

A10.0 WATER SYSTEM AUDIT

PERIOD: For the Audit Period of:	8/1/00 12:00 AM	to:	9/6/00 2:00 PM	or:	36.58 Days
System or Zone: XYZ City - Zone 1					
Total ERC's on this System/Zone: 2,000					
NOTE: For accuracy, the audit period should be aprox. 30 days long and the source and use meter readings should correspond as close to that period of time as possible.					
For most useful audits, perform one during a peak month and one during a winter month.					

SOURCES of WATER:

SOURCE # 1: Lower Well #2	774.50	Hours of Measurement	
Measuring Period: 8/3/00 12:00 AM to: 9/4/00 6:30 AM	32.2708	Days of Measurement	Source Hours Run: 630.20
Meter Begin: 78,455,322 End: 78,480,365	(X): 1,000		Source Duty Cycle During Test: 0.81
Test Consumption: 25,043,000 gallons		Source Consumption Adjusted to Audit Period:	28,389,611 gallons
776,026 Ave. gallons per day (gpd)	953,716	Source gals. per day continuous production potential (gpd)	
538.91 Ave. gallons per minute (gpm)	662.30	Actual Source gallons per minute (gpm)	
0.77603 Ave. MGD	0.95372	Actual Source MGD	

SOURCE # 2: Cottonwood Spring #1	879.50	Hours of Measurement	
Measuring Period: 8/3/00 1:00 AM to: 9/8/00 4:30 PM	36.6458	Days of Measurement	Source Hours Run: 879.50
Meter Begin: 34,555,722 End: 49,244,000	(X): 1		Source Duty Cycle During Test: 1.00
Test Consumption: 14,688,278 gallons		Source Consumption Adjusted to Audit Period:	14,663,227 gallons
400,817 Ave. gallons per day (gpd)	400,817	Source gals. per day continuous production potential (gpd)	
278.35 Ave. gallons per minute (gpm)	278.35	Actual Source gallons per minute (gpm)	
0.40082 Ave. MGD	0.40082	Actual Source MGD	

SOURCE # 3: Cottonwood Spring #2	975.50	Hours of Measurement	
Measuring Period: 7/29/00 1:00 AM to: 9/7/00 4:30 PM	40.6458	Days of Measurement	Source Hours Run: 700.00
Meter Begin: 20,566 End: 20,920	(X): 10,000		Source Duty Cycle During Test: 0.72
Test Consumption: 3,540,000 gallons		Source Consumption Adjusted to Audit Period:	3,186,181 gallons
87,094 Ave. gallons per day (gpd)	121,371	Source gals. per day continuous production potential (gpd)	
60.48 Ave. gallons per minute (gpm)	84.29	Actual Source gallons per minute (gpm)	
0.08709 Ave. MGD	0.12137	Actual Source MGD	

SOURCE # 4: Cottonwood Spring #3	0.00	Hours of Measurement	
Measuring Period: to:	0.0000	Days of Measurement	Source Hours Run:
Meter Begin: End:	(X):		Source Duty Cycle During Test: 0.00
Test Consumption: 0 gallons		Source Consumption Adjusted to Audit Period:	0 gallons
0 Ave. gallons per day (gpd)	0	Source gals. per day continuous production potential (gpd)	
0.00 Ave. gallons per minute (gpm)	0.00	Actual Source gallons per minute (gpm)	
0.00000 Ave. MGD	0.00000	Actual Source MGD	

WARNING ! The beginning or ending date is too distant from the Audit Period.

SOURCE # 5:	0.00	Hours of Measurement	
Measuring Period: to:	0.0000	Days of Measurement	Source Hours Run:
Meter Begin: End:	(X):		Source Duty Cycle During Test: 0.00
Test Consumption: 0 gallons		Source Consumption Adjusted to Audit Period:	0 gallons
0 Ave. gallons per day (gpd)	0	Source gals. per day continuous production potential (gpd)	
0.00 Ave. gallons per minute (gpm)	0.00	Actual Source gallons per minute (gpm)	
0.00000 Ave. MGD	0.00000	Actual Source MGD	

WARNING ! The beginning or ending date is too distant from the Audit Period.

SOURCE TOTALS:TOTAL SOURCE PRODUCTION Adjusted to Audit Period: **46,239,020** gallonsSource Gallons per Day at a Theoretical Continuous Production Potential: **1,475,905** gpdActual Source Continuous Gallons per Minute: **1,024.93** gpmActual Continuous Source Capacity in Million Gallons per Day: **1.4759** MGDActual Source Water Fed Into System: **46,239,020** gallonsActual Source Available to System: **53,993,519** gallonsSource Capacity Not Utilized by System: **7,754,499** gallonsPercent of Source Utilized by System: **85.64%**Average gallons per day Utilized: **1,263,937** gpdAverage gallons per minute Utilized: **877.73** gpmAverage in Million Gallons per Day Utilized: **1.2639** MGDSource Gallons per Day Utilized per ERC: **631.97** gpd/ERC**USES of WATER:****USER CONSUMPTION:** NOTE: For more Accurate results - break system into multiple customer read zones, and use multiple readers, with cooresponding read periods.

	ZONE or AREA Description	Beginning Read Date	Ending Read Date	Read Zone Actual Consumption	Days of Measure	Actual Consumption - Adjusted to Audit Period
Meter read zone 1:	Main Downtown Area	8/4/00	9/5/00	10,455,000	32.0000	11,952,461
Meter read zone 2:	Rural Meters	8/1/00	9/7/00	31,482,224	37.0000	31,127,694
Meter read zone 3:					0.0000	0
Meter read zone 4:					0.0000	0
Meter read zone 5:					0.0000	0
Meter read zone 6:					0.0000	0
TOTAL USER METER READS:				41,937,224		43,080,155

TOTAL ADJUSTED USER METER READS: **43,080,155** gallons**OTHER PERIOD WATER USES:**Estimated Hydrant Flushing Gallons: **26,000** gallonsEstimated Plant or Well Flushing Waste: **120,000** gallonsEstimated Reservoir Overflow: **40,000** gallonsOther Estimated Losses (i.e. Breaks, etc.): gallonsTOTAL USER CONSUMPTION Adjusted to Audit Period: **43,266,155** gallons

AUDIT SUMMARY:

System or Zone: XYZ City - Zone 1
Audit Period of: Aug/01/2000 through Sep/06/2000
Zone ERC's: 2,000

SOURCES of WATER:

Source 1:	28,389,611	gallons
Source 2:	14,663,227	gallons
Source 3:	3,186,181	gallons
Source 4:	0	gallons
Source 5:	0	gallons
TOTAL SOURCE PRODUCTION:	46,239,020	gallons
Source Production per Day:	1,263,937	gallons per day
Source Production per ERC:	631.97	gpd/ERC

USES of WATER:

Total User Consumption:	43,080,155	gallons
Other Uses of Water:	186,000	gallons
TOTAL USER CONSUMPTION:	43,266,155	gallons
User Consumption per Day:	1,182,674	gallons per day
User Consumption per ERC:	591.34	gpd/ERC

DEFICIT (SURPLUS):

Audit Net Balance (Positive is a Loss):	2,972,864	gallons
Percent Loss (Gain):	6.43%	
Water Loss per Day:	81,263	gallons
Water Loss per ERC per Day:	40.63	gallons