--	130	--	--	--	--	<3
SEP 19...	<0.010	--	--	--	--	--	130	--	--	--	--	<3

* Value verified.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3 AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71800)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 16...	<100	<1	<0.10	<1	<1.0	11	22	<0.010	<1	0	0.0
NOV 27...	--	--	--	--	--	--	--	--	--	0	0.0
DEC 20...	--	--	--	--	--	--	--	--	--	0	0.0
JAN 19...	<100	<10	<0.10	<1	<1.0	<3	28	--	<1	0	0.0
FEB 15...	--	--	--	--	--	--	--	--	--	0	0.0
MAR 28...	--	--	--	--	--	--	--	--	--	5	19
APR 18...	<100	<1	<0.10	*<1	<1.0	<3	25	<0.010	<1	3	7.3
MAY 16...	--	--	--	--	--	--	--	--	--	5	13
JUN 13...	--	--	--	--	--	--	--	--	--	25	118
JUL 12...	<100	<1	<0.10	<1	<1.0	4	26	<0.010	5	22	103
AUG 17...	--	--	--	--	--	--	--	--	--	2	2.1
SEP 19...	--	--	--	--	--	--	--	--	--	4	7.8

* Value verified.

< Actual value is known to be less than value shown.

ADDITIONAL ANALYSES, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 12...	0600	<1	23	140	<1	150	<10	5	<10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
JUL 12...	0600	0.03	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APRENE, TOTAL (UG/L) (39400)
JUL 12...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

* Value verified.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MF 162.3, AT
7TH STREET, AT PHOENIX, AZ

LOCATION.--Lat 33°42'07", long 112°03'54", in NE&SE&SE& sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic
Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.--July 1985 to current year. Prior to October 1988, published as CAP Canal at MF 162.3 at 7th
Street at Phoenix, AZ.

REMARKS.--Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of
water pumped in the canal at the Hassayampa pumping plant near Lake Pleasant minus deliveries between the
pumping plant and the sampling site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE -AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARR DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT												
18...	0930	280	968	8.3	31.0	23.0	722	8.6	107	15	270	160
NOV												
19...	0820	300	980	8.3	16.5	17.0	717	10.3	114	--	290	170
DEC												
13...	0950	300	986	8.4	16.5	11.0	722	11.4	109	--	290	170
JAN												
17...	0855	0.0	998	8.4	11.0	10.0	724	11.4	107	13	280	160
FEB												
28...	0945	350	977	8.5	16.0	16.0	713	10.2	111	--	280	160
MAR												
21...	0840	500	1010	8.4	8.0	8.5	718	11.4	104	--	290	160
APR												
19...	0830	800	--	8.3	22.0	19.0	721	9.6	110	24	220	60
MAY												
16...	0840	535	990	8.6	22.0	22.0	719	9.2	112	--	290	160
JUN												
21...	0835	1100	1020	8.4	28.0	26.0	718	8.2	108	--	300	170
JUL												
19...	0900	1650	1050	8.4	33.0	28.5	719	8.4	115	17	300	170
SEP												
03...	0745	960	1030	8.4	29.0	27.0	722	7.9	105	--	300	170
19...	0915	350	1020	8.1	29.0	26.0	721	8.1	106	--	290	170

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	HY- DROXIDE WATER DIS IT FIELD (MG/L AS OH (71834)	ALKA- LITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT												
18...	63	28	88	2	4.4	139	1	0	116	240	75	0.30
NOV												
19...	68	29	91	2	4.4	149	0	0	122	250	75	0.30
DEC												
13...	68	29	93	2	4.6	134	7	0	122	250	77	0.30
JAN												
17...	66	29	94	2	4.1	144	5	0	127	280	79	0.40
FEB												
28...	63	29	95	2	4.9	129	5	0	114	280	84	0.30
MAR												
21...	70	28	91	2	4.4	150	4	0	130	280	82	0.30
APR												
19...	52	22	90	3	6.6	185	5	0	160	160	80	0.70
MAY												
16...	68	29	98	3	5.0	142	7	0	128	270	86	0.40
JUN												
21...	72	29	100	3	4.4	140	6	0	125	280	86	0.20
JUL												
19...	71	29	94	2	4.7	138	6	0	123	290	82	0.30
SEP												
03...	70	30	92	2	4.5	143	6	0	127	260	78	0.10
19...	68	30	96	2	4.8	151	0	0	124	300	92	0.40

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
OCT 18...	9.0	609	577	0.83	<0.100	<0.100	0.010	0.40	--	--	<0.010	<0.010
NOV 19...	7.4	618	599	0.84	<0.100	<0.100	0.030	0.30	--	--	0.020	--
DEC 13...	7.8	645	603	0.88	<0.100	<0.100	0.020	0.60	--	--	<0.010	--
JAN 17...	6.9	634	635	0.86	<0.100	<0.100	0.020	0.30	--	--	<0.010	<0.010
FEB 28...	4.1	615	629	0.84	<0.100	<0.100	0.010	<0.20	--	--	<0.010	--
MAR 21...	7.1	638	641	0.87	0.050	0.072	<0.010	0.30	0.35	1.5	<0.010	--
APR 19...	12	523	521	0.71	*0.280	*0.300	0.020	0.60	0.88	3.9	0.030	<0.010
MAY 16...	6.9	638	640	0.87	0.051	<0.050	0.010	0.40	0.45	2.0	0.040	--
JUN 21...	6.8	650	653	0.88	<0.050	<0.050	<0.010	0.50	--	--	0.010	--
JUL 19...	8.0	660	653	0.90	0.064	<0.050	<0.010	0.60	0.66	2.9	0.020	0.010
SEP 03...	8.9	654	620	0.89	0.081	0.100	0.020	0.40	0.48	2.1	0.010	--
19...	8.6	630	674	0.86	<0.050	<0.050	0.020	0.30	--	--	<0.010	--
DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 18...	0.010	0.03	3	3	200	110	130	<1	<1	<1	2	<3
NOV 19...	<0.010	--	--	--	--	--	130	--	--	--	--	<3
DEC 13...	<0.010	--	--	--	--	--	130	--	--	--	--	7
JAN 17...	<0.010	--	2	2	<100	110	130	<1	<1	<1	2	<3
FEB 28...	<0.010	--	--	--	--	--	120	--	--	--	--	<3
MAR 21...	<0.010	--	--	--	--	--	120	--	--	--	--	4
APR 19...	<0.010	--	4	4	<100	81	200	<1	<1	<1	3	5
MAY 16...	<0.010	--	--	--	--	--	140	--	--	--	--	<3
JUN 21...	<0.010	--	--	--	--	--	140	--	--	--	--	5
JUL 19...	<0.010	--	3	3	200	120	130	<1	<1	<1	2	<3
SEP 03...	<0.010	--	--	--	--	--	130	--	--	--	--	4
19...	<0.010	--	--	--	--	--	140	--	--	--	--	<3

* Value verified.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 18...	<100	<1	<0.10	<1	<1.0	7	25	<0.010	<1	1	0.81
NOV 19...	--	--	--	--	--	--	--	--	--	2	1.2
DEC 13...	--	--	--	--	--	--	--	--	--	<0.5	0.32
JAN 17...	<100	<1	<0.10	<1	<1.0	3	27	<0.010	3	<0.5	--
FEB 28...	--	--	--	--	--	--	--	--	--	3	2.9
MAR 21...	--	--	--	--	--	--	--	--	--	1	1.1
APR 19...	4	<1	<0.10	*<1	<1.0	<3	36	<0.010	2	2	4.1
MAY 16...	--	--	--	--	--	--	--	--	--	2	2.9
JUN 21...	--	--	--	--	--	--	--	--	--	22	66
JUL 19...	4	1	<0.10	<1	<1.0	5	27	<0.010	2	19	83
SEP 03...	--	--	--	--	--	--	--	--	--	10	25
SEP 19...	--	--	--	--	--	--	--	--	--	6	5.5

ADDITIONAL ANALYSES, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCT FECAL, KF AGAR (COLS. FER 100 ML) (31673)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 19...	0900	1	28	K48	5	160	20	6	<10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
JUL 19...	0900	0.03	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHERE, TOTAL (UG/L) (39400)
JUL 19...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT NF 162.3, AT
7TH STREET, AT PHOENIX, AZ

LOCATION.—Lat 33°42'07", long 112°03'54", in NE 1/4, SE 1/4, sec. 9, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.—July 1985 to current year. Prior to October 1988, published as CAP Canal at NF 162.3 at 7th Street at Phoenix, AZ.

REMARKS.—Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of water pumped in the canal at the Massayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant and the sampling site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00041)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00093)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRESS- URE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 6.7 US-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, MF AGAR (COLS. PER 100 ML) (31673)
OCT											
24...	0825	125	1020	8.4	23.8	22.0	719	7.8	95	16	—
NOV											
21...	1035	130	1000	8.2	15.0	15.0	726	9.9	103	—	—
DEC											
11...	0930	285	1040	8.4	14.0	12.5	715	10.4	104	—	—
JAN											
14...	0920	150	—	8.3	5.0	10.0	723	10.8	—	12	—
FEB											
21...	0900	25	1020	8.6	13.0	14.5	724	11.2	116	—	—
MAR											
27...	0850	350	930	8.3	14.0	15.0	715	9.6	101	—	—
APR											
23...	0955	820	965	8.4	27.0	21.0	723	8.2	97	20	—
MAY											
21...	1255	1100	1050	8.4	24.0	20.0	717	7.8	92	—	—
JUN											
25...	1200	1500	1070	8.4	40.0	27.0	718	8.2	109	—	—
JUL											
31...	1130	1550	1060	8.4	34.0	28.0	724	7.8	105	<10	EL4
AUG											
28...	1015	690	1060	8.4	34.0	27.5	724	8.1	109	—	—
SEP											
28...	0920	420	1080	8.3	37.0	26.5	722	7.7	102	—	—

DATE	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	HY- DROXIDE WATER DIS IT FIELD (MG/L AS OH) (71834)	ALKA- LINIT TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00943)
OCT												
24...	280	170	63	29	100	3	4.9	129	2	0	109	290
NOV												
21...	290	190	66	31	100	3	4.8	128	0	0	105	300
DEC												
11...	280	160	66	28	97	3	4.7	128	11	0	124	280
JAN												
14...	290	180	68	29	96	2	4.7	131	2	0	111	290
FEB												
21...	280	170	63	29	95	2	4.2	124	6	0	112	270
MAR												
27...	200	73	49	20	56	2	3.4	156	2	0	132	*130
APR												
23...	250	100	60	24	83	2	5.2	169	4	0	145	190
MAY												
21...	310	190	73	31	100	2	4.3	148	4	0	128	280
JUN												
25...	310	180	76	29	99	2	4.7	150	6	0	133	260
JUL												
31...	300	170	72	29	98	2	4.5	145	4	0	126	290
AUG												
28...	320	210	77	30	100	2	4.5	151	1	0	109	270
SEP												
28...	290	170	67	29	100	3	4.9	131	5	0	116	280

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT											
24...	92	0.40	9.1	650	656	0.88	—	0.010	<0.010	<0.050	<0.050
NOV											
21...	92	0.30	7.1	660	664	0.90	—	0.020	<0.010	<0.050	<0.050
DEC											
11...	87	0.30	6.1	635	643	0.86	—	0.010	0.010	<0.050	<0.050
JAN											
14...	92	0.40	4.8	609	632	0.83	—	0.020	<0.010	<0.050	<0.050
FEB											
21...	87	0.30	4.6	628	622	0.85	—	<0.010	<0.010	<0.050	<0.050
MAR											
27...	48	0.40	11	380	397	0.53	0.130	0.010	<0.010	0.140	0.150
APR											
23...	78	0.30	11	320	336	0.71	—	<0.010	<0.010	<0.050	<0.050
MAY											
21...	96	0.40	7.1	644	671	0.88	—	0.010	0.010	<0.050	<0.050
JUN											
25...	89	0.40	7.9	638	646	0.89	—	<0.010	<0.010	*0.200	*0.096
JUL											
31...	90	0.40	7.6	670	676	0.91	—	<0.010	<0.010	0.095	0.095
AUG											
28...	90	0.30	8.0	662	646	0.90	—	<0.010	<0.010	0.069	0.061
SEP											
28...	94	0.30	8.4	662	653	0.90	—	<0.010	<0.010	<0.050	<0.050

* Value verified.

† Based on non-ideal colony count.

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS TOTAL (MG/L AS P) (00663)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00630)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)
OCT 24...	0.020	0.020	0.28	0.30	—	—	<0.010	0.03	<0.010	0.010	<0.010
NOV 21...	0.020	0.010	—	<0.20	—	—	0.010	—	—	<0.010	<0.010
DEC 11...	<0.010	0.020	—	<0.20	—	—	<0.010	—	—	<0.010	<0.010
JAN 14...	0.020	0.010	0.18	0.20	—	—	0.010	—	<0.010	<0.010	<0.010
FEB 21...	0.010	0.020	—	<0.20	—	—	<0.010	—	—	<0.010	<0.010
MAR 27...	0.030	0.020	0.27	0.30	0.44	1.9	0.030	0.06	—	0.020	0.020
APR 23...	0.020	0.050	—	<0.20	—	—	<0.010	—	<0.010	<0.010	<0.010
MAY 21...	0.020	0.020	—	<0.20	—	—	0.030	—	—	<0.010	<0.010
JUN 25...	0.020	0.020	0.28	0.30	0.50	2.2	<0.010	—	—	<0.010	<0.010
JUL 31...	0.020	0.030	—	<0.20	—	—	<0.010	0.06	<0.010	0.020	<0.010
AUG 28...	0.010	0.020	0.19	0.20	0.27	1.2	<0.010	—	—	<0.010	<0.010
SEP 28...	0.010	0.020	0.29	0.30	—	—	<0.010	—	—	<0.010	0.020

DATE	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHROMIUM, REXY- VALENT, DIS- (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 24...	—	3	2	100	110	—	130	<1	<1	<1	—
NOV 21...	—	—	—	—	—	—	140	—	—	—	—
DEC 11...	—	—	—	—	—	—	130	—	—	—	—
JAN 14...	—	2	2	200	110	—	130	<1	<1	<1	—
FEB 21...	—	—	—	—	—	—	130	—	—	—	—
MAR 27...	0.06	—	—	—	—	—	100	—	—	—	—
APR 23...	—	4	4	<100	99	—	150	<1	<1	<1	—
MAY 21...	—	—	—	—	—	—	150	—	—	—	—
JUN 25...	—	—	—	—	—	—	140	—	—	—	—
JUL 31...	—	2	2	100	120	140	140	<1	<1	<1	7
AUG 28...	—	—	—	—	—	—	130	—	—	—	—
SEP 28...	0.06	—	—	—	—	—	150	—	—	—	—

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01043)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 24...	2	—	<1	3	<1	—	<0.10	—	<1	<1.0	—
NOV 21...	—	—	<1	—	—	—	—	—	—	—	—
DEC 11...	—	—	10	—	—	—	—	—	—	—	—
JAN 14...	3	—	<1	2	<1	—	<0.10	—	<1	<1.0	—
FEB 21...	—	—	5	—	—	—	—	—	—	—	—
MAR 27...	—	—	7	—	—	—	—	—	—	—	—
APR 23...	3	—	7	4	<1	—	0.10	—	<1	<1.0	—
MAY 21...	—	—	*88	—	—	—	—	—	—	—	—
JUN 25...	—	—	<1	—	—	—	—	—	—	—	—
JUL 31...	2	110	<1	2	<1	20	<0.10	5	<1	<1.0	<10
AUG 28...	—	—	3	—	—	—	—	—	—	—	—
SEP 28...	—	—	8	—	—	—	—	—	—	—	—

* Value verified.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SING. DIS- SOLVED (UG/L AS IS) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	PERNOLS TOTAL (UG/L) (32730)	ALDRIN TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDO, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAM, TOTAL (UG/L) (39388)	ENDRIN WATER UNFILTERED REC (UG/L) (39390)
OCT 24...	<3	<0.010	4	—	—	—	—	—	—	—	—
NOV 21...	—	—	—	—	—	—	—	—	—	—	—
DEC 11...	—	—	—	—	—	—	—	—	—	—	—
JAN 14...	<3	<0.010	<1	—	—	—	—	—	—	—	—
FEB 21...	—	—	—	—	—	—	—	—	—	—	—
MAR 27...	—	—	—	—	—	—	—	—	—	—	—
APR 23...	17	<0.010	<1	—	—	—	—	—	—	—	—
MAY 21...	—	—	—	—	—	—	—	—	—	—	—
JUN 25...	—	—	—	—	—	—	—	—	—	—	—
JUL 31...	6	<0.010	2	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
AUG 28...	—	—	—	—	—	—	—	—	—	—	—
SEP 28...	—	—	—	—	—	—	—	—	—	—	—

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	HAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- FRAME TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- AFERME, TOTAL (UG/L) (39400)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 24...	—	—	—	—	—	—	—	—	—	4	1.3
NOV 21...	—	—	—	—	—	—	—	—	—	0	0.14
DEC 11...	—	—	—	—	—	—	—	—	—	3	2.2
JAN 14...	—	—	—	—	—	—	—	—	—	2	0.74
FEB 21...	—	—	—	—	—	—	—	—	—	4	0.28
MAR 27...	—	—	—	—	—	—	—	—	—	13	12
APR 23...	—	—	—	—	—	—	—	—	—	8	18
MAY 21...	—	—	—	—	—	—	—	—	—	12	37
JUN 25...	—	—	—	—	—	—	—	—	—	20	82
JUL 31...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1	8	34
AUG 28...	—	—	—	—	—	—	—	—	—	6	10
SEP 28...	—	—	—	—	—	—	—	—	—	3	3.3

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZLOCATION.—Lat 33°42'07", long 112°03'54", in NW¹/₄, SE¹/₄, sec. 8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on
upstream side of 7th Street Bridge in Phoenix.PERIOD OF RECORD.—July 1965 to current year. Prior to October 1988, published as CAP Canal at MP 162.3 at 7th Street at Phoenix,
AZ.REMARKS.—Analyses for total nitrite (00615), total nitrite plus nitrate (00630), total ammonia (00610), and total orthophosphate
(70507) were discontinued Jan. 1. Discharges reported by Central Arizona Water Conservation District. Values are based on the
amount of water pumped in the canal at the Bassayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant
and the sampling site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
OCT											
28...	1105	240	1080	8.4	23.0	22.0	719	8.6	105	13	300
NOV											
19...	1020	420	1090	8.3	28.5	14.5	722	10.2	106	—	300
DEC											
16...	1015	230	1080	8.5	8.0	11.0	726	11.0	105	—	310
JAN											
27...	1125	140	1100	9.5	20.0	13.0	724	11.6	116	<10	290
FEB											
18...	1200	175	521	8.4	17.0	13.5	723	11.1	113	—	160
MAR											
25...	1220	300	370	8.1	28.5	19.0	721	8.0	91	—	100
APR											
21...	1140	1050	1030	8.5	33.0	21.0	723	10.4	124	17	290
MAY											
28...	1023	1150	1040	8.5	32.5	25.5	720	8.3	108	—	280
JUN											
24...	1155	1800	1070	8.5	40.0	28.0	720	9.0	122	—	300
JUL											
29...	1105	2100	1090	8.4	41.0	27.0	722	8.5	113	17	310
AUG											
30...	1120	325	1090	8.3	31.0	29.0	721	9.0	125	—	300
SEP											
23...	0945	800	1040	8.3	31.0	25.0	721	8.2	105	—	280

DATE	HARD- NESS DISSOLV FIELD AS CaCO3 (00904)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA- LITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl) (00940)
OCT											
28...	180	67	31	110	3	4.7	132	4	115	290	93
NOV											
19...	180	68	31	100	3	5.1	137	5	121	280	98
DEC											
16...	170	74	30	100	2	4.8	151	6	134	290	95
JAN											
27...	170	67	29	100	3	4.6	135	6	121	270	90
FEB											
18...	57	38	15	42	1	3.2	117	2	100	100	34
MAR											
25...	0	28	8.5	30	1	4.1	129	0	106	39	22
APR											
21...	150	71	27	94	2	4.9	150	8	136	260	91
MAY											
28...	130	67	28	96	2	4.9	174	5	151	260	89
JUN											
24...	180	70	30	100	3	5.1	142	4	124	280	92
JUL											
29...	180	74	30	100	2	4.6	146	4	126	300	90
AUG											
30...	180	71	29	100	3	4.7	145	1	120	280	94
SEP											
23...	150	67	28	96	2	5.0	152	2	129	260	93

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 28...	0.40	7.6	658	673	0.89	0.074	--	--	<0.010	<0.010	<0.050
NOV 19...	0.30	7.5	680	662	0.92	--	--	--	<0.010	<0.010	<0.050
DEC 16...	0.40	8.4	654	684	0.89	0.110	0.100	0.44	0.010	0.030	0.120
JAN 27...	0.30	5.5	618	639	0.84	0.050	0.050	0.22	--	0.020	--
FEB 18...	0.20	13	304	306	0.41	0.170	0.170	0.75	--	0.020	--
MAR 25...	0.40	17	227	214	0.31	0.390	--	--	--	<0.010	--
APR 21...	0.40	7.3	656	638	0.89	0.075	--	--	--	<0.010	--
MAY 28...	0.40	7.5	650	644	0.88	--	--	--	--	<0.010	--
JUN 24...	0.40	7.2	702	659	0.95	0.050	--	--	--	<0.010	--
JUL 29...	0.30	7.4	696	682	0.95	--	--	--	--	<0.010	--
AUG 30...	0.40	8.6	682	660	0.93	--	--	--	--	<0.010	--
SEP 23...	0.50	9.6	660	636	0.90	--	--	--	--	<0.010	--

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
OCT 28...	0.074	<0.010	0.010	0.19	0.20	0.27	0.010	0.030	<0.010	0.010	0.03
NOV 19...	<0.050	0.030	0.010	--	<0.20	--	<0.010	--	<0.010	0.010	0.03
DEC 16...	0.130	0.010	0.010	--	<0.20	--	<0.010	--	<0.010	<0.010	--
JAN 27...	0.070	--	<0.010	--	<0.20	--	<0.010	<0.010	--	<0.010	--
FEB 18...	0.190	--	0.010	0.29	0.30	0.49	0.070	--	--	0.040	0.12
MAR 25...	0.390	--	<0.010	0.70	0.70	1.1	0.250	--	--	0.050	0.15
APR 21...	0.075	--	0.010	0.39	0.40	0.48	0.060	<0.010	--	<0.010	--
MAY 28...	<0.050	--	0.020	0.18	0.20	0.20	<0.010	--	--	<0.010	--
JUN 24...	0.050	--	0.040	0.16	0.20	0.25	0.020	--	--	<0.010	--
JUL 29...	<0.050	--	0.030	0.37	0.40	0.40	0.020	0.030	--	0.010	0.03
AUG 30...	<0.050	--	0.040	--	<0.20	--	0.010	--	--	0.010	0.03
SEP 23...	<0.050	--	0.020	0.28	0.30	0.30	0.010	--	--	<0.010	--

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 28...	2	2	<100	130	150	<1	<1	<1	1	7
NOV 19...	--	--	--	--	140	--	--	--	--	<3
DEC 16...	--	--	--	--	140	--	--	--	--	5
JAN 27...	2	2	100	120	140	<1	11	<1	1	<3
FEB 18...	--	--	--	--	90	--	--	--	--	19
MAR 25...	--	--	--	--	90	--	--	--	--	6
APR 21...	3	3	200	120	150	<1	<1	<1	1	<3
MAY 28...	--	--	--	--	140	--	--	--	--	<3
JUN 24...	--	--	--	--	150	--	--	--	--	<3
JUL 29...	3	3	100	130	150	<1	<1	<1	<1	<3
AUG 30...	--	--	--	--	140	--	--	--	--	19
SEP 23...	--	--	--	--	150	--	--	--	--	<3

< Actual value is known to be less than value shown.
d Dissolved nitrogen substituted for total nitrogen.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT SP 162.3, AT
7TH STREET, AT PHOENIX, AZ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	FRENOLES TOTAL (UG/L) (32730)	SEDI- MENT, SUS- PENDED (MG/L) (40154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (40155)
OCT 28...	<1	<1	<0.10	<1	<1.0	5	0.010	3	2	0.97
NOV 19...	—	—	—	—	—	—	—	—	1	0.57
DEC 16...	—	—	—	—	—	—	—	—	1	0.56
JAN 27...	<1	<1	<0.10	<1	<1.0	<3	<0.010	1	0	0.08
FEB 18...	—	—	—	—	—	—	—	—	5	2.4
MAR 25...	—	—	—	—	—	—	—	—	264	215
APR 21...	<1	<1	<0.10	<1	<1.3	6	<0.010	1	17	48
MAY 28...	—	—	—	—	—	—	—	—	3	9.6
JUN 24...	—	—	—	—	—	—	—	—	4	18
JUL 29...	<1	<1	<0.10	<1	<1.0	6	<0.010	2	4	20
AUG 30...	—	—	—	—	—	—	—	—	0	0.18
SEP 23...	—	—	—	—	—	—	—	—	0	0.43

ADDITIONAL ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	COLI- FORM, FECAL, 0.7 UM-HF (COLS./ 100 ML) (31625)	STREP- TOCOCCEI SP AGAR (COLS. PER 100 ML) (31673)	SULFIDE TOTAL (MG/L AS S) (00745)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUL 29...	4	EL7	EN	<0.5	150	1	100	20	4	<10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDT, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAM, TOTAL (UG/L) (39388)	ENDRIN WATER UNFILTERED REC (UG/L) (39390)
JUL 29...	0.03	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPR- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APRINE, TOTAL (UG/L) (39400)
JUL 29...	<0.010	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZLOCATION.--Lat 33°42'07", long 112°03'54", in NE 1/4, SE 1/4, sec. 8, T. 4 N., R. 3 E., Maricopa County, Hydrologic Unit 15060106, on
upstream side of 7th Street Bridge in Phoenix.PERIOD OF RECORD.--July 1985 to current year. Prior to October 1988, published as CAP Canal at MP 162.3 at 7th Street at Phoenix,
AZ.REMARKS.--Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of water pumped in the
canal at the Ransayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant and the sampling site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (MG/L) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MP (COLS./ 100 ML) (31625)
OCT											
28...	1015	410	1068	8.4	23.0	19.5	722	9.1	105	22	--
NOV											
29...	1515	40	1120	8.4	23.0	14.0	723	10.4	107	--	--
DEC											
28...	1125	420	1080	8.4	18.0	10.5	729	11.6	109	--	--
JAN											
25...	1055	450	1070	8.3	13.0	11.0	720	10.8	104	23	--
FEB											
22...	1410	650	1110	8.5	18.0	12.0	721	11.5	113	--	--
MAR											
30...	1220	1480	1110	8.4	30.0	18.0	724	10.4	116	--	--
APR											
26...	1130	750	1120	8.4	20.5	20.0	717	9.2	108	<10	--
MAY											
24...	1200	1400	1120	8.4	25.5	23.0	720	8.9	110	--	--
JUL											
08...	1250	2600	799	8.2	43.0	13.0	718	7.6	77	--	--
28...	1005	2800	834	7.9	37.5	13.0	720	4.9	49	<10	K8
SEP											
02...	0940	1150	803	7.8	35.0	13.0	721	2.1	21	--	--
30...	1000	700	888	8.2	33.0	25.0	717	7.2	93	--	--

DATE	STREP- TOCOCCT FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKAL- INITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT											
28...	--	290	69	29	110	44	3	6.0	2	134	114
NOV											
29...	--	320	79	31	110	42	3	5.0	2	160	134
DEC											
28...	--	310	75	30	110	43	3	4.6	<1	162	133
JAN											
25...	--	320	79	30	100	40	2	4.8	<1	161	132
FEB											
22...	--	300	72	30	110	44	3	4.7	1	140	117
MAR											
30...	--	300	74	28	98	41	2	4.7	<1	157	129
APR											
26...	--	310	77	29	100	41	2	5.1	6	147	130
MAY											
24...	--	300	72	30	100	41	2	3.1	6	142	126
JUL											
08...	--	240	58	22	68	38	2	4.2	0	163	134
28...	K2	250	61	23	69	37	2	4.4	0	154	127
SEP											
02...	--	240	60	23	70	38	2	5.1	0	172	141
30...	--	250	59	25	75	39	2	4.7	0	171	140

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 CONSTI- DENTS, DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- DENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (MG/L) (70303)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT											
28...	290	98	0.40	9.4	682	680	0.93	--	--	--	<0.010
NOV											
29...	280	92	0.40	9.3	730	688	0.99	0.150	--	--	<0.010
DEC											
28...	280	88	0.40	8.3	744	677	1.01	0.190	--	--	<0.010
JAN											
25...	290	94	0.40	8.3	738	687	1.00	0.220	0.220	0.97	0.010
FEB											
22...	290	96	0.40	4.4	706	678	0.96	0.066	--	--	<0.010
MAR											
30...	290	91	0.30	6.5	716	671	0.97	0.190	0.190	0.84	0.020
APR											
26...	290	95	0.30	6.7	724	683	0.98	0.200	--	--	<0.010
MAY											
24...	290	95	0.30	6.1	708	673	0.96	0.140	--	--	<0.010
JUL											
08...	*180	61	0.30	12	522	486	0.71	0.092	--	--	<0.010
28...	180	60	0.40	12	538	486	0.73	0.130	--	--	<0.010
SEP											
02...	180	65	0.30	12	528	500	0.72	--	--	--	<0.010
30...	200	69	0.40	8.0	544	525	0.74	--	--	--	<0.010

* Value verified.

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
OCT 28...	<0.030	0.020	--	<0.20	--	<0.010	<0.010	<0.010	--	3	2
NOV 29...	0.150	0.030	--	<0.20	--	0.020	<0.010	<0.010	--	--	--
DEC 28...	0.190	0.010	--	<0.20	--	<0.010	<0.010	<0.010	--	--	--
JAN 25...	*0.230	0.010	--	<0.20	--	0.030	0.020	<0.010	--	2	2
FEB 22...	0.066	0.010	--	<0.20	--	0.010	<0.010	<0.010	--	--	--
MAR 30...	0.210	0.020	--	<0.20	--	<0.010	0.020	0.010	0.03	--	--
APR 26...	0.200	<0.010	0.20	0.20	0.40	0.020	<0.010	<0.010	--	2	2
MAY 24...	0.140	<0.010	--	<0.20	--	<0.010	<0.010	<0.010	--	--	--
JUL 08...	0.092	<0.010	0.40	0.40	0.49	0.050	0.030	0.020	0.06	--	--
28...	0.130	0.030	0.17	0.20	0.33	0.020	<0.010	0.020	0.06	*6	*6
SEP 02...	<0.050	0.020	0.19	0.20	0.20	0.030	0.030	0.030	0.09	--	--
30...	<0.050	0.020	0.28	0.30	0.30	0.040	0.020	<0.010	--	--	--

DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 28...	100	130	--	160	<1	<1	<1	--	<1	--	<3
NOV 29...	--	--	--	150	--	--	--	--	--	--	<3
DEC 28...	--	--	--	160	--	--	--	--	--	--	4
JAN 25...	140	*140	--	140	<1	<1	<1	--	1	--	<3
FEB 22...	--	--	--	140	--	--	--	--	--	--	6
MAR 30...	--	--	--	140	--	--	--	--	--	--	<3
APR 26...	200	*140	--	150	<1	<1	<1	--	<1	--	<3
MAY 24...	--	--	--	140	--	--	--	--	--	--	<3
JUL 08...	--	--	--	120	--	--	--	--	--	--	<3
28...	100	93	120	120	<1	<1	<1	<1	1	50	<3
SEP 02...	--	--	--	120	--	--	--	--	--	--	<3
30...	--	--	--	130	--	--	--	--	--	--	3

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 28...	<1	<1	--	<0.10	--	<1	<1.0	--	4	25	<0.010
NOV 29...	--	--	--	--	--	--	--	--	--	--	--
DEC 28...	--	--	--	--	--	--	--	--	--	--	--
JAN 25...	<1	<1	--	<0.10	--	<1	<1.0	--	4	28	<0.010
FEB 22...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--
APR 26...	<1	<1	--	0.10	--	<1	<1.0	--	4	38	<0.010
MAY 24...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<1	*40	<0.10	4	<1	<1.0	<10	<3	34	<0.010
SEP 02...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

* Value verified.

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	PHENOLS TOTAL (UG/L) (32730)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DAKE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
OCT 28...	<1	--	--	--	--	--	--	--	--	--
NOV 29...	--	--	--	--	--	--	--	--	--	--
DEC 28...	--	--	--	--	--	--	--	--	--	--
JAN 25...	4	--	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--
APR 26...	<1	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--
SEP 02...	<1	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
30...	--	--	--	--	--	--	--	--	--	--
DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APRENE, TOTAL (UG/L) (39400)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 28...	--	--	--	--	--	--	--	--	6	7.0
NOV 29...	--	--	--	--	--	--	--	--	6	0.68
DEC 28...	--	--	--	--	--	--	--	--	4	4.8
JAN 25...	--	--	--	--	--	--	--	--	7	8.5
FEB 22...	--	--	--	--	--	--	--	--	3	4.7
MAR 30...	--	--	--	--	--	--	--	--	4	14
APR 26...	--	--	--	--	--	--	--	--	2	3.8
MAY 24...	--	--	--	--	--	--	--	--	8	30
JUL 08...	--	--	--	--	--	--	--	--	4	25
SEP 02...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1	2	18
30...	--	--	--	--	--	--	--	--	2	5.3
	--	--	--	--	--	--	--	--	1	0.95

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ

LOCATION.—Lat 33°42'07", long 112°03'54", in SE¹/₄, SE¹/₄, sec. 8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

PERIOD OF RECORD.—July 1985 to September 1995 (discontinued). Prior to October 1988, published as CAP Canal at MP 162.3 at 7th Street at Phoenix, AZ.

REMARKS.—Discharges reported by Central Arizona Water Conservation District. Values are based on the amount of water pumped in the canal at the Hassayampa pumping plant near Lake Pleasant minus deliveries between the pumping plant and the sampling site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	FR WATER WHOLE FIELD (STAND- ARD) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRESS- URE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (00340)	COLI- FORM, FECAL, 0.7 MG-MP (COLS./ 100 ML) (31625)
NOV											
09...	1000	0.0	861	8.3	19.0	17.0	724	9.5	104	16	—
29...	1030	0.0	866	8.3	12.0	11.0	729	9.8	93	—	—
DEC											
29...	1140	130	1110	8.3	13.5	12.5	724	12.8	119	—	—
JAN											
24...	1200	150	1080	8.2	16.0	12.6	721	10.9	107	18	—
MAR											
06...	1215	1250	609	8.2	17.0	17.0	722	9.4	163	—	—
APR											
03...	1430	1430	1110	8.3	26.0	19.0	725	9.6	109	—	—
26...	1615	1350	1130	8.5	29.5	21.0	721	11.0	131	13	—
JUN											
13...	1500	1040	895	8.3	39.0	16.0	719	8.7	94	—	—
JUL											
03...	1410	2310	920	8.4	35.5	19.0	716	9.3	107	—	—
AUG											
15...	1345	1930	855	8.3	35.0	22.5	724	6.4	78	15	110
30...	1245	2200	870	8.3	37.0	23.0	724	9.7	120	—	—
SEP											
26...	1550	800	880	8.2	30.5	17.0	719	10.2	112	—	—

DATE	HARD- NESS TOTAL MG/L AS CACO3 (00900)	HARD- NESS NONCARB DIS-SOLV FLD. AS CACO3 (00904)	CALCIUM DIS- SOLVED MG/L AS CA (00915)	MAGNE- SIUM, DIS- SOLVED MG/L AS MG (00925)	SODIUM, DIS- SOLVED MG/L AS NA (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED MG/L AS K (00933)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	HY- DROXIDE WATER DIS IT FIELD MG/L AS OH (71834)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV											
09...	260	120	83	25	76	2	5.2	158	4	0	137
29...	250	120	58	26	81	2	5.6	151	5	0	132
DEC											
29...	290	180	70	29	100	3	4.6	137	3	0	117
JAN											
24...	340	210	82	32	110	3	4.8	154	8	0	126
MAR											
06...	170	30	42	15	59	2	5.2	167	0	0	137
APR											
03...	300	190	75	28	95	2	4.9	133	3	0	114
26...	310	190	76	30	100	2	4.9	128	10	0	121
JUN											
13...	270	150	64	26	83	3	4.6	144	0	0	118
JUL											
03...	270	150	64	26	82	2	4.8	135	2	0	114
AUG											
15...	250	120	60	24	75	2	4.7	147	3	0	125
30...	260	130	62	25	77	2	4.5	143	5	0	126
SEP											
26...	270	130	66	25	76	2	4.6	163	0	0	133

DATE	SULFATE DIS- SOLVED MG/L AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED MG/L AS CL (00940)	FLUO- RIDE, DIS- SOLVED MG/L AS F (00950)	SILICA, DIS- SOLVED MG/L AS SiO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED MG/L (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED MG/L (70301)	SOLIDS, DIS- SOLVED (TOMS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL MG/L AS N (00620)	NITRO- GEN, NITRATE DIS- SOLVED MG/L AS N (00618)	NITRO- GEN, NITRATE DIS- SOLVED MG/L AS NO3 (71851)	NITRO- GEN, NITRATE DIS- SOLVED MG/L AS N (00613)
NOV											
09...	200	72	0.40	8.3	564	532	0.77	—	—	—	<0.010
29...	200	72	0.40	8.3	576	531	0.78	—	—	—	<0.010
DEC											
29...	290	94	0.30	6.7	708	666	0.96	0.100	—	—	<0.010
JAN											
24...	290	96	0.30	7.6	722	700	0.98	0.170	—	—	<0.010
MAR											
06...	83	49	0.70	16	376	353	0.51	0.230	0.230	1.8	0.820
APR											
03...	260	93	0.40	8.6	582	638	0.93	0.170	—	—	<0.010
26...	290	90	0.40	8.0	708	671	0.96	0.080	—	—	<0.010
JUN											
13...	210	72	0.40	8.6	568	540	0.77	0.100	—	—	<0.010
JUL											
03...	220	74	0.30	8.1	600	548	0.82	—	—	—	<0.010
AUG											
15...	190	70	0.40	9.1	540	509	0.73	0.050	—	—	<0.010
30...	200	74	0.30	9.6	514	528	0.70	—	—	—	<0.010
SEP											
26...	200	72	0.20	10	550	534	0.75	—	—	—	<0.010

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09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00680)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV											
09...	—	<0.050	<0.015	0.30	0.30	0.30	0.010	<0.010	<0.010	—	3
29...	—	<0.050	<0.015	0.30	0.30	0.30	<0.010	0.020	<0.010	—	—
DEC											
29...	0.100	0.100	0.020	—	<0.20	—	<0.010	<0.010	0.010	0.03	—
JAN											
24...	0.170	0.170	0.020	—	<0.20	—	0.020	<0.010	<0.010	—	3
MAR											
06...	0.250	0.250	0.020	0.30	0.40	0.65	0.030	0.020	0.020	0.06	—
APR											
03...	0.170	0.170	<0.015	—	<0.20	—	<0.010	0.020	<0.010	—	—
26...	0.080	0.080	<0.015	0.20	0.20	0.20	<0.010	<0.010	<0.010	—	2
JUN											
13...	0.100	0.100	0.020	—	<0.20	—	0.020	<0.010	0.010	0.03	—
JUL											
03...	—	<0.050	0.020	—	<0.20	—	0.020	<0.010	<0.010	—	—
AUG											
15...	0.050	0.050	<0.015	0.30	0.30	0.35	<0.010	<0.010	<0.010	—	3
30...	—	<0.050	<0.015	0.40	0.40	0.40	0.020	<0.010	<0.010	—	—
SEP											
26...	—	<0.050	0.030	0.37	0.40	0.40	0.030	0.030	0.030	0.09	—
DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHROMIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
NOV											
09...	3	<100	94	—	130	<1	<1	<1	—	<1	—
29...	—	—	—	—	130	—	—	—	—	—	—
DEC											
29...	—	—	—	—	140	—	—	—	—	—	—
JAN											
24...	2	<100	<140	—	150	<1	<1	1	—	2	—
MAR											
06...	—	—	—	—	140	—	—	—	—	—	—
APR											
03...	—	—	—	—	150	—	—	—	—	—	—
26...	2	<100	130	—	150	<1	<1	<1	—	<1	—
JUN											
13...	—	—	—	—	120	—	—	—	—	—	—
JUL											
03...	—	—	—	—	110	—	—	—	—	—	—
AUG											
15...	3	<100	97	140	140	<1	<1	<1	2	1	50
30...	—	—	—	—	120	—	—	—	—	—	—
SEP											
26...	—	—	—	—	130	—	—	—	—	—	—
DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
09...	4	<1	<1	—	<0.10	—	<1	<1.0	—	<1	—
29...	<1	—	—	—	—	—	—	—	—	—	—
DEC											
29...	<1	—	—	—	—	—	—	—	—	—	—
JAN											
24...	<1	<1	<1	—	<0.10	—	<1	<1.0	—	<1	—
MAR											
06...	23	—	—	—	—	—	—	—	—	—	—
APR											
03...	<1	—	—	—	—	—	—	—	—	—	—
26...	<1	<1	<1	—	<0.10	—	<1	<1.0	—	<1	—
JUN											
13...	<1	—	—	—	—	—	—	—	—	—	—
JUL											
03...	<1	—	—	—	—	—	—	—	—	—	—
AUG											
15...	<1	<1	<1	40	<0.10	3	<1	<1.0	<10	<1	3.9
30...	<1	—	—	—	—	—	—	—	—	—	—
SEP											
26...	<1	—	—	—	—	—	—	—	—	—	—

* Values verified.

< Actual value is known to be less than value shown.

DIVERSIONS ABOVE PARKER DAM

09427100 CENTRAL ARIZONA PROJECT CANAL AT MP 162.3, AT
7TH STREET, AT PHOENIX, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CYANIDE TOTAL (MG/L AS CN) (00720)	PERMOLS TOTAL (UG/L) (32730)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDO, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAM, TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
NOV											
09...	<0.010	<1	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
24...	<0.010	<1	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	<0.010	2	--	--	--	--	--	--	--	--	--
JUN											
13...	--	--	--	--	--	--	--	--	--	--	--
JUL											
03...	--	--	--	--	--	--	--	--	--	--	--
AUG											
15...	<0.010	2	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APRENE, TOTAL (UG/L) (39400)	SEDI- MENT, SUS- PENDEO (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEO (T/DAY) (80155)
NOV										
09...	--	--	--	--	--	--	--	--	1	--
29...	--	--	--	--	--	--	--	--	1	--
DEC										
29...	--	--	--	--	--	--	--	--	2	0.60
JAN										
24...	--	--	--	--	--	--	--	--	2	0.73
MAR										
06...	--	--	--	--	--	--	--	--	18	61
APR										
03...	--	--	--	--	--	--	--	--	13	57
26...	--	--	--	--	--	--	--	--	10	36
JUN										
13...	--	--	--	--	--	--	--	--	2	9.4
JUL										
03...	--	--	--	--	--	--	--	--	2	11
AUG										
15...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1	5	28
30...	--	--	--	--	--	--	--	--	4	23
SEP										
26...	--	--	--	--	--	--	--	--	2	4.5

< Actual value is known to be less than value shown.