# Transcript Exhibit(s)

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*ARIZONA WATER COMPANY*

**Docket No. W-01445A-11-____**

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# 2011 RATE HEARING

**For Test Year Ending 12/31/10**

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**PREPARED**

**DIRECT TESTIMONY & EXHIBITS**

**OF**

**Fredrick K. Schneider**

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EXHIBIT
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# *ARIZONA WATER COMPANY*

**Direct Testimony of**

## Fredrick K. Schneider

## I. Introduction and Qualifications

**Q. PLEASE STATE YOUR NAME, EMPLOYER AND OCCUPATION.**

A. My name is Fredrick K. Schneider. I am employed by Arizona Water Company (the "Company") as Vice President of Engineering. My business address is 3805 N. Black Canyon Highway, Phoenix, Arizona 85015.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

A. I graduated in 1990 with a Bachelor of Science degree in Hydrology from the College of Engineering and Mines at the University of Arizona, in Tucson, Arizona. Additionally, I have taken graduate level classes at the University of Phoenix.

**Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.**

A. In 1987, I began working for the United States Department of Agriculture performing chemical and granular gradation laboratory soils analysis. In 1988, I accepted a position with the City of Tucson as an Engineering Intern in their Engineering department performing civil engineering site reviews, and later transferred to the Water department working on groundwater modeling, environmental remediation and groundwater contamination investigation until I graduated from the University of Arizona in 1990.

Upon obtaining my degree, I joined Boyle Engineering Corporation in Phoenix, Arizona as an Assistant Engineer and was later promoted to the position of Associate Engineer. Boyle Engineering provides consulting engineering services to the public and private sectors in the areas of water and wastewater. During this time, I was involved in a variety of consulting

assignments, including all phases of system planning and design, reconnaissance level investigations, feasibility studies and construction phase services, including water and wastewater master planning, groundwater supply development, surface water supply development, storage reservoir design and construction, treatment facilities, pipeline systems, wastewater collection, treatment and disposal.

In 1995, I accepted a position with Wood, Patel and Associates in Phoenix, Arizona. During that time, my duties consisted of engineering design and project management for various water and wastewater pipeline feasibility analyses, evaluation of alternatives, cost estimating, detailed hydraulic analysis and master planning new developments ranging in size from several hundred to several thousand acres.

In 1998, I joined Citizens Water Resources ("Citizens") as a Senior Development Engineer. I was later promoted to the position of Development Services Supervisor, where I negotiated development agreements, reviewed water and wastewater master plans and facility infrastructure plans, and was responsible for the inspection and approval of constructed facilities for projects within the metropolitan Phoenix area. I became an employee of Arizona American Water Company ("Arizona-American") when its parent company, American Water Company, purchased the water and wastewater assets of Citizens on January 15, 2001, and was subsequently promoted to the position of Development Services Manager, responsible for the same duties described above statewide. In 2003, I moved from engineering to the operations area when I was promoted to the position of Manager of Arizona-American. In that position, I was responsible for the operations of all of Arizona-American's water and wastewater treatment facilities, distribution and collection facilities and customer service. In May 2004, I was promoted

to the position of Director of Engineering for American Water Company's Western Region, where my responsibilities included overseeing all capital planning and engineering activities for American Water Company's operations in Arizona, California, Hawaii, New Mexico and Texas.

In October 2005, I accepted a position as an Associate with Brown and Caldwell, managing the Phoenix Infrastructure department including the design, project management and construction administration of water and wastewater infrastructure projects within the metropolitan Phoenix area.

In August 2007, I joined Arizona Water Company as Vice President of Engineering. My responsibilities now include capital planning, design and construction management of all of the Company's engineering projects.

**Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?**

A. Yes. I am a member of the American Water Works Association ("AWWA") and the Arizona Water Association (formerly Arizona Water and Pollution Control Association). I was also a member of the Infrastructure Replacement Group of the Blue Ribbon Panel on Sustainability, a panel formed to address water sustainability that was jointly chaired by the Arizona Corporation Commission (the "Commission"), the Arizona Department of Water Resources ("ADWR") and the Arizona Department of Environmental Quality ("ADEQ").

**Q. ARE YOU A REGISTERED PROFESSIONAL ENGINEER?**

A. Yes. I have been a registered professional engineer in the State of Arizona since 1995.

**Q. DO YOU HAVE ANY OTHER CERTIFICATIONS?**

A. Yes. I am an ADEQ Grade 2 certified operator in Water and Wastewater Treatment and a Grade 3 certified operator in Water Distribution and Wastewater Collection.

**Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE COMMISSION?**

A. Yes. I have testified in rate proceedings and Certificate of Convenience and Necessity ("CCN") hearings before the Commission. In addition, I have testified in California before the California Public Utilities Commission and prepared pre-filed testimony in Hawaii and New Mexico. I testified in the Company's last general rate application proceeding for the total Company (*See* Docket No. W-01445A-08-0440) and the Company's pending Western Group rate application (*See* Docket No. W-01445A-10-0517).

## II. Purpose and Extent of Direct Testimony

**Q. WHAT IS THE PURPOSE AND EXTENT OF YOUR DIRECT TESTIMONY?**

A. For ratemaking purposes, the Company's water systems are divided into three groups, the Western, Eastern and Northern Groups. My direct testimony concerns the Eastern Group, which is comprised of the Superstition Division (Apache Junction, Superior and Miami), Cochise Division (Bisbee and Sierra Vista), Falcon Valley (San Manuel, Oracle and SaddleBrooke Ranch) and its Winkelman systems. The Cochise Division, which is comprised of the Bisbee and Sierra Vista water systems, was consolidated in Decision No. 71845 and is comprised of the following two ADEQ public water systems:

**ARIZONA WATER COMPANY**
**Cochise Division**
**ADEQ Public Water Systems**

| Water System | PWS ID No. |
|---|---|
| Bisbee | 02-001 |
| Sierra Vista | 02-004 |

The Superstition Division is comprised of the Apache Junction, Miami and Superior systems. The Apache Junction and Superior systems were

previously partially consolidated in Decision No. 66849 and became the Superstition Division. In Decision No. 71845 these systems and the Miami system were fully consolidated into the Superstition Division. The Superstition Division is comprised of the following three ADEQ public water systems:

**ARIZONA WATER COMPANY**
**Superstition Division**
**ADEQ Public Water Systems**

| Water System | PWS ID No. |
|---|---|
| Apache Junction | 11-004 |
| Miami | 04-002 |
| Superior | 11-021 |

My direct testimony discusses critical and necessary post-Test Year plant additions in the Cochise and Superstition Divisions and in the Oracle water system as follows:

- The reasons why such additions should be included in this rate case,
- The Company's planning and budgeting process for the construction of plant additions and improvements; and
- A description of the Company-funded utility plant additions since the last rate proceeding.

My direct testimony also discusses:

- Proposed arsenic removal facility additions in the Superstition Division,
- Company-wide transmission and distribution system maintenance costs; and

- The Company's proposed Superstition CAP Treatment Plant and related water infrastructure in the Superstition water system associated with the Off-Site Facilities Fee.

Finally, my direct testimony discusses lost and unaccounted for water which I characterize as system water loss throughout this direct testimony and the service line and water main replacements required to reduce water loss in the Bisbee and Oracle water systems and the Superstition Division to comply with Commission directives in Decision No. 71845. Specifically, in Decision No. 71845, page 92, lines 26-28 and page 93, lines 1-8, the Commission ordered:

> "That Arizona Water Company shall reduce the non-account water for each of its systems to less than 10 percent by July 1, 2011. For those systems that have not achieved a water loss rate of less than 10 percent by July 1, 2011, AWC should evaluate the systems and prepare a report demonstrating how the Company plans to reduce water losses to less than 10 percent. If the Company contends that reducing water losses to less than 10 percent is not cost effective, it should submit a detailed cost analysis and explanation demonstrating why the water loss reduction to less than 10 percent is not cost effective. Absent extraordinary circumstances, and with compelling supporting documentation, no system should be permitted to maintain non-account water above 15 percent. The water loss report should be filed with Docket Control, as a compliance item in this docket, by no later than December 31, 2011."

## III. Post-Test Year Plant Additions

**Q. IS THE COMPANY PROPOSING ANY POST-TEST YEAR PLANT ADDITIONS?**

A. Yes. The Company is proposing post-Test Year Plant Additions for the Cochise and Superstition Divisions and the Oracle water system be included in Test Year rate base.

**Q. PLEASE DESCRIBE THOSE ADDITIONS.**

A. Those additions include projects which are identified and described below by water system and Division. Exhibit FKS-1 contains detailed project information and descriptions of utility plant improvements as well as supporting data.

**A. Cochise – Bisbee (PWSID No. 02-001):**

Waterline Relocation for Arizona Street Drainage and Roadway Safety Improvement Project (WA 1-4692) – The City of Bisbee undertook reconstruction of the Arizona Street roadway, adding a large storm drain collection system and lowering/reconstructing the intersection of Arizona Street and Cole Avenue for safety improvements. These improvements created conflicts with the Company's old and failing water mains and service lines which required their relocation in accordance with the City of Bisbee Franchise Agreement between the Company and the City of Bisbee. A significant portion of the water main replaced was originally installed in 1908, experiencing six recorded leaks in the last three years. Due to the complexity of the project, the City of Bisbee contracted with the Arizona Department of Transportation ("ADOT") to manage the construction project. The City of Bisbee and ADOT worked collaboratively with the Company to incorporate required and necessary water main and service line relocations. ADOT also managed the Company's relocation work due, in large part, to project complexities, construction phasing and the significant impacts to the Company's facilities. The Company was required to pay the City of Bisbee the estimated cost of its construction in advance of the project being bid in accordance with the City of Bisbee's agreement with ADOT. The Company paid the City of Bisbee $93,650.00 on August 11, 2010 for the required and necessary water main and service line relocation work. This project was

completed on June 2, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $156,054.

Replace 1,500 LF of Failing 6-inch Steel Waterline with 6-inch DIP along Campbell Street from Hoatson to Cole Street and 460 LF of 8-inch DIP on Cole Street from Arizona Street to Nance Street (WA 1-4767) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Bisbee water distribution system, it was determined that significant portions of the 6-inch steel waterline on Campbell Street and 8-inch steel waterline on Cole Street were failing and needed to be replaced. Maps showing the project location and leak history are included in Exhibit FKS-1. The leak history shows numerous leaks and repairs with 32 leaks recorded in the past 10 years alone. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. In addition, the City of Bisbee was performing a road improvement project in this area. The Company's existing waterline was in conflict with the City's proposed road improvements at several locations. Pursuant to the terms of the City of Bisbee Franchise Agreement, the Company was required to relocate its existing facilities at its own expense. A copy of the franchise agreement is included in Exhibit FKS-1. Due to pavement replacement costs and the poor condition of the existing waterlines, as seen by the significant number of leaks, the waterline was replaced within the boundaries of the City's pavement replacement project. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on March 21,

2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $375,720.

Replace 1,140 LF of Failing 8-inch and 6-inch Steel Waterline with 8-inch DIP on Clawson Avenue from Rupp Avenue to Navajo Trail (WA 1-4795) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Bisbee water distribution system, the Company's engineers determined that significant portions of the 6-inch and 8-inch steel waterline on Clawson Street were failing and needed to be replaced. Maps showing the project location and leak history are included in Exhibit FKS-1. Over 70 repairs have been made to this waterline with 56 leaks in the past 6 years alone. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on June 22, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $193,147.

**B. Oracle (PWSID No. 11-019):**

Replace 270 LF of Old and Failing 4-inch Steel with 6-inch DIP on American Avenue and College Drive (WA 1-4798) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Oracle water distribution system the Company's engineers determined that a significant portion of the 4-inch steel waterline at the intersection of American Avenue and College Drive was failing and needed to be replaced. Maps showing the project

location and leak history are included in Exhibit FKS-1. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on June 30, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $40,113.

Replace 440 LF of Old and Failing 2-inch Galvanized Steel with 6-inch DIP on Discover Street (WA 1-4799) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Oracle water distribution system, the Company's engineers determined that a significant portion of the 2-inch galvanized steel waterline on Discover Street was failing and needed to be replaced. This waterline is over 50 years old and has failed several times resulting in leaks. Maps showing the project location and leak history are included in Exhibit FKS-1. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on June 30, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $51,218.

Replace 1,100 LF of Old and Failing 2-inch Galvanized Steel with 6-inch DIP on Stewart Road, Truman Street and Sherman Road (WA 1-4800) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Oracle

water distribution system, the Company's engineers determined that significant portions of the 2-inch galvanized steel waterline on Stewart Road, Truman Street and Sherman Road were failing and needed to be replaced. Portions of this waterline are almost 50 years old and have failed several times resulting in leaks. Maps showing the project location and leak history are included in Exhibit FKS-1. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on June 30, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $87,853.

**C. Superstition:**

**i. Superstition – Apache Junction (PWSID No. 11-004).**

Construct Expansion to the Oasis Arsenic Removal Facility from 3.6 million gallons per day ("MGD") to 7.7 MGD (WA 1-4226) – Primarily due to the City of Mesa refusing to continue to treat approximately 3,000 acre-feet per year of the Company's CAP allocation, the Apache Junction water system supply is vulnerable to supply shortages. Based on the Company's detailed supply analysis, attached as Exhibit FKS-3, the Apache Junction water system lacks redundancy and adequate useable groundwater production capacity to reliably meet peak system demands. Exhibit FKS-3 shows that the expansion of the Oasis Arsenic Removal Facility is needed to provide adequate capacity to meet peak system demands and provide supply reliability. The Company constructed a new well (Well No. 19) in 2006 to provide additional supplies within the Apache Junction water system. However, now Well No. 19 does not comply with the arsenic MCL and requires arsenic removal. The Oasis arsenic removal facility has a

maximum treatment capacity of 3.5 million gallons per day ("MGD") which is not adequate to treat both of the Oasis Wells. The expansion of this facility will allow the Company to treat water from Oasis Wells Nos. 13 and 19 and increase the maximum treatment capacity to 7.7 MGD.

In addition, the expansion of this facility will allow a portion of the plant to be taken off line in order to perform maintenance or affect repairs in the event of a plant failure while still maintaining adequate service during peak system demands. Design of the plant expansion began on August 24, 2009 and will be completed on December 30, 2011. Maricopa County issued a building permit on March 3, 2011 and construction of the expansion began on May 4, 2011. A copy of the plans, building permit and proposal/contract are included in Exhibit FKS-1. A copy of the contractor's construction schedule is included in Exhibit FKS-4. The project is on schedule and anticipated to be complete on or about December 30, 2011. This project is anticipated to cost $2,872,069.

Replace obsolete Supervisory Control and Data Acquisition ("SCADA") system computers and operating software (WA 1-4788) – The Superstition Division SCADA system is controlled by two computers in its Apache Junction office; one main computer and one backup computer. A location map is included in Exhibit FKS-1. Failure of these computers would cause a loss of automatic control throughout the system. Industry sources, such as an April 22, 2010 article titled "*Pulling the plug on old hardware: Life-cycle management explained*"[1] lists the average lifespan for a desktop computer as 3 to 4 years depending on use. The existing computers have been in continuous use for over 5 years. Additionally, the software that operates the SCADA system is out of date and must be updated to the

[1] Author, Cara Garretson (April 22, 2010) "*Pulling the plug on old hardware: Life-cycle management explained*", COMPUTERWORLD. Retrieved from: http://www.computerworld.com/s/article/print/9175832/Pulling_the_plug_on_old_hardware.

current version before it can be installed onto the new computer. The updated software will provide improved data conversion and trending capabilities and will help the operators to improve the operational efficiency of the water production and distribution systems. Copies of the project schedule, cost estimates, computer specifications and consulting agreement are included in Exhibit FKS-1. This project was completed on June 7, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $14,088.

Pull and replace the pump in Apache Junction Well No. 15 (WA 1-4792) – Well No. 15 developed a severe vibration in the column pipe and had to be shut down in order to prevent further damage to the pumping equipment. Well No. 15 is critical to meeting peak system demands, is needed to provide sufficient flow for backwashing and comprises nearly 25 percent of the Baseline Arsenic Removal Facility capacity. The Company's engineers inspected all pumping equipment removed from the well. The pump was worn beyond repair and the air line and 16 bearings had failed. Forty-two (42) sections of oil tube were severely corroded and were failing at the seams and nine sections of column pipe were also severely corroded. All of the equipment described above need to be replaced prior to returning the well to service to provide a reliable and adequate supply of water to the system and comply with safe drinking water standards. The well casing had severe plugging and was subsequently cleaned, brushed and bailed before being returned to service. A copy of a well video log is also included in Exhibit FKS-1. When compared to the cost of drilling a new well at an estimated cost of $1,257,949 (as shown in Exhibit FKS-2), replacing the pumping equipment, piping and thoroughly cleaning the well was the most cost-effective solution. Copies of the pump design information and

proposal/contract for the pump replacement are included in Exhibit FKS-1. This work was completed on June 3, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $35,514.

Replace failed 600 HP size 7 reduced voltage motor starter at Oasis Well No. 13 (WA 1-4833) – In February 2011, the motor starter for Oasis Well No. 13 failed. The motor starter was originally installed in 1995 and repair parts are no longer available from the original equipment manufacturer, third party supplier or from the used equipment market. This well produces 2,620 gallons per minute and represents 23 percent of the total production capacity for the Apache Junction water distribution system (PWSID No. 11-004). This well is critical to meeting peak system demands of the water system. The motor starter was replaced to provide a reliable and adequate supply of water to the system. This project was completed on April 15, 2011. The final cost to complete this project is $14,721.

Pull and replace pump and motor at Apache Junction Well No. 16 (WA 1-4842) – Well No. 16 produces 2,490 gallons per minute, represents nearly 22 percent of the total production capacity for the Apache Junction water system and makes up 48 percent of the Baseline Arsenic Removal Facility capacity. This well is critical to meeting peak system demands and is needed to provide sufficient flow for backwashing the Baseline Arsenic Removal Facility. The Company's engineers inspected all pumping equipment upon its removal from the well. The pump was worn beyond repair, one section of column pipe was split and the pump shaft and bearings for one section of pipe were also worn beyond repair. All of the equipment described above was replaced prior to returning the well to service. This work was completed on June 10, 2011, in advance of an

arsenic removal facility shutdown required as part of the expansion of the Oasis Arsenic Removal Facility (WA 1-4226) as described previously. The Arsenic removal facility shutdown is expected to begin in September 2011 and this well is critical to meeting system demands during this shutdown. This work was needed to provide a reliable and adequate supply of water to the system and comply with safe drinking water standards. Copies of the pump design information and proposal/contract for the pump replacement are included in Exhibit FKS-1. Final accounting for this project is not complete. The total estimated cost to complete this project is $98,677.

**ii. Superstition – Miami (PWSID No. 04-002).**

Update programming at Well Nos. 12, 27 and 28 (WA 1-4789) – Well Nos.12, 27, and 28 deliver water to the Bandy Heights Tank through a transmission line that parallels State Highway 88. A project location map is included in Exhibit FKS-1. Pursuant to an arsenic blend plan approved by ADEQ, water from Well No. 27 is blended with water from Well Nos. 12 and 28. Well Nos. 12, 27 and 28 receive control signals from the telemetry control radio located at the Bandy Heights Tank. Frequent radio signal communication failures from the tank to the wells have caused the tank to overflow on a number of occasions. When this happens, the system operators travel to each site to troubleshoot the radios and reset the programming, forcing them to resend the control data in order to correct the situation. These communication failures have increased overtime costs and water loss. Programming changes to the radio transmitters have been made to the radios' programs to periodically repeat control signals. Repeating control signals reduces the chance of a tank overflow by ensuring the signal was not lost during its communication transmission. Also, equipment has been installed to provide control flexibility and allow for

individual operation of each well. Copies of the project schedule, cost estimates and proposal/contract are included in Exhibit FKS-1. This project was completed on June 30, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $13,800.

Replace 1,645 LF of failing 8-inch CA Waterline with 8-inch DIP along Live Oak Street (US 60) from Marion Street to New Street (WA 1-4794) – As stated previously in Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. Based on the Company's detailed water loss evaluation of the Miami water distribution system (PWSID No. 04-002), the Company's engineers determined that a significant portion of the 8-inch CA waterline on US Hwy. 60 was failing and needed to be replaced. Maps showing the project location and leak history are included in Exhibit FKS-1. The leak history shows numerous leaks and repairs with 9 leaks in the past 6 years alone. Completion of this project was also critical to the Company's efforts to achieve compliance with Decision No. 71845. Copies of project cost estimates, proposal/contracts, construction drawings, schedule and completion notice are included in Exhibit FKS-1. This project was completed on June 10, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $156,984.

**iii. Superstition – Superior (PWSID No. 11-021):**

Install one 12-inch in-line high pressure isolation valve for Superior Transmission Line (WA 1-4787) – A 12-inch transmission line extending 26 miles from Florence Junction to the Town of Superior supplies all of the water to the Superior water distribution system and operates at pressures up to 800 psi. Originally installed in 1973, repair parts for the

existing transmission line isolation valves are no longer available. When a leak or break develops, because of the distance between isolation valves, it takes several hours to drain the line resulting in significant labor costs and, on average, the loss of over 100,000 gallons of water. Installation of this additional isolation valve will help to reduce water loss and help to lower repair costs. Due to high operating pressures, specialty of design and high cost of purchase and installation, the Company is planning to install one new additional isolation valve each year until one valve per mile has been achieved. A location map, cost estimates, proposal/contract and construction pictures are included in Exhibit FKS-1. This project was completed on May 5, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $21,620.

Trench and backfill Queen Creek Tank fill line (WA 1-4793) – The Queen Creek Tank fill line is an 8-inch transmission line that transmits water from the 12-inch transmission line referenced above to the Queen Creek Tank and provides the source of water to the Town of Superior. A project map is included in Exhibit FKS-1. In Decision No. 71845, the Commission ordered the Company to reduce system water loss to less than 10 percent by July 1, 2011. An increasing frequency of leaks and repairs has been reported on this line. Company engineers have investigated the leaks and determined the primary cause of the leaks is due to failing pipe gaskets. The line was installed above ground in 1973. The gaskets have become weathered and brittle over time due to exposure to the sun and the elements causing an increase in the frequency of leaks and repairs and higher water loss. Pictures of the above-ground line are included in Exhibit FKS-1. The waterline tends to move due to expansion and contraction of the pipe caused by seasonal temperature changes. The gaskets, in their brittle

condition, develop leaks caused by movement from the frequent expansion and contraction. Erosion of the soil around the pipe installation has caused additional movement and leaks. The pipe itself is in serviceable condition and does not need to be replaced. As a cost savings measure, repairs to the existing line were made by reusing the existing pipe and replacing the gaskets rather than installing a new line. At the same time when these old brittle gaskets were replaced with new gaskets, the line was buried to prevent future weathering of the gaskets and movement of the pipe. Cost estimates, proposal/contract, construction drawings, schedule, pictures of the repairs and completion notice are included in Exhibit FKS-1. This project was completed on June 13, 2011. Final accounting for this project is not complete. The total estimated cost to complete this project is $186,769.

## IV. Description of Company-Funded Construction Budgeting Procedures

**Q. HOW DOES THE COMPANY DETERMINE WHICH PROJECTS TO FUND IN A GIVEN BUDGET YEAR AND WHAT PROCEDURE DOES THE COMPANY USE TO IDENTIFY A COMPANY-FUNDED UTILITY PLANT CONSTRUCTION PROJECT?**

A. Each year, the Company prepares a detailed construction budget for each of its eleven consolidated water systems for the next year. The budgeting process starts with each Division Manager preparing a proposed construction budget for utility plant additions in the water systems they manage. Within the proposed construction budget, each Division Manager identifies the water facilities needed to improve or maintain service to existing customers. For example, Division Managers propose construction projects such as storage tanks, replacement of, or increases in capacity of, booster pump stations, new wells or replacement of water mains or

transmission lines. These recommendations are made to ensure safe, reliable and adequate water service.

The proposed construction projects are then reviewed and analyzed by the Company's engineering staff, who further research and evaluate the need for each project. Data supporting each project is collected and the engineering staff develops preliminary schematics and cost estimates. Engineering staff also review current and projected water system demands and evaluate production, pumping and storage capacities available to meet such demands. Additional factors reviewed and analyzed include compliance with applicable codes, ordinances and safe drinking water standards, trends in source water quality and changes in regulations that may affect continued compliance with drinking water standards.

Several days are set aside each year for Division Managers, engineering staff, operations staff and senior management to meet at each Division office to collectively review and discuss each proposed construction project. A field visit is subsequently conducted to review and discuss large-scale construction projects. The proposed projects are then prioritized and a final construction budget is prepared and presented to the Company's Board of Directors for review and approval.

**Q. WHO DETERMINES HOW MUCH WILL BE ALLOCATED AND APPROVED FOR COMPANY-FUNDED PROJECTS?**

A. The Company's Board of Directors establishes the dollar amount of the annual construction budget. Under normal circumstances, the construction budget would increase each year to reflect increasing costs of construction due to increases in the costs of materials and labor, general inflation and additional regulatory requirements. Since the end of 2007, however, the Company's construction budget has been significantly reduced due to the

Company's financial condition. For example, the Company's 2008 capital budget was reduced from $18.9 million to $8.1 million. Additional reductions for the next three budget years were required, further reducing the Company's 2009, 2010 and 2011 capital budgets to $5.0 million, $6.6 million and $8.8 million, respectively.

**Q. HOW DO YOU IMPLEMENT THE COMPANY'S CONSTRUCTION BUDGET?**

A. Upon the Board of Directors' approval of the Company's construction budget, the Company's Engineering department prepares detailed construction plans for the utility plant additions and obtains the required regulatory permits and approvals. Once the required approvals are received, the Engineering department releases the project to construction. The Company's Engineering department solicits competitive bids for major water infrastructure, such as booster pump stations, storage tanks and new wells. The Division Managers solicit competitive bids from a list of qualified independent contractors for most pipeline projects. All other factors being equal, these projects are awarded to the qualified contractors submitting the lowest bids.

**Q. DOES THE COMPANY FUND INFRASTRUCTURE NEEDED TO SERVE NEW DEVELOPMENTS?**

A. No. Developers' infrastructure requirements are funded by the developers through advances or contributions as their projects proceed.

**Q. ARE DEVELOPER ADVANCED FUNDS FOR WATER FACILITIES INCLUDED IN THE COMPANY'S ANNUAL CAPITAL BUDGET?**

A. No.

**Q. HOW ARE DEVELOPERS' WATER FACILITY REQUIREMENTS DETERMINED AND BUDGETED?**

A. The Company works with developers to determine the water facilities needed to serve their developments. Such facilities include waterlines, fire hydrants, water services and water meters. However, for larger developments, water storage tanks, booster pump stations, wells and water treatment plants may also be needed. These types of facilities are included in main extension agreements between the Company and developer. Developers fund this infrastructure and the project timing is entirely dependent on the developer's construction schedule. Since the Company does not fund these infrastructure requirements, it does not include developer advances or contributions in its annual capital budget.

**Q. WHAT IS THE PERCENTAGE BREAKDOWN OF COMPANY-FUNDED UTILITY PLANT VERSUS DEVELOPER-FUNDED UTILITY PLANT ADDED SINCE THE LAST RATE APPLICATION INCLUDING THE EASTERN GROUP?**

A. With the ongoing recession, the rate of developer-funded utility plant additions has dropped sharply with the cessation of building in the Eastern Group. Because of the Company's reduced annual construction budgets, Company-funded utility plant additions have also decreased. In the Eastern Group, developers funded 35.9 percent of the total utility plant added between January 2008 and December 2010, whereas the Company has funded 64.1 percent of utility plant added during this same time period.

## V. <u>Description of Company-Funded Utility Plant Additions For The Eastern Group</u>

**Q. PLEASE SUMMARIZE THE COMPANY-FUNDED UTILITY PLANT ADDED TO THE EASTERN GROUP SINCE DECEMBER 31, 2007.**

A. From the beginning of 2008 through June 30, 2011, the Company annually funded construction projects for each Eastern Group system to maintain or replace infrastructure, address water loss, resolve operational problems, meet safety requirements, comply with safe drinking water standards and make the utility plant additions needed to maintain safe, reliable and adequate water service to its customers.

The cost of the utility plant additions for the six water systems in the Eastern Group represent infrastructure needed to maintain reliable and adequate water service. A summary of the cost of these utility plant additions is as follows:

**ARIZONA WATER COMPANY**
**Eastern Group**
**Company-Funded Utility Plant Added**
**From 2008 to June 30, 2011[2]**

| System | Plant Added |
|---|---|
| Superstition | $ 7,033,028 |
| Cochise | $ 3,024,287 |
| San Manuel | $ 291,031 |
| Oracle | $ 550,012 |
| SaddleBrooke Ranch | $ 5,505 |
| Winkelman | $ 51,583 |

The following table summarizes the quantity of Company-funded water mains by pipe diameter added to each water rate system since the last rate case.

[2] Excludes Oasis Arsenic Removal Facility, which is scheduled for completion on or before December 30, 2011.

**Linear Feet of Company-Funded Water Pipelines Added From January 1, 2008 thru June 30, 2011**

| Water Main Diameter | Cochise | Oracle | SaddleBrooke Ranch | San Manuel | Superstition | Winkelman |
|---|---|---|---|---|---|---|
| 6-inch | 4882 | 1820 | - | - | 2146 | - |
| 8-inch | 4086 | - | - | - | 3322 | - |
| 12-inch | 730 | - | - | - | 341 | - |
| 16-inch | - | - | - | 1000 | - | - |
| 24-inch | - | - | - | - | - | - |

A summary of the capital investments listed separately by water system, are shown below:

**A. Cochise:**

i. Bisbee (PWSID No. 02-001)

In Bisbee, capital expenditures increased due to the required replacement of failed or failing water mains to comply with the Commission's directive in Decision No. 71845 and in coordination with the City of Bisbee roadway improvement and safety enhancement projects. In addition to the water main replacements, replacements of failed or failing pump and motor equipment at the Company's well field and booster pump station were required. A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 02-001 |
|---|
| **Project Description** |
| Replace 1,700 LF of failing 6-inch steel with 8-inch steel along Highway 80 from Old Bisbee to Lowell Circle |
| Replace 300 HP motor and starter at Naco booster pump station for booster pump No. 4 |
| Pull and replace pump and motor at Naco Well No. 3 |
| Pull and replace pump and motor at Naco Well No. 5 |
| Replace 248 LF of failing 6-inch steel and 2-inch G.S. with 6-inch DIP and 2-inch copper pipe at the intersection of Park Avenue and 2nd Street to accommodate the City of Bisbee road improvement project |
| Replace the failed computer and outdated SCADA software at the Bisbee office |
| Relocate 730 LF 10-inch steel water main in the Tin Town area to accommodate Freeport-McMoRan's soil remediation project |
| Replace 116 LF of 6-inch steel With 120 LF of 6-inch Dip with Polywrap Along West Vista Road South of Congdon Avenue. |

ii. Sierra Vista (PWSID No. 02-004)

In Sierra Vista, capital expenditures have primarily focused on the replacement of failed or failing motors and pumping equipment and their related improvements. A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 02-004 |
|---|
| **Project Description** |
| Replace the failed tablet chlorinator with a liquid chlorinator at the Fuller Well and Tank Site |
| Pull and replace the pump and motor at Greaves Well No. 6 |
| Pull and replace the pump and motor at Stuart Well No. 5 |
| Construct an 8-inch pressure regulator station west of Hummingbird Drive and north of Golf Links Road |
| Repair the 75HP right-angle drive at the Fuller Well |
| Pull and replace the pump and motor at Village Meadows Well No. 1 |
| Replace the failed computer and outdated SCADA software |

**B. Oracle (PWSID No. 11-019):**

In Oracle, capital expenditures have focused on the replacement of failed or failing water mains to comply with the Commission's directive in Decision No. 71845. To improve system reliability, add enhanced

monitoring capabilities and reduce water loss caused by pump control signal errors and leading to overflowing of tanks, the Company has replaced approximately seven obsolete and failing radios. A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 11-019 |
|---|
| **Project Description** |
| Rebuild the foundation at Well No. 3 and repair the failed gabions |
| Replace failing radio controls and install SCADA monitoring at booster pump station Nos. 2, 3 and 4 |

**C. SaddleBrooke Ranch:**

The SaddleBrooke Ranch water system is new and has been funded by the developer through water facilities advanced or contributed to the Company through main extension agreements. This water system is now physically interconnected with the Company's Oracle water system, improving system reliability and redundancy for the Oracle and SaddleBrooke Ranch water systems. There are no significant Company-funded capital projects within the SaddleBrooke Ranch water system.

**D. San Manuel (PWSID No. 11-020):**

In San Manuel, capital expenditures have primarily focused on the replacement of two failed or failing booster pump station headers and related valves. The water supply for the San Manuel water system is pumped through two pump stations, which include a primary header and pump discharge piping. Pump station valves were old, inoperable and leaking which was contributing to the systems water loss. Both discharge header piping and valves have been replaced.

A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 11-019 |
|---|
| **Project Description** |
| Repair the leaking valves and failing piping header at booster pump station No. 1 (250 Pumphouse) |
| Repair the leaking valves and failing piping header at pump station No. 2 (750 Pumphouse) |

**E. Superstition:**

i. Apache Junction (PWSID No. 11-004)

In the Apache Junction water system, capital expenditures have primarily focused on replacing failing pumps and motors; relocating water lines impacted by City of Apache Junction and Maricopa County public right-of-way improvement projects; and upgrading the Superstition SCADA system software and computers. A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 11-004 |
|---|
| **Project Description** |
| Install new tank outlet and replace tank valve and piping from tank to existing booster pump station |
| Construct building around existing pump station to attenuate/control noise |
| Update SCADA system connectivity for remote access and monitoring |
| Pull and replace pump and motor at Well No. 14 |
| Abandon 440 LF of 6-inch CA and tie over services to existing 12-inch CA on Broadway west of Tomahawk Road |
| Purchase updated Pinal County electronic quarter section maps for water distribution mapping |
| Pull and replace motor at Well No. 15 |
| Pull and replace 300 HP Motor at Baseline booster station |
| Vertical Realignment - replace 350 LF of 12-Inch and 70 LF 6-Inch CA with 12-Inch and 6-Inch DIP along Ironwood Drive to Broadway Avenue to accommodate the City of Apache Junction Storm Drain Project |

ii. Miami (PWSID No. 04-002)

In the Miami water system, capital expenditures have primarily focused on replacing failing pumps and motors, replacement of waterlines to

address water loss to comply with the Commission's directive in Decision No. 71845 and the rehabilitation of a well due to its failing well casing. Water production in Miami is provided by a large number of groundwater wells. As such, the water system experiences a significant amount of well pump and motor replacements annually.

A list of significant projects completed for this water system is included in the following table:

| **Plant Addition Summary For PWSID No. 04-002** |
|---|
| **Project Description** |
| Pull and replace pump and motor at Well No. 26 |
| Replace the failed tablet chlorinator with a liquid chlorinator at Well No. 26 |
| Pull and replace Well No. 12 and install new starter panel |
| Install a line stop, new valve and couplings and required piping for water main shut down |
| Replace pump, motor and control valves at Well Nos. 27 and 28 and upgrade electrical panel at Well No. 28 |
| Pull and replace pump and motor, re-wire electrical panel at Well No. 12 |
| Pull and replace motor at Well No. 27. Submersible motor failure |
| Rehabilitate well. Install a new well liner, pull pump and motor at Well No. 6 |

iii. Superior (PWSID No. 11-021)

In the Superior water system, capital expenditures have primarily focused on replacing failing pumps and motors; installation of high pressure transmission line isolation valves to facilitate transmission line repairs and reduce water loss to comply with the Commission's directive in Decision No. 71845; and upgrades to the Superstition Division's SCADA system software and computers, providing monitoring and improved control of the remotely located arsenic removal facility (Superior). A list of significant projects completed for this water system is included in the following table:

| Plant Addition Summary For PWSID No. 11-021 |
|---|
| **Project Description** |
| Install SCADA controls and RTU/PLC panels at the Desert Wells pump station |
| Construct an addition at the Superior warehouse - relocate customer service office to new location |
| Replace failed plastic nozzles with Stainless Steel nozzels at the Desert Station Arsenic Removal Facility |
| Pull and replace the well pump and motor at Desert Station Well No. 3 |
| Install SCADA Controls for the Desert Wells pump station at the Superior Warehouse |
| Install 12-inch high-pressure isolation valve on the transmission line from the Desert Wells pump station to Superior |

**F. Winkelman:**

In the Winkelman water system, capital expenditures have been reduced primarily focusing on replacement of smaller capital items. There are no separately identified Company-funded capital projects within the Winkelman water system.

## VI. Proposed Treatment Plant (i.e., Arsenic Removal Facility) Additions

**Q. DOES THE COMPANY INTEND TO CONSTRUCT ADDITIONAL ARSENIC REMOVAL FACILITIES IN THE EASTERN GROUP?**

A. Yes. Construction of the Oasis Arsenic Removal Facility expansion is underway and the Company is planning to expand the capacity of its Baseline Arsenic Removal Facility.

**Q. WHY IS THE COMPANY EXPANDING THE TREATMENT CAPACITY OF THE OASIS ARSENIC REMOVAL FACILITY?**

Primarily due to the City of Mesa's refusal to continue to treat approximately 3,000 acre-feet per year of the Company's CAP allocation, the Apache Junction water system (PWSID No. 11-004) supply is vulnerable to supply shortages. Without this CAP treatment capacity, this water system lacks redundancy and adequate capacity to reliably meet peak system demands. Based on the supply analysis completed by the Company attached as Exhibit FKS-3, expansion of the Oasis Arsenic Removal Facility is needed to

provide adequate capacity to meet peak system demands and provide supply reliability. Currently, the arsenic removal facility can treat 3.5 MGD. The Company constructed a new well in 2006 to provide additional supplies within the Apache Junction water system and expansion of this facility will allow the Company to treat water from both Wells Nos. 13 and 19 and increase treatment capacity to 7.7 MGD.

**Q. WHEN WILL THE PLANT CONSTRUCTION BE COMPLETED?**

A. Construction of the expansion began on May 4, 2011. Currently, the project is on schedule for completion on or about December 30, 2011. A copy of the selected contractor's construction schedule is attached as Exhibit FKS-4.

**Q WHAT IS THE COST TO DESIGN AND CONSTRUCT THE OASIS EXPANSION?**

A. The cost to design and construct the expansion of the Oasis Arsenic Removal Facility is $2,872,069.

**Q. IS THIS UTILITY PLANT INCLUDED IN THIS RATE APPLICATION?**

A. Yes. The cost for this expansion is included in this rate application as post-Test Year Plant.

**Q. WHY DOES THE COMPANY ALSO PLAN TO EXPAND THE TREATMENT CAPACITY OF THE BASELINE ARSENIC REMOVAL FACILITY?**

A. The existing capacity of the Baseline Arsenic Removal Facility is 6.5 MGD. In order to provide adequate supplies of water and improve system reliability, the capacity of Well No. 16 was increased to 2,500 gallons per minute ("GPM") and the Company drilled and equipped Well No. 18 in 2006 which produces 1,000 GPM. The Company needs to expand the Baseline Arsenic Removal Facility to 8.6 MGD to accommodate this additional source of supply.

The Company's Baseline Arsenic Removal Facility expansion is being designed and constructed to ensure adequate supply and reliability to meet peak system demands.

Based on the supply analysis completed by the Company, attached as Exhibit FKS-5, an additional source of supply is required. This analysis determined that using the Company's existing wells was the least costly option to provide the additional source of supply as opposed to drilling and equipping new wells and constructing new arsenic removal facilities. These wells are currently used to back-up other supplies in the event of a well pump or motor failure. To fully use existing well capacity to meet peak demands, additional arsenic removal capacity is required.

The Company's analysis also determined that the least costly option for removing arsenic from available supplies is to expand the existing capacity of the Baseline Arsenic Removal Facility.

**Q. WHAT IS THE ESTIMATED COST TO EXPAND THE BASELINE ARSENIC REMOVAL FACILITY AS YOU HAVE STATED?**

A. The Company estimates the cost to design, permit and construct the Baseline Arsenic Removal Facility to be $1,846,017 and a copy of the preliminary cost estimate is attached as Exhibit FKS-6.

**Q. WHAT IS THE STATUS OF THE BASELINE EXPANSION?**

A. The preliminary design effort on this arsenic removal facility expansion is under way. Preliminary construction plans have been completed and are included in Exhibit FKS-1. The preliminary schedule for completion of the Baseline expansion is shown below.

| ACTIVITY | DURATION – START – COMPLETION |
|---|---|
| Final Design and Permitting | 8 months. Beginning June 1, 2013 |
| Bidding | 1 month |
| Equipment Procurement | 5 months |
| Construction | 8 months. Completion date of March 1, 2015 |

The following table lists wells which currently supply water to the Baseline Arsenic Removal Facility:

| WELL NO. | CAPACITY |
|---|---|
| Well No. 12 | 650 gpm |
| Well No. 14 | 550 gpm |
| Well No. 15 | 1250 gpm |
| Well No. 16 | 2500 gpm |
| Well No. 18 | 1000 gpm |

As noted, the expansion of this plant will provide for full use of well capacities within this water system and postpone the need for additional supplies for this area.

**Q. HOW IS THE COMPANY PROPOSING TO RECOVER THE COST OF EXPANSION OF THE BASELINE ARSENIC REMOVAL FACILITY?**

A. The Company is proposing to recover the cost of expansion of the Baseline Arsenic Removal Facility through continuation of the ACRM, as addressed in Mr. Garfield's and Mr. Harris' testimony.

In Decision No. 71845, the Commission authorized continuation of the ACRM in the Company's Sedona and Superstition water systems. Mr. Harris also discusses continuation of the ACRM in his direct testimony.

**Q. ARE THERE ANY OTHER WATER SOURCES IN THE EASTERN GROUP THAT MAY REQUIRE TREATMENT FOR ARSENIC?**

A. Not at this time. The Company monitors all of its sources of supply for various constituents to ensure they comply with the Safe Drinking Water Act, including the federally mandated arsenic MCL. The arsenic levels in some Eastern Group water system wells have been increasing; and it is likely that additional arsenic removal facilities may be required in the future.

## VII. Transmission and Distribution System Maintenance

**Q. ARE EFFORTS TO REDUCE WATER LOSS LIMITED TO CAPITAL EXPENDITURES ASSOCIATED WITH REPLACING AGING INFRASTRUCTURE?**

A. No. A significant amount of the Company's effort to reduce water loss is focused on maintenance of its transmission and distribution ("T&D") systems. The Company incurs a significant amount of operating and maintenance expenses to maintain its T&D systems by locating and repairing main breaks and service leaks. In 2010, the Company incurred $2,633,423 in T&D maintenance expenses for its water systems. In comparison, the Company's capital budget was $6.6 million. In other words, the Company incurred T&D maintenance costs equivalent to 40 percent of its capital budget. Between January 2008 and December 2010, the Company repaired over 1,300 leaks or nearly two leaks repaired each workday as shown in the table below.

**Water Main and Service Line Leaks**

| YEAR | LEAKS REPAIRED |
|---|---|
| 2008 | 327 |
| 2009 | 461 |
| 2010 | 517 |

**Q. HAS THE COMPANY BEEN ABLE TO MAINTAIN ITS NORMAL LEVEL OF T&D SYSTEM MAINTENANCE WITH THE CURRENT ECONOMIC CONDITIONS AND ITS COST REDUCTION EFFORTS?**

A. No. As explained by Mr. Harris in his direct testimony, the Company implemented a number of significant, but temporary, cost-cutting measures in response to the economic downturn beginning in 2008, including a focused reduction in the level of costs devoted to the maintenance of the Company's T&D systems to minimal levels sufficient to maintain adequate and reliable service. As discussed in Mr. Reiker's direct testimony, the Company succeeded in reducing T&D maintenance expenses by over $770,000, or 23.0 percent from 2007 levels. However, a consequence of the Company's cost-cutting measures was a further (though temporary) limitation in the Company's ability to adequately respond to and reduce water loss.

**Q. CAN THE COMPANY CONTINUE TO REDUCE WATER LOSS AND MAINTAIN ITS T&D SYSTEMS EFFECTIVELY WITHOUT INCREASING THE AMOUNT EXPENDED ON THESE EFFORTS?**

A. No. The continued reduction and deferral of T&D maintenance (and associated expenses) will cause long-term maintenance problems and increased water loss. It is vital that, besides replacing old failing waterlines, the Company also increases spending to maintain its T&D systems back to more normal levels so it can adequately maintain and prolong the useful lives of such infrastructure and continue to reduce water loss. Though cost-cutting measures in 2008 (due to the recession) were meant to be only for the short-term, they were not intended as long-term reductions.

**Q. HOW WILL THE COMPANY BE ABLE TO REDUCE WATER LOSS IF T&D EXPENSES WERE REDUCED TO ABNORMALLY LOW LEVELS THROUGH COST-CUTTING MEASURES IN 2008?**

A. This can be accomplished by increasing proactive efforts to reduce water loss through preventive, rather than corrective, maintenance. However, resources above those currently existing are required in order to do so. The adjustment to maintenance expense proposed by Mr. Reiker accomplishes this.

**Q. WILL THE COMPANY BE ABLE TO COMPLY WITH THE COMMISSION'S DIRECTIVE TO REDUCE WATER LOSS TO LESS THAN 10 PERCENT FOR ALL OF ITS SYSTEMS WITHOUT INCURRING ADDITIONAL T&D EXPENSES?**

A. No. A critical aspect of the Company's efforts to reduce water loss includes locating and repairing water main and service line leaks and breaks, all of which are ongoing maintenance expenses and not capital expenditures.

**Q. WILL THE COMPANY BE BETTER POSITIONED TO COMPLY WITH THE COMMISSION'S WATER LOSS REDUCTION DIRECTIVE IF THESE ADJUSTMENTS ARE APPROVED?**

A. Yes.

## VIII. <u>Off-Site Facilities Fee</u>

**Q. WHAT IS THE AMOUNT OF THE COMPANY'S PROPOSED OFF-SITE FACILITIES FEE?**

A. As discussed in Mr. Harris' direct testimony, the proposed Off-Site Facilities Fee tariff is $3,500 for each new service connection with a 5/8 x 3/4-inch meter and the amount increases for larger meter sizes. The proposed Off-Site Facilities Fee tariff is also included in Mr. Harris' direct testimony.

**Q. WHAT FACILITIES DOES THE COMPANY PROPOSE TO FUND WITH THIS OFF-SITE FACILITIES FEE?**

A. The Company intends to use Off-Site Facilities Fees to fund major regional water supply and treatment facilities needed to meet the water supply requirements of the Company's growing customer base expected in the future. The facilities are primarily the Superstition CAP Regional Surface Water Treatment Plant ("Superstition CAP Treatment Plant") and the necessary T&D mains, storage tanks and booster pump stations needed to treat, store, pump and ultimately provide safe, reliable and adequate water service. This will also facilitate a transition to sustainable supplies. Sustainable supplies are needed to meet the needs of increased customers projected in the future in this area without added reliance on precious groundwater supplies. The preliminary estimated cost to design and construct the Superstition CAP Treatment Plant and all related infrastructure facilities is approximately $8.8 million, as detailed in Exhibit FKS-7.

**Q. PLEASE DESCRIBE THE SUPERSTITION CAP TREATMENT PLANT.**

A. The Superstition CAP Treatment Plant is a surface water treatment plant being planned and designed to provide a renewable water source of supply for the Company's Apache Junction and Superior water systems within the Superstition Division. The Superstition Division has an annual CAP allocation of 6,285 acre-feet, representing a total need for nearly 6.0 MGD of treatment capacity. Additional available CAP water allocations may also become available in the future. A copy of the Superstition CAP Treatment Plant Siting study is included as Exhibit FKS-8.

**Q. DOES THE CONSTRUCTION OF THE SUPERSTITION CAP TREATMENT PLANT REQUIRE SIGNIFICANT CAPITAL?**

A. Yes. At an estimated cost of $8.8 million, this represents one of the Company's largest capital projects. Mr. Harris has provided direct testimony describing the Company's proposed Off-Site Facilities Fee tariff to fund the Superstition CAP Treatment Plant and its related infrastructure.

**Q. WHAT WILL THE RATE IMPACT BE FOR EXISTING SUPERSTITION DIVISION CUSTOMERS BY USING FACILITIES FEES TO FUND CONSTRUCTION OF THE SUPERSTITION CAP TREATMENT PLANT?**

A. There will be no rate impact. As described in Mr. Harris' direct testimony, the Superstition CAP Treatment Plant will be funded by developers from Off-Site Facilities Fees and not by the Company. As a result, those fees will be recorded as contributions in aid of construction and are not included in rate base. Existing customers will not have to pay for these facilities if they are funded through Off-Site Facilities Fees.

**Q. WHY DOES THE COMPANY CONSIDER THE PROPOSED SUPERSTITION CAP TREATMENT PLANT TO BE A REGIONAL PLANT?**

A. Because it will be treating the Company's Apache Junction and Superior CAP allocations for use within both of these systems. The service area of these two water systems comprises approximately 152 square miles.

**Q. HOW MANY CONNECTIONS COULD BE SERVED BY THE SUPERSTITION CAP TREATMENT PLANT?**

A. Based on the average residential water usage in the Apache Junction and Superior water systems of 7,633 gallons per month (*See* Schedule H-2, Page 4 of the Company's Application), or 0.28 acre-feet per year, at build-out capacity, the Superstition CAP Treatment Plant could supply up to

22,446 residential units. Based on the first phase capacity of 3.0 MGD (3,360 acre-feet annually), the Superstition CAP Treatment Plant will have the capacity to supply approximately 12,000 residential units. In addition to the Company's existing Superstition allocations, there is the potential to secure contracts for non-Indian agricultural priority CAP water and to lease CAP supplies from other subcontractors.

**Q. IN ADVANCE OF CONSTRUCTION, WHAT OTHER STEPS WILL THE COMPANY TAKE TO PREPARE FOR THE SUPERSTITION CAP TREATMENT PLANT AND RELATED FACILITIES?**

A. There are several engineering tasks that must be completed in advance of the construction. These include:

1. Acquiring real property for the treatment plant.
2. Acquiring rights-of-way, permits or easements.
3. Submit design and construction drawings to the U.S. Department of the Interior's Bureau of Reclamation and ADEQ for environmental approvals.
4. Obtaining a Pinal County Conditional Use Permit.
5. Coordinating with the local power company to bring power to the Superstition CAP Treatment Plant and its associated booster pump stations and to establish telecommunication, sewer and other utility or supporting services.

Upon completion of the above-referenced engineering tasks, the Company will prepare necessary documents to bid the design, which will culminate in the completion of full construction drawings for the Superstition CAP Treatment Plant.

**Q. WHAT IS THE CURRENT STATUS OF THE SUPERSTITION CAP TREATMENT PLANT?**

A. As noted previously in my direct testimony, the Company has completed a siting study to determine the most cost-effective and optimal location. In addition to the siting study, the Company has also completed an evaluation of treatment processes, a conceptual site plan, equipment sizing and process flow diagram. A copy of this report is attached as Exhibit FKS-9.

**Q. WHAT TREATMENT PROCESS WAS SELECTED FOR THE SUPERSTITION CAP TREATMENT PLANT?**

A. Based on the quality of CAP surface water and constituents required to be removed, the needs of the Apache Junction and Superior water systems and size of the treatment facility needed, the selected treatment process uses a microfiltration/ultrafiltration membrane type filtration treatment system.

**Q. WHAT ARE THE PRIMARY COMPONENTS OF A MICROFILTRATION/ ULTRAFILTRATION ("MF/UF") SURFACE WATER TREATMENT PLANT?**

A. The primary components in order of the actual process are as follows:

- Raw water pump station;
- Addition of an oxidant and coagulant (Potassium Permanganate and Powder Activated Carbon);
- Rapid mixer;
- Membrane (i.e., MF/UF) filtration;
- UV disinfection followed by chlorination;
- Finished water storage; and,
- Finished water pump station.

The process flow diagram for the Superstition CAP Treatment Plant is included in the report attached as Exhibit FKS-9.

**Q. WHAT ARE THE PRIMARY ADVANTAGES OF CONSTRUCTING A MICRO/ULTRA FILTRATION SURFACE WATER TREATMENT PLANT IN THIS APPLICATION?**

A. The primary advantages of a MF/UF water treatment plant for small to medium yield systems over a conventional water treatment plant are as follows:

- Smaller footprint which requires less real property lowering the cost of construction;
- The Water Treatment Plant ("WTP") could be easily expanded for additional capacity because of its modular design;
- Reduced amount of pretreatment chemicals used such as coagulants and chlorine;
- Ability to respond to varying water system demands by increasing the WTP production capacity;
- Consistent performance (i.e., quality of water), in terms of particle and microbial removal;
- Provides greater than 4 log (i.e., 99.99 percent) removal of bacteria, Giardia cysts and cryptosporidium cysts in the permeate or finished water prior to disinfection;
- Reduced residual waste stream because of the reduced amount of pretreatment and backwash water coagulant chemicals used; and,
- The reduced amount of chemicals used in the MF/UF WTP process contributes to lower construction and operational costs.

**Q. WHEN DOES THE COMPANY EXPECT TO START CONSTRUCTION OF THE SUPERSTITION CAP TREATMENT PLANT AND ASSOCIATED FACILITIES?**

A. Construction of the Superstition CAP Treatment Plant and related infrastructure facilities will start when sufficient funds are collected from the proposed Off-Site Facilities Fee. Collection of the required funds is dependent on customer growth in the Superstition Division. Exhibit FKS-10 depicts the construction schedule anticipated for this sustainable supply water facility based on current growth projections.

**Q. WILL THE SUPERSTITION CAP TREATMENT PLANT BE CONSTRUCTED IN PHASES?**

A. Yes. The phasing of the proposed infrastructure related to the Superstition CAP Treatment Plant is depicted in Exhibit FKS-10. Once the real property is acquired and the treatment plant and pipeline design and permitting are complete, the treatment plant is expected to be constructed within a 24-month time period, as described in Exhibit FKS-11.

## IX. Reducing Water Loss – Current Program

**Q. HOW DOES THE COMPANY MEASURE AND REPORT WATER LOSS?**

A. The Company calculates and reports water loss in accordance with ADWR requirements, specifically in accordance with ADWR's Third Management Plan. Each Management Plan defines water loss and establishes the methods for calculating its percentage. For the Company's water systems not regulated under ADWR's Management Plan, the same methodologies are employed.

For the Third Management Plan, ADWR allows water providers to exclude certain non-revenue water used for specific purposes from the water loss calculation. Those allowed non-revenue system uses are

summarized in section 5.7.6.2 of the Third Management Plan titled, "Distribution System Requirements" and are listed in detail in Appendix 5-M. The Company uses the Third Management Plan water loss calculation methods in accordance with Appendix 5-M. Pertinent excerpts from the ADWR Third Management Plan for the Phoenix Active Management Area are attached as Exhibit FKS-12.

**Q. PLEASE DESCRIBE THE COMPANY'S EFFORTS TO REDUCE WATER LOSS IN ITS SYSTEMS, SPECIFICALLY THE EASTERN GROUP WATER SYSTEMS THAT ARE THE SUBJECT OF THIS GENERAL RATE CASE.**

A. Reducing water loss within the Company's water systems is an ongoing and concerted effort by the Company. These water systems include community and non-community water systems. Water loss for each system is tracked monthly and analyzed by each Division Manager. Division Managers direct employees to monitor, locate and repair leaks using the Company's leak detection equipment and track and record those efforts each month. The Company's upper management reviews monthly reports from the Division Managers that detail their activities in detecting, locating and repairing leaks. This information is closely monitored and carefully scrutinized to ensure that water loss is kept to a cost-effective minimum.

**Q. WHAT DO YOU MEAN BY "COST-EFFECTIVE MINIMUM"?**

A. By "cost-effective minimum", I am referring to the level of system water loss that normally occurs as part of water system operations without: (1) having to divert financial resources from projects that are more urgent and necessary to ensure the provision of reliable and adequate service; and (2) requiring a level of investment that would be unduly burdensome on the Company's very limited capital budget and on customers' rates.

**Q. YOU ALSO MENTIONED THAT THE COMPANY USES LEAK DETECTION EQUIPMENT. IS THIS EQUIPMENT USED IN THE EASTERN GROUP WATER SYSTEMS?**

A. Yes. For a complete description of the Company's leak detection equipment, see Section 3.2 of Exhibit FKS-13. To provide for a more effective ongoing leak detection program, reducing water loss has been fully integrated into the Company's daily operations. The Company purchased leak detection equipment so that its employees can perform the required leak surveys, as described below.

In 2003, the Company purchased its first digital leak correlator and a digital data logger for use in locating leaks. Training was provided to a number of the Company's employees. Based on the initial success in using this equipment, the Company purchased a second set of leak correlators and digital data loggers. This equipment is used throughout the Company and the Company's system operators have become more proficient and experienced with the use of these types of equipment. As a result, the Company purchased additional digital leak correlators. Currently, each Division has and routinely uses at least one set of leak correlators. In systems where additional digital leak correlators were needed to adequately maintain the system, the Company authorized the purchase of two units. Currently, the Company owns eight digital leak correlators and four digital data loggers, which are used throughout the Company's water systems. The Company intends to purchase two additional digital data loggers in 2012. Once these two additional digital data loggers are purchased, each Division manager will have a set of digital data loggers. For a complete description of the Company's leak detection equipment, *See* Section 3.2 of Exhibit FKS-13.

The Company has been successful in reducing water loss, in large part, through its ongoing water loss monitoring and use of this leak detection equipment. The Company continually monitors, evaluates and reviews its success with this equipment and intends to purchase additional digital leak correlators and digital data loggers in future years as needed.

**Q. IS THE COMPANY DOING MORE TO MONITOR AND REDUCE WATER LOSS?**

A. Yes. The Company has prepared a comprehensive analysis outlining the historical, current and anticipated future efforts and requirements to effectively reduce water loss in those Eastern Group water systems where water loss exceeds 10 percent or where water loss is increasing. This initial report, titled "Water Loss Reduction Program for Water Systems in the Eastern Group" dated August 1, 2011 is attached to this testimony as Exhibit FKS-13. For San Manuel, Sierra Vista and Winkelman, the Company seeks to reduce water loss through similar efforts in the following four categories: 1) water main and service line repair and replacement; 2) use of leak detection equipment to monitor the system for leaks; 3) water meter selection review; and 4) meter repair, maintenance and replacement program.

**Q. CAN YOU SUMMARIZE THESE CATEGORIES IN MORE DETAIL?**

A. Yes. The category summaries follow.

**WATER MAIN AND SERVICE LINE REPAIR AND REPLACEMENT PROGRAM**

The Company reduces water loss caused by leaks and water main and service line breaks by locating and repairing such leaks and breaks and through water main or service line replacements. The Company schedules repairs of smaller water main and service line leaks as soon as possible, but

in the case of main breaks, the Company makes repairs on an emergency basis. Identifying sources of water loss caused by unidentified water main and service line leaks require the use of more advanced methods of detection, such as through the use of digital leak detection or correlation equipment and by conducting leak surveys. Meter readers report observed service and water main leaks in their normal course of reading meters and enter such information into data entry devices used to generate service repair orders. Meter readers serve an essential role in system monitoring as they operate in every part of each water system each month and report signs of leaks and/or breaks through visual inspection.

**LEAK DETECTION**

As discussed above, the Company relies primarily upon two complementary types of leak detection equipment in its water systems, digital data loggers and digital leak correlators. Use of this equipment allows the Company to identify the location of water leaks more efficiently than other, more labor intensive methods. One type of leak detection equipment, the digital data logger, is used to survey a larger area of the distribution system to locate leaks that would not otherwise be located by visual inspection/observation techniques. A second type of leak detection equipment, the digital leak correlator, is used to pinpoint the location of leaks on a real-time basis, as well as confirming or validating locations of suspected leaks identified through surveys conducted with the digital data logger. Other types of devices are also used to "listen for leaks" throughout the Company's water systems. The Company's system operators are professionally trained in the operation of these types of digital leak detection equipment. The use of this type of equipment has proven to be an effective method of locating leaks and in helping to reduce water loss.

## METER SELECTION REVIEW

The Company's Engineering department, using information provided by the Company's meter shop in Coolidge, reviews new meter applications prior to establishing water service. Typically, 5/8 x 3/4-inch water meters are installed for new residential subdivisions. Both residential and non-residential meter applications that require 1-inch or larger water meters result in wide ranges of flows and some applications may include fire flows. The Company's Engineering department chooses the most appropriate meter for each application that meets the service needs and can accurately measure the quantity of water provided throughout the expected range of customer flows.

## METER MAINTENANCE PROGRAM

The Company's meter maintenance program establishes the criteria for meter removal, repairs and replacement. Instead of simply replacing a water meter based on its number of years in service, the Company's meter shop has established comprehensive change-out criteria based on total gallons, water quality and length of time in service for each water system. The water quality characteristics of individual water systems can have a significant impact on the service life of a metering device and, as a result, maintenance criteria typically vary between systems.

The Company's meter shop performs periodic random tests of each water system's meters to provide an ongoing assessment of the suitability of meter change-out criteria for each system. In this manner, the Company ensures that meter accuracy is maintained within industry standards and is confirmed through meter testing. The Company's water systems are current with their meter maintenance program and ongoing meter testing program.

**Q. IS THE COMPANY'S METER REPAIR PROGRAM AN EFFECTIVE AND COMPREHENSIVE PROGRAM?**

A. Yes. I am not aware of any private or public water utility in Arizona that manages its meter program as aggressively and efficiently as the Company. Our meter repair and maintenance technicians routinely instruct other water utilities' personnel on such advanced practices at utility conferences. The Company is a leader within the water industry in this regard. The Company's meter shop is able to test meters ranging in size from 5/8 x 3/4-inch to 12-inch and with a flow testing range of 0.25 GPM to 1,000 GPM. In fact, other water utilities periodically ask our meter technicians to test their meters to verify meter accuracy. The Company's meter shop tests meters for the Commission when requested to do so.

In addition, the Company's President, Mr. Garfield, serves on AWWA's Water Meter Standards Committee, which establishes water meter accuracy, repair and other standards for the water industry.

**Q. ARE THESE CATEGORIES OF WATER LOSS REDUCTION METHODS TYPICALLY USED BY WATER COMPANIES?**

A. Yes. The water main and service line maintenance programs and the use of leak detection equipment are standard water industry practices. However, the Company's Eastern Group contains water infrastructure that is over 100 years old and is showing signs of failure. The Company's efforts to cut water loss and eliminate the sources of water loss are discussed in more detail in Section 3 of the report attached as Exhibit FKS-13.

## X. Reducing Water Loss – Distribution System Improvements

**Q. DID THE COMMISSION ESTABLISH A LIMITATION ON WATER LOSS IN DECISION NO. 71845?**

A. Yes. In Decision No. 71845, page 92, lines 26-28 and page 93, lines 1-8, the Commission ordered:

> "That Arizona Water Company shall reduce the non-account water for each of its systems to less than 10 percent by July 1, 2011. For those systems that have not achieved a water loss rate of less than 10 percent by July 1, 2011, AWC should evaluate the systems and prepare a report demonstrating how the Company plans to reduce water losses to less than 10 percent. If the Company contends that reducing water losses to less than 10 percent is not cost effective, it should submit a detailed cost analysis and explanation demonstrating why the water loss reduction to less than 10 percent is not cost effective. Absent extraordinary circumstances, and with compelling supporting documentation, no system should be permitted to maintain non-account water above 15 percent. The water loss report should be filed with Docket Control, as a compliance item in this docket, by no later than December 31, 2011."

**Q. HAS THE COMPANY DOCUMENTED AND QUANTIFIED ITS EFFORTS TO REDUCE WATER LOSS IN WATER SYSTEMS IN THE EASTERN GROUP?**

A. Yes. The Company has prepared an initial detailed report titled "Water Loss Reduction Program for Water Systems in the Eastern Group", attached to this testimony as Exhibit FKS-13, which specifically evaluates water loss in the Company's Eastern Group water systems of Apache Junction, Bisbee, Miami, Oracle and Superior. Section 3.0 of Exhibit FKS-13 details the Company's historical and ongoing efforts to reduce water loss in these systems.

**Q. PLEASE DISCUSS THE WATER LOSS ANALYSIS.**

A. In addition to an overview of the existing water system, the Company's analysis also identifies measures to reduce water loss. The Company also

conducted a distribution system analysis, including age, size, material type, leak history, soil conditions and other pertinent information, to evaluate all of its water main and service line infrastructure. This analysis included the development of detailed recommendations of utility plant improvements needed to reduce water loss. These recommendations include specific projects and detailed design and construction cost estimates. As I also discuss on pages 74-78, several water mains have been replaced in the Bisbee, Miami, Oracle and Superior water systems to help move towards compliance with the Commission's directive that the Company "shall reduce the non-account water for each of its systems to less than 10 percent by July 1, 2011."

**Q. HAVE YOU REVIEWED WATER LOSS FOR THE COMPANY'S EASTERN GROUP WATER SYSTEMS?**

A. Yes. As of December 2010, three water systems have water loss percentages greater than 10 percent including one water system with a water loss percentage greater than 15 percent.

**Q. WHICH WATER SYSTEMS ARE THOSE?**

A. The Miami and Oracle water systems had an overall water loss of 11.54 percent and 12.62 percent, respectively, for the calendar year 2010. The Bisbee water system had a water loss of 15.61 percent for the calendar year 2010.

The Bisbee water system was severely impacted by the record setting freezing temperatures over several days at the end of January and into early February, 2011. Temperatures at the Bisbee-Douglas airport registered 8 degrees while frozen water pipes and heating problems caused the closure of the Bisbee Unified School District. A number of the Company's transmission lines, waterlines and above-ground piping in

certain areas of Bisbee froze. The Company brought in employees from other Divisions, hired contractors and worked overtime to repair ruptured lines. With the Company's quick response and repair efforts no significant outages were reported and water loss was significantly less than what could have occurred. However, this event increased water loss from 15.61 percent reported in December 2010 to 17.08 percent calculated in April 2011.

Water loss in the Superior water system has historically fluctuated above and below 10 percent and the Apache Junction water system has an increasing trend in water loss. Because of these factors, these two systems were also included in the Company's Water Loss Reduction Program. The following table summarizes the Eastern Group water loss by ADEQ public water system for calendar year 2009, 2010 and for the twelve month period ending April 2011.

**ARIZONA WATER COMPANY**
**Eastern Group**
**Lost and Unaccounted for Water**

| System | PWS ID No. | Calendar Year 2009 Reported Water Loss | Calendar Year 2010 Reported Water Loss | 12-Month Rolling Average Ending April 2011 |
|---|---|---|---|---|
| **Apache Junction** | 11-004 | 8.02 | 7.28 | 6.97 |
| **Bisbee** | 02-001 | 16.13 | 15.61 | 17.08 |
| **Oracle** | 11-019 | 12.75 | 12.62 | 12.04 |
| **Miami** | 04-002 | 7.26 | 11.54 | 10.95 |
| **SaddleBrooke Ranch** | 11-019 | (Reported under Oracle) | (Reported under Oracle) | (Reported under Oracle) |
| **San Manuel** | 11-020 | 9.89 | 6.17 | 6.57 |
| **Sierra Vista** | 02-004 | 5.94 | 5.74 | 6.12 |
| **Superior** | 11-012 | 10.39 | 9.77 | 9.82 |
| **Winkelman** | 04-003 | 5.27 | 4.84 | 4.30 |

**Q. DID ANY OTHER EASTERN GROUP WATER SYSTEM HAVE WATER LOSS GREATER THAN 10 PERCENT IN THE COMPANY'S LAST RATE CASE?**

A. Yes. The Company's Superior water system's water loss exceeded 10 percent for calendar year 2007. Since then, the Company has been successful in reducing water loss in this system. The reported annual water loss was 10.39 percent and 9.77 percent for calendar years 2009 and 2010, respectively. However, with the aging infrastructure, failing water mains and unique characteristics of this water system and with pressures of more than 800 psi, it is unlikely that this reduced water loss percentage can be sustained for long without replacing failing service lines and water mains.

**Q. THROUGH THIS INITIAL DETAILED REVIEW AND ANALYSIS OF WATER LOSS COMPLETED BY THE COMPANY, WHAT WERE THE FINDINGS?**

A. For discussion purposes, I will divide my summary of the detailed review and analysis into the following three sections, Bisbee, Oracle and Superstition.

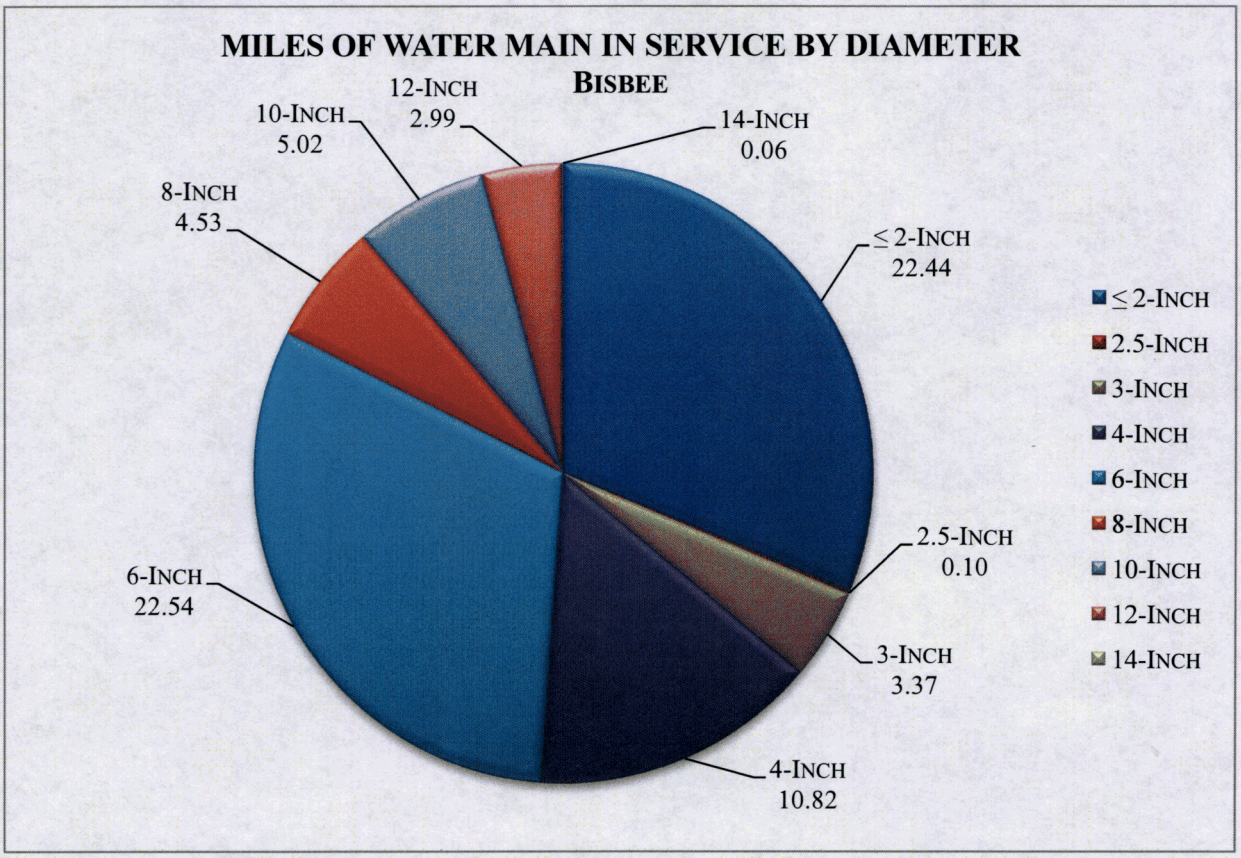
**Bisbee:**

In reviewing the Company's efforts to reduce water loss, it was determined that between January 2010 and December 2010, water system operators spent nearly 6,000 man-hours monitoring, detecting and repairing water main and service leaks and breaks throughout the Bisbee water system. This is equivalent to approximately three full-time Company employee working 40 hours per week for an entire year.

A review of the Bisbee water system showed that many of the water system's water mains have been in service since the early 1900s and are beyond their useful service life. Many of the older water mains, some as

small as 2-inch, do not comply with today's minimum standards. Because of their age and industry practice at the time, modern corrosion protection was not available when these types of water mains were installed and, as a result, are susceptible to numerous leaks, which are difficult to detect, locate and repair.

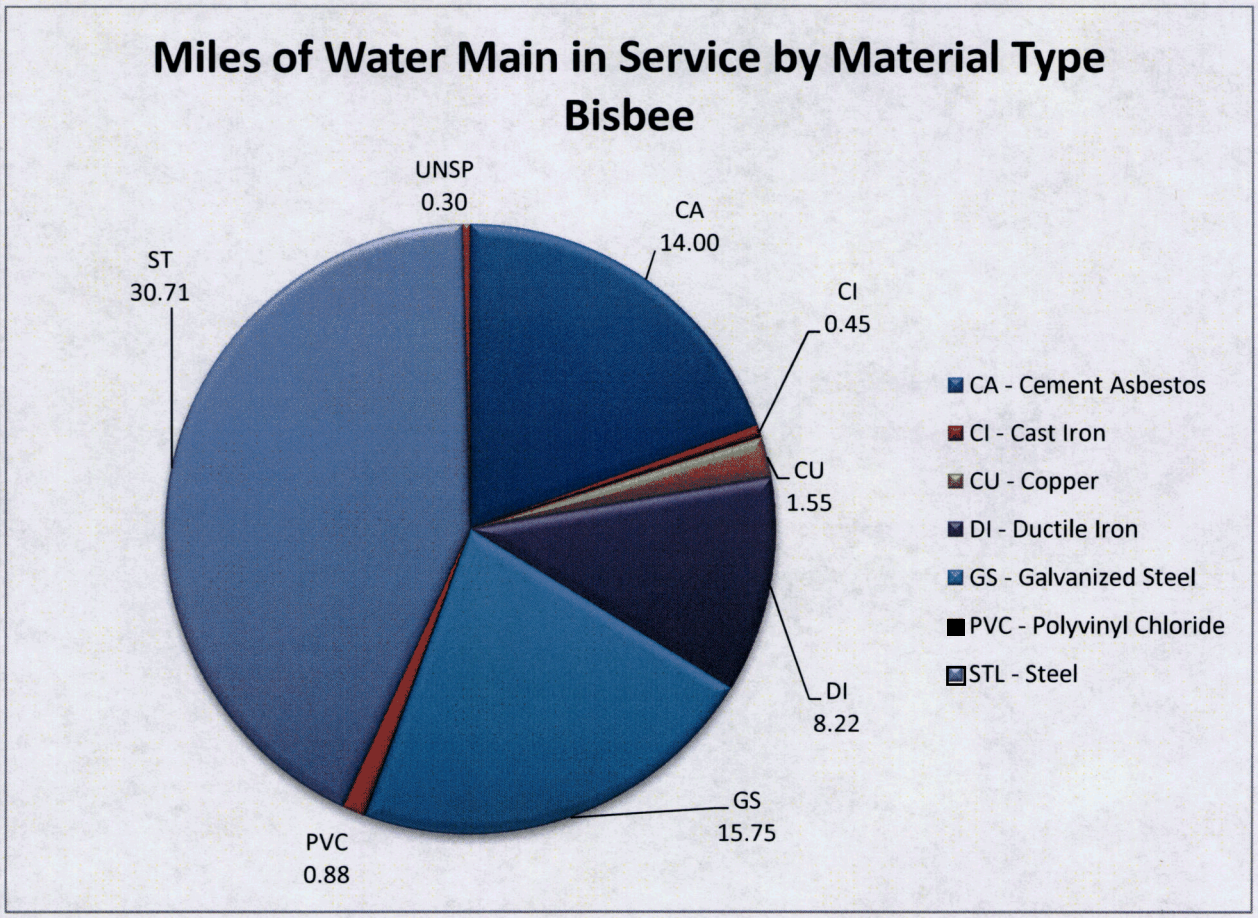
The following three sets of charts and tables show the miles of main in service by size, by material type and by decade installed within the Bisbee water system, respectively.




| Size | Miles of Main | Pipe Size | Miles of Main |
|---|---|---|---|
| ≤ 2-inch | 22.44 | 10-inch | 5.02 |
| 2.5-inch | 0.10 | 12-inch | 2.99 |
| 3-inch | 3.37 | 14-inch | 0.06 |
| 4-inch | 10.82 | | |
| 6-inch | 22.54 | | |
| 8-inch | 4.53 | | |

The table above shows that 36.72 miles or over 193,893 LF of water mains in service today are less than six inches in diameter.

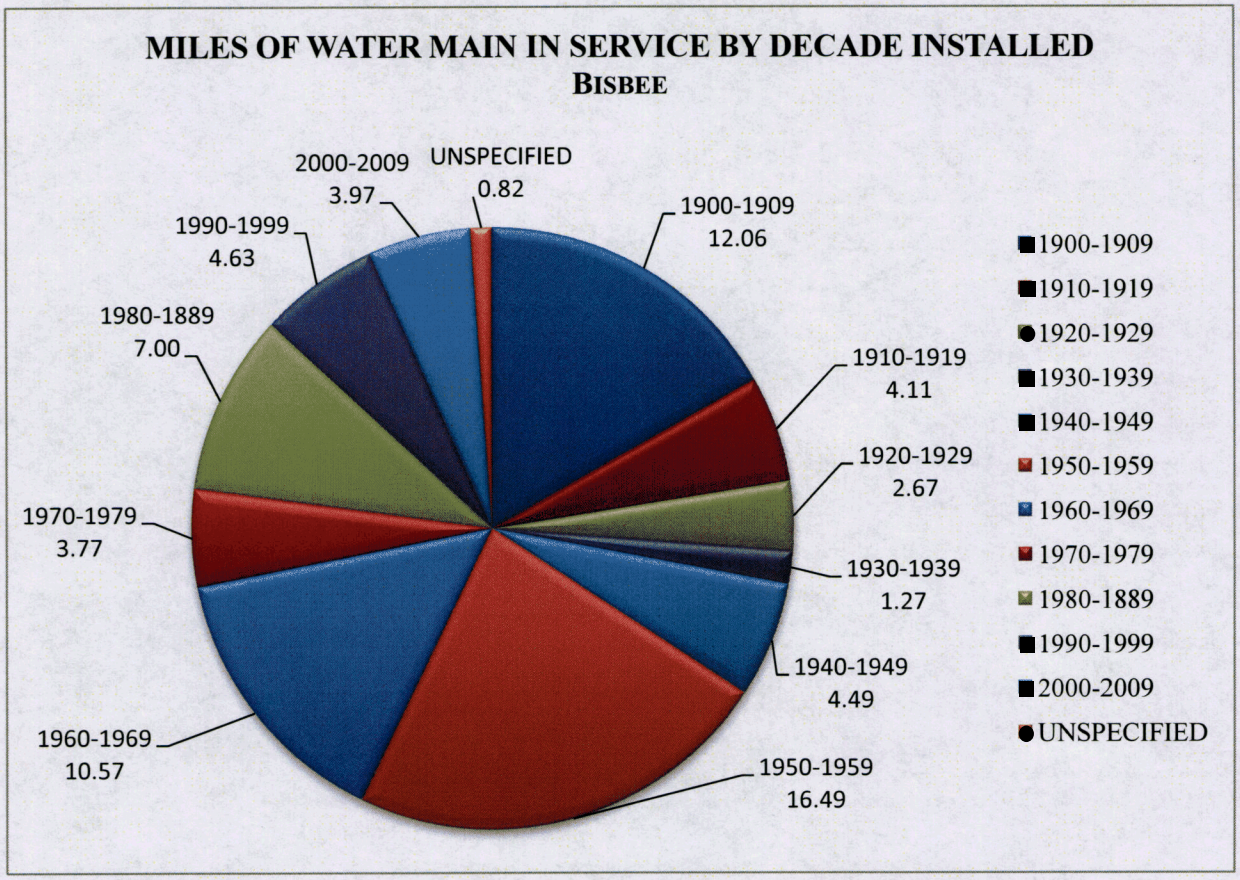
The chart and table below show miles of water main currently in service by material type. Over 45 miles of Bisbee's water mains are either Steel or Galvanized Steel.




| Material Type | Miles of Main | Material Type | Miles of Main |
|---|---|---|---|
| CA - Cement Asbestos | 14.00 | GS - Galvanized Steel | 15.75 |
| CI - Cast Iron | 0.45 | PVC - Polyvinyl Chloride | 0.88 |
| CU - Copper | 1.55 | ST - Steel | 30.71 |
| DI - Ductile Iron | 8.22 | UNSP - Unspecified | 0.30 |

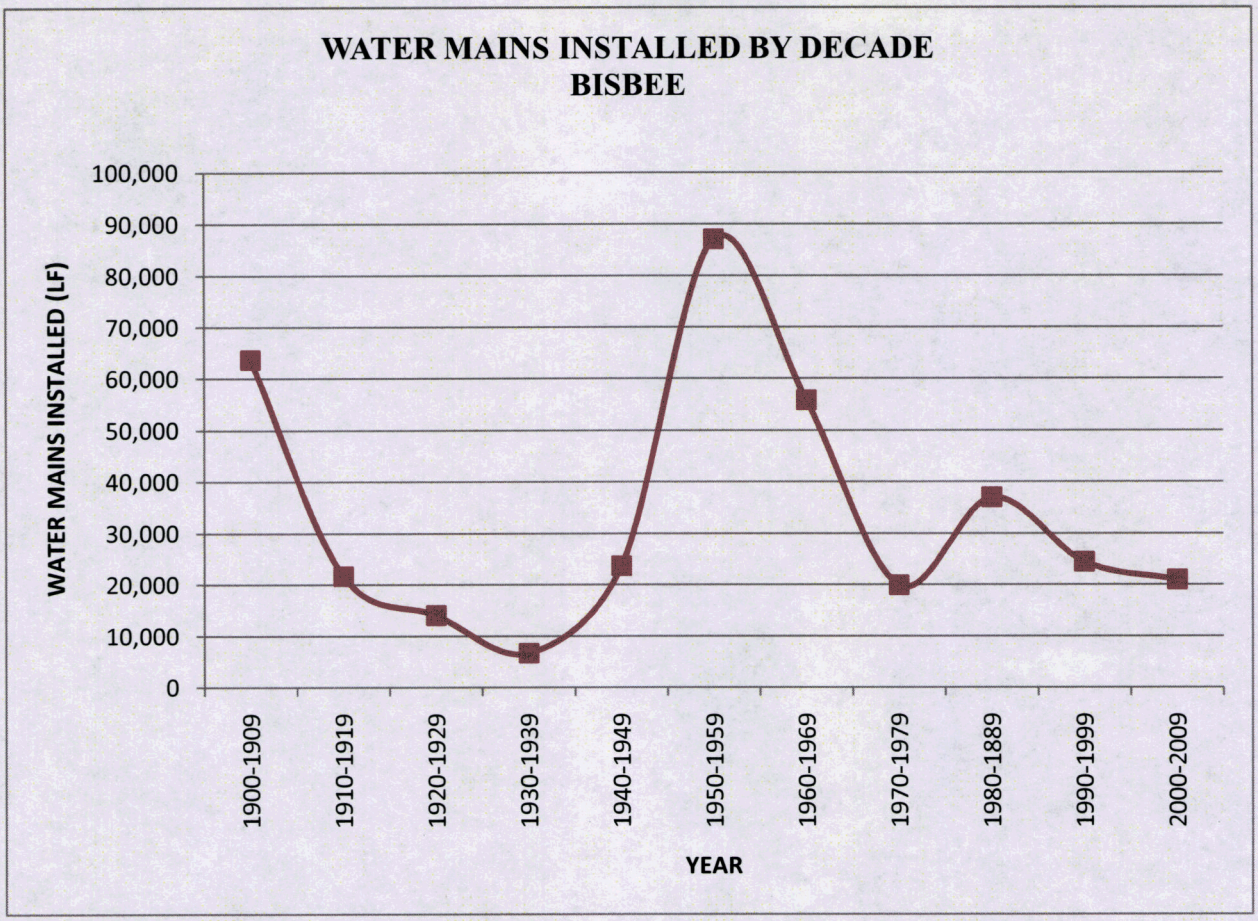
The chart and table below depict the miles of water main installed by decade that are still in service. Thirty-four percent (24 miles or over 129,000

LF) of the water mains currently in service were installed prior to 1950 and are over 60 years old. As described in Section 7.2 of the analysis detailed in Exhibit FKS-13, most of these water mains are at or are nearing the end of their useful service lives.




| Decade | Miles of Main | Decade | Miles of Main |
|---|---|---|---|
| 1900-1909 | 12.06 | 1960-1969 | 10.57 |
| 1910-1919 | 4.11 | 1970-1979 | 3.77 |
| 1920-1929 | 2.67 | 1980-1989 | 7.00 |
| 1930-1939 | 1.27 | 1990-1999 | 4.63 |
| 1940-1949 | 4.49 | 2000-2009 | 3.97 |
| 1950-1959 | 16.49 | Unspecified | 0.82 |

The following graph shows the linear feet of water main installed by year since 1900. Note the significant length of water mains added 1900-1909 and 1950-1959.



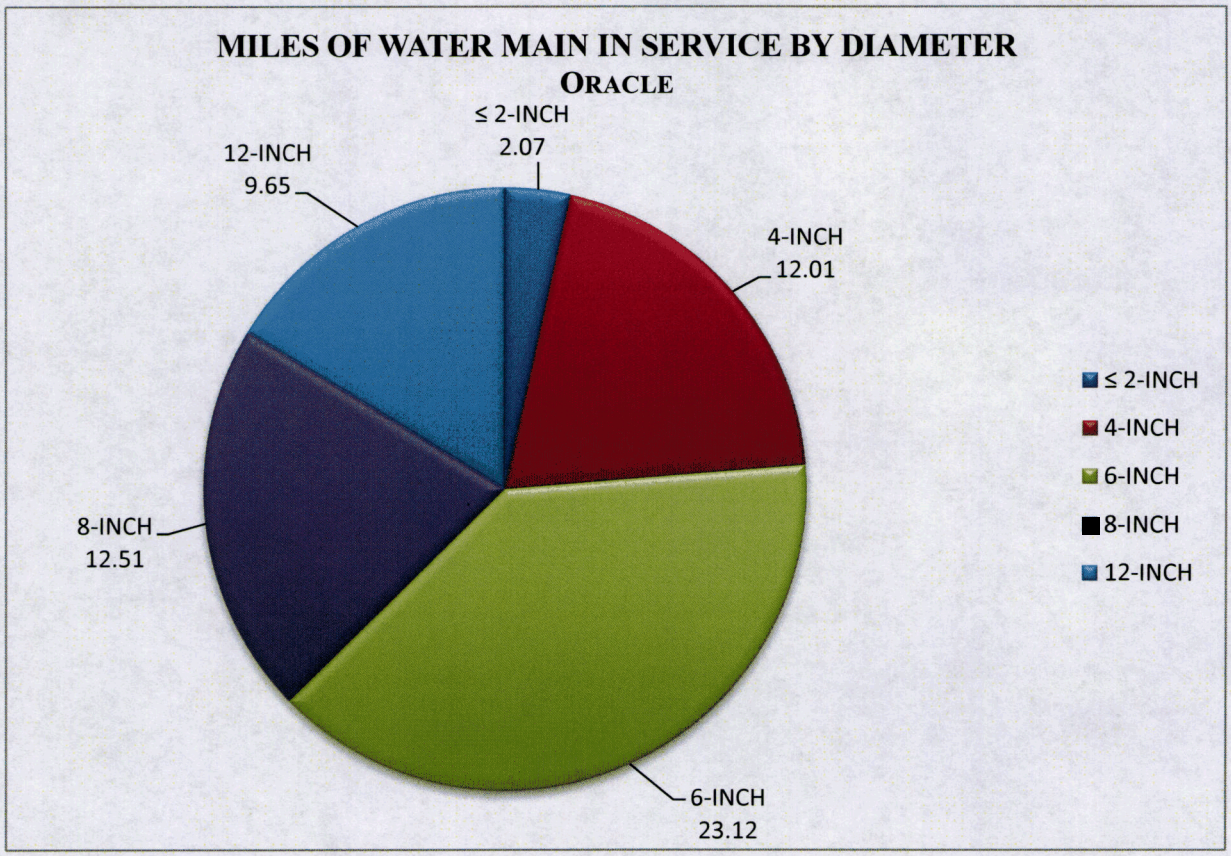

**Oracle:**

In reviewing the Company's efforts to reduce water loss, it was determined that between January 2010 and December 2010, the water system operators spent nearly 500 man-hours monitoring, detecting and repairing water main and service leaks and breaks throughout the Oracle water system. This is equivalent to approximately one full-time Company employee working 10 hours per week for an entire year.

A review of the Oracle water system showed that many of the water system's water mains have been in service since the early 1950s. This water system experienced moderate growth from 1950 to 1990 and, with that growth, came the installation of a large amount of CA water mains as well as the installation of plastic water service lines. Unfortunately, plastic service lines have proven to become brittle and split longitudinally.

Repairing this type of service line is not effective; these service lines are normally replaced when leaks are discovered. It is estimated that approximately 100 failing plastic service lines have been replaced since 2000. However, over 450 of the failing plastic service lines remain in service and need to be replaced in the very near future. Without these replacements, water loss is expected to increase.

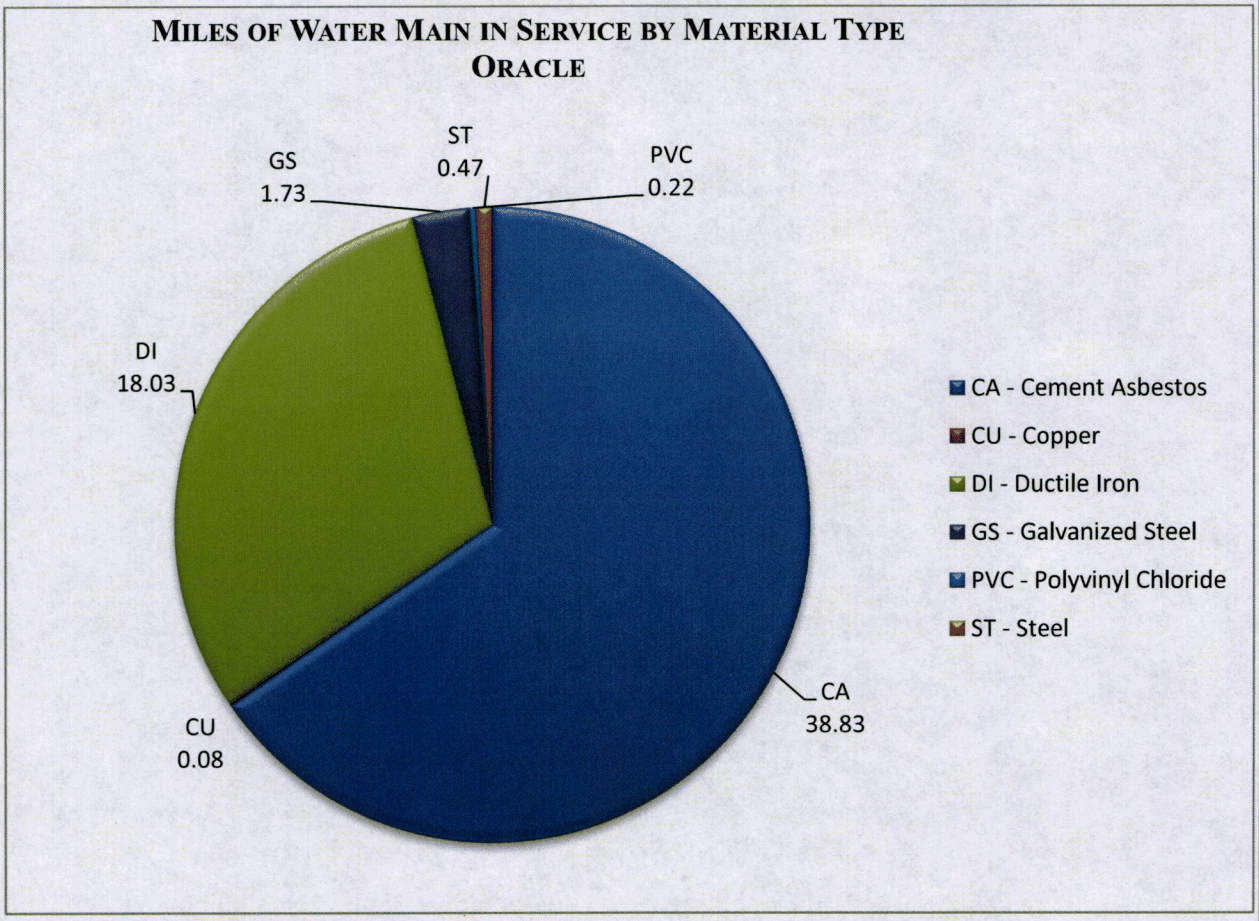
The following three sets of charts and tables show the miles of main in service by size, by material type and by decade installed within the Oracle water system, respectively.




| Size | Miles of Main | Pipe Size | Miles of Main |
|---|---|---|---|
| ≤ 2-inch | 2.07 | 8-inch | 12.51 |
| 4-inch | 12.01 | 12-inch | 9.65 |
| 6-inch | 23.12 | | |

The table above shows that 14 miles (over 74,000 LF) of water mains in service today are less than six inches in diameter.

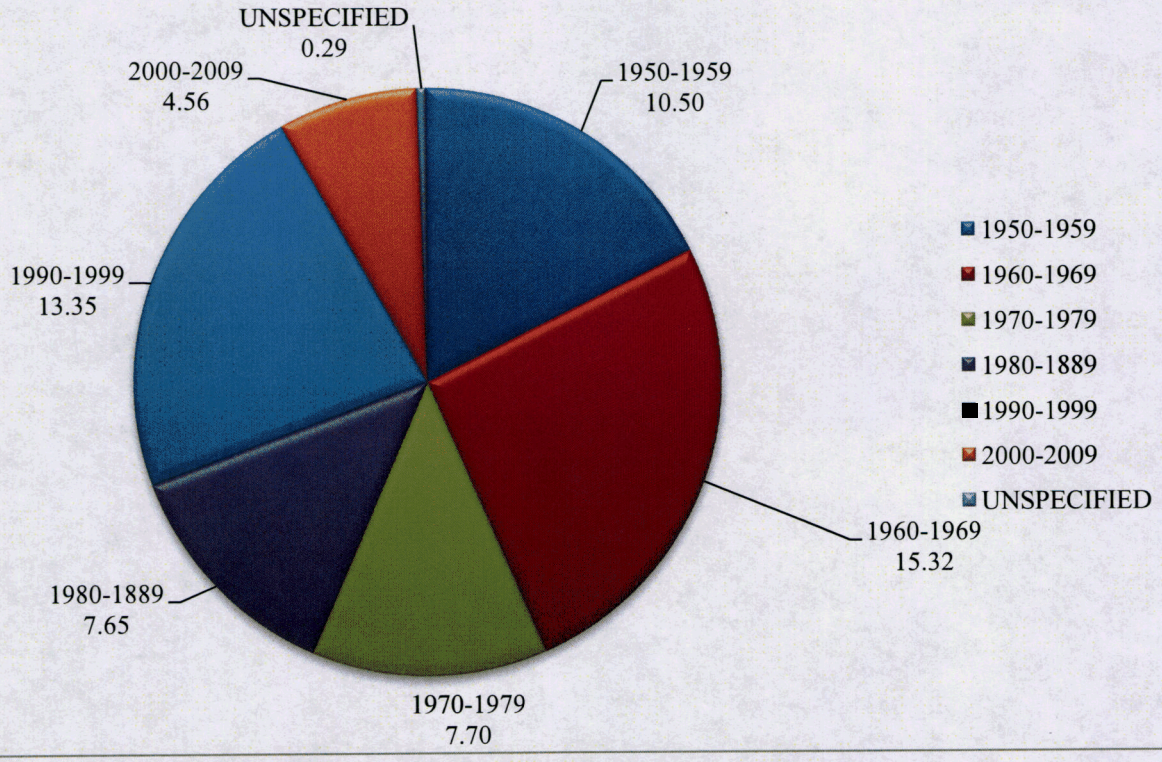
The chart and table below show the number of miles of water main currently in service by material type. A majority of the water mains are Cement Asbestos.




| Material Type | Miles of Main | Material Type | Miles of Main |
|---|---|---|---|
| CA - Cement Asbestos | 38.83 | GS - Galvanized Steel | 1.73 |
| CU - Copper | 0.08 | PVC - Polyvinyl Chloride | 0.22 |
| DI - Ductile Iron | 18.03 | ST - Steel | 0.47 |

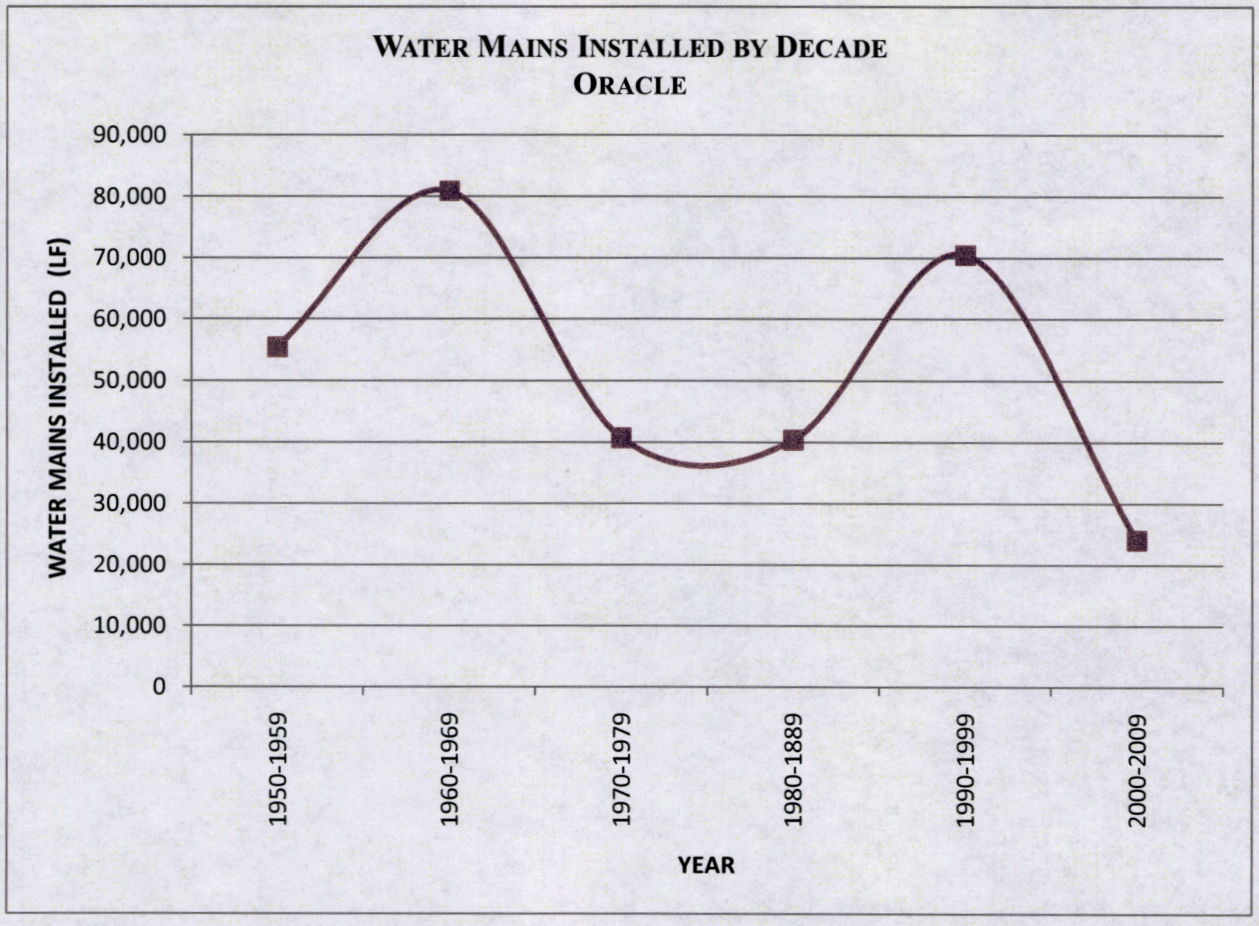
The chart and table below depict the miles of water main installed by decade that are still in service. Thirty-nine miles (over 205,000 LF) of CA water mains currently in service were installed from 1959 to 1986. As described in Section 6.2 of the analysis detailed in Exhibit FKS-13, many of the plastic service lines are reaching the end of their useful service lives.

**MILES OF WATER MAIN IN SERVICE BY DECADE INSTALLED**
**ORACLE**




| Decade | Miles of Main | Decade | Miles of Main |
|---|---|---|---|
| 1950-1959 | 10.50 | 1990-1999 | 13.35 |
| 1960-1969 | 15.32 | 2000-2009 | 4.56 |
| 1970-1979 | 7.70 | Unspecified | 0.29 |
| 1980-1989 | 7.65 | | |

The following graph shows the linear feet of water main installed by year since 1959. Note the significant length of water mains added in the mid-1950s and 1990s.




**Superstition:**

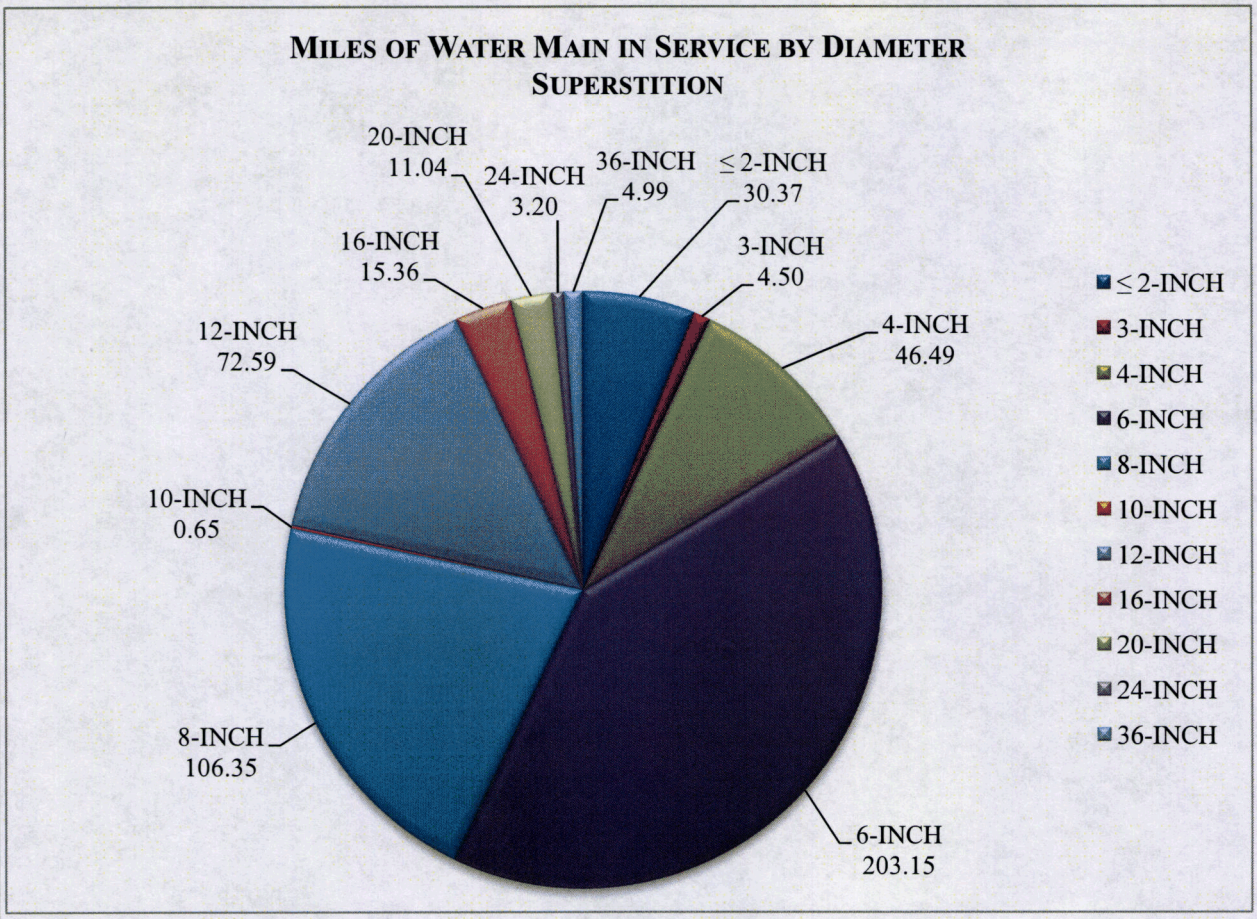
In reviewing the Company's efforts to reduce water loss, it was determined that between January 2010 and December 2010, water system operators spent nearly 14,000 man-hours monitoring, detecting and repairing water main and service leaks and breaks throughout the Superstition Division. This is equivalent to approximately seven full-time Company employees working 40 hours per week for an entire year.

A review of the Superstition Division showed that some of the water system's water mains have been in service since the early 1910s and are well past their useful service lives. Many of these old water mains, some smaller than 2-inches in diameter, do not comply with today's minimum standards. Because of their age and industry practice at the time, modern

corrosion protection was not available when these types of water mains were installed and, as a result, are susceptible to numerous leaks, which are difficult to detect, locate and repair.

The Superstition Division experienced a significant amount of growth during the mid-1970s and the 1990s. With the growth in the 1970s came the installation of a large amount of CA water mains, as well as the installation of plastic service lines. Unfortunately, plastic service lines have proven to become brittle and split longitudinally. Repairing this type of service line is not effective. These service lines are normally replaced when leaks are discovered. It is estimated that approximately 1,900 failing plastic service lines have been replaced since 2000. However, over 4,250 of the failing plastic service lines remain and require replacement in the very near future. Without these replacements, water loss is expected to increase.

The following three sets of charts and tables show the miles of main in service by size, by material type and by decade installed, within the Superstition Division, respectively.

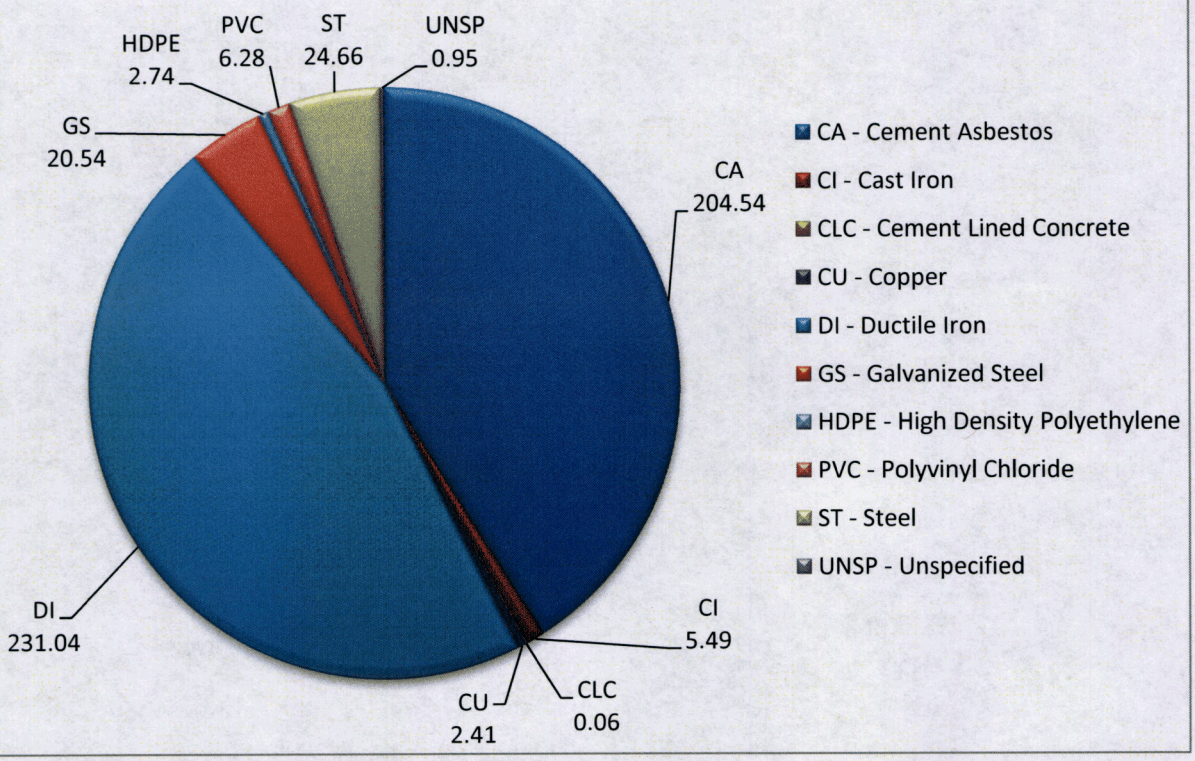



| Size | Miles of Main | Pipe Size | Miles of Main |
|---|---|---|---|
| ≤ 2-inch | 30.37 | 12-inch | 72.59 |
| 3-inch | 4.50 | 16-inch | 15.36 |
| 4-inch | 46.49 | 20-inch | 11.04 |
| 6-inch | 203.15 | 24-inch | 3.20 |
| 8-inch | 106.35 | 36-inch | 4.99 |
| 10-inch | 0.65 | | |

The table above shows that 81 miles (over 429,626 LF) of water mains in service today are less than six inches in diameter.

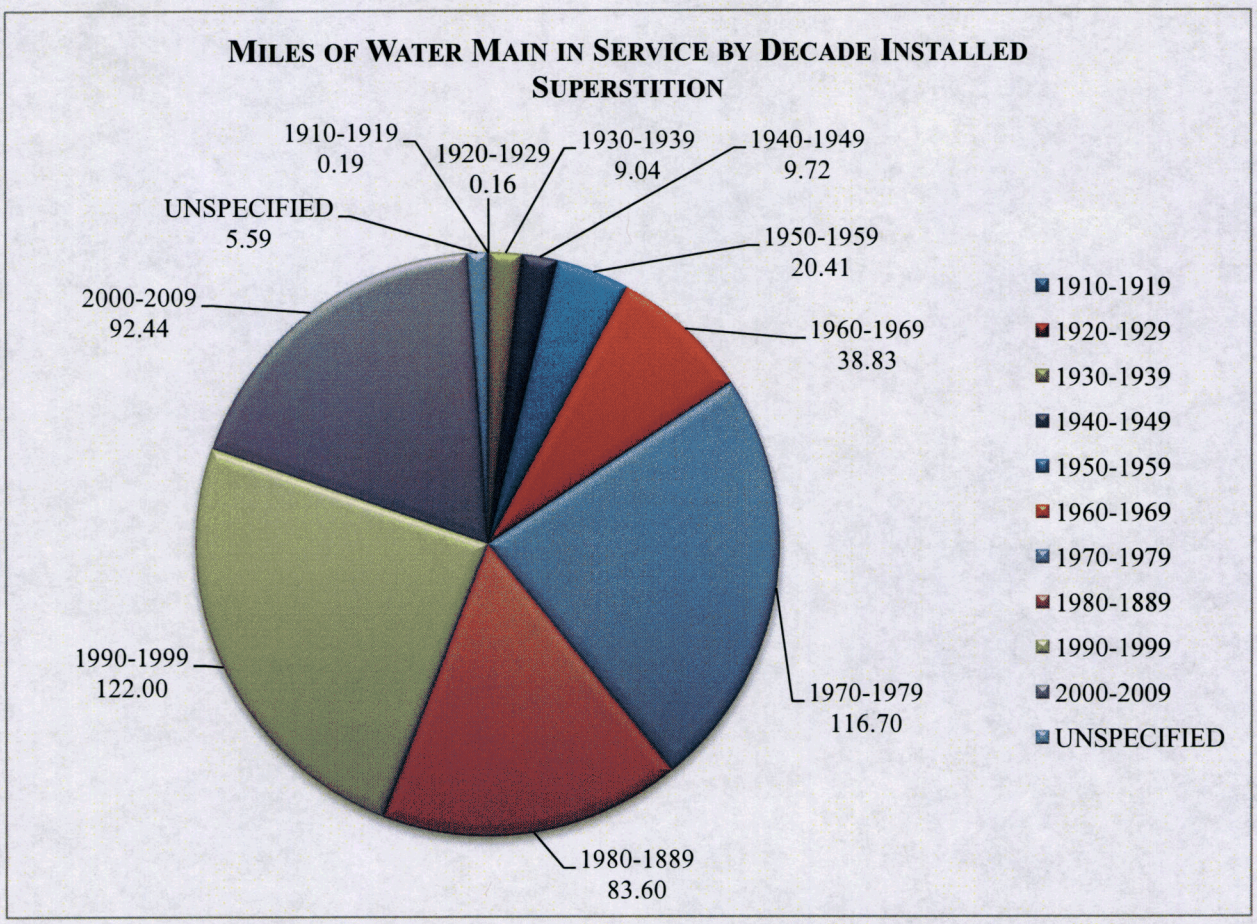
The chart and table below show the number of miles of water main currently in service by material type. A majority of the water mains are either DI or CA; yet, nearly 11,600 LF of water main were constructed of unprotected metal.

## MILES OF WATER MAINS IN SERVICE BY MATERIAL TYPE
## SUPERSTITION DIVISION



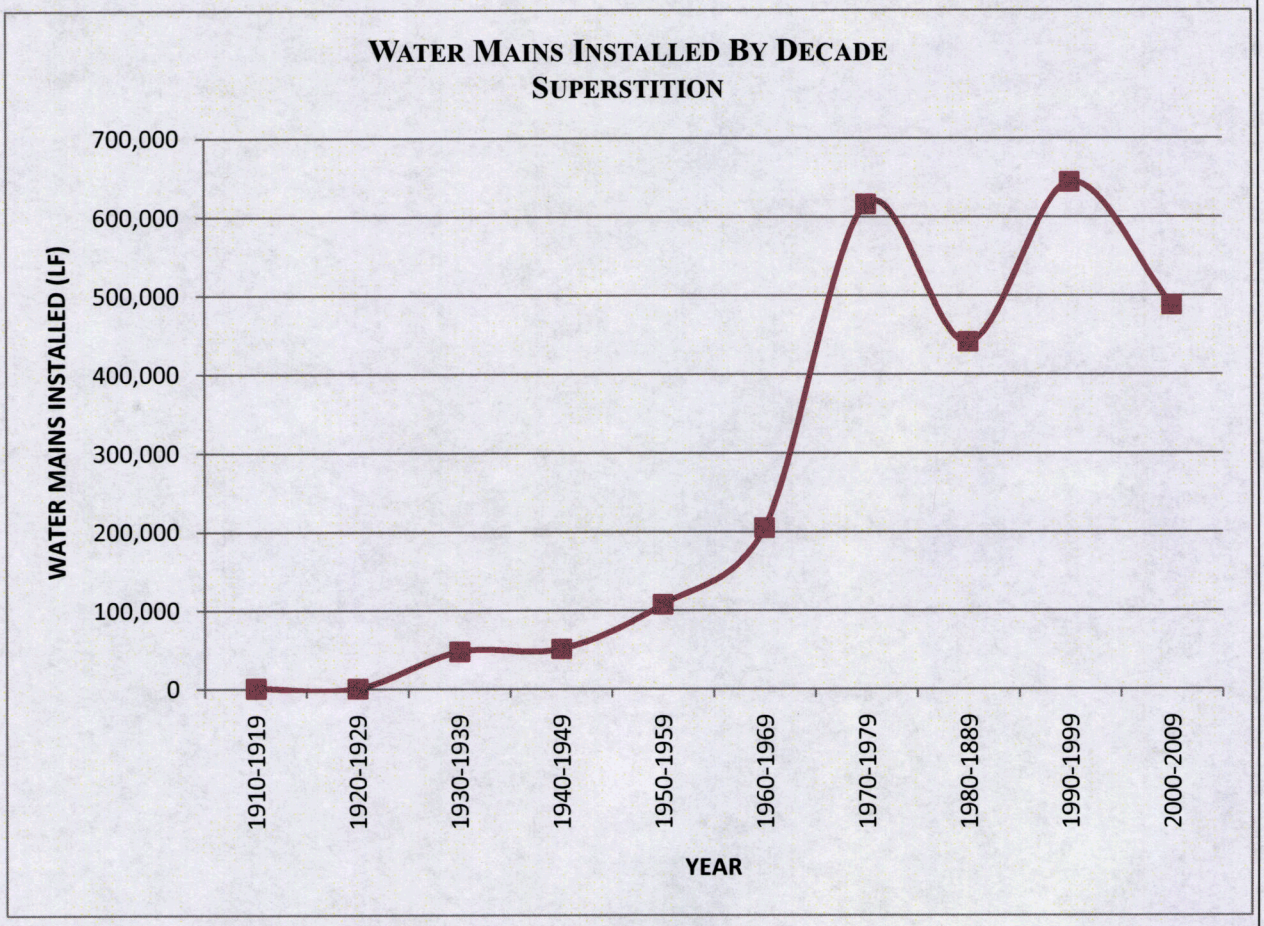

| Material Type | Miles of Main | Material Type | Miles of Main |
|---|---|---|---|
| CA - Cement Asbestos | 204.54 | GS - Galvanized Steel | 20.54 |
| CI - Cast Iron | 5.49 | HDPE - High Density Polyethylene | 2.74 |
| CLC - Cement Lined Concrete | 0.06 | PVC - Polyvinyl Chloride | 6.28 |
| CU - Copper | 2.41 | ST - Steel | 24.66 |
| DI - Ductile Iron | 231.04 | Unknown Material | 0.95 |

The chart and table below depict the number of miles of water main installed by decade that are still in service. Three percent (19 miles or over 101,000 LF) of water mains currently in service were installed prior to 1950 and are over 60 years old. As described in Section 5.2 of the analysis detailed in Exhibit FKS-13 much of this water main is at or is nearing the end of its useful service life.




| Decade | Miles of Main | Decade | Miles of Main |
|---|---|---|---|
| 1910-1919 | 0.19 | 1970-1979 | 116.70 |
| 1920-1929 | 0.16 | 1980-1989 | 83.60 |
| 1930-1939 | 9.04 | 1990-1999 | 122.00 |
| 1940-1949 | 9.72 | 2000-2009 | 92.44 |
| 1950-1959 | 20.41 | Unspecified | 5.59 |
| 1960-1969 | 38.83 | | |

The following graph shows the linear feet of water mains installed by year since 1917. Note the significant length of water mains added in the 1970s and in the 1990s.




**Q. THE FOREGOING DETAILED INFORMATION, CHARTS AND GRAPH SHOW A NEED TO REPLACE A SIGNIFICANT AMOUNT OF WATER MAINS AND SERVICE LINES WITHIN THIS WATER SYSTEM. HOW DOES THE WATER INDUSTRY CALCULATE THE COST OF REPLACING INFRASTRUCTURE?**

A. In several ways. For example, the Handy Whitman Index of Public Utility Construction Costs is an engineering cost index that tracks the cost of constructing various types of public utility plant in different parts of the country. This index compares the cost of constructing public utility plant

from one time period to another. As an example, water mains that were installed in 1921 have a cost index of 27, while the current index for water mains is 587.

**Q. WHAT DOES THIS CHANGE IN ENGINEERING COST INDEX MEAN IN TERMS OF DOLLARS TO INSTALL T&D MAINS IN 2010 VERSUS INSTALLING T&D MAINS IN 1921?**

A. The index is used to project construction costs using today's cost index and comparing it to the cost index for the time period of the original installation. In the example above, the 2010 cost index (587) divided by the 1921 cost index (27) shows that the cost of constructing cast iron or ductile iron water mains in 2010 is almost 22 times the cost of installing the same pipe under the same conditions that may have existed in 1921.

**Q. DOES THIS ENGINEERING COST INDEX ACCOUNT FOR THE FULL REPLACEMENT COST?**

A. No. This engineering cost index does not account for cost increases caused by changes in construction conditions.

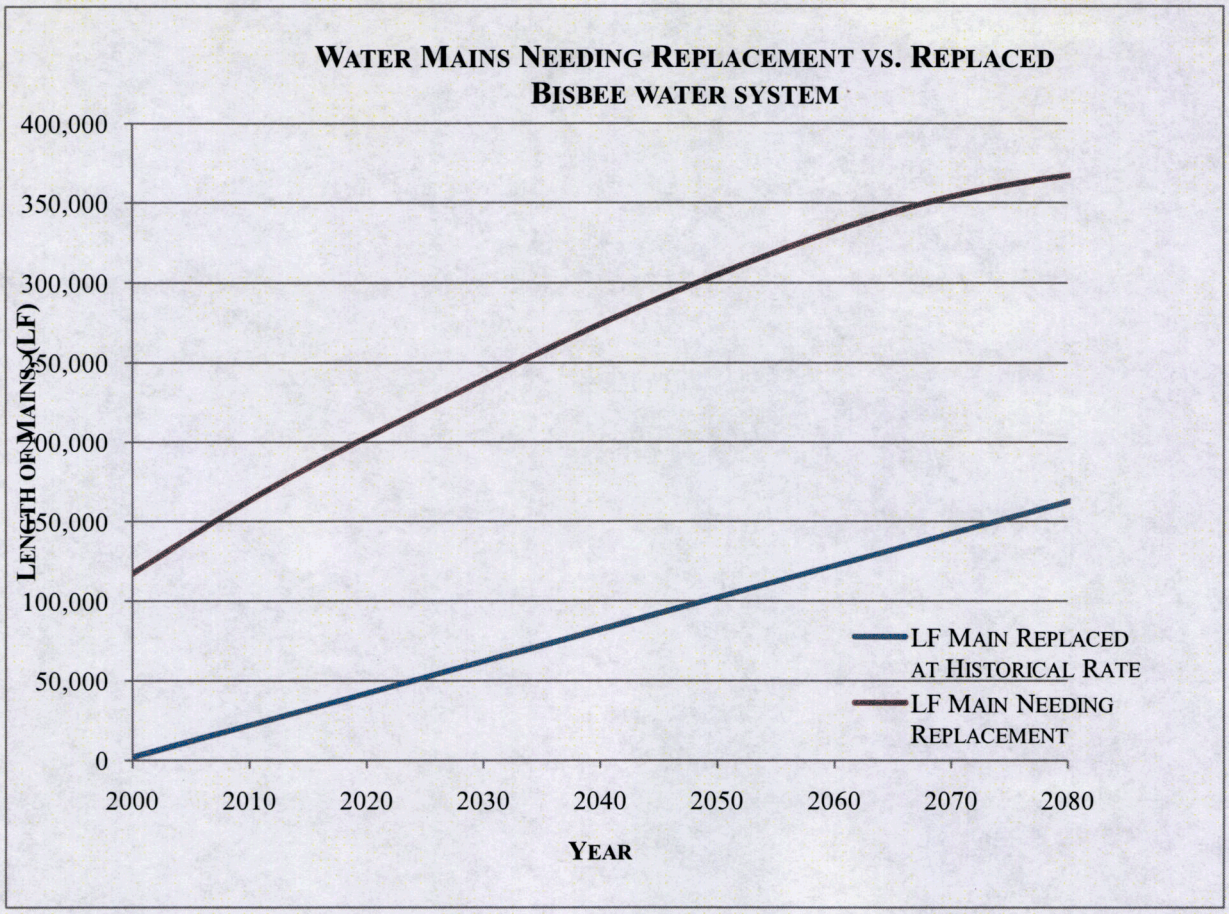
**Q. PLEASE EXPLAIN FURTHER WHAT YOU MEAN BY CHANGES IN CONSTRUCTION CONDITIONS.**

A. As a more detailed example of what is meant by this term, in many of the Company's water systems with older water mains, the T&D mains were installed before streets were paved, curbing and gutters installed, telephone lines installed and other more recent underground utilities installed. Therefore, the cost of any replacement of T&D mains in these areas would have to include the cost of repairing streets and sidewalks, implementation of traffic control measures and working around other underground and above-ground installations to protect them against damage.

**Q. HAS THE COMPANY PREPARED A TIMETABLE TO REPLACE THIS INFRASTRUCTURE?**

A. Not yet. For each of the three areas discussed previously, Bisbee, Oracle and Superstition, I will again divide the discussion into each category.

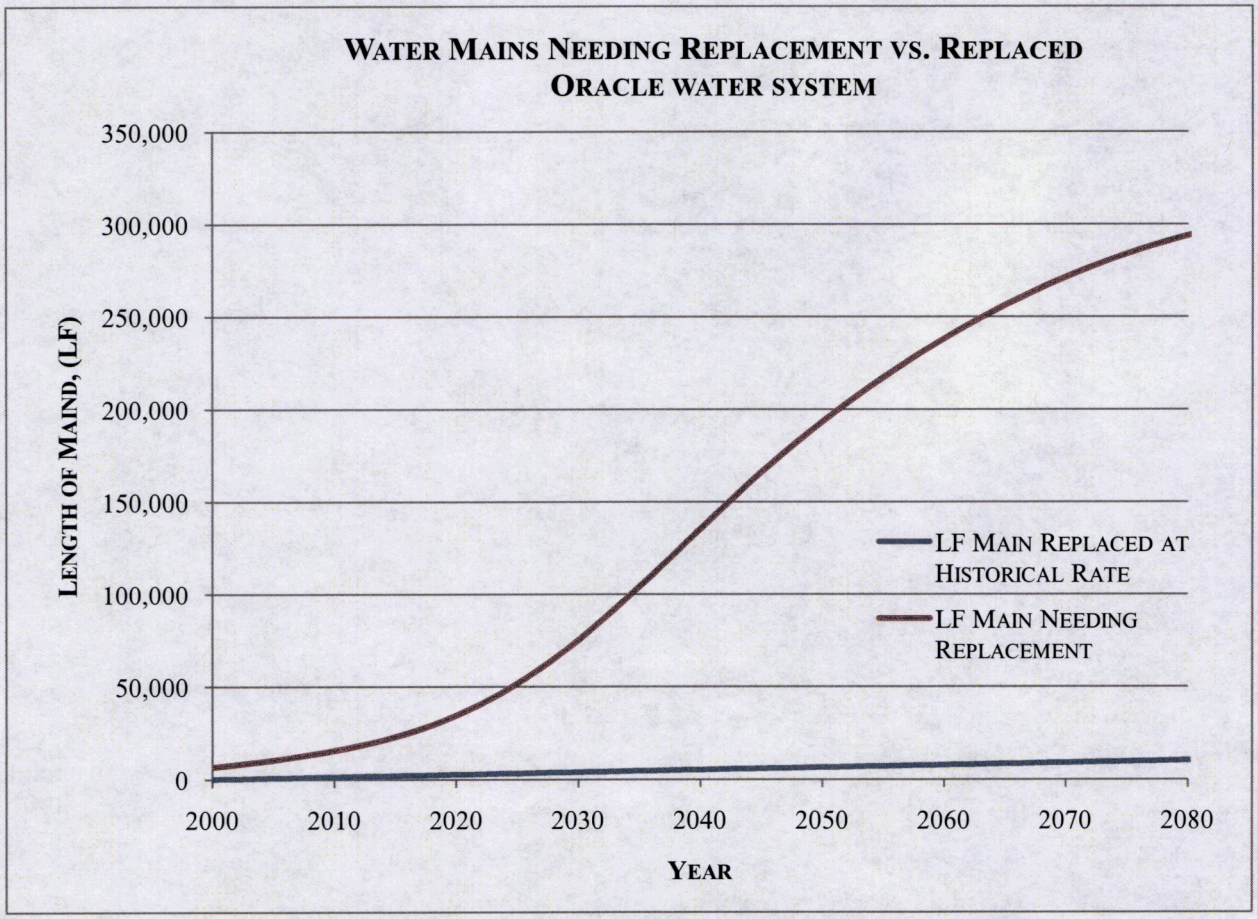
**Bisbee:** The Nessie Curve analysis is a predictive method to graph annual replacement needs based on the date of water main installations and their expected useful life. For the Bisbee water system, the graph below shows the predicted water main replacements needed versus historical replacement rates based on the average replacement rate between 2000 and 2010. Based on the current replacement rate, the Company has determined that it would take over 170 years to replace the existing infrastructure. The graph clearly depicts the current scenario where the existing replacement rate is not sufficient to keep pace with actual water system replacement needs. The analysis shows that approximately 140,000 LF of water mains already need to be replaced in the Bisbee water system. Another 40,000 LF of water main will need to be replaced over the next 10 years. Replacement of 180,000 LF of water mains represents 47 percent of the Bisbee water system. The estimated cost to replace 180,000 LF of water main is $23.5 million, as detailed in Exhibit FKS-14.




At the historical replacement rate of 2,200 LF annually, the Company will continue to fall further behind on water main and service line replacements for its Bisbee water system. Replacement costs will continue to increase further limiting the quantity of aging and failing water mains and service lines that the Company may be able to replace. With 100+ year-old pipe already near failure or failing, replacing this aging infrastructure now or in the near future is critically needed to reduce water loss and ensure reliable and adequate water service. Without a DSIC or some other funding mechanism, or higher returns on equity, the required replacement rate cannot be achieved.

**Oracle:**

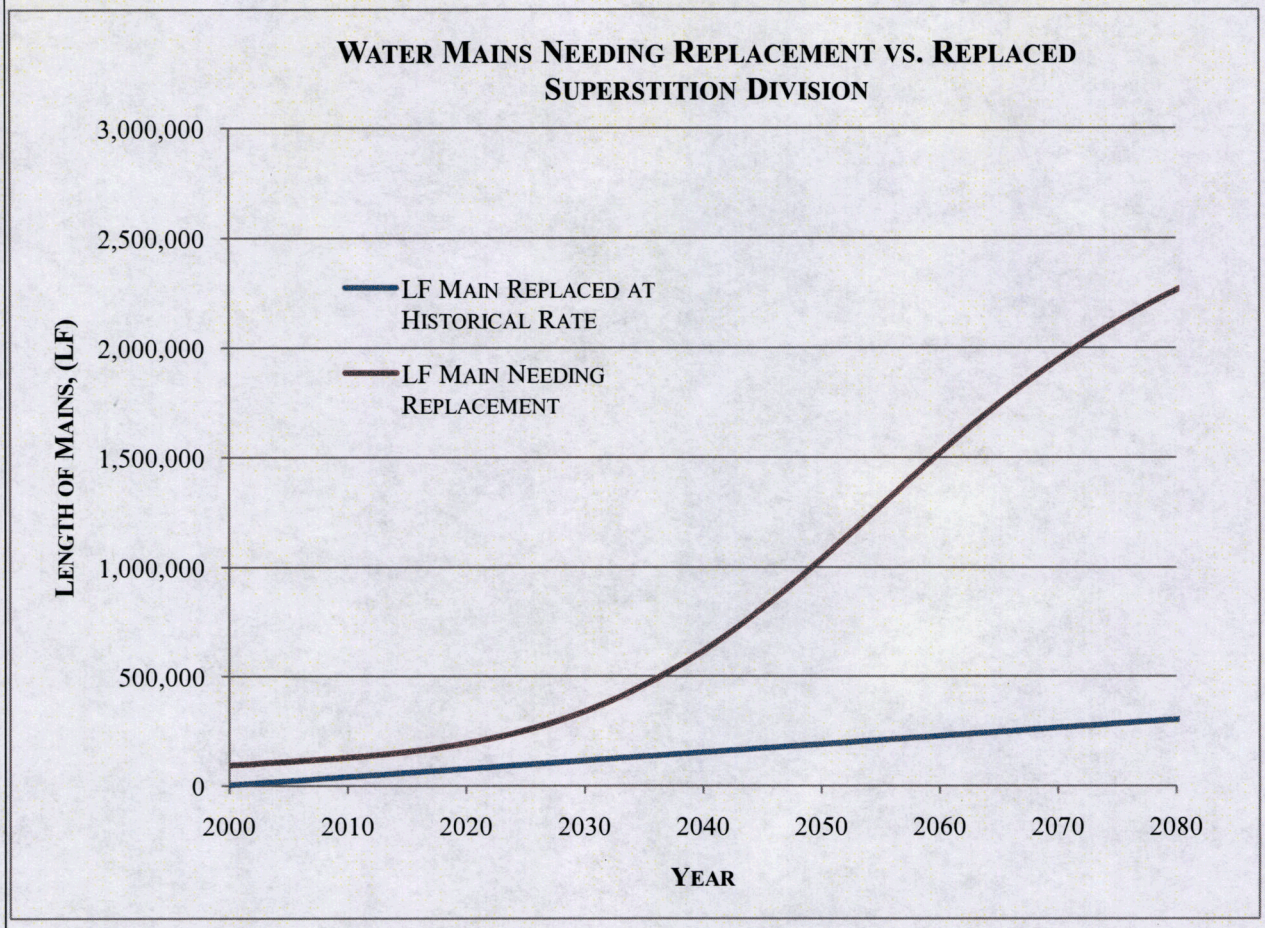
For the Oracle water system, the graph below shows the predicted water main replacements needed versus historical replacement rates based on the average replacement rate between 2000 and 2010. Based on the current replacement rate, the Company has determined that it would take more than 70 years to replace the failing service lines alone. The Company is planning to replace approximately 10,500 LF of problematic mains based on the complete review of the documented water main and service line repair history and the Nessie Curve Analysis. The estimated cost to replace approximately 10,500 LF of water mains and 450 service lines is $1.8 million over the next 10 years.



At the historical rate of water main replacement, the Company anticipates it will not be able to keep up with the needed water main replacements over the next 10 years. The above Graph shows that a significant increase in the rate of water main replacements will be necessary. As shown in the Water Loss Reduction Program for Water Systems in the Eastern Group attached as Exhibit FKS-13, the historical rate of service line replacements is approximately 10 service lines per year. The Company needs to increase replacements of aging and failing service lines to approximately 45 per year, which is more than four times as much as was historically replaced over the last decade. Each year, replacement costs and the quantity of aging and failing water mains and services are escalating making it increasingly difficult to replace such aging mains and services. Without a DSIC or some other funding mechanism or higher returns on equity, the required replacement rate cannot be achieved.

**Superstition:**

For the Superstition Division, the graph below shows the predicted water main replacements needed versus historical replacement rates based on the average replacement rate between 2000 and 2010. Based on the current replacement rate, the Company has determined that it would take nearly 640 years to replace the existing infrastructure. The analysis shows that approximately 160,000 LF of water main or approximately six percent of water mains in the Superstition Division need to be replaced, including 4,250 plastic and 2,350 GS service lines over the next 10 years, at an estimated cost of $41.6 million, as detailed in Exhibit FKS-16. The graph clearly shows that the current replacement rate is not sufficient to keep pace with the water system replacements needed.




At the historical replacement rate for water mains of approximately 4,100 LF annually, the Company will continue to fall further behind on water main and service line replacements for its Superstition Division water systems. Over the long-term, the graph above shows that the current replacements needed are approximately three times greater than the current rate of replacement. Replacement costs will continue to increase further limiting the quantity of aging and failing water mains and service lines that the Company may be able to replace. Each year, replacement costs and the quantity of aging and failing water mains and service lines are escalating, making it increasingly more difficult to replace such aging mains and services. Without a DSIC or some other form of funding mechanism or higher returns on equity, the required replacement rate cannot be achieved.

**Q. HAS THE COMPANY PREPARED A COST ESTIMATE TO REPLACE THIS INFRASTRUCTURE?**

A. Yes. The Company has prepared a cost estimate to replace this infrastructure in the Superstition Division and in the Bisbee and Oracle water systems. The estimated cost to replace this infrastructure is listed in the following table:

| AREA | COST ESTIMATE |
|---|---|
| Superstition | $41.6 million |
| Bisbee | $23.5 million |
| Oracle | $1.8 million |

Details of these cost estimates are included in Appendix 9.5 of Exhibit FKS-13 which are also included as Exhibits FKS-14 through FKS-16 in this testimony. These cost estimates were based on water mains and service lines needing replacement between 2011 and 2020. Replacement unit costs were based on recent bids from other Company projects within the Eastern Group.

**Q. HAS THE COMPANY CONSOLIDATED THE ORACLE AND SADDLEBROOKE RANCH SYSTEMS FOR ADWR AND ADEQ REPORTING PURPOSES?**

A. Yes. These water systems were interconnected in 2007. On May 21, 2010, the Company notified ADEQ that it had consolidated the SaddleBrooke Ranch water system into the Oracle water system (PWSID No. 11-019). The Company is also seeking to consolidate these systems for ratemaking purposes as further discussed in the direct testimony of Mr. Harris and Mr. Reiker.

**Q. TO REDUCE WATER LOSS AS THE COMMISSION DIRECTED IN DECISION NO. 71845, WHAT SPECIFIC UTILITY PLANT REPLACEMENTS HAS THE COMPANY COMPLETED TO REDUCE WATER LOSS IN THE BISBEE, MIAMI, ORACLE AND SUPERIOR WATER SYSTEMS?**

A. The Company evaluated five of its Eastern Group water distribution systems through the use of its digital leak detection equipment and analyzed data the Company collected over the past several years regarding main breaks and service line leaks. The Company determined that waterlines in seven separate areas needed to be replaced so that the Company could reduce water loss and move towards compliance with the standard set by the Commission in Decision No. 71845. A high pressure isolation valve was also installed to better manage the repair of a high pressure transmission line supplying water to Superior and help to reduce water loss when making these repairs. The Company also budgeted additional funds needed to replace infrastructure as further described below.

**A. <u>Cochise – Bisbee (PWSID No. 02-001):</u>**

<u>Project One</u>

Project One is replacement of 1,500 LF of failing 6-inch steel waterline w/6-inch DIP along Campbell Street from Hoatson to Cole Street and 460 LF of 8-inch DIP on Cole Street from Arizona Street to Nance Street. Based on the Company's detailed water loss evaluation of the Bisbee water distribution system it determined that significant portions of the 6-inch steel waterline on Campbell Street and 8-inch steel waterline on Cole Street were failing and needed to be replaced. The leak history shows numerous leaks and repairs with 32 leaks in the past 10 years alone. Completion of this project is critical to the Company's compliance with Decision No. 71845. In

addition, the City of Bisbee was also performing a road improvement project in this area. The existing waterline was in conflict with the proposed road improvements at several locations.

Project Two

Project Two is the replacement of 1,140 LF of failing 8-inch and 6-inch steel waterline with 8-inch DIP in Clawson Avenue from Rupp Avenue to Navajo Trail. Based on the Company's detailed water loss evaluation of the Bisbee water distribution system it determined that significant portions of the 6-inch and 8-inch steel waterlines on Clawson Street were failing and needed to be replaced. Over 70 repairs have been made to this waterline, with 56 leaks recorded in the past 6 years alone. Completion of this project is critical to the Company's compliance with Decision No. 71845.

**B. Oracle (PWSID No. 11-019):**

Project Three

Project Three is the replacement of 270 LF of failing 4-inch steel waterline w/6-inch DIP in American Avenue and College Drive. Based on the Company's detailed water loss evaluation of the Oracle water distribution system it determined that a significant portion of the 4-inch steel waterline at the intersection of American Avenue and College Drive was failing and needed (or needs) to be replaced. This waterline is located near the center of a busy intersection which increases repair costs due to additional traffic control requirements. Completion of this project is critical to the Company's compliance with Decision No. 71845.

Project Four

Project Four is the replacement of a 440 LF of failing 2-inch galvanized steel waterline w/6-inch DIP on Discover Street. Based on the Company's detailed water loss evaluation of the Oracle water distribution system, a

significant portion of the 2-inch galvanized steel waterline on Discover Street was failing and needed to be replaced. This waterline is over 50 years old and has had several leaks. Completion of this project is critical to the Company's compliance with Decision No. 71845.

Project Five

Project Five is the replacement of 1,100 LF of failing 2-inch galvanized steel waterline w/6-inch DIP on Stewart Road, Truman Street and Sherman Road. Based on the Company's detailed water loss evaluation of the Oracle water distribution system it determined that a significant portion of the 2-inch galvanized steel waterline on Stewart Road, Truman Street and Sherman Road was failing and needed to be replaced. Portions of this waterline are almost 50 years old and have had several leaks. Severe external corrosion on the waterline made it very difficult to repair.

**C. Superstition – Miami (PWSID No. 04-002):**

Project Six

Project Six (US 60) is replacement of 1,645 LF of failing 8-inch CA waterline w/8-inch DIP along Live Oak Street (US 60) from Marion Street to New Street. Based on the Company's detailed water loss evaluation of the Miami water distribution system it determined that a significant portion of the 8-inch CA waterline on US 60 was failing and needed to be replaced. The leak history shows numerous leaks and repairs with 9 leaks recorded in the past 6 years alone. Two of the adjoining sections of this water main had been replaced in 2002 and 2008. Due to budget constraints, replacement of this section of waterline had been postponed until this year.

**D. Superstition – Superior (PWSID No. 11-021):**

Project Seven

Project Seven is the installation of a 12-inch in-line high pressure isolation valve for the Superior transmission line. The Superior transmission line is 26 miles long, supplies all of the water to the Superior water distribution system (PWSID #11-021), and operates at pressures up to 800 psi. Originally installed in 1973, repair parts for the existing valves are no longer available and currently only 3 valves remain operational. When a leak or break occurs, due to the distance between valves, it takes several hours to drain the line resulting in significant labor costs and, on average, the loss of over 100,000 gallons of water. Installation of this additional isolation valve will reduce water loss and repair costs. Due to the high cost of these specialty valves, the Company can only install one of these valves each year. Therefore, the Company is planning to install one additional valve each year until a spacing of one valve per mile has been achieved.

Project Eight

Project Eight is the replacement of trench and backfill of the Company's Queen Creek tank fill transmission line. The Queen Creek tank fill line is an 8-inch transmission line that carries water from the 12-inch transmission line to the Queen Creek Tank and provides the water supply for the Town of Superior. An increasing frequency of leaks has been reported on this line. Company engineers have investigated the leaks and determined the primary cause of the leaks is due to failing pipe gaskets. The line was installed above ground in 1973. Over time, the gaskets have become weathered and brittle due to exposure to the sun and the elements causing an increase in the number of leaks and increasing water loss. Each year, this waterline experiences a significant amount of movement due to expansion and

contraction of the pipe with seasonal temperature changes. The brittle gaskets develop leaks from the expansion and contraction. Erosion of the soil around the pipe installation has caused additional movement and leaks. The pipe itself is in good condition and is serviceable. New gaskets were installed on the existing line and the line was also installed underground to protect the pipe gaskets from future weathering and limit movement of the pipe due to temperature variations and erosion.

**Q. WHEN WILL THESE PROJECTS BE COMPLETED?**

A. In accordance with the Commission's directive in Decision No. 71845, the Company quickly moved forward with the waterline replacement projects to replace the failing waterlines. All of these projects have been completed by the Company in accordance with the Commission's July 1, 2011 deadline to comply with its order to reduce water loss. A detailed description of these projects and supporting information are listed in Section III of this testimony and Exhibit FKS-1.

**Q. THESE URGENTLY-NEEDED WATERLINE REPLACEMENTS REPRESENT A SIGNIFICANT CAPITAL INVESTMENT BY THE COMPANY TO ADDRESS SYSTEM WATER LOSS. HOW DID THE DECISION TO MAKE THIS INVESTMENT COME ABOUT?**

A. Apart from the very high loss of water from these old leaking waterlines, the most compelling reason came from the Commission itself. The Commission ordered the Company to reduce water loss in *all* systems to less than 10 percent by July 1, 2011. For the Eastern Group, the Company determined that locating and repairing leaks and breaks alone could not comply with this water loss reduction mandate. Despite the Company's aggressive water loss reduction efforts, these efforts have not been enough to reduce water loss in all systems to less than 10 percent as the Commission required.

**Q. WILL THESE WATERLINE REPLACEMENTS HELP TO REDUCE WATER LOSS?**

A. Yes. These waterline replacements are needed to help reduce water loss and move towards compliance with the Commission's order to reduce water loss. However, more replacements of aging infrastructure are needed in the Eastern Group to comply with water loss requirements. The solution to this problem requires an ongoing commitment to the planned replacement of aging and failing waterlines. In some cases, larger diameter waterlines are needed. This addresses the Commission's directive to the Company to reduce water loss. The replacement of a growing number of service lines is also required, as failing service lines are another significant source of water loss. Due to this critical need, the Company has developed a plan that is detailed in Sections 5.0, 6.0 and 7.0 of the report attached as Exhibit FKS-13.

**Q. HOW IS THE COMPANY PROPOSING TO RESOLVE THE GAP IN INFRASTRUCTURE REPLACEMENT TO REDUCE WATER LOSS AND KEEP IT LOWER THAN 10 PERCENT?**

A. As stated previously, the Company has prepared a detailed plan to begin replacing water mains and service lines that are needed to reduce water loss. The detailed plan includes collectively replacing approximately 37,000 LF of aging water mains and 875 aging service lines each year in the five Eastern Group water systems discussed in the "Water Loss Reduction Program for Water Systems in the Eastern Group".

**Q. WHAT IS THE ESTIMATED COST OF THESE REPLACEMENTS?**

A. For the Eastern Group, it is estimated that these initial replacements will cost at least $3.1 million dollars annually. This is in addition to the proposed $2.5 million dollars of annual replacements identified within the Company's

Western Group Rate Case, Docket No. W-01445A-10-0517. The initial replacements only represent about half of the annual replacements needed for the Eastern Group. However, the initial 3-year replacement schedule is the first step towards replacing aging and failing water mains and service lines.

**Q. CAN THE COMPANY CURRENTLY FUND THE REPLACEMENTS OF AGING INFRASTRUCTURE NEEDED TO REDUCE AND MANAGE WATER LOSS TO LESS THAN 10 PERCENT?**

A. No, not without adequate rate relief, including an effective cost-recovery mechanism such as a Distribution System Improvement Charge ("DSIC"). As discussed in Mr. Harris' and Mr. Garfield's direct testimony, the Company cannot construct these necessary water system replacements and incur the costs of doing so without a change in the way these costs are recovered.

**Q. IS THE COMPANY MAKING ANY PROPOSALS TO ALLOW IT TO FUND THESE TYPES OF CRITICALLY NEEDED UTILITY PLANT REPLACEMENTS?**

A. Yes. In other jurisdictions, utility commissions have authorized a DSIC to facilitate infrastructure replacement. The benefits of such a program include more efficient and timely investment of capital, significant progress in replacing aging infrastructure and enhanced service quality and reduction of water loss. As greater demands are placed on existing water supplies in the future, reducing water loss through the replacement of aging infrastructure will become even more important. Such programs typically include protections for customers such as limits on the amount of increased revenues that can be collected. Details of the DSIC program are presented in the direct testimony of Mr. Harris, while Mr. Garfield's direct testimony discusses the public policy aspects of a DSIC.

**Q. DSIC PROCEDURES ORIGINATED IN THE EASTERN PORTION OF THE UNITED STATES. IS THE PROBLEM OF AGING INFRASTRUCTURE UNIQUE TO THAT AREA?**

A. No. The Company's water systems throughout Arizona have varying numbers of facilities that are obsolete, beyond their useful life and are already failing or nearing failure and need to be replaced. As presented and discussed in Sections 5.0, 6.0 and 7.0 of Exhibit FKS-13, water mains installed and placed in service during the early 1900s through the 1930s and later have reached the end of their useful service lives.

**Q. HAVE YOU PREPARED AN ANALYSIS OF AGING INFRASTRUCTURE IN THE EASTERN GROUP?**

A. Yes. The analysis shows approximately 370,000 LF of water main or approximately 11.1 percent of the Eastern Group water systems are in need of replacement including over 4,915 plastic service lines and more than 3,850 galvanized steel service lines over the next 5-10 years. This analysis is based on a complete review of the documented water main and service line breaks and repair history summarized in Appendix 9.1 of Exhibit FKS-13. The specific replacement projects are presented in detail in Appendix 9.4 of Exhibit FKS-13. As explained on page 73 of my testimony, the Company estimates that replacing these failing water mains and service lines will cost $67 million. An explanation of this detailed cost estimate is provided in Exhibit FKS-13. Each year, these costs will increase and the quantity of aging water mains and service lines that have exceeded their useful service life will increase, thereby making it increasingly more difficult to keep up with necessary replacements.

**Q. THE EASTERN GROUP WATER SYSTEMS CONSIST OF WATER MAINS DATING BACK TO THE EARLY 1900s THROUGH 1920s. WHY ARE THESE FACILITIES A PROBLEM?**

A. There are numerous studies which have been completed documenting the failure of infrastructure installed during this time period.[3] Materials used to make and join distribution system piping have evolved over time. From the late 1800s until the 1920s, most piping installed was manufactured from "pit" cast iron. Some of the older water mains in the Eastern Group are of this type of cast iron.

Beginning in the late 1920s, up to and including the 1960s, "spun" cast iron was primarily used. It is stronger and more uniform than "pit" cast iron and allowed for thinner pipes. These improved cast iron water mains were installed without corrosion protection or polyethylene encasement. Over time, these thinner-walled unprotected cast iron mains are corroding and failing. Cement lining and leadite joining compound plasticized sulfur cement) were introduced during the same time period, although leadite joints were eventually found to have increased splitting and corrosion compared to lead. Flexible rubber gasket joints and ductile iron pipe were introduced in the 1950s and 1960s, respectively, improving joints and reducing corrosion rates. The use of PVC and high density polyethylene ("HDPE") pipe began to emerge in the 1970s and early 1990s, respectively. Cast iron piping (both pit and spun), installed in the 1900s and later, is approaching the end of its useful life and many main breaks are associated with this type of pipe.

[3] DeBerry, David W. Kidwell, James R., Malish, David A. (1982). *Corrosion in Potable Water Systems.* United States Environmental Protection Agency. Thomson, James and Wang, Lili (2009). *State of Technology Review Report on Condition Assessment of Ferrous Water Transmission and Distribution Systems.* United States Environmental Protection Agency.

Deteriorating water distribution system infrastructure include: 1) increased leakage and breaks; 2) taste, odor and rusty water complaints; 3) reduced flow capacity; and 4) reduced chlorine levels due to corrosion products and biofilms. Consequently, there is an increased potential for water quality degradation and health risks associated with aging infrastructure. As a result, this aging piping also needs to be replaced. The analysis included as Exhibit FKS-13 discusses in detail the numerous problems associated with these aging facilities.

**Q. OF THE COMPANY'S 19 WATER SYSTEMS, WHICH IS THE OLDEST?**

A. The Company's Bisbee water system is the oldest water system with water mains dating back to the early 1900s.

**Q. FOR THE BISBEE WATER SYSTEM, WHAT IS THE COMPANY PROPOSING AS AN INITIAL REPLACEMENT PROGRAM?**

A. There are three critical geographic areas in the Bisbee water system where water mains need to be replaced: the Warren, Old Bisbee and Don Luis areas, which have shown a significant number of water main and service line leaks and breaks. A specific replacement program has been developed to reduce water losses for these three areas and to help comply with the Commission directive under Decision No. 71945 by replacing aging water mains and service lines. Replacement of the aging and failing water mains and service lines over the next 10 years equates to an annual replacement program of over $2.0 million. A replacement program of this magnitude would significantly increase water rates. The Company has proposed a more conservative initial three-year replacement program and estimates the annual cost of this initial three-year infrastructure replacement program to be $500,000 for the Bisbee water system.

**Q. DO THE EASTERN GROUP OPERATORS ROUTINELY DISCOVER AND REPAIR WATER LEAKS?**

A. Yes. The Company found and repaired over 2,250 leaks between January 2005 and December 2010 in the five water systems discussed in the "Water Loss Reduction Program for Water Systems in the Eastern Group" further described in Section X of this testimony and as shown in Appendix 9.1 of Exhibit FKS-13. This equates to more than one and a half leak repairs every work day. Approximately 62 percent of the recorded leaks were service line leaks. All leaks are repaired promptly after they are detected and located. According to a study completed by the Aging Water Infrastructure Research division of the Environmental Protection Agency, there are 240,000 water main breaks per year in the United States, or a water main break 650 times per day[4]. That equates to one main break every two minutes. For the Company's Eastern Group water systems evaluated in the "Water Loss Reduction Program for Water Systems in the Eastern Group", there have been one and a half waterline leaks practically every work day for the past six years.

**Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY IN THIS MATTER?**

A. Yes.

[4] *Water Distribution Systems* (2009). United States Environmental Protection Agency Aging Water Infrastructure Research Program, http://www.epa.gov/awi/distributionsys.html (Oct. 28, 2010).

# FKS-1

**FKS-1**

# POST TEST YEAR PLANT ADDITIONS – PROJECT DETAIL

## INDEX


**PLANT DESCRIPTION** **WA NO.**

**Cochise – Bisbee (02-001)**

A. **COCHISE - BISBEE (PWSID #02-001)**

WATERLINE RELOCATION FOR ARIZONA STREET DRAINAGE AND ROADWAY SAFETY IMPROVEMENT PROJECT ..... WA 1-4692

REPLACE 1,500 LF OF FAILING 6-INCH STEEL WATERLINE WITH 6-INCH DIP ALONG CAMPBELL STREET FROM HOATSON TO COLE STREET AND 460 LF OF 8-INCH DIP ON COLE STREET FROM ARIZONA STREET TO NANCE STREET ..... WA 1-4767

REPLACE 1,140 LF OF FAILING 8-INCH AND 6-INCH STEEL WATERLINE WITH 8-INCH DIP ON CLAWSON AVENUE FROM RUPP AVENUE TO NAVAJO TRAIL ..... WA 1-4795

B. **ORACLE (PWSID #11-019)**

REPLACE 270 LF OF OLD AND FAILING 4-INCH STEEL WITH 6-INCH DIP ON AMERICAN AVENUE AND COLLEGE DRIVE ..... WA 1-4798

REPLACE 440 LF OF OLD AND FAILING 2-INCH GALVANIZED STEEL WITH 6-INCH DIP ON DISCOVER STREET ..... WA 1-4799

REPLACE 1,100 LF OF OLD AND FAILING 2-INCH GALVANIZED STEEL WITH 6-INCH DIP ON STEWART ROAD, TRUMAN STREET AND SHERMAN ROAD ..... WA 1-4800

C. **SUPERSTITION**

I. **SUPERSTITION – APACHE JUNCTION (PWSID #11-004)**

CONSTRUCT EXPANSION TO THE OASIS ARSENIC REMOVAL FACILITY FROM 3.6 MILLION GALLONS PER DAY ("MGD") TO 7.7 MGD ..... WA 1-4226

REPLACE OBSOLETE SUPERVISORY CONTROL AND DATA ACQUISITION ("SCADA") SYSTEM COMPUTERS AND OPERATING SOFTWARE ..... WA 1-4788

PULL AND REPLACE THE PUMP IN APACHE JUNCTION WELL NO. 15 ..... WA 1-4792

REPLACE FAILED 600 HP SIZE 7 REDUCED VOLTAGE MOTOR STARTER AT OASIS WELL NO. 13 ..... WA 1-4833

PULL AND REPLACE PUMP AND MOTOR AT APACHE JUNCTION WELL NO. 16.....WA 1-4842

II. **SUPERSTITION – MIAMI (PWSID #04-002)**

UPDATE PROGRAMMING AT WELL NOS. 12, 27 AND 28.....WA 1-4789

REPLACE 1,645 LF OF FAILING 8-INCH CA WATERLINE WITH 8-INCH DIP ALONG LIVE OAK STREET (US 60) FROM MARION TO NEW STREET .....WA 1-4794

III. **SUPERSTITION – SUPERIOR (PWSID #11-021)**

INSTALL ONE 12-INCH IN-LINE HIGH PRESSURE ISOLATION VALVE FOR SUPERIOR TRANSMISSION LINE .....WA 1-4787

TRENCH AND BACKFILL QUEEN CREEK TANK FILL LINE .....WA 1-4793

# FKS-2

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | | EASTERN GROUP |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

DRILL AND EQUIP NEW WELL PER AWC SPECIFICATIONS.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1 | EA | $ 50,000 | PURCHASE PROPERTY | $ 50,000 |
| 1 | EA | 400,000 | DRILL AND CASE 18" WELL | 400,000 |
| 1 | EA | 125,000 | PURCHASE AND INSTALL PUMPING EQUIPMENT | 125,000 |
| 1 | EA | 150,000 | PURCHASE AND INSTALL ELECTRICAL EQUIPMENT | 150,000 |
| 1 | EA | 50,000 | ELECTRICAL POWER TO SITE | 50,000 |
| 1 | EA | 100,000 | INSTALL WELL YARD PIPING AND ANCILLARY ITEMS | 100,000 |
| 1 | EA | 60,000 | TIE NEW WELL INTO EXISTING DISTRIBUTION SYSTEM | 60,000 |
| | | | | - |
| | | | | - |
| | | | | - |
| | | | | - |
| | | | | - |
| | | | | - |

| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 935,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 14,025 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 65,450 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 1,014,475** |
| (5) OVERHEAD - 15% OF LINE (4) | 152,171 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 91,303 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 1,257,949** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 1,257,949** |

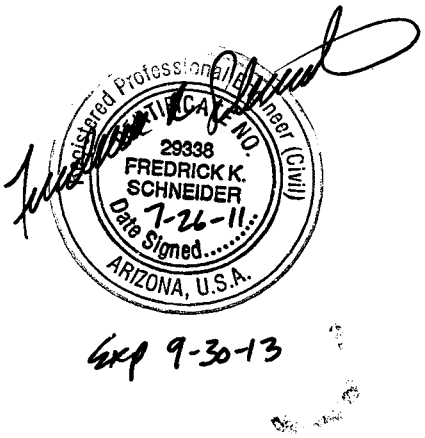
AFH

# FKS-3

ARIZONA WATER COMPANY

# Apache Junction Water System
# Production Analysis
# Oasis Arsenic Removal Facility

**Prepared by Arizona Water Company**




Exp 9-30-13

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Recommendations ..... 4
Attachment A ..... 6
Attachment B ..... 7

Exp 9-30-13

**Current Production Needs**

The purpose of this analysis is to evaluate the need for additional water supplies that comply with all safe drinking water act standards for Arizona Water Company's (the "Company") Apache Junction water system, which is part of the Company's Superstition Division. All groundwater supplies within the Company's Apache Junction water system are treated to remove arsenic to comply with safe drinking water act standards, therefore, in addition to evaluating the need for additional water supplies, this analysis also evaluates the need for additional arsenic removal facility capacity. Furthermore, this analysis describes the methodology used to determine the need for additional arsenic removal capacity within the Apache Junction water system.

The Company measures and records water production capacities from each of its wells on a monthly basis. For this production analysis, Company engineers compiled monthly water production capacity information for each well within the Apache Junction water system to calculate Average Day Peak Month ("ADPM") and Peak Day Peak Month ("PDPM") demands. 2010 water production data shows that the peak month production occurred in June, 2010. Furthermore, in reviewing ten years of historical water production information, Company engineers determined that June or July are typically the peak production months. June 2010 peak month production volumes for the Apache Junction water system are shown in Attachment A. Using the June 2010 peak monthly production, the ADPM demand was calculated by taking the sum of all production sources within the Apache Junction water system and then dividing by 30, the number of days in June. Using diurnal system production and storage data, Company engineers determined that the Apache Junction water system PDPM demand was 1.5 times the ADPM demand. In other words, the peak day demand for the Apache Junction water system is approximately 1.5 times the average daily demand in the peak month. The ADPM and PDPM demands are shown in Attachment A.

The production capacity versus demand analysis used in this scenario considered an event during which the well pump for the largest well in the Apache Junction water system had failed. These types of well pump failures do happen and this scenario represents a likely or potential event. Typically the well pump can be removed, replaced and placed back into service within three days. This time frame assumes that the pump replacement contractor works 24 hours per day to complete repairs within this three-day timeframe. For this scenario, Company engineers assumed a well pump failure of the most critical production source during PDPM demand. During a typical well pump replacement, production capacity shortfall would be supplemented by existing system storage tank capacity. Effectively, this is modeled by removing the production capacity of the most critical production source and then adding the equivalent production capacity of one third the total available storage for each day of the failure for a total of three days. The total available storage capacity is reduced by approximately half to account for the fact that all tanks are not full at the beginning of a well pump failure and sufficient storage volumes must be maintained to provide fire protection. Company measured and recorded water production capacities are used to determine the current pumping capacity for each source. It is assumed that each source is used continuously (i.e., water production continues 24 hours per day without interruption). The total available production is calculated in terms of Gallons Per Day ("GPD") by taking the sum of all sources less the most critical production source.

The system is then modeled using the calculated production volumes and system demand as described above. In this well pump failure scenario, the model shows that there is a shortfall or deficit of at least 2.2 million gallons per day ("MGD") for the Apache Junction water system as shown in Attachment B.

**Alternatives for Additional Production Capacity**

Company engineers evaluated several alternatives to increase the potable supply capacity in the Apache Junction water system which include expanding the Oasis arsenic removal facility, installing an interconnect to the Company's Superior water system and drilling another well in the Apache Junction area and treating the water from this new well, or using existing well capacity.

Currently, the Apache Junction water system has an existing well that is utilized for production capacity redundancy but requires treatment. This well is referred to as Oasis Well No. 19 and is used for redundancy at the Oasis arsenic removal facility in the event of a failure of the Company's Well No. 13. With an expansion to the existing Oasis arsenic removal facility, the existing well (Well No. 19) could be used which would add an additional 4.1 MGD of production capacity. This site is sufficient in size to accommodate an expansion to the Oasis arsenic removal facility and no additional property would be required. This alternative eliminates the need to drill a new well and acquire additional real property, representing a cost savings of at least $1.8 million for these costs alone.

Based on the Company's evaluation of the Superior water system's wells and water system demands, it was determined that installing an interconnect between Apache Junction and Superior water systems could provide an additional 1,080,000 GPD. This potable supply alternative will not resolve the shortfall or supply deficit within the Apache Junction water system under this scenario.

Drilling a new well in the Apache Junction water system involves several engineering challenges including real property acquisition, acquisition of easements for the construction of transmission lines from the real property to the Company's distribution system and addressing groundwater quality issues to comply with the Safe Drinking Water Act. The Company does not own real property in the Apache Junction area that is suitable for drilling a new well. Therefore, the Company would need to acquire additional real property under this alternative. However, based on the Company's experience and knowledge gained by drilling wells in this area, most of the land suitable for drilling a well is located on the west side of Apache Junction. This area is nearly fully developed and acquiring property in this area would be difficult and expensive. All wells in the Apache Junction area require arsenic treatment and drilling a new well would most likely require a new arsenic removal facility or the expansion of an existing facility.

**Recommendations**

As detailed previously, the Apache Junction water system requires 2.2 MGD of additional potable water production supply in order to maintain a safe and reliable water supply. Based on the alternatives evaluated and described previously, expanding the Oasis arsenic removal facility is the most cost-effective solution. Most importantly, acceptable water quality and quantity are already available at Oasis Well No. 19 keeping the arsenic removal facility

expansion cost to a minimum. Therefore, the Company engineers recommend the expansion of the Oasis arsenic removal facility from its existing capacity of 3.5 MGD to 7.7 MGD allowing the Company to provide an adequate, safe, reliable and affordable water supply for the Apache Junction water system.

Attachment A
Apache Junction Water System
Production Analysis

## APACHE JUNCTION WATER SYSTEM

SUPERSTITION SYSTEM JUNE 2010
PINAL COUNTY, ARIZONA

Calculations to determine Average Day and Peak Day Demand

| PEAK MONTH PRODUCTION | | |
|---|---|---|
| Well #11 | 0 | Gallons |
| Well #12 | 1,000 | Gallons |
| Well #13 | 103,199,000 | Gallons |
| Well #14 | 2,337,000 | Gallons |
| Well #15 | 28,894,000 | Gallons |
| Well #16 | 113,271,000 | Gallons |
| Well #17 | 12,244,000 | Gallons |
| Well #18 | 1,000 | Gallons |
| Well #19 | 21,514,000 | Gallons |
| TOTAL MONTHLY PRODUCTION | 281,461,000 | Gallons |

| DAILY DEMAND CALCULATIONS | | |
|---|---|---|
| Number of days in Peak Month | 30 | Days |
| Average Day Peak Month (**ADPM**) | = 281,461,000 / 30 | GPD |
| Average Day Peak Month (**ADPM**) | **9,382,033** | GPD |
| Peak Demand Factor | 1.5 | |
| Peak Day Peak Month (**PDPM**) | = ADPM * 1.5 | GPD |
| Peak Day Peak Month (**PDPM**) | **14,073,050** | GPD |

Attachment B
Apache Junction Water System
Monthly Demand Calculations

## APACHE JUNCTION WATER SYSTEM
## Well #16 Out of Service

| SYSTEM | MONTH (2010) | ADPM GPD | PDPM GPD | TOTAL PRODUCTION AT POE (GPD) | 1/3 OF TOTAL AVAILABLE STORAGE (GPD) | SYSTEM NET GAIN or (LOSS) GPD |
|---|---|---|---|---|---|---|
| AJ | June | 9,382,033 | 14,073,050 | 8,568,000 | 3,116,667 | (2,388,383) |

Additional production required

| Source | Production (GPM) | POE | Production (GPM) | Tank Name | Storage (GAL) |
|---|---|---|---|---|---|
| Well #11 | 720 | Oasis ARF* | 2500 | County Line #1 | 1,000,000 |
| Well #13 | 2500 | | | County Line #2 | 4,000,000 |
| Well #19 | 2900 | | | Lower Zone | 2,000,000 |
| | | | | Oasis | 550,000 |
| Well #12 | 650 | Baseline ATP* | 3450 | Baseline | 1,000,000 |
| Well #14 | 550 | | | University #1 | 500,000 |
| Well #15 | 1250 | | | University #2 | 1,000,000 |
| Well #16 | 2500 | | | University #3 | 4,000,000 |
| Well #18 | 1000 | | | UDC | 2,000,000 |
| | | | | Gold Canyon | 500,000 |
| | | | | Vista Del Corozon | 1,000,000 |
| | | | | Mining Camp #1 | 150,000 |
| | | | | Mining Camp #2 | 1,000,000 |
| | TOTAL PRODUCTION AT POE (GPM): | | 5,950 | TOTAL AVAILABLE STORAGE (GAL): | 18,700,000 |

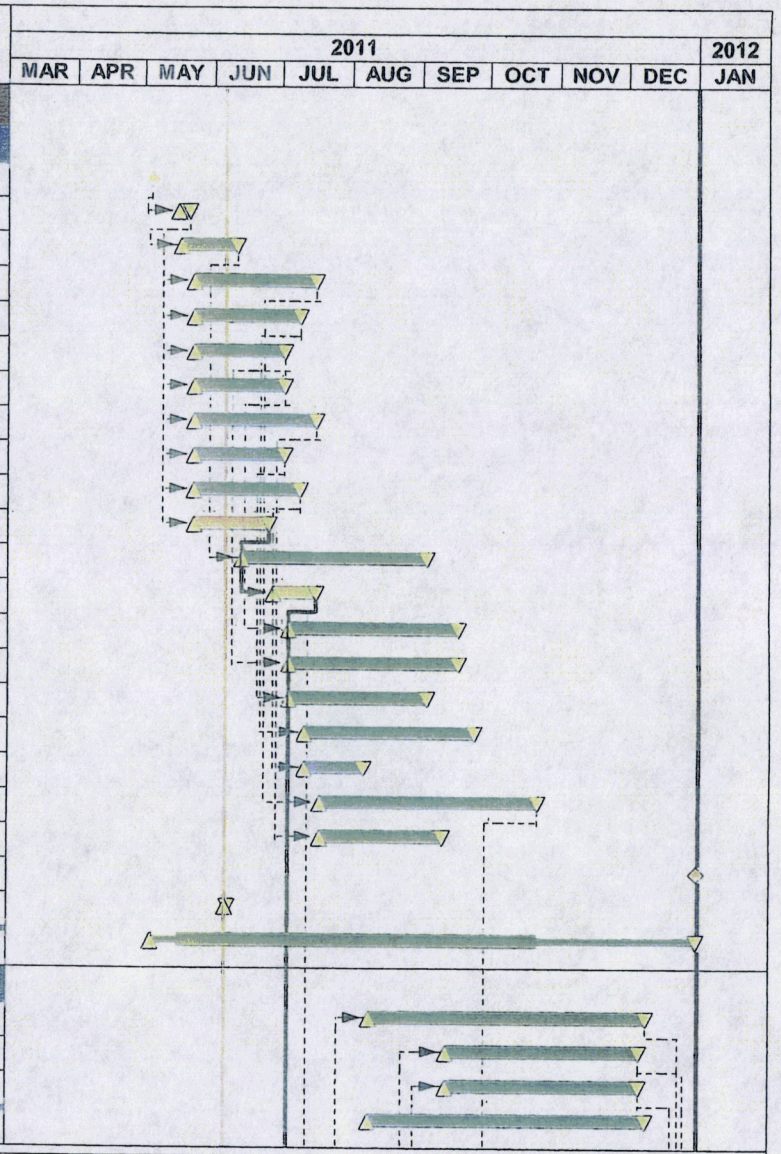
**Critical well assumed temporarily out of service due to pump failure**

**Design Statement for Well Production:**

The water distribution system must have sufficient well capacity to meet the peak day demand for three consecutive days with the largest well out-of-service. One-half of the total storage is available to meet the three peak days with the remaining storage held in reserve for fire protection and other misc needs/demands.

# FKS-4

| Activity Description | Working Days | Early Start | Early Finish |
|---|---|---|---|
| **OASIS ARSENIC TREATMENT FACILITY** | | | |
| **ADMINISTRATIVE** | | | |
| NOTICE TO PROCEED | 0 | 04MAY11 A | |
| CONTRACTS & PROCUREMENT | 5 | 16MAY11 A | 20MAY11 A |
| SUBMITTALS & DRAWINGS - ARSENIC VESSELS | 10 | 17MAY11 A | 10JUN11 |
| SUBMITTALS & DRAWINGS - RECESSED IMPELER PUMP | 40 | 23MAY11 A | 15JUL11 |
| SUBMITTALS & DRAWINGS - SLUDGEMATE ROLL-OFF | 35 | 23MAY11 A | 08JUL11 |
| SUBMITTALS & DRAWINGS - INLINE CENTRIFUGAL PUMPS | 30 | 23MAY11 A | 01JUL11 |
| SUBMITTALS & DRAWINGS - SLUDGEMATE FILTRATE PUMP | 30 | 23MAY11 A | 01JUL11 |
| SUBMITTALS & DRAWINGS - ELECTRICAL | 40 | 23MAY11 A | 15JUL11 |
| SUBMITTALS & DRAWINGS - CHEMICAL SYSTEM | 30 | 23MAY11 A | 01JUL11 |
| SUBMITTALS & DRAWINGS - BACKWASH TANK | 35 | 23MAY11 A | 08JUL11 |
| SUBMITTALS & DRAWINGS - PIPE AND MISC. EQUIPMENT | 30 | 23MAY11 A | 24JUN11 |
| PROCUREMENT - ARSENIC VESSEL | 60 | 13JUN11 | 02SEP11 |
| PROCUREMENT - PIPE & MISC. EQUIPMENT | 15 | 27JUN11 | 15JUL11 |
| PROCUREMENT - SLUDGEMATE FILTRATE PUMP | 55 | 04JUL11 | 16SEP11 |
| PROCUREMENT - IN-LINE CENTRIFUGAL PUMP | 55 | 04JUL11 | 16SEP11 |
| PROCUREMENT - CHEMICAL SYSTEM | 45 | 04JUL11 | 02SEP11 |
| PROCUREMENT - SLUDGEMATE ROLL-OFF | 55 | 11JUL11 | 23SEP11 |
| PROCUREMENT - BACKWASH TANK | 20 | 11JUL11 | 05AUG11 |
| PROCUREMENT - RECESSED IMPELER PUMP | 70 | 18JUL11 | 21OCT11 |
| PROCUREMENT - ELECTRICAL EQUIPMENT | 40 | 18JUL11 | 09SEP11 |
| FINAL COMPLETION | 0 | | 30DEC11 * |
| | 1 | 06JUN11 | 06JUN11 |
| | 173 | 04MAY11 A | 30DEC11 |
| **SYSTEMS TEMPORARY OPERATION DURING CONSTRUCTION** | | | |
| RELOCATE EXISTING DECANT PUMP | 88 * | 09AUG11 | 08DEC11 |
| RELOCATE EXISTING TRANSFER PUMP | 61 * | 12SEP11 | 05DEC11 |
| RELOCATE EXISTING SLUDGEMATE | 61 * | 12SEP11 | 05DEC11 |
| | 88 | 09AUG11 | 08DEC11 |




| | |
|---|---|
| Project title | OASIS ARSENIC TREATMENT FACILITY |
| Start date | 05NOV10 |
| Finish date | 30DEC11 |
| Run date | 06JUN11 |

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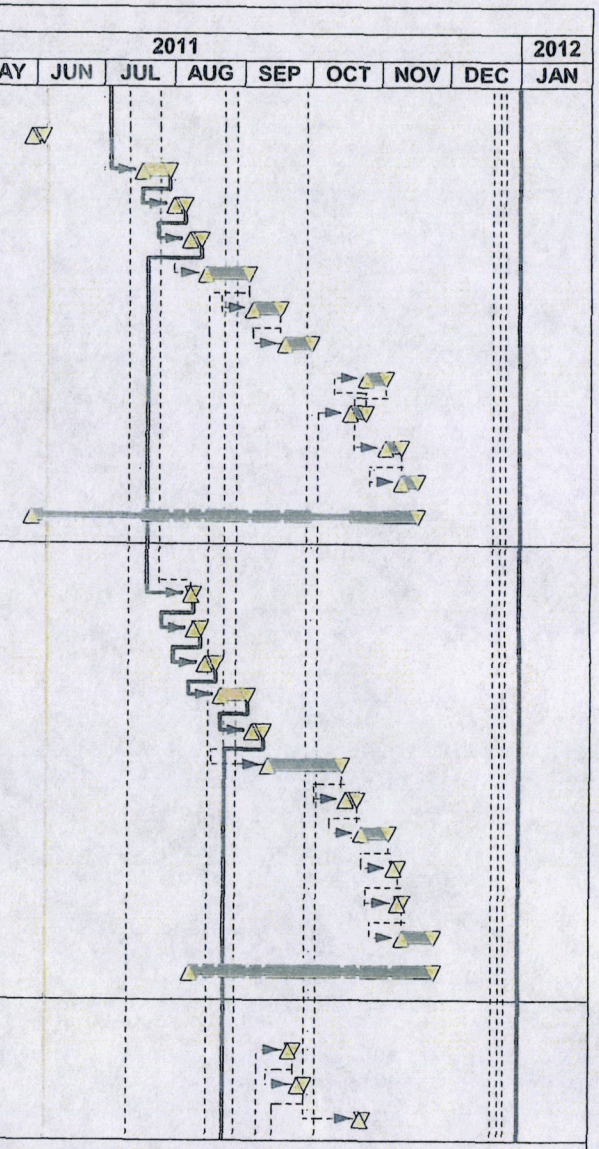
**OASIS WATER CAMPUS**
**ARSENIC TREATMENT FACILITY EXPANSION**
**MGC CONTRACTORS, INC.**

- Early start point
- Early finish point
- Early bar
- Critical bar
- Start milestone point
- Finish milestone point

| Activity Description | Working Days | Early Start | Early Finish |
|---|---|---|---|
| **YARD PIPE** | | | |
| POTHOLE FOR EXISTING UTILITIES | 5 | 30MAY11 A | 03JUN11 A |
| DIG/LAY EFF-16 LINE | 10 | 18JUL11 | 29JUL11 |
| DIG/LAY BWR-12 LINE | 5 | 01AUG11 | 05AUG11 |
| DIG/LAY OF-12 LINE | 5 | 08AUG11 | 12AUG11 |
| DIG/LAY DCT-6 LINE | 15 | 15AUG11 | 02SEP11 |
| DIG/LAY DUCT BANKS | 10 | 05SEP11 | 16SEP11 |
| ** MOPO 1.5 ** INSTALL ELECTRICAL GEAR & PLC | 10 | 19SEP11 | 30SEP11 |
| DIG/LAY PW-3 LINE | 7 | 25OCT11 | 02NOV11 |
| DIG/LAY SD-12 | 5 | 18OCT11 | 24OCT11 |
| DIG/LAY UW-2 LINE | 5 | 03NOV11 | 09NOV11 |
| DIG/LAY SPR-2 LINE | 5 | 10NOV11 | 16NOV11 |
| | 93 | 30MAY11 A | 16NOV11 |
| **BACKWASH TANK** | | | |
| ** MOPO 1.3 ** RELOCATE EXISTING DECANT PUMP | 1 | 09AUG11 | 09AUG11 |
| DEMO EXISTING CONC PAD | 3 | 10AUG11 | 12AUG11 |
| EXCAVATE & GRADE FOR TANK FLOOR | 5 | 15AUG11 | 19AUG11 |
| PLACE CONCRETE TANK FLOOR | 10 | 22AUG11 | 02SEP11 |
| PLACE CONCRETE PUMP PAD | 5 | 05SEP11 | 09SEP11 |
| ERECT & PAINT STEEL TANK | 25 | 12SEP11 | 14OCT11 |
| INSTALL OF-12 & BWR-12 RISER PIPE | 5 | 17OCT11 | 21OCT11 |
| FILL & TEST TANK 02 | 10 | 24OCT11 | 04NOV11 |
| ** MOPO 1.4 ** DRAIN TANK 01 INSTALL NEW NOZZLE | 2 | 07NOV11 | 08NOV11 |
| FILL AND TEST TANK 01 | 2 | 09NOV11 | 10NOV11 |
| PAINT TANK 01 | 10 | 11NOV11 | 24NOV11 |
| | 78 | 09AUG11 | 24NOV11 |
| **DECANT & SLUDGE PUMPS & PIPE** | | | |
| SET IN-LINE CENTRIFUGAL PUMPS | 2 | 22SEP11 | 23SEP11 |
| INSTALL DECANT PIPE, VALVES & ELECTRICAL | 3 | 26SEP11 | 28SEP11 |
| SET RECESSED IMPELER PUMP | 1 | 24OCT11 | 24OCT11 |




| | |
|---|---|
| Project title | OASIS ARSENIC TREATMENT FACILITY |
| Start date | 05NOV10 |
| Finish date | 30DEC11 |
| Run date | 06JUN11 |

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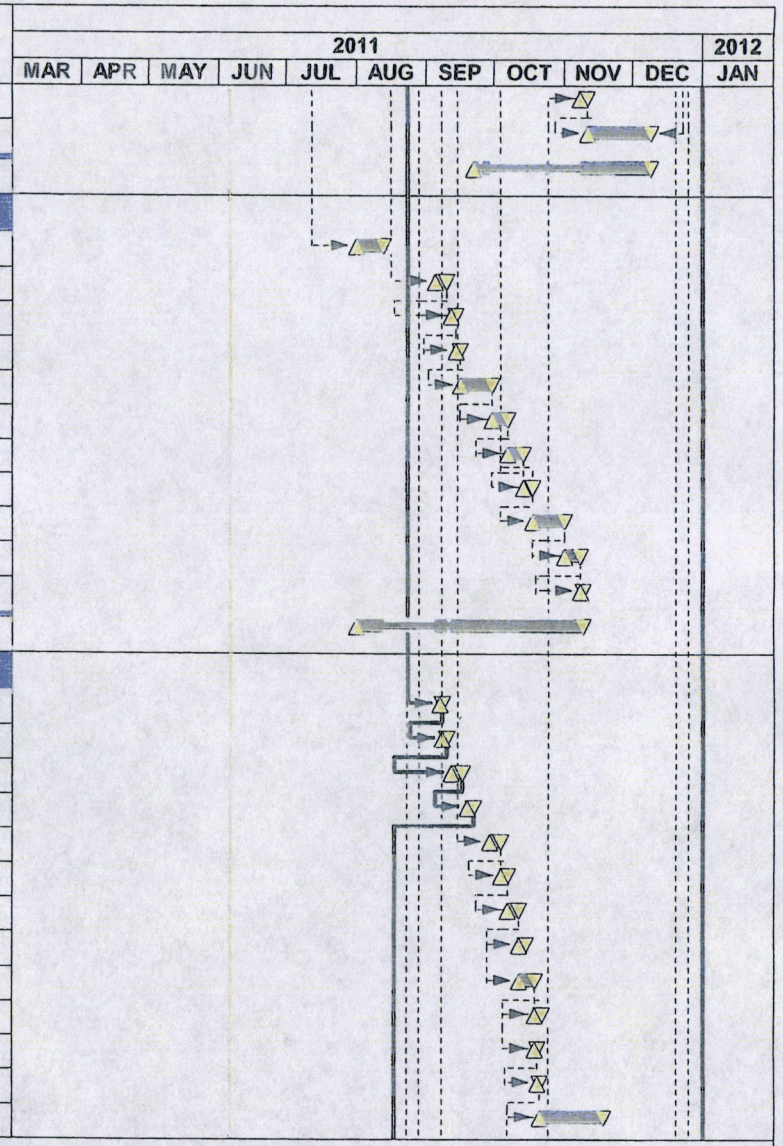
- Early start point
- Early finish point
- Early bar
- Critical bar
- Start milestone point
- Finish milestone point

| Activity Description | Working Days | Early Start | Early Finish |
|---|---|---|---|
| INSTALL SLUDGE PIPE, VALVES & ELECTRICAL | 3 | 08NOV11 | 10NOV11 |
| STARTUP & TEST | 20 | 11NOV11 | 08DEC11 |
| | 56 | 22SEP11 | 08DEC11 |
| **RETENTION BASIN & WELL** | | | |
| BUILD RETAINING WALL | 10 | 01AUG11 | 12AUG11 |
| DEMO BURIED PIPE & VALVES | 5 | 05SEP11 | 09SEP11 |
| REROUTE LIGHTING CONDUIT | 2 | 12SEP11 | 13SEP11 |
| REROUTE PW LINE | 2 | 14SEP11 | 15SEP11 |
| EXCAVATE RETENTION BASIN | 10 | 16SEP11 | 29SEP11 |
| PLACE GROUTED RIP RAP SPLASH PADS | 5 | 30SEP11 | 06OCT11 |
| PLACE PLAIN RIP RAP | 5 | 07OCT11 | 13OCT11 |
| RAISE CATCH BASIN | 2 | 14OCT11 | 17OCT11 |
| INSTALL DRY WELL | 10 | 18OCT11 | 31OCT11 |
| INSTALL WELL #13 PUMP OUT PIPE | 5 | 01NOV11 | 07NOV11 |
| ** MOPO 1.6 ** WELL 13 OFF LINE | 1 | 08NOV11 | 08NOV11 |
| | 72 | 01AUG11 | 08NOV11 |
| **CHEMICAL PUMPS & STORAGE AREA** | | | |
| ** MOPO 1.3 RELOCATE EXISTING CHEMICAL SYSTEM | 1 | 07SEP11 | 07SEP11 |
| DIG/LAY BURIED CONDUIT & CHEMICAL LINES | 2 | 08SEP11 | 09SEP11 |
| GRADE FOR CONCRETE PAD | 5 | 12SEP11 | 16SEP11 |
| PLACE CONCRETE PADS & CONTAINMENT AREA | 3 | 19SEP11 | 21SEP11 |
| INSTALL LOADING STATION | 3 | 29SEP11 | 03OCT11 |
| SET CHEMICAL TANKS | 3 | 04OCT11 | 06OCT11 |
| INSTALL PUMPS | 3 | 07OCT11 | 11OCT11 |
| INSTALL ELECTRICAL CONDUIT & WIRE | 3 | 12OCT11 | 14OCT11 |
| INSTALL CHEMICAL PIPING & VALVES | 5 | 12OCT11 | 18OCT11 |
| INSTALL CANOPY | 3 | 19OCT11 | 21OCT11 |
| ** MOPO 1.2 ** TIE IN AT INLET HEADER | 1 | 19OCT11 | 19OCT11 |
| RELOCATE EXISTING CHLORINE TANK | 1 | 20OCT11 | 20OCT11 |
| START UP & TEST | 20 | 21OCT11 | 17NOV11 |




| | |
|---|---|
| Project title | OASIS ARSENIC TREATMENT FACILITY |
| Start date | 05NOV10 |
| Finish date | 30DEC11 |
| Run date | 06JUN11 |

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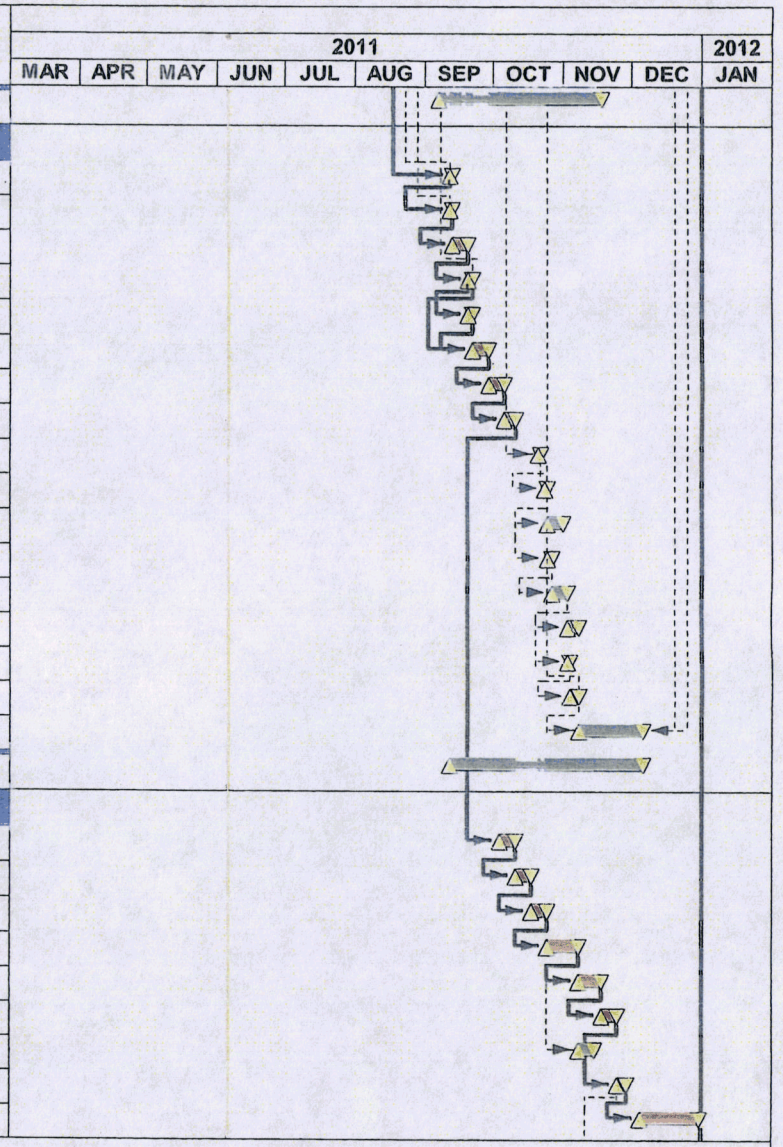
- Early start point
- Early finish point
- Early bar
- Critical bar
- Start milestone point
- Finish milestone point

| Activity Description | Working Days | Early Start | Early Finish |
|---|---|---|---|
| | 52 | 07SEP11 | 17NOV11 |
| **POLYMER AREA & SLUDGEMATE** | | | |
| ** MOPO 1.3 ** RELOCATE EXISTING TRANSFER PUMP | 1 | 12SEP11 | 12SEP11 |
| ** MOPO 1.3 ** RELOCATE EXISTING SLUDGEMATE | 1 | 12SEP11 | 12SEP11 |
| DEMO EXISTING CONCRETE CONTAINMENT AREA | 5 | 13SEP11 | 19SEP11 |
| DIG/LAY SLG & TRF LINES | 2 | 20SEP11 | 21SEP11 |
| DIG/LAY BURIED ELECTRICAL CONDUIT | 2 | 20SEP11 | 21SEP11 |
| GRADE FOR CONCRETE PAD | 5 | 22SEP11 | 28SEP11 |
| PLACE CONCRETE SUMP PIT | 5 | 29SEP11 | 05OCT11 |
| PLACE CONCRETE PADS | 3 | 06OCT11 | 10OCT11 |
| INSTALL POLYMER SYSTEM | 1 | 21OCT11 | 21OCT11 |
| INSTALL TRANSFER PUMPS | 1 | 24OCT11 | 24OCT11 |
| INSTALL ELECTRICAL CONDUIT & WIRE | 5 | 25OCT11 | 31OCT11 |
| INSTALL SLUDGEMATE | 2 | 25OCT11 | 26OCT11 |
| INSTALL AG PIPING | 5 | 27OCT11 | 02NOV11 |
| INSTALL CANOPY | 3 | 03NOV11 | 07NOV11 |
| TIE IN AT BACKWASH TANKS | 1 | 03NOV11 | 03NOV11 |
| RELOCATE EXISTING SLUDGEMATE | 2 | 04NOV11 | 07NOV11 |
| STARTUP & TESTING | 20 | 08NOV11 | 05DEC11 |
| | 61 | 12SEP11 | 05DEC11 |
| **ARSENIC VESSELS** | | | |
| DIG/LAY BURIED ELECTRICAL CONDUIT | 5 | 04OCT11 | 10OCT11 |
| PLACE CONCRETE VESSEL SUPPORTS | 5 | 11OCT11 | 17OCT11 |
| SET VESSELS | 5 | 18OCT11 | 24OCT11 |
| INSTALL 16" - 6" PIPE & VALVES | 10 | 25OCT11 | 07NOV11 |
| INSTALL VESSEL INTERNAL HEADERS | 8 | 08NOV11 | 17NOV11 |
| LOAD FILTER MEDIA | 5 | 18NOV11 | 24NOV11 |
| INSTALL ELECTRICAL CONDUIT & WIRE | 5 | 08NOV11 | 14NOV11 |
| ** MOPO 1.8 ** TIE IN TO NEW EFF-16 | 2 | 25NOV11 | 28NOV11 |
| STARTUP & TEST | 20 | 05DEC11 | 30DEC11 |




| | |
|---|---|
| Project title | OASIS ARSENIC TREATMENT FACILITY |
| Start date | 05NOV10 |
| Finish date | 30DEC11 |
| Run date | 06JUN11 |

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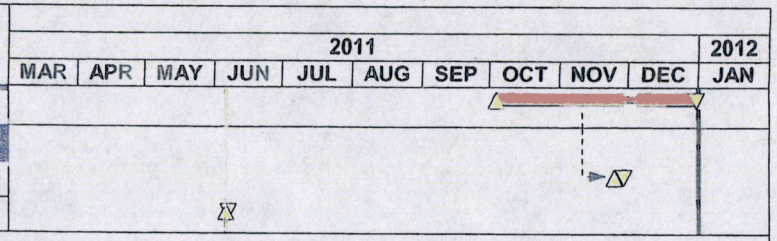
- Early start point
- Early finish point
- Early bar
- Critical bar
- Start milestone point
- Finish milestone point

| Activity Description | Working Days | Early Start | Early Finish |
|---|---|---|---|
| | 64 | 04OCT11 | 30DEC11 |
| **RAW WATER PIPE & CHEMICAL INJECTION** | | | |
| ** MOPO 1.1 ** INSTALL 12" - 6" PIPE & VALVES | 2 | 25NOV11 | 28NOV11 |
| | 1 | 06JUN11 | 06JUN11 |

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|---|---|
| Project title | OASIS ARSENIC TREATMENT FACILITY |
| Start date | 05NOV10 |
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- Early start point
- Early finish point
- Early bar
- Critical bar
- Start milestone point
- Finish milestone point

# FKS-5

ARIZONA WATER COMPANY

# Apache Junction Water System
# Production Analysis
# Baseline Arsenic Removal Facility

**Prepared by Arizona Water Company**

SRJ 9-30-13

Table of Contents

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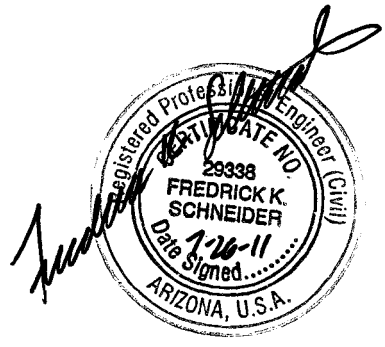
Alternatives for Additional Production Capacity ..... 4
Recommendations ..... 5
Attachment A ..... 6
Attachment B ..... 7




Exp 9-30-13

**Current Arsenic Removal Capacity Needs**

The purpose of this analysis is to evaluate the need for additional water supplies and additional arsenic removal facility capacity to meet peak water system demands and comply with all safe drinking water act standards for Arizona Water Company's (the "Company") Apache Junction water system, which is part of the Company's Superstition Division. All groundwater supplies within the Company's Apache Junction water system are treated to remove arsenic to comply with safe drinking water act standards; therefore, during certain instances and types of treatment equipment failure, the Company may not have adequate treatment capacity remaining in service to meet the peak water system demands. Furthermore, this analysis describes the methodology used to determine the need for additional water supplies and additional arsenic removal capacity within the Apache Junction water system.

The Company measures and records water production capacities from each of its wells on a monthly basis. For this production analysis, Company engineers compiled monthly water production capacity information for each well within the Apache Junction water system to calculate Average Day Peak Month ("ADPM") and Peak Week Peak Month ("PWPM") demands. PWPM demand is defined as the continuous daily demand which occurs during a peak week. The peak week typically occurs during the peak month, being June 2010. Furthermore, in reviewing ten years of historical water production information, Company engineers determined that June or July are typically the peak production months. June 2010 peak month production volumes for the Apache Junction water system are shown in Attachment A. Using the June 2010 peak monthly production, the ADPM demand was calculated by taking the sum of all production sources within the Apache Junction water system and then dividing by 30, the number of days in June. Using system production data, Company engineers determined that the Apache Junction water system PWPM demand was 1.2 times the ADPM demand. In other words, the daily demand during the peak week for the Apache Junction water system is approximately 1.2 times the average daily demand in the peak month. The ADPM and PWPM demands are shown in Attachment A.

The supply versus demand analysis used in this scenario considered an event during which a portion of the treatment capacity at one of the two Company arsenic removal facilities had failed or was otherwise out of service. These types of equipment failures can and do happen and this scenario represents an event, that although not highly probable, has a real potential to develop. A similar event occurred in the summer of 2008 when the underdrain in one of the filter vessels at the Company's Baseline arsenic removal facility failed, significantly reducing the arsenic removal capacity of the Baseline facility. After measuring the extent and identifying the potential cause of the equipment failure, Company engineers determined that the Baseline facility could be returned to service but at a significantly reduced capacity. In this real life example, the arsenic removal capacity was reduced by 45 percent from 6.5 million gallons per day ("MGD") to 3.6 MGD. In the spring of 2009, a similar event occurred at the Company's Oasis arsenic removal facility, however, the event of failure in that case was more severe, and Company engineers determined that the Oasis arsenic removal facility could not be returned to service, even at a reduced capacity, until equipment repairs were completed.

For the purposes of this analysis, the Company identified a similar failure scenario during which the arsenic removal capacity of the largest facility was reduced by 50 percent. Typically

equipment failures of this type and magnitude can take 30-60 days or more to repair as was the case in the earlier two failures. Many of the components in these arsenic removal facilities are semi-custom parts and have long delivery times. Effectively, this scenario is modeled by removing the production capacity of one-half of the most critical (largest) arsenic removal facility production source. In this case analysis, with the Oasis arsenic removal facility at its new expanded capacity identified as the largest facility, its capacity was reduced by 50 percent. Due to the length of time needed to make the required repairs, the available water storage capacity of this water system contributes no appreciable contribution to water system production requirements. In addition, since this scenario extends over a period of 60 days of continuous operation of wells and arsenic removal facilities is not feasible. Therefore, arsenic removal facilities and wells are assumed operational for 22 hours per day.

The supply and demands for this water system are then modeled using the calculated production volumes and system demand as described above. In this arsenic removal equipment failure scenario, the model shows that there is a shortfall or deficit of at least 1.8 MGD for the Apache Junction water system as shown in Attachment A.

**Alternatives for Additional Arsenic Removal Capacity**

Company engineers evaluated several alternatives to increase the arsenic removal capacity in the Apache Junction water system which include expanding the Baseline Arsenic Removal Facility, installing an interconnect to the Company's Superior water system and constructing a new arsenic removal facility.

Alternative One

The Baseline arsenic removal facility would need to be expanded by 1.8 MGD to resolve the shortfall or supply deficit within the Apache Junction water system under this scenario. The Baseline arsenic removal facility has 3 horizontal vessels each of which can remove approximately 2.1 MGD of arsenic at the current concentration levels. To expand this facility in a modular fashion, a forth horizontal vessel would need to be constructed of identical size thereby increasing the removal capacity from 6.5 MGD to 8.6 MGD. The existing site is adequately sized to accommodate an expansion of the Baseline arsenic removal facility. This alternative eliminates the need to construct a new arsenic removal facility and acquire additional real property, representing a cost savings of at least $1.7 million for these costs alone.

Alternative Two

Based on the Company's evaluation of the Superior water system's wells and water system demands, it was determined that installing an interconnect between the Company's Apache Junction and Superior water systems could provide an additional 1.1 MGD. This potable supply alternative would only make up 60 percent of the shortfall or supply deficit within the Apache Junction water system under this scenario. In addition, the Company is still working with the Arizona State Land Department to acquire the necessary easements and rights-of-way required. Company engineers estimate the cost to construct this interconnect is approximately $1.5 million. In addition, a new well and expansion of the Superior arsenic removal facility would be required to fully mitigate the supply shortfall, all at additional costs.

Alternative Three

Constructing a new arsenic removal facility in the Apache Junction water system involves several engineering challenges including the acquisition of real property and easements, and the construction of transmission lines. The Company does not own real property in the Apache Junction area near the Company's existing well field sufficiently sized to accommodate a facility of this size. The area near the Company's existing wells is nearly fully developed and acquiring real property in this area would be difficult and expensive. The Company would also need to construct a lengthy transmission main to transmit the untreated groundwater from the Company's existing wells to the new arsenic removal facility site. Construction of this transmission main through the fully developed area could cost in excess of $180-$200 per foot or the equivalent of $1.0 million dollars per mile in addition to the real property purchase and construction of a new arsenic removal facility.

**Recommendations**

As detailed previously, the Apache Junction water system requires at least 1.8 MGD of additional potable water production supply in order to maintain a safe and reliable water supply. Based on the alternatives evaluated and described herein, expanding the Baseline arsenic removal facility is the most cost-effective solution. Therefore, the Company engineers recommend the expansion of the Baseline arsenic removal facility from its existing capacity of 6.5 MGD to 8.6 MGD allowing the Company to provide an adequate, safe, reliable and affordable water supply for the Apache Junction water system.

Attachment A
Apache Junction Water System
Production Analysis

# APACHE JUNCTION WATER SYSTEM

SUPERSTITION SYSTEM JUNE 2010
PINAL COUNTY, ARIZONA

Calculations to determine Average Day and Peak Week Demand

| PEAK MONTH PRODUCTION | | |
|---|---|---|
| Well #11 | 0 | Gallons |
| Well #12 | 1,000 | Gallons |
| Well #13 | 103,199,000 | Gallons |
| Well #14 | 2,337,000 | Gallons |
| Well #15 | 28,894,000 | Gallons |
| Well #16 | 113,271,000 | Gallons |
| Well #17 | 12,244,000 | Gallons |
| Well #18 | 1,000 | Gallons |
| Well #19 | 21,514,000 | Gallons |
| **TOTAL MONTHLY PRODUCTION** | 281,461,000 | Gallons |

| DAILY DEMAND CALCULATIONS | | |
|---|---|---|
| Number of days in Peak Month | 30 | Days |
| Average Day Peak Month (**ADPM**) | = 281,461,000 / 30 | GPD |
| Average Day Peak Month (**ADPM**) | **9,382,033** | GPD |
| Peak Week Demand Factor | 1.2 | |
| Peak Week Peak Month (**PWPM**) | = ADPM * 1.2 | GPD |
| Peak Week Peak Month (**PWPM**) | **11,258,440** | GPD |

Attachment B
Apache Junction Water System
Monthly Demand Calculations

## SUPERSTITION WATER SYSTEM
## Baseline ARF Expansion with Oasis ARF Out of Service

| SYSTEM | MONTH (2010) | ADPM GPD | PWPM GPD | TOTAL PRODUCTION AT POE (GPD) | SYSTEM NET GAIN or (LOSS) GPD |
|---|---|---|---|---|---|
| AJ | June | 9,382,033 | 11,258,440 | 9,504,000(2) | 1,754,440 |

Additional production required

| Source | Production (GPM) | POE | Production (GPM) |
|---|---|---|---|
| Well #11 | 720 | Oasis ARF* (1) | 2700 |
| Well #13 | 2500 | | |
| Well #19 | 2900 | | |
| Well #12 | 650 | Baseline ARF* | 4500 |
| Well #14 | 550 | | |
| Well #15 | 1250 | | |
| Well #16 | 2500 | | |
| Well #18 | 1000 | | |

**Treatment plant assumed temporarily out of service due to minor treatment component failure.**

**TOTAL PRODUCTION AT POE (GPM):** 7,200

**Design Statement for Production:**

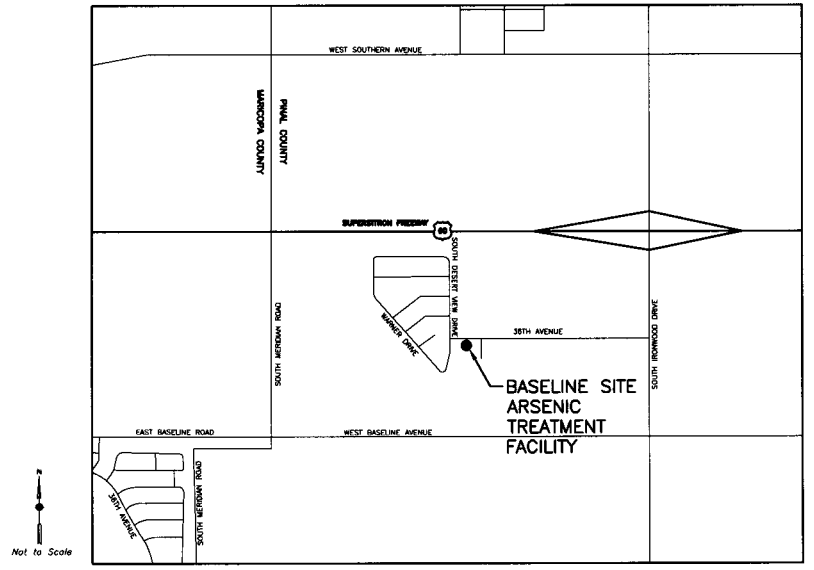
* Water production at this POE is limited by the total available arsenic removal facility capacity or well production capacity, whichever is less.

(1) Assume a treatment component or equipment failure which reduces plant capacity by 50%
(2) Production capacity is limited to 22 hrs/day

# ARIZONA WATER COMPANY

## BASELINE SITE ARSENIC TREATMENT FACILITY 30% SUBMITTAL

## DECEMBER 2008

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Narasimhan Consulting Services, Inc.
3550 N. 3RD STREET
PHOENIX, AZ 85012
PHONE: (602) 838-0206


**APPROVAL**

| | |
|---|---|
| ARIZONA WATER COMPANY | DATE |
| CITY OF APACHE JUNCTION | DATE |
| ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY | DATE |

**SITE LOCATION:**

W. 38TH AVE. WEST OF SOUTH IRONWOOD DR.
APACHE JUNCTION, AZ

| | | | | |
|---|---|---|---|---|
| Sheet Title: COVER SHEET | | | Drawn By: NBG | Date: 12/08/08 |
| | | | Design By: RN | Date: 12/08/08 |
| | | | Approved By: RN | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | | Project name: BASELINE ARSENIC TREATMENT FACILITES | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-G-01 | Sheet G-01 |

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Attachment C

## GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE MOST CURRENT UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS FURNISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND ARIZONA WATER COMPANY STANDARD DETAILS. ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THIS AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
2. CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED UNLESS OTHERWISE INDICATED. THE CONTRACTOR IS ADVISED THAT AN EXCAVATIONS AND DIRT MOVING PERMIT MAY BE REQUIRED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THIS PERMIT, IF NECESSARY, AND COMPLY WITH ITS REQUIREMENTS.
3. IN THE BASE BID, CONTRACTOR SHALL INCLUDE 24 HOURS OF BURIED UTILITY LOCATING SERVICE AND 40 HOURS OF POTHOLING EXISTING UTILITIES. CONSULT ENGINEER WITH RESULT OF POTHOLING EFFORT TO DETERMINE WHAT FIELD ADJUSTMENTS ARE REQUIRED.
4. THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH AWC SO AS TO PREVENT ANY CONFLICTING WORK CONDITIONS.
5. BUILDING CODE INSPECTION SHALL BE BY THE CITY OF APACHE JUNCTION.
6. EXISTING PIPING, ELECTRICAL, AND UTILITIES ARE BASED ON EXISTING RECORDS AND SURVEY INFORMATION.
   a. DAMAGE WORK TO SUCH UTILITIES CAUSED AS A RESULT OF THE WORK.
   b. DAMAGES TO EXISTING WALKS, WALLS, CURBS, PAVEMENTS AND TREES, ETC.
7. CONTRACTOR TO POTHOLE EXISTING UTILITIES AHEAD OF CONSTRUCTION, TO ALLOW FOR ANY NECESSARY ADJUSTMENT IN GRADE LINE AND TO VERIFY PIPE TYPES FOR ORDERING PROPER TRANSITION, AND/OR TIE-IN FITTINGS WHICH MAY BE REQUIRED.
8. CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL PLANS FOR DEMOLITION ITEMS.
9. ALL UTILITIES SHALL BE PROTECTED FROM DAMAGE AS A RESULT OF THE WORK. THE CONTRACTOR SHALL RELOCATE, REPAIR OR REPLACE AT HIS EXPENSE, ANY AFFECTED UTILITIES TO THE SATISFACTION OF THE UTILITIES OR AWC.
10. PROVIDE TEMPORARY THRUST RESTRAINT FOR EXISTING PIPING WHENEVER THE WORK REQUIRES. CONTRACTOR TO REPLACE OR RESTORE THE EXISTING RESTRAINT SYSTEM TO LIKE-NEW CONDITION.
11. CONTRACTOR SHALL PROTECT THE ADJACENT PROPERTY AND IMPROVEMENTS THERETO FROM ANY DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO ADJACENT PROPERTY OR IMPROVEMENTS MUST BE REPAIRED OR REPLACED TO THE PROPERTY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
12. DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATION TO BE DETERMINED BASED UPON EQUIPMENT MANUFACTURER SELECTED.
13. WHERE INDICATED, DIMENSIONS AND ELEVATIONS TO BE FIELD VERIFIED.
14. EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED FOR DELIVERY TO THE OWNER WILL BE MARKED BY ENGINEER PRIOR TO WORK, UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS. CONTRACTOR TO REMOVE AND PROPERLY STORE SALVAGED EQUIPMENT ON THE SITE.
15. CONTRACTOR TO MAINTAIN ACCESS TO EXISTING FACILITIES FOR MAINTAINING OPERATIONS DURING CONSTRUCTION. IF THE WORK REQUIRES INTERRUPTION OF EXISTING ACCESS TO OPERATING FACILITIES, THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS (APPROVED BY AWC) TO THESE FACILITIES.
16. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VALVE BOXES, CLEANOUTS, BLIND FLANGED PIPING, AND FIRE HYDRANTS WITHIN WORK LIMITS REQUIRED TO MATCH PROPOSED FINAL GRADE.
17. GOVERNING BUILDING CODES:
    2006 INTERNATIONAL BUILDING CODE
    2005 NATIONAL ELECTRICAL CODE
    1994 UNIFORM PLUMBING CODE
18. CONTRACTOR TO MAINTAIN ACCESS FOR EMERGENCY RESPONSE VEHI '
19.
20.
21. SITE AND LEGALLY DISPOSED OF AT LEAST WEEKLY BY THE CONTRACTOR. KEEP SITE AREA CLEAN.
22. EXCAVATED SOIL IS TO BE USED TO FILL IN LOW SPOTS PRIOR TO BEING HAULED OFF SITE. CONTRACTOR SHALL ESTABLISH A SUITABLE STAGING AREA FOR STORAGE OF EXCAVATED SOIL.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY AT THE SITE WHILE CONSTRUCTION IS IN PROGRESS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PUBLIC FROM ANY HAZARDS ARISING FROM CONSTRUCTION OPERATIONS AND PROTECTING EXISTING AND NEW IMPROVEMENTS FROM DAMAGE DUE TO ACCIDENT OR VANDALISM.
24. PROPERTY LINES AND DIMENSIONS FOR EXISTING WELL SITES ARE BASED ON EXISTING MAPS, AND/OR PROPERTY RECORDS. A BOUNDARY SURVEY WAS NOT PERFORMED.
25. IN ACCORDANCE WITH AAC R18-4-119, ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 60 AND 61.
26. REFER TO PROJECT SPECIFICATION FOR MAG DETAILS REFERRED TO IN THE DRAWINGS.
27. MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
28. ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
29. UNLESS SHOWN ON THE GRADING & DRAINAGE DRAWINGS, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE OR GRAVEL SURFACE SHALL BE GRADED SMOOTH AND COMPACTED AS SPECIFIED.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. EROSION CONTROL DEVICES, SILT FENCING, RUNOFF CONTAINMENT BERMS, AND STRAW BALES ARE THE MINIMUM REQUIRED.
31. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.
32. WHERE WATERLINES, RECLAIMED WATERLINES OR SANITARY SEWER LINES (NEW OR EXISTING) CROSS OVER OR UNDER EACH OTHER WITHIN THE RIGHT OF WAY, SEPARATION DISTANCES AND/OR PIPE LINE ENCASEMENTS SHALL BE PROVIDED AS NECESSARY IN ACCORDANCE WITH MAG DETAIL 404.

## AWC - GENERAL NOTES

(ADD CURRENT VERSION OF AWC GENERAL NOTES WHEN PLANS ARE FINALIZED)

## SHEET INDEX


| SHEET | SHEET NAME |
|---|---|
| **GENERAL** | |
| G-01 | COVER SHEET |
| G-02 | DRAWING INDEX AND GENERAL NOTES |
| G-03 | ABBREVIATIONS AND SYMBOLS |
| **CIVIL** | |
| C-01 | CIVIL LEGEND, ABBREVIATIONS, AND SYMBOLS |
| C-02 | DEMOLITION SITE PLAN |
| C-03 | NEW FACILITIES AND YARD PIPING PLAN |
| C-04 | FILTER VESSEL MODIFICATION |
| **MECHANICAL** | |
| M-01 | PROCESS SCHEMATIC |
| M-02 | FILTER VESSEL, SECTION AND DETAILS |
| M-03 | RAPID MIXER |
| M-04 | CHEMICAL STORAGE TANK PLAN |
| M-05 | PLATE SETTLER AND DECANT PUMP STATION |


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|---|---|---|---|---|---|
| Sheet Title: DRAWING INDEX AND GENERAL NOTES | | | Drawn By: KWB | | Date: 12/08/08 |
| | | | Design By: RN | | Date: 12/08/08 |
| | | | Approved By: RN | | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-G02 | | Sheet G-02 |

30% SUBMITTAL

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| ABBREVIATION | DESCRIPTION |
|---|---|
| / | PER |
| ° | DEGREES |
| ø | DIAMETER |
| " | INCHES OR SECONDS |
| ' | FEET OR MINUTES |
| = | EQUALS |
| % | PERCENT |
| # | NUMBER OR POUND |
| @ | AT |
| & | AND |
| AASHTO | AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS |
| AB | ANCHOR BOLT |
| ABAN | ABANDON |
| ABC | AGGREGATE BASE COURSE |
| AC | ASPHALT CONCRETE |
| ACB | ASPHALT CONCRETE BASE |
| ACI | AMERICAN CONCRETE INSTITUTE |
| ACP | ASBESTOS CEMENT PIPE |
| ACPA | AMERICAN CONCRETE PIPE ASSOCIATION |
| ACRS | ASPHALT CONCRETE WEARING SURFACE |
| ADDL | ADDITIONAL |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISH GRADE |
| AGC | ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC. |
| AGG | AGGREGATE |
| AIA | AMERICAN INSTITUTE OF ARCHITECTS |
| AISC | AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS |
| AISI | AMERICAN INSTITUTE OF STEEL CONSTRUCTION |
| AJ | APHONE JUNCTION |
| ALT | ALTERNATE |
| ALUM | ALUMINUM |
| AMB | AMBIENT |
| AMPS | AMPERES |
| ANB | ANCHOR BOLT |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| APPROX | APPROXIMATE OR APPROXIMATELY |
| APWA | AMERICAN PUBLIC WORKS ASSOCIATION |
| ARL | AIR RELEASE LINE |
| ARV | AIR/VAC RELEASE VALVE |
| ASCE | AMERICAN SOCIETY OF CIVIL ENGINEERS |
| ASME | AMERICAN SOCIETY OF MECHANICAL ENGINEERS |
| ASP | ASPHALTIC PAVEMENT |
| ASPH | ASPHALT |
| ASTM | AMERICAN SOCIETY FOR TESTING MATERIALS |
| ATE | ARSENIC TREATMENT EFFLUENT |
| ATF | ARSENIC TREATMENT FACILITY |
| ATI | ARSENIC TREATMENT INFLUENT |
| AVE | AVENUE |
| AWC | ARIZONA WATER COMPANY |
| AWSC | AMERICAN WELDING SOCIETY CODE |
| AWWA | AMERICAN WATER WORKS ASSOCIATION |
| BC | BRASS CAP |
| BCCR | BEGINNING OF CURB RETURN |
| BCV | BACKWASH CONTROL VALVE |
| BE | BASE ELEVATION |
| BEG | BEGINNING |
| BFP | BLIND FLANGE |
| BFV | BACKFLOW PREVENTER |
| BFV | BUTTERFLY VALVE |
| BHP | BRAKE HORSEPOWER |
| BLDG | BLIND |
| BLDG | BUILDING |
| BLVD | BOULEVARD |
| BM | BENCHMARK OR BEAM |
| BOC | BEGINNING OF CURVE |
| BOF | BOTTOM OF FOOTING |
| BOT | BOTTOM |
| BOW | BOTTOM OF WALL |
| BST | BITUMINOUS SURFACE TREATMENT |
| BTB | BITUMINOUS TREATED BASE |
| BUSH | BUSHING |
| BVC | BEGINNING OF VERTICAL CURVE |
| BW | BACKWASH |
| BWE | BACKWASH EFFLUENT |
| BWI | BACKWASH INFLUENT |
| BWT | BACKWASH HOLDING TANK |
| BWV | BACKWASH VALVE |
| CAC | CHLORINE ANALYZER LINES |
| CB | CATCH BASIN |
| CBFAC | CATCH BASIN FRAME & COVER |
| CC OR C/C | CENTER TO CENTER |
| CDV | CONSTRUCTION DRAIN VALVE |
| CE | CITY OR COUNTY ENGINEER |
| CEM | CEMENT |
| CF | CUBE FACE |
| CFM | CUBIC FEET PER MINUTE |
| CFS | CUBIC FEET PER SECOND |
| CI | CAST IRON |
| CIA | CORROSION INHIBITOR |
| CIP | CAST IRON PIPE |
| CIPCP | CAST-IN-PLACE CONCRETE PIPE |
| CIS | CAST IRON SOIL PIPE |
| CJ | CONSTRUCTION JOINT |
| CL | CENTERLINE |
| CL2 | CHLORINE |
| CLR | CLEAR OR CLEARANCE |
| CLS | CHLORINE SOLUTION |
| CLSM | CONTROLLED LOW STRENGTH MATERIAL |
| CM | CENTIMETER |
| CMP | CORRUGATED METAL PIPE |
| CMU | CEMENT MASONRY UNIT |
| CO | CLEAN OUT |
| COP | CLEAN OUT DECK PLATE |
| COL | COLUMN |
| COMP | COMPRESSION |
| CONC | CONCRETE |
| CONN | CONNECTION |
| CONST | CONSTRUCTION |
| CONT | CONTRACTOR |
| CORP | CORPORATION |
| CP | CONTROL PANEL |
| CPLG | COUPLING |
| CPVC | CHLORIDE POLYVINYL CHLORIDE |
| CTB | CEMENT TREATED BASE |
| DBL | DOUBLE |
| DCS | DISTRIBUTED CONTROL SYSTEM |
| DEG | DEGREE |
| DG | DECOMPOSED GRANITE |
| DI | DUCTILE IRON |
| DIA | DIAMETER |
| DIM | DIMENSION |
| DIP | DUCTILE IRON PIPE |
| DISCH | DISCHARGE |
| DJ | DISMANTLING JOINT |
| DN | DOWN |
| DRN | DRAIN LINE |
| DPS | DIFFERENTIAL PRESSURE SWITCH |
| DW | DRIVE |
| DWG | DRAWING |
| DWY | DRIVEWAY |
| E | EAST |
| ELEC | ELECTRIC |
| EA | EACH |
| EASE | EASEMENT |
| EC | END OF CURVE |
| EJMT | EQUIPMENT |
| EOC | END OF CURB RETURN |
| EOS | EDGE OF SHOULDER |
| EOVC | END OF VERTICAL CURVE |
| EP | EP CATION |
| EPVC | END OF VERTICAL CURVE |
| EXIST | EXISTING |
| F & C | FRAME & COVER |
| FB | FINISHBOARD |
| FD | FIELD DUCK |
| FF | FLEXIBLE CONNECTOR |
| FFA | FLANGED COUPLING ADAPTER W/ RESTRAINING RODS |
| FI | FERRIC CHLORIDE DRAIN |
| FIC | FERRIC CHLORIDE FEED |
| FICO | FERRIC CHLORIDE OVERFLOW |
| FICP | FILTER CONTROL PANEL |
| FICS | FERRIC CHLORIDE SUPPLY |
| FICT | FERRIC CHLORIDE STORAGE TANK |
| FCV | FLOW CONTROL VALVE |
| FDL | FLOOR DRAIN LINE |
| FDN | FOUNDATION |
| FE | FLOW EXCHEIGHT |
| FECL3 | FERRIC CHLORIDE |
| FF | FINISHED FLOOR |
| FIP | FERRIC CHLORIDE PUMP |
| FG | FINISHED GRADE |
| FH | FIRE HYDRANT |
| FIN | FINISHED |
| FL | FLOW LINE |
| FLEV | FLOOR ELEVATION |
| FLG | FLOOR LINE |
| FLGD | FLANGE |
| FLGD | FLANGED |
| FLTR | FILTER |
| FM | FLOW METER |
| FND | FOUND |
| FPM | FEET PER MINUTE |
| FPS | FEET PER SECOND |
| FRB | FLOOR REINFORCED BOTTOM |
| FV | FILTER TO WASTE EFFLUENT VALVE |
| FRP | FIBERGLASS REINFORCED POLYMYL |
| FRT | FLOOR REINFORCED TOP |
| FS | FLOW SWITCH |
| FSS | FEDERAL SPECIFICATIONS AND STANDARDS |
| FT | FOOT OR FEET |
| FTG | FOOTING |
| FNPT | FEMALE NATIONAL PIPE THREAD |
| G | GUTTER |
| GA | GAGE |
| GAL | GALLON |
| GALV | GALVANIZED |
| GB | GRADE BREAK |
| GE | GROUND LINE |
| GPM | GALLONS PER MINUTE |
| GRAD | GRADE |
| GRAV | GRAVITY |
| GSH | GENERAL STRUCTURAL NOTES |
| H | HIGH OR HEIGHT |
| HAC | AIR COMPRESSOR |
| HAS | WATER |
| HC | HOUSE CONNECTION |
| HCP | HORIZONTAL CONTROL POINT |
| HDG | HDG |
| HDPE | HIGH DENSITY |
| HEX | HEXAGONAL |
| HNP | HIGH |
| HORIZ | HORIZONTAL |
| HP | HANDRAIL |
| HS | HOSE STATION |
| HT | HEIGHT |
| HWY | HIGHWAY |
| HZ | HERTZ |
| I | MOMENT OF INERTIA |
| IBC | INTERNATIONAL BUILDING CODE |
| ID | INSIDE DIAMETER |
| IE | INVERT ELEVATION |
| IEEE | INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS |
| IN | INCH |
| IA | INSTRUMENT AIR |
| INSUL | INSULATION |
| INV | INVERT |
| IP | IRON PIPE |
| IPS | IRON PIPE SIZE |
| IR | INNER RADIUS |
| IRRIG | IRRIGATION |
| IV | ISOLATION VALVE |
| JB | JUNCTION BOX |
| JCT | JUNCTION |
| JS | JUNCTION STRUCTURE |
| JT | JOINT |
| L | LENGTH |
| LB | POUND |
| LF | LINEAR FEET/FOOT |
| LI | LEVEL INDICATOR |
| LOC | LOCATION |
| LONG | LONGITUDINAL |
| LPV | LOW POINT |
| LPSH | LEVEL PROBE HIGH |
| LPSHH | LEVEL PROBE HIGH HIGH |
| LPSL | LEVEL PROBE LOW |
| LS | LIMIT SWITCH |
| LT | LEVEL TRANSMITTER |
| LWD | LAND WAY |
| M | MAP OR MAPS |
| MAG | MARICOPA ASSOCIATION OF GOVERNMENTS |
| MAX | MAXIMUM |
| MCJ | MASONRY CONTROL JOINT |
| MDE | MEDIA DRAIN EFFLUENT |
| MEAS | MEASURED |
| MECH | MECHANICAL |
| MG | MILLION GALLON |
| MFR | MANUFACTURER |
| MID | MIDDLE |
| MIN | MINUTES OR MINIMUM |
| MISC | MISCELLANEOUS |
| MJ | MECHANICAL JOINT |
| ML | MONUMENT LINE |
| MM | MILLIMETER |
| MOV | MOTOR OPERATED VALVE |
| MON | MONOLITHIC OR MONUMENT |
| MTD | MOUNTED |
| MVC | MID POINT VERTICAL CURVE |
| MJPE | MECHANICAL JOINT x PLAIN END |
| N | NORTH |
| NaOCl | SODIUM HYPOCHLORITE |
| NBS | NATIONAL BUREAU OF STANDARDS |
| NC | NORMALLY CLOSED |
| NCPI | NATIONAL CLAY PIPE INSTITUTE |
| NE | NORTHEAST |
| NEC | NATIONAL ELECTRIC CODE |
| NEMA | NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION |
| NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| NIC | NOT IN CONTRACT |
| NO | NUMBER |
| NOM | NOMINAL |
| NPT | NATIONAL PIPE THREAD |
| NRC | NATIONAL SAFETY COUNCIL |
| NSF | NATIONAL SANITATION FOUNDATION |
| NTS | NOT TO SCALE |
| NW | NORTHWEST |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OF | OVERFLOW |
| OHE | OVERHEAD ELECTRIC POWER LINES |
| OIA | ONLINE ARSENIC ANALYZER |
| OPNG | OPENING |
| OR | OUTER RADIUS |
| OSHA | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION |
| OZ | OUNCES |
| P | PRESSURE GAUGE |
| PATP | POWER AND TELEPHONE POLE |
| PB | PULL BOX |
| PC | POINT OF CURVATURE |
| PCCP | PORTLAND CEMENT CONCRETE |
| PCCP | PORTLAND CEMENT CONCRETE PAVEMENT |
| PDIT | PRESSURE DIFFERENTIAL INDICATING TRANSMITTER |
| PDW | PROCESS DRAIN LINE |
| PE | PACKAGED FILTRATION SYSTEM |
| PI | POINT OF INTERSECTION |
| PL | PROPERTY LINE OR PLATE |
| PLC | PROGRAMMABLE LOGIC CONTROL |
| PLE | PLATE SETTLER EFFLUENT |
| PLI | PLATE SETTLER INFLUENT |
| POB | POINT OF BEGINNING |
| POB | POINT OF SIGNAL |
| POP | POWER POLE |
| PPM | PARTS PER MILLION |
| POR | POINT OF REVERSE CURVE |
| PRC | PRECAST CONCRETE |
| PRV | PRESSURE RELIEF LINE |
| PROD | PRODUCED |
| PROP | PROPERTY |
| PRV | PRESSURE RELIEF VALVE |
| PS | PLATE SETTLER |
| PSI | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PSH | PRESSURE SWITCH HIGH |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH GAGE |
| PSV | PRESSURE SUSTAINING VALVE |
| PT | POINT OF TANGENT |
| PV | PLUG VALVE |
| PVC | POLYVINYL CHLORIDE |
| PVMT | PAVEMENT |
| PW | POTABLE WATER |
| PWE | PLANT WATER EFFLUENT |
| PWL | POTABLE WATER LINE |
| PWS | POTABLE WATER SUPPLY |
| QTY | QUANTITY |
| Q | RATE OF FLOW |
| R | RADIUS |
| R/W | RIGHT-OF-WAY |
| RC | REINFORCED CONCRETE |
| RCP | RECYCLE LINE |
| RCP | RECYCLE PUMP |
| RD | ROAD |
| RDWY | ROADWAY |
| RED | REDUCER OR REDUCING |
| REINF | REINFORCED, REINFORCING, REINFORCEMENT |
| REQ'D | REQUIRED |
| RET WALL | RETAINING WALL |
| RF | ROOF |
| RM | RAPID MIXER |
| RME | RAPID MIX EFFLUENT |
| RMI | RAPID MIX INFLUENT |
| RELI | RESTRAINED MECHANICAL JOINT |
| RO | REVERSE OSMOSIS |
| ROD | RESERVOIR OVERFLOW LINE |
| ROW | RIGHT OF WAY |
| RPM | REVOLUTIONS PER MINUTE |
| RRB | ROOF REINFORCED BOTTOM |
| RRT | ROOF REINFORCED TOP |
| RT | RIGHT |
| RW | RAW WATER INFLUENT |
| S | SOUTH OR SLOPE OR SECTION MODULUS |
| SA | SUPPLY AIR |
| SAN | SANITARY |
| SC | SPIRAL TO CURVE |
| SCCP | STEEL CYLINDER CONCRETE PIPE |
| SCH | SCHEDULE |
| SD | STORM DRAIN |
| SAN | SANDIA |
| SE | SOUTHEAST |
| SEC | SECONDS |
| SECT | SECTION |
| SHT | SHEET |
| SIM | SIMILAR |
| SL | SLUDGE LINE |
| SLV | SLUDGE VALVE |
| SPCG | SPACING/ZONES |
| SPEC | SPECIFICATIONS |
| SPWL | SPRAY LINE |
| SQ | SQUARE |
| SQ FT YD | SQUARE FOOT YARD |
| SS | SANITARY SEWER |
| SSE | SETTLED SLUDGE EFFLUENT |
| SSP | SETTLED SLUDGE PUMP |
| SST | STAINLESS STEEL |
| SSD | SANITARY SEWER DRAIN |
| ST | STREET |
| STA | STATION |
| STD | STANDARD |
| STL | STEEL |
| STR EL | STRUCTURAL GRADE |
| STRUCT | STRUCTURE OR STRUCTURAL |
| SV-# | SOLENOID VALVE AND NUMBER (#=NUMBER) |
| SW | SOUTHWEST |
| SWL | SERVICE WATER LINE |
| T/ | TOP OF |
| TAN | TANGENT DISTANCE |
| TB | TOP AND BOTTOM |
| TBE | TREATMENT BYPASS LINE |
| TBW | TEMPORARY BENCHMARK |
| TBWBC | TOP BACK OF CURB |
| TEL | TELEPHONE |
| TEMP | TEMPERATURE OR TEMPORARY |
| TH | TEST HOLE |
| THK | THICK |
| TMH | THRESHOLD |
| TMH | TELEPHONE MANHOLE |
| TNL | TUNNEL |
| TOC | TOP OF CURB |
| TOF | TOP OF FOOTING |
| TOG | TOP OF GRADE |
| TOP | TOP OF PAVEMENT |
| TOT | TOTAL |
| TOS | TOP OF SLAB |
| TOW | TOP OF WALL |
| TP | TELEPHONE POLE |
| TR | TRACK |
| TRANS | TRANSITION |
| TS | TRAFFIC SIGNAL |
| TWE | TREATED WATER EFFLUENT |
| TYP | TYPICAL |
| UL | UNDERWRITERS' LABORATORIES INC. |
| UON & UNO | UNLESS OTHERWISE NOTED |
| UPC | UNIFORM PLUMBING CODE |
| UMC | UNIFORM MECHANICAL CODE |
| V | VOLTS |
| VAC | VACUUM |
| VB | VALVE BOX |
| VC | VERTICAL CURVE |
| VD | VESSEL DRAIN |
| VEL | VELOCITY |
| VERT | VERTICAL |
| VES | VESSEL |
| VG | VALLEY GUTTER |
| W/ | WITH |
| W/O | WITHOUT |
| W | WEST |
| WB | WASTE |
| WFU | WELL FLUSH-OUT WASTE |
| WMV | WELL MANIFOLD VALVE |
| WPO | WELL PUMP OUT |
| WS | WATER SURFACE |
| WSE | WATER SURFACE |
| WT | WEIGHT |
| YD | YARD |

## SHEET CATEGORY

- G – GENERAL
- C – CIVIL
- A – ARCHITECTURAL
- S – STRUCTURAL
- M – MECHANICAL PROCESS
- MP – MECHANICAL PLUMBING & HVAC
- E – ELECTRICAL
- I – INSTRUMENTATION

## SYMBOLS

ELBOWS / FLANGED: DOWN, PLAN, UP

ELBOWS / WELDED: DOWN, PLAN, UP

REDUCERS / FLANGED

REDUCERS / WELDED

TEES / FLANGED: DOWN, PLAN, UP

TEES / WELDED: DOWN, PLAN, UP

VALVES / FLANGED: BUTTERFLY, CHECK, GATE, PLUG, BALL VALVE

MECHANICAL JOINT: END FITTINGS

RESTRAINED EXPANSION JOINT (BELLOWS TYPE)

DISMANTLING JOINT WITH RESTRAINING RODS

FLANGED COUPLING ADAPTER WITH RESTRAINING RODS

DIAPHRAGM VALVE, PROFILE

DIAPHRAGM VALVE, PLAN

MAGNETIC FLOW METER – MAG METER

PRESSURE RELIEF VALVE

AIR RELIEF VALVE

SAMPLE TAP

PRESSURE SWITCH LOW

PRESSURE SWITCH HIGH

FLOW SWITCH

PRESSURE GAUGE W/ SAMPLE TAP

EYEWASH

90 DEGREE BENDS / PVC: DOWN, PLAN, UP

TEES / PVC: DOWN, PLAN, UP

### GENERAL SYMBOLS

- OBJECT LINE, EXISTING
- OBJECT LINES, NEW OR RELOCATED
- FUTURE
- CENTER LINE
- HIDDEN LINE
- SURFACE BREAK LINE
- MATCH LINE
- BASE LINE OR DATUM LINE
- ø DIAMETER OR ROUND
- EXISTING OBJECT TO BE REMOVED
- WATER SURFACE
- EARTH
- CONCRETE

## MARKERS

SECTION INDICATOR; DETAIL INDICATOR

SECTION CUT

DETAIL — SCALE: DETAIL TITLE

SECTION — SECTION TITLE — SCALE

TYPICAL DETAIL

(SECTIONS ARE LETTERED, DETAILS ARE NUMBERED)

## EQUIPMENT TAG

EQUIPMENT TAG OR PIPE SYSTEM

EQUIPMENT OR VALVE NUMBER

## PIPE TAG

PIPE SIZE

PIPING SYSTEM

PIPE MATERIAL

## PIPE MATERIAL

1 – DUCTILE IRON
2 – STEEL
3 – C-900 PVC
4 – SCHEDULE 80 PVC
5 – SCHEDULE 80 CPVC
6 – COPPER
7 – STAINLESS STEEL
8 – SCH 80 BLACK STEEL
9 – CAST IRON
10 – PVC-SEWER PIPE

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|---|---|---|---|
| Sheet Title: ABBREVIATIONS AND SYMBOLS | Drawn By: NBG | Date: 12/08/08 | |
| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-G-03 | Sheet G-03 |

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## GENERAL SITE NOTES:

1. SOURCE OF TOPOGRAPHY SHOWN ON THE CIVIL PLANS IS BASE MAPPING PROVIDED BY KEOUGH ENGINEERING. ADDITIONAL MAPPING HAS BEEN ADDED FROM DRAWINGS PROVIDED BY AWC. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
2. EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
3. VERTICAL DATUM: (NAVD88)
4. MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
5. COORDINATES AND DIMENSIONS SHOWN FOR ROADWAY IMPROVEMENTS ARE TO FACE OF CURB OR EDGE OF PAVEMENT.
6. ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
7. UNLESS SHOWN ON THE GRADING & DRAINAGE DRAWING, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE OR GRAVEL SURFACE SHALL BE GRADED SMOOTH AND COMPACTED AS SPECIFIED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. EROSION CONTROL DEVICES INCLUDING SILT FENCING, RUNOFF CONTAINMENT BERMS, AND STRAW BALES ARE THE MINIMUM REQUIRED.
9. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.

## GENERAL YARD PIPING AND UTILITIES NOTES:

1. EXISTING UNDERGROUND UTILITIES OBTAINED FROM DRAWINGS PROVIDED BY AWC, UTILITIES MAPS, AND FROM FIELD SURVEY. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
2. FOR PIPING FLOW STREAM IDENTIFICATION, SEE PIPING SCHEDULE.
3. EXISTING PIPING AND EQUIPMENT ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW PIPING AND EQUIPMENT ARE SHOWN HEAVY-LINED.
4. UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 4' COVER.
5. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
6. ALL NEW WATER PIPES MUST BE PROPERLY FLUSHED, PRESSURE TESTED, CHLORINATED AND BACTERIOLOGICALLY TESTED, AS SPECIFIED.
7. MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE 1'-0". CONTROLLED LOW STRENGTH MATERIAL IS REQUIRED AS SHOWN ON SHT C-06.
8. CONCRETE THRUST BLOCKS SHALL BE IN ACCORDANCE WITH MAG STANDARDS.

## YARD PIPING LEGEND

- 8" RW 1 — PIPING - SEE PIPE TAG DESCRIPTION ON SHT G-03
- HIDDEN PIPING THROUGH WALLS AND UNDER SLABS
- PIPING ≥ 24" DIAMETER WHEN DRAWING SCALE IS 1" = 20'; 12" DIAMETER WHEN DRAWING SCALE IS 1" = 10'
- FLEXIBLE COUPLING
- 90° ELBOW UP
- 90° ELBOW DOWN
- CONCENTRIC REDUCER
- CAP OR PLUG
- CLEANOUT

## CIVIL LEGEND

- 7155 — CONTOUR LINE
- 3:1 — EMBANKMENT AND SLOPE
- DRAINAGEWAY OR DITCH
- MANHOLE
- BRUSH/TREE LINE
- STRUCTURE, BUILDING OR FACILITY
- ASPHALT CONCRETE PAVEMENT
- GRAVEL OR ABC SURFACING
- CONCRETE PAVEMENT
- CURB
- CURB AND GUTTER
- SINGLE SWING GATE
- DOUBLE SWING GATE
- SLIDING GATE
- GUARD RAIL
- CULVERT
- ℄ — PROPERTY LINE
- CENTER LINE, BUILDING, ROAD, ETC.
- EASEMENT
- STAGING OR WORK AREA LIMITS
- RIGHT OF WAY LINE
- N 1000.00 / E 1000.00 — STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES

## CIVIL LEGEND (continued)

- MB — MAIL BOX
- RIP-RAP
- TREE
- CACTUS
- SHRUB
- WATER METER
- WV — WATER VALVE
- IRRIG VALVE — IRRIGATION VALVE
- STORM DRAIN MANHOLE
- UTILITY POLE
- LIGHT POST
- ELECTRIC PULL BOX
- ELECTRIC GROUND ROD
- SS — SEWER LINE
- G — GAS LINE
- CATV — CABLE/TELEVISION LINE
- R/W — RIGHT OF WAY
- D — WELL PUMPOUT DRAIN LINE
- CL — CHLORINE LINE
- UGE — UNDERGROUND ELECTRICAL LINE
- OHU — OVERHEAD UTILITY LINE
- SD — STORM DRAIN LINE
- UGT — UNDERGROUND TELEPHONE LINE
- BCTV — UNDERGROUND CABLE
- CAS — CHLORINE ANALYZER SUPPLY
- CAR — CHLORINE ANALYZER RECYCLE
- CSF — CHLORINE SOLUTION FEED
- STREET LIGHT
- STREET SIGN
- FIRE HYDRANT
- CONCRETE AREA
- SANITARY SEWER MANHOLE
- SAFETY POST (NEW BOLLARD)
- T — TRANSFORMER
- UTILITY PEDESTAL
- GUY WIRE
- COVERED AREA
- PROPERTY CORNER, FOUND AS INDICATED
- 5144.0 — GROUND SPOT ELEVATION

- X—X—X — WIRE FENCE
- BLOCK WALL
- CHAINLINK FENCE
- W — WATER MAIN
- RAILROAD
- IRR — IRRIGATION LINE
- NG ##.## — NATURAL GROUND
- TB ##.## — TOP OF BANK
- FL ##.## — FLOW LINE
- BC ##.## — BACK OF CURB
- BW ##.## — BACK OF WALK
- EP ##.## — EDGE OF PAVEMENT
- P ##.## — PAVEMENT
- EDR ## — EDGE DIRT ROAD SPOT ELEVATION
- ## — GROUND SPOT ELEVATION

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|---|---|---|---|
| Sheet Title: CIVIL LEGEND, ABBREVIATIONS AND SYMBOLS | Drawn By: KWB | Date: 12/08/08 | |
| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITIES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-C01 | Sheet C-01 |

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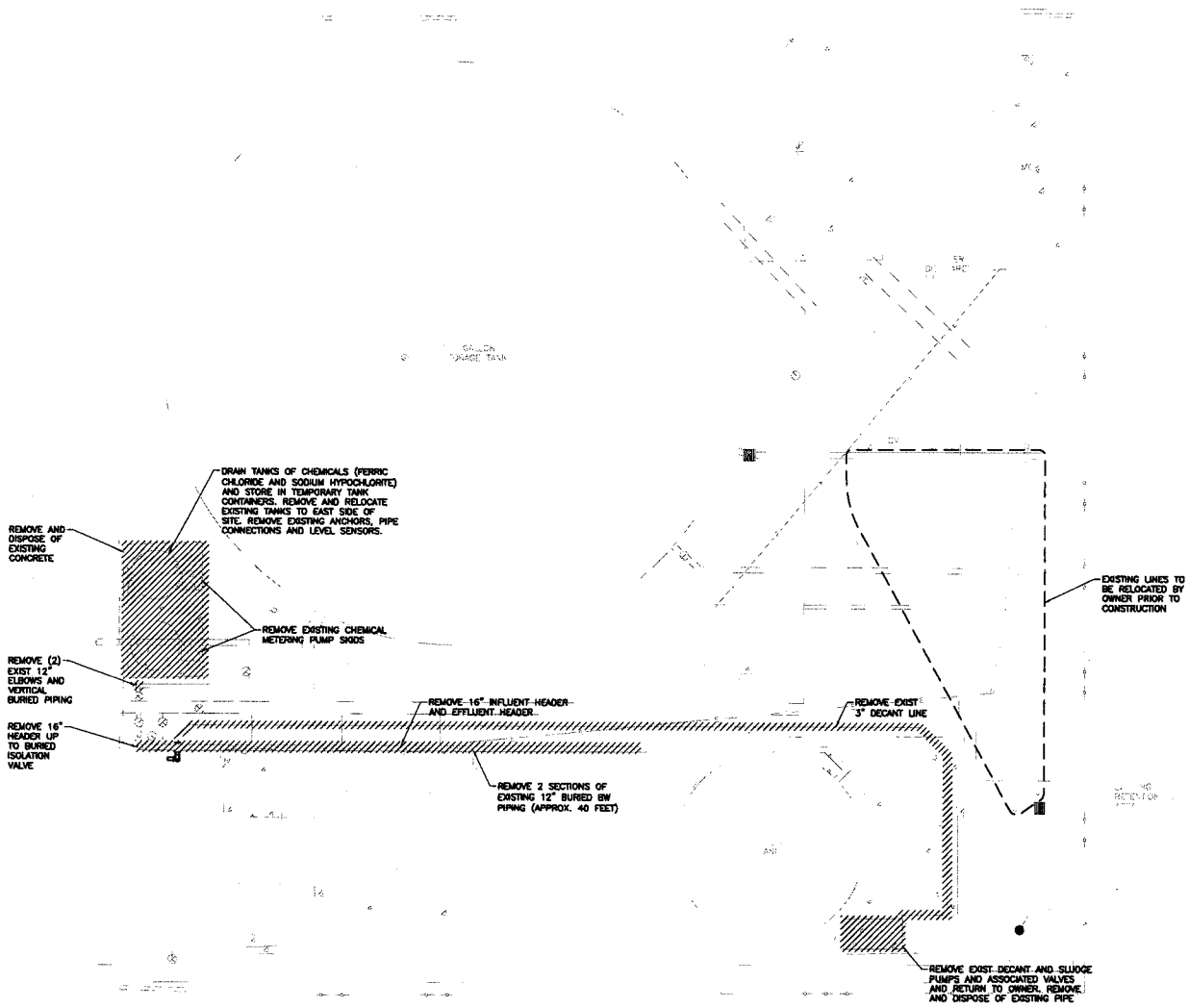


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|---|---|---|---|---|
| Sheet Title: DEMOLITION SITE PLAN | | | Drawn By: KWB | Date: 12/08/08 |
| | | | Design By: RN | Date: 12/08/08 |
| | | | Approved By: RN | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | | Project name: BASELINE ARSENIC TREATMENT FACILITES | |
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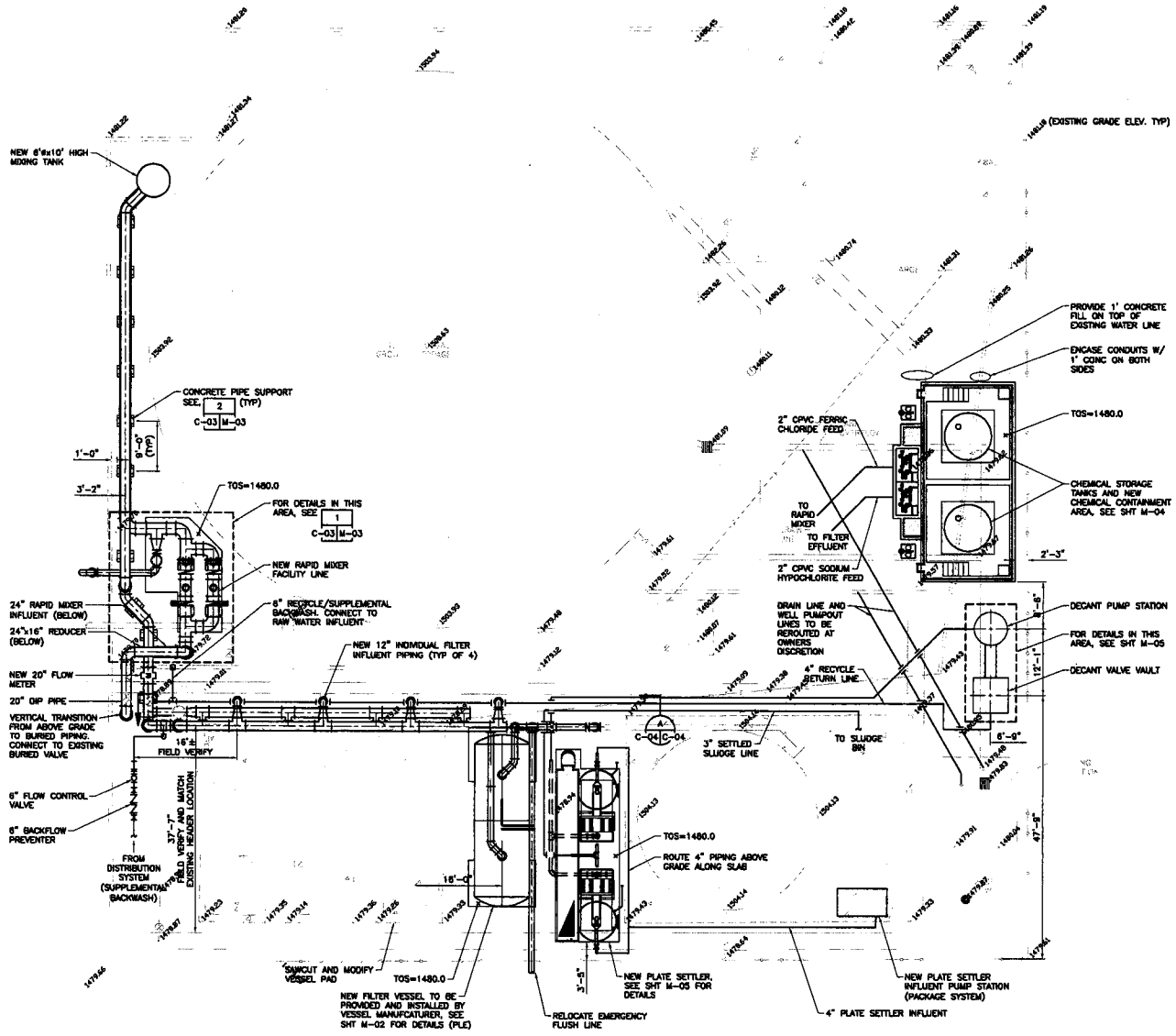


NOTE:
1. INSTALL 2 20,000 GAL TEMP TANKS CONTAIN BACKWASH DISCHARGE SOLIDS TO WASTE DECANT TO WASH.

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|---|---|---|---|
| Sheet Title: NEW FACILITIES AND YARD PIPING PLAN | Drawn By: KWB | Date: 12/08/08 | |
| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-C03 | Sheet C-03 |

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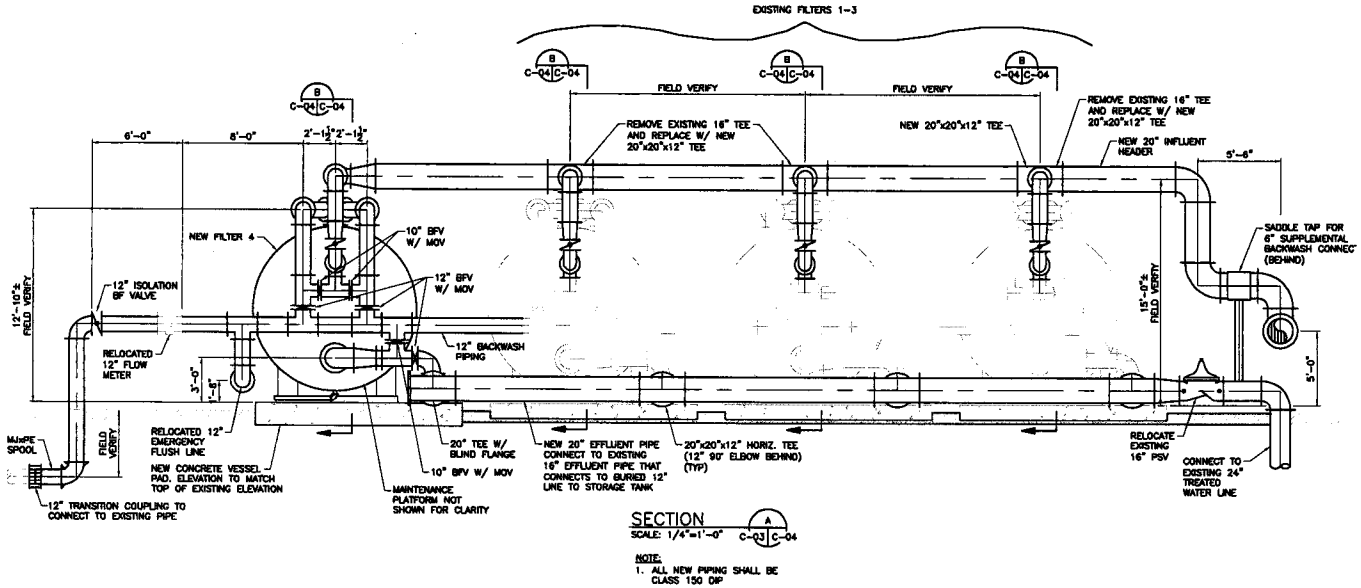
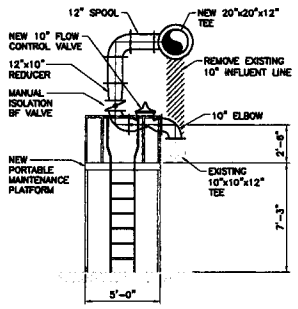



SECTION
SCALE: 1/4"=1'-0" C-03 C-04

NOTE:
1. ALL NEW PIPING SHALL BE CLASS 150 DIP




SECTION
SCALE: 1/4"=1'-0" B C-03 C-04

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| Sheet Title: FILTER VESSEL MODIFICATION | | | Drawn By: KWB | Date: 12/08/08 |
| | | | Design By: RN | Date: 12/08/08 |
| | | | Approved By: RN | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | | Project name: BASELINE ARSENIC TREATMENT FACILITES | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-C04 | Sheet C-04 |

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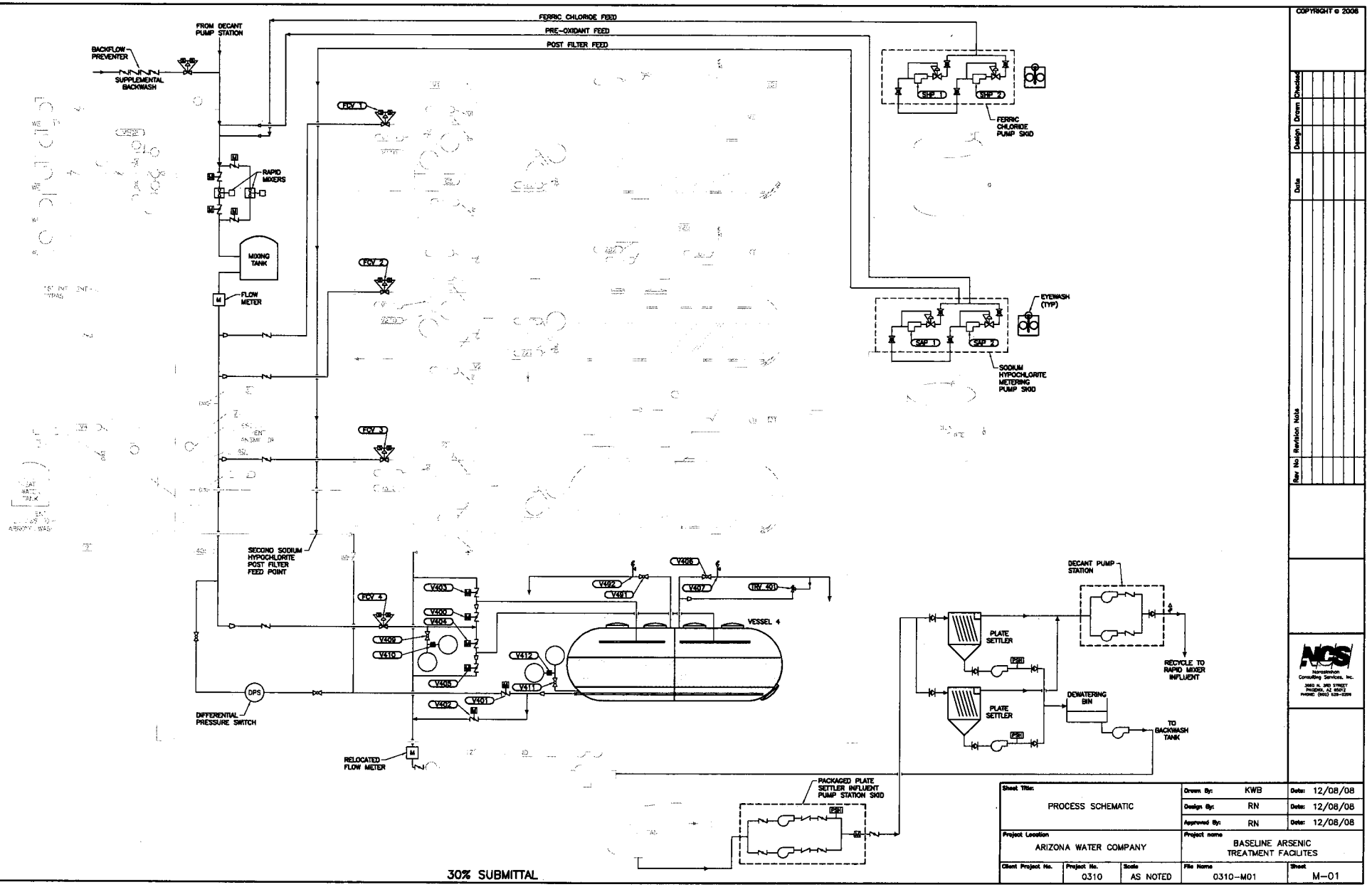


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| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-M01 | Sheet M-01 |

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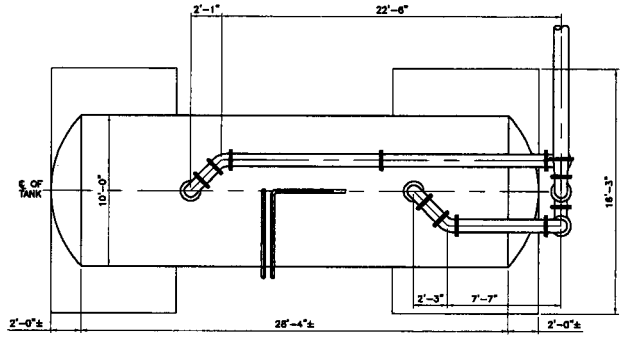
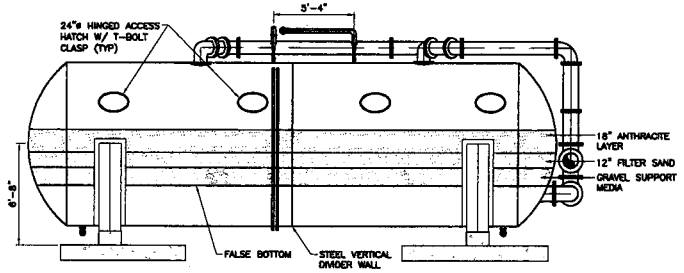



PLAN




SIDE ELEVATION

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|---|---|---|---|---|---|
| Sheet Title: FILTER VESSEL SECTIONS AND DETAILS | | | Drawn By: KWB | | Date: 12/08/08 |
| | | | Design By: RN | | Date: 12/08/08 |
| | | | Approved By: RN | | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-M02 | | Sheet M-02 |

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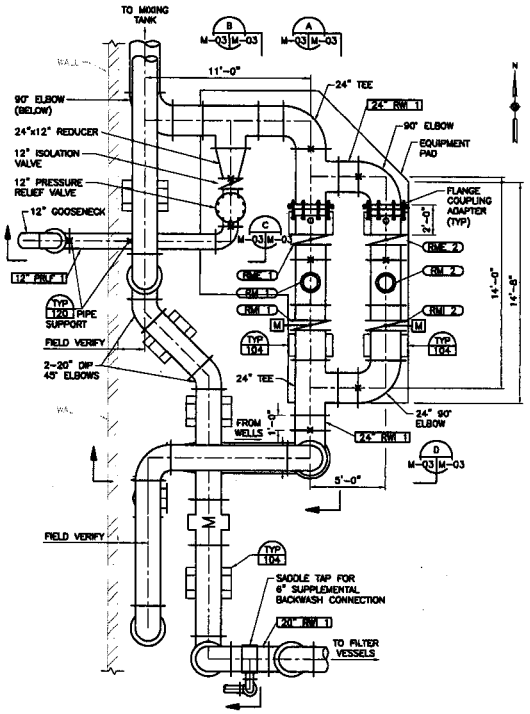
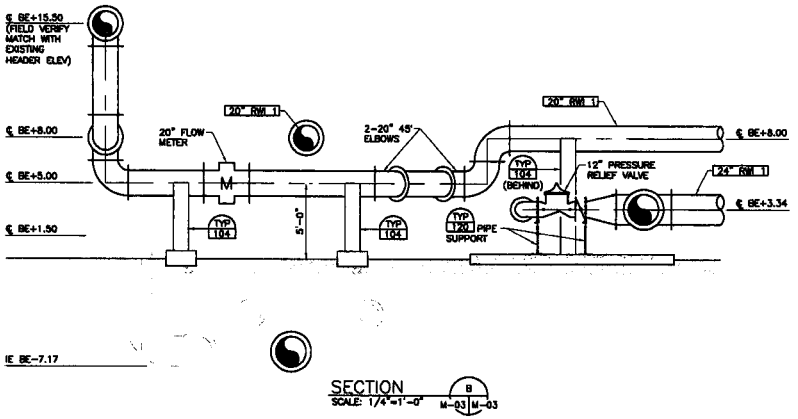



MIXING TANK AND RAPID MIXER DETAIL 1 C-03 M-03
SCALE: 1/4"=1'-0"

NOTE:
1. SEE YARD PIPING PLAN FOR PIPING CONTINUATION.

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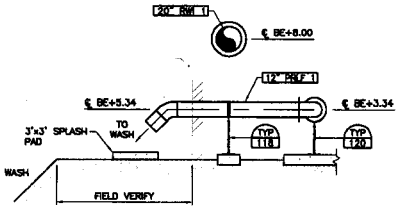


SECTION C M-03 M-03
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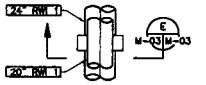


CONCRETE PIPE SUPPORT DETAIL 2 C-03 M-03
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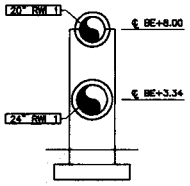


SECTION E M-03 M-03
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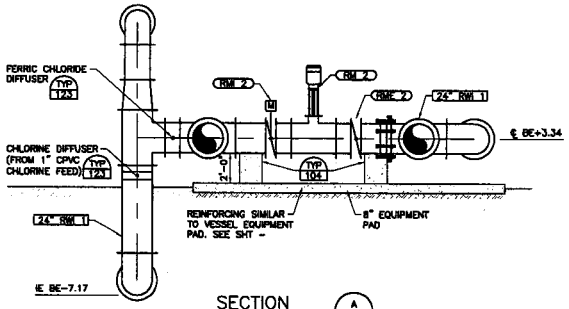


SECTION A M-03 M-03
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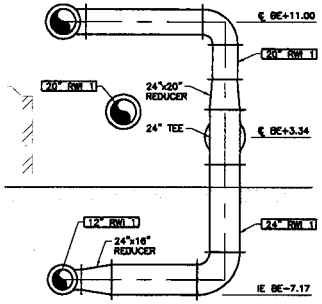


SECTION D M-03 M-03
SCALE: 1/4"=1'-0"

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3960 N. 3RD STREET
PHOENIX, AZ 85012
PHONE: (602) 429-0206

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| Sheet Title: RAPID MIXER | Drawn By: KWB | Date: 12/08/08 | |
| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-M03 | Sheet M-03 |

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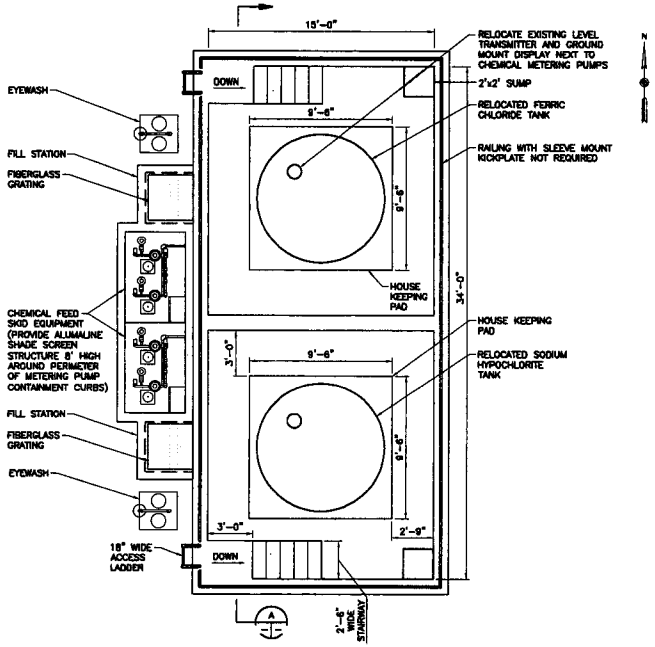


## CHEMICAL STORAGE TANK PLAN

SCALE: 1/4"=1'-0"

NOTE:

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|---|---|---|---|
| Sheet Title: CHEMICAL STORAGE TANK PLAN | Drawn By: KWB | Date: 12/08/08 | |
| | Design By: RN | Date: 12/08/08 | |
| | Approved By: RN | Date: 12/08/08 | |
| Project Location: ARIZONA WATER COMPANY | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-M04 | Sheet M-04 |

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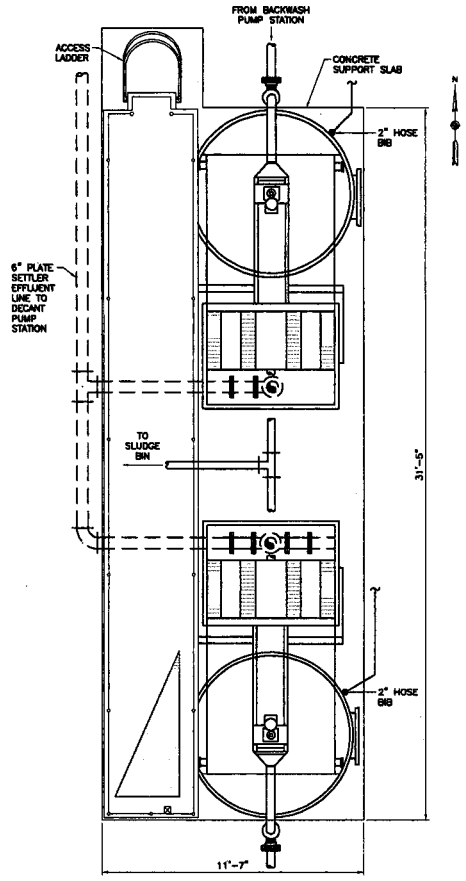


PLATE SETTLER
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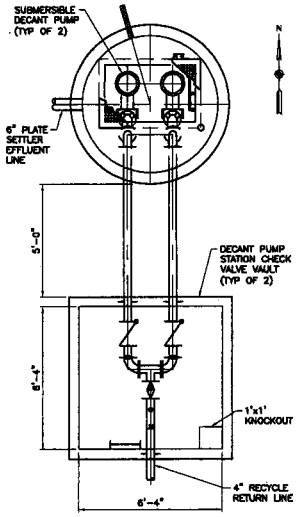


DECANT PUMP STATION AND VALVE VAULT PLAN
SCALE: 3/8"=1'-0"

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|---|---|---|---|---|
| Sheet Title: PLATE SETTLER AND DECANT PUMP STATION | | Drawn By: KWB | | Date: 12/08/08 |
| | | Design By: RN | | Date: 12/08/08 |
| | | Approved By: RN | | Date: 12/08/08 |
| Project Location: ARIZONA WATER COMPANY | | Project name: BASELINE ARSENIC TREATMENT FACILITES | | |
| Client Project No. | Project No. 0310 | Scale AS NOTED | File Name 0310-M05 | Sheet M-05 |

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# FKS-6

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | APACHE JUNCTION | APACHE JUNCTION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE1/4 SEC.26 T.1N. R.7E | N/A | N/A |

PROJECT DESCRIPTION:

EXPANSION OF THE EXISTING BASELINE ARSENIC REMOVAL FACILITY FROM 6.5 MGD TO 8.6 MGD

MATERIALS AND LABOR

| QUANTITY | UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|
| | | CIVIL | $ 60,000 |
| | | CONCRETE | 80,000 |
| | | PIPING | 90,000 |
| | | EQUIPMENT | 275,000 |
| | | MECHANICAL | 190,000 |
| | | PAINTING/COATING | 35,000 |
| | | ELECTRICAL EQUIPMENT | 200,000 |
| | | FILTRATION | 175,000 |
| | | TAXES AND INSURANCE | 100,000 |
| | | | |
| | | 15% CONTINGENCY | 180,750 |
| | | | |
| | | | |

| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 1,385,750 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 20,786 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 90,000 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 1,496,536** |
| (5) OVERHEAD - 15% OF LINE (4) | 224,480 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 125,000 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 1,846,017** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 1,846,017** |

AFH

# FKS-7

## Superstition Division CAP WTP Conceptual Capital Cost Estimate - Phase 1

| DESCRIPTION | ESTIMATED COST |
|---|---|
| **REAL PROPERTY ACQUISITION** | |
| Real Property - 8 Acres [1] | $200,000 |
| Survey | $10,000 |
| Geotechnical Evaluation | $20,000 |
| **Real Property Acquisition Direct Cost** | **$230,000** |
| **OFFSITE DEVELOPMENT and FACILITIES** | |
| Road Improvements | $100,000 |
| Electric Service | $75,000 |
| Communications | $50,000 |
| Landscaping | $50,000 |
| **Offsite Development & Facilities Direct Cost** | **$275,000** |
| **ONSITE DEVELOPMENT and FACILITIES** [2] | |
| Grading, Drainage and Gravel Roads | $400,000 |
| Yard Piping 24", 16" and 6" DI | $200,000 |
| Site Fence - 8' Tall Block Wall and Auto Roll Open Gates | $400,000 |
| Parking and Site Lighting | $150,000 |
| **Onsite Development & Facilities Direct Cost** | **$1,150,000** |
| **WATER TREATMENT PLANT FACILITIES** [2] | |
| Raw Water Intake and Pump Station - 2,000 GPM | $225,000 |
| Self Cleaning Strainer and Rapid Mixer | $100,000 |
| $KMnO_4$ and PAC Chemical Skid | $100,000 |
| Zeeweed UF Membrane Filtration System - 3 MGD | $1,750,000 |
| NaOCl and Citric Acid Chemical Skid | $75,000 |
| $NaHSO_3$ and NaOH Chemical Skid | $75,000 |
| UV Disinfection Skid | $125,000 |
| NaOCl Disinfection Skid | $25,000 |
| Finished Water Storage Tank - 750,000 Gallon | $560,000 |
| Finished Water Pump Station - 2,000 GPM | $150,000 |
| Surge Tank - 6,000 Gallon | $40,000 |
| Backwash Water Transfer Pump - 100 GPM | $35,000 |
| Backwash Water Settling Tank - 500,000 Gallon | $375,000 |
| Recycle Water Pump Station - 400 GPM | $65,000 |
| Electrical Equipment - SES, Pump Station Starter Panels, SCADA and General 120/240V Electrical Chemical Skids and Support Facilities | $900,000 |
| **Water Treatment Plant Facilities Direct Cost** | **$4,600,000** |
| **SUPPORT FACILITIES** | |
| Membrane Filtration System Building - 75'X100' Pre-Fab Metal Building | $350,000 |
| Administration\Lab\Maintenance Building | $250,000 |
| **Support Facilities Direct Cost** | **$600,000** |
| **SUB-TOTAL DIRECT COST** | **$6,855,000** |
| Construction Contingency - 20% of Direct Cost | $1,371,000 |
| Design - 8% of Direct Costs | $548,400 |
| **TOTAL PROJECT CAPITAL COST** | **$8,774,400** |

Notes:

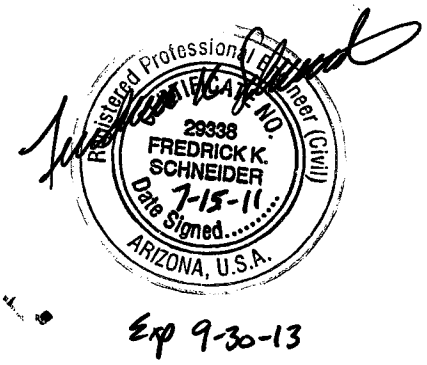
[1] Estimated real property cost is based on recent State Land sale/available for purchase in 2011 dollars.

[2] Estimated on-site and WTP facilities cost are based on vendor supplied cost estimates or Arizona Water Company's experience with pipeline, storage tank, booster station and ground water treatment plant projects.

# FKS-8

# Superstition Division
# CAP Water Treatment Plant
# Siting Study

**July 2011**




Exp 9-30-13

# INDEX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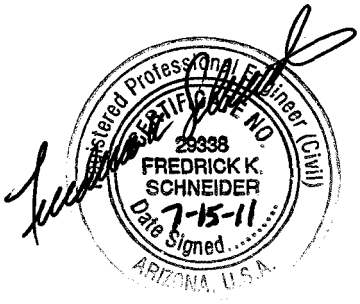
2.0 SITING STUDY ..... 3
2.1 SITE 1 EVALUATION ..... 3
2.2 SITE 2 EVALUATION ..... 4
2.3 OTHER SITE EVALUATIONS ..... 5
3.0 LAND COST ..... 5


# ATTACHMENTS


CAP WTP SITING STUDY MAP ..... Figure 1
CAP WTP CONCEPTUAL DESIGN – SITE PLAN ..... Figure 2


Exp 9-30-13

## 1.0 INTRODUCTION

Arizona Water Company (the "Company") is in the conceptual planning and design phase of a new surface water treatment plant ("WTP") which will treat Central Arizona Project ("CAP") surface water in the Company's Superstition Division. The Company currently holds a CAP water subcontract for 6,000 acre-feet per year and in 2011 the Town of Superior's CAP subcontract for 285 acre-feet per year will be transferred to the Company. The Company currently uses 2,751 acre-feet per year of the CAP water subcontract leaving 3,534 acre-feet per year available for treatment and use within the Company's water distribution system. The new WTP will treat CAP water and will be used with other potable water supplies to meet current and future demands. The new WTP will provide renewable supplies to the Company's Superstition Division and will bring the Company's remaining CAP supplies into full use. The WTP construction will initially be phased to provide a surface water treatment capacity of approximately 3 million gallons per day ("mgd") expandable in a future phase to use all of the Company's 6,285 acre-feet per year CAP subcontract representing nearly 6 mgd of WTP capacity.

## 2.0 SITING STUDY

The Company performed a siting study to identify potential locations for the proposed WTP, the results of which are included in this report. The study focused on properties that are located on the East side of the CAP canal in order to avoid the expense of installing pipe sleeves under the CAP canal. Also, the locations were chosen to avoid areas of known earth fissures identified in the Arizona Geological Survey Earth Fissure Map of the Apache Junction Study Area.

Eleven potential locations for the proposed WTP were evaluated. The eleven locations are identified as Parcels "A" through "K" on Figure 1 attached. After considering site improvement costs and other advantages and disadvantages for each of the eleven sites, Parcel "C" was selected as the preferred site ("Site 1") and Parcel "B" was selected as the alternate site ("Site 2"). Site 1 was selected as the preferred site based on the lowest costs of construction and the associated advantages for constructing and operating the WTP.

## 2.1 SITE 1 EVALUATION

The primary advantages of locating the WTP at Site 1 are as follows:

- The site is adjacent to the CAP canal which minimizes or eliminates the need for an offsite raw water pump station and raw water transmission main.

- The site is adjacent to the Company's existing 36-inch water transmission main which eliminates the need for an offsite finished water transmission main.

- The site is adjacent to existing Salt River Project ("SRP") electrical distribution system facilities which would eliminate any cost for extending electric service to the property.

- The site is adjacent to existing Superstition Mountain Community Facilities District sewer lines which would provide wastewater service for on-site facilities.

- The site will require minimal offsite roadway improvements due to its proximity to existing improved roadways.

- The site is in close proximity to the Company's water distribution system, where construction water will be available for use during construction of the WTP.

The disadvantage of locating the WTP at Site 1 is as follows:

- A pipeline easement or right of way lease will need to be acquired, either along the CAP canal right-of-way or across State Land, and approximately 15,000 LF of 6-inch pipe will need to be installed and tied into the existing 16-inch untreated CAP water irrigation line that serves five golf courses in the Gold Canyon area in order to utilize the recycle water generated at the WTP.

## 2.2 SITE 2 EVALUATION

The primary advantages of locating the WTP at Site 2 are as follows:

- This site is also adjacent to the CAP canal which minimizes or eliminates the need for an offsite raw water pump station and raw water transmission main.

- The site is a short distance from existing SRP electrical distribution system facilities.

- This site is also adjacent to existing Superstition Mountain Community Facilities District sewer lines which would provide wastewater service for on-site facilities.

- This site is also in close proximity to the Company's water distribution system, where construction water will be available for use during construction of the WTP.

The disadvantages of locating the WTP at Site 2 are as follows:

- The site is bounded by US HWY 60 right-of-way on the North, CAP canal right-of-way on the South and West and a residential subdivision on the East. Therefore, there are no public access right-of-ways or public utility easements to the site.

- A pipeline easement in CAP right-of-way from Baseline Road northwesterly along the CAP canal to the South boundary of the site approximately 2,500 LF in length would need to be acquired in order to install finished water and recycle water pipelines. The easement for the pipelines would need to be acquired from CAWCD.

- The site is adjacent to residential homes, therefore, additional operational and permit restrictions may be imposed. Additionally, construction costs may be increased due to

noise and lighting restrictions and aesthetic improvements. Other community concerns may also have to be addressed.

- A pipeline easement or right-of-way lease will need to be acquired, either along the CAP canal right-of-way or across State Land, and approximately 17,500 LF of 6-inch pipe will need to be installed and tied into the existing 16-inch untreated CAP water irrigation line that serves five golf courses in the Gold Canyon area in order to utilize the recycle water generated at the WTP.

- The cost to extend electrical service or pipelines under Baseline Road, a major utility corridor, will be costly.

- The site would require an extension of electrical facilities through an easement northwesterly from Baseline Road along the CAP canal to reach the South boundary line of the site at a length of approximately 2,500 LF. An easement for the extension of electrical facilities would also need to be acquired by SRP from CAWCD.

## 2.3 OTHER SITE EVALUATIONS

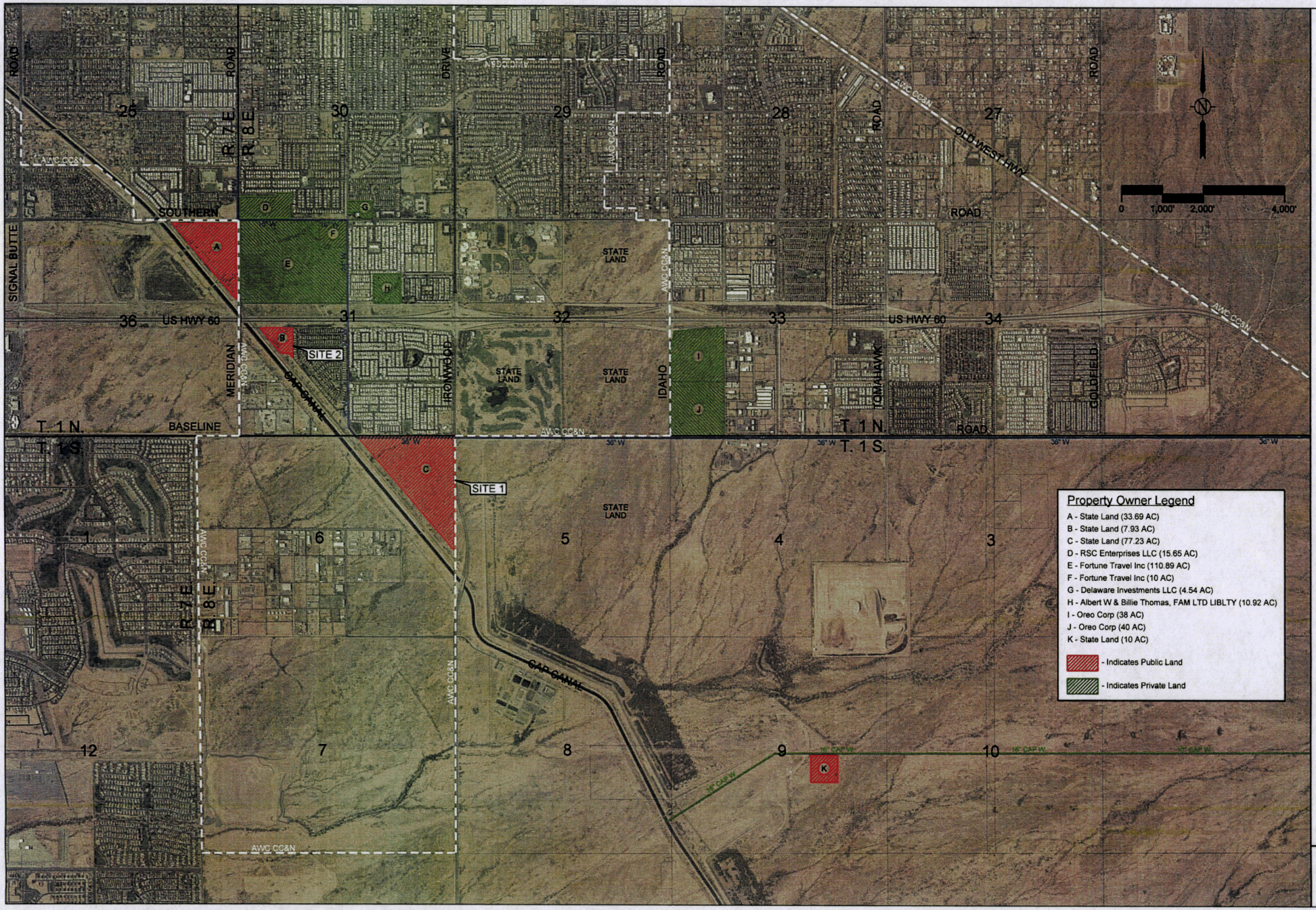
Parcel "K" was initially thought to be a viable site, however, because of its proximity to an existing flood control dike and storm water retention area that runs parallel to the CAP canal on the East side, the site was not usable.

Parcel "A" and Parcels "D" through "J" were also not considered to be viable sites because they would require significant expenditures for the construction of offsite facilities. As an example, these sites would require jacking and boring sleeves under US HWY 60 for finished water and recycle water pipelines and the construction of offsite pipelines through improved roads. Also, most of the potential sites located north of US HWY 60 would have required the installation of a longer raw water transmission main since they are located farther away from the CAP canal.

## 3.0 LAND COST

Figure 2 shows a conceptual design site plan of an immersed ultrafiltration ("UF") membrane system. Based on this conceptual design site plan, the UF system and ancillary structures will require a parcel of land ranging in size from 7 to 10 acres.

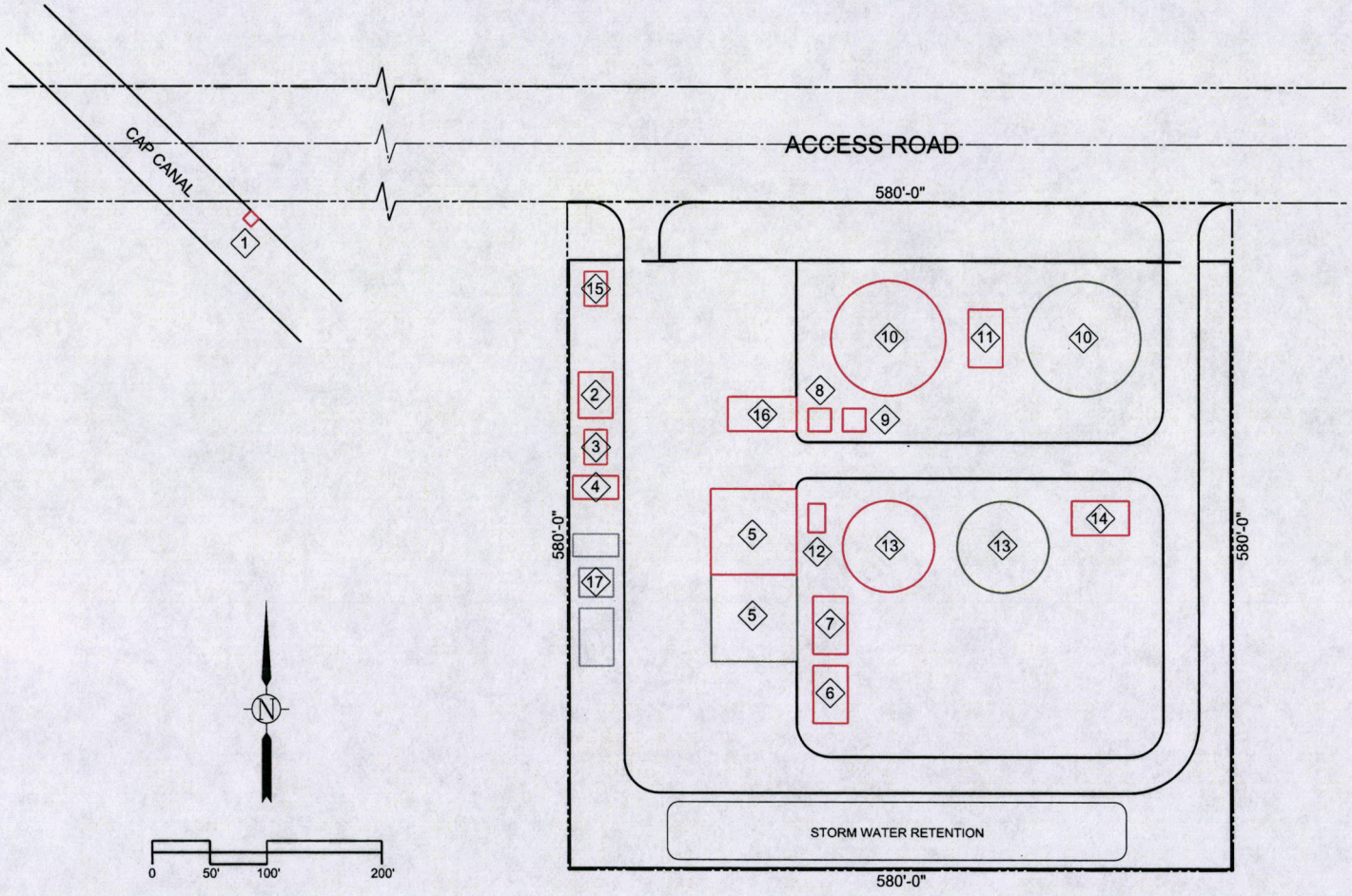
Based on a recent State Land sale of 12.5 acres for $250,000 (SEC 9-T.2S.,R.8E.) and a current State Land Available for Sale at Public Auction, appraised value of $250,000 for 12.5 acres (SEC 9-T.2S.,R.8E.), it is estimated the land costs for Site 1 or Site 2 would be $25,000 to $30,000 per acre.




**ARIZONA WATER COMPANY**

SUPERSTITION DIVISION CAP WTP SITING STUDY MAP

FIGURE 1




SITE PLAN

## KEY NOTES

1. RAW WATER INTAKE
2. RAW WATER PUMP STATION
3. SELF CLEANING STRAINER & RAPID MIX
4. KMnO4 & PAC CHEMICAL SKID
5. MEMBRANE FILTRATION BUILDING
6. NaOCl & CITRIC ACID CHEMICAL SKID
7. NaHSO3 & NaOH CHEMICAL SKID
8. UV DISINFECTION SKID
9. NaOCl DISINFECTION SKID
10. FINISHED WATER STORAGE TANK
11. FINISHED WATER PUMP STATION
12. BACKWASH WATER TRANSFER PUMP
13. BACKWASH WATER SETTLING TANK
14. RECYCLE WATER PUMP STATION
15. ELECTRICAL EQUIPMENT
16. ADMINISTRATION/LAB/MAINTENANCE BUILDING
17. POTENTIAL COAGULATION/FLOCCULATION

## LEGEND

- PHASE 1 STRUCTURE
- PHASE 2 STRUCTURE
- POTENTIAL STRUCTURE
- PROPERTY BOUNDARY

ARIZONA WATER COMPANY

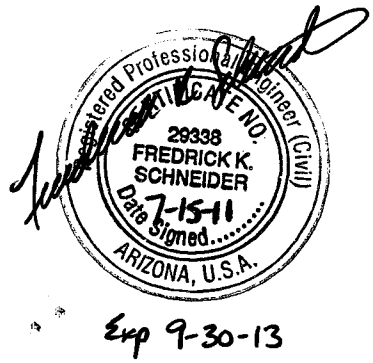
SUPERSTITION DIVISION CAP WTP CONCEPTUAL DESIGN

FIGURE 2

# FKS-9

# Superstition Division
# CAP Water Treatment Plant
# Conceptual Design Report

**July 2011**




Exp 9-30-13

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2.0 SELECTED TREATMENT PROCESS ..... 3
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4.0 PROCESS FLOW DIAGRAM ..... 4
5.0 PROCESS FLOW DESCRIPTION ..... 4
6.0 SUPPORT FACILITIES ..... 5


# ATTACHMENTS


CAP WTP ALTERNATIVE SITE LOCATIONS ..... Figure 1
CAP WTP CONCEPTUAL DESIGN - SITE PLAN ..... Figure 2
CAP WTP CONCEPTUAL DESIGN – PROCESS FLOW DIAGRAM ..... Figure 3

Exp 9-30-13

## 1.0 INTRODUCTION

Arizona Water Company (the "Company") is in the conceptual planning and design phase of a new surface water treatment plant ("WTP") which will treat Central Arizona Project ("CAP") surface water in the Company's Superstition Division. The Company currently holds a CAP water subcontract for 6,000 acre-feet per year and in 2011 the Town of Superior's CAP subcontract for 285 acre-feet per year will be transferred to the Company. The Company currently uses 2,751 acre-feet per year of its CAP water subcontract leaving 3,534 acre-feet per year available for treatment and use within the Company's water distribution system. The new WTP will treat CAP water and will be used with other potable water supplies to meet current and future demands. The new WTP will provide renewable supplies to the Company's Superstition Division and will bring the Company's remaining CAP supplies into full use. The WTP construction will initially be phased to provide a surface water treatment capacity of approximately 3 million gallons per day ("mgd") expandable in a future phase to use all of the Company's 6,285 acre-feet per year CAP subcontract representing nearly 6 mgd of WTP capacity.

The Company currently pumps groundwater to meet all potable water demands within the Superstition Division. Safe Drinking Water Act ("SDWA") regulations for arsenic have required the Company to install arsenic removal facilities at several locations within the Superstition Division. It is expected that most new wells in this georgraphic area will require treatment for arsenic removal.

## 2.0 SELECTED TREATMENT PROCESS

Based on a Phase 1 initial surface water treatment capacity of 3 mgd and a Phase 2 build-out capacity of 6 mgd, the Company selected a low-pressure ultrafiltration ("UF") membrane treatment process. This process was selected because it offers several advantages over the conventional surface water treatment process (coagulation, flocculation, sedimentation and sand/mixed media filtration) for small to medium yield treatment systems. Some of the primary advantages of UF membrane treatment over conventional treatment are: a smaller footprint which contributes to a reduced property size and construction cost; the ability to widely vary the WTP production capacity on a real time basis to adjust for increases or decreases in demand; and the ease of WTP expansion because of its modular design.

## 3.0 SITE LAYOUT

Based on the results of the Superstition Division CAP WTP Siting Study, a preferred site ("Site 1") and an alternate site ("Site 2") were selected as potential locations for the WTP as shown on Figure 1. Site 1 was selected as the preferred site based on the lowest cost of construction and the associated advantages for constructing and operating the WTP as summarized in the study.

A conceptual site plan for the plant is presented in Figure 2. The site plan designates the plant components that will be constructed as part of Phase 1 and Phase 2 and includes a footprint for potential future structures.

## 4.0 PROCESS FLOW DIAGRAM

The selected treatment train for the WTP for both Phase 1 and Phase 2 includes: oxidation for iron and manganese removal; use of a coagulant when surface water turbidity is elevated; low-pressure UF membrane filtration followed by disinfection of the finished water. A process flow diagram is shown on Figure 3.

## 5.0 PROCESS FLOW DESCRIPTION

Surface water from the CAP canal will be pumped to the WTP from a raw water intake structure through a raw water pipeline. Future pumps and an additional raw water pipeline will need to be installed to accommodate Phase 2 increased production capacities. Since the preferred site is adjacent to the CAP canal, the length of the raw water pipeline(s) will be relatively short (approximately 500 to 1,500 feet). Raw water pumps will be installed in parallel to provide for operational flexibility and system reliability. This design will help to ensure continuous operation of the WTP, which is especially critical to accommodate planned plant and pump maintenance.

During periods when the raw water is low in dissolved oxygen or anaerobic (approximately 1 to 2 months per year) which can cause iron and manganese to become soluble through chemical reduction, potassium permanganate ("$KMnO_4$") will be introduced into the raw water. The $KMnO_4$ will oxidize these iron and manganese compounds and form manganese dioxide ("$MnO_2$"), an insoluble precipitate that can be removed by UF membrane filtration. Also, in order to prevent plant shutdowns during certain high turbidity storm water events, powder activated carbon ("PAC") will be added to the raw water to remove organic materials through an adsorptive process. The $KMnO_4$ and PAC will be added to the raw water through the use of a rapid mixer to provide a high-rate of initial mixing and provide adequate contact time before reaching the UF membrane filtration units. The rapid mixer, $KMnO_4$ and PAC chemical skids will also use a parallel design to provide for continuous operation of the WTP during planned equipment maintenance or in the event of equipment malfunction.

After pretreatment (when necessary) the raw water flows to submerged UF membranes that are located within open tanks. Through the use of a permeate pump, a vacuum is applied to the membrane. The vacuum pressure (2-13 psi) pulls the treated water through tiny pores (nominal pore size 0.02 μm) in the hollow fibers of the UF membrane. The pores form a physical barrier that allows clean water to pass through while blocking unwanted material such as suspended solids, bacteria, pathogens and certain viruses. Also, the turbidity of permeate from UF membrane systems is typically less than 0.1 NTU, surpassing the minimum treatment standards set forth in the EPA Interim Enhanced Surface Water Treatment Rule (IESWTR) which requires that filtered water turbidity be less than or equal to 0.3 NTU for 95 percent of monthly samples. The UF membrane system will consist of parallel treatment trains, which will allow for continuous operation of the WTP during membrane maintenance or other planned plant maintenance.

An ultraviolet radiation ("UV") disinfection system will be installed downstream of the UF membrane to inactivate any remaining bacteria and/or viruses in the permeate. Sodium hypochlorite ("NaOCl") disinfection will be added to the finished water downstream of the UV to provide a disinfectant residual in the finished water. The UV and NaOCl chemical skids will also use parallel systems to provide for continuous operation of the WTP during equipment maintenance or in the event of equipment malfunction.

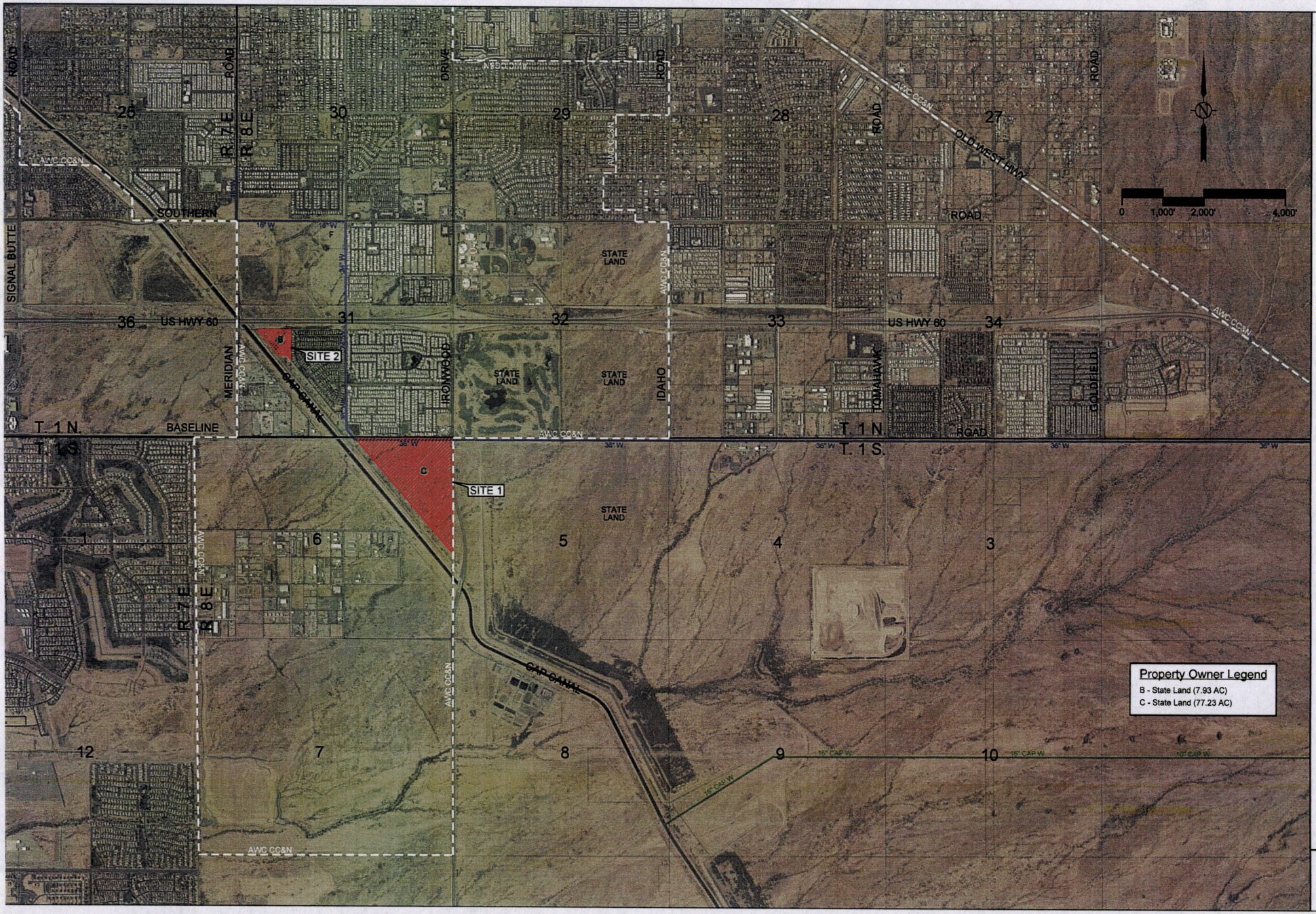
In order to ensure adequate disinfectant contact time, the finished water will flow into an adequately sized finished water storage tank. After disinfection, the finished water will be pumped into the water distribution system. Parallel operation water pumps will be installed at the water storage tank to provide for continuous operation of the WTP during equipment maintenance or in the event of equipment malfunction.

In order to maintain membrane system flux rates, after every 30 to 120 minutes of operation, the membrane is typically air scoured and backwashed with finished water for 1 to 5 minutes. After the backwash cycle is complete, the backwash water is pumped from the membrane tank to the backwash water settling tank. Backwash water for membrane systems typically represent about 5% of the total raw water flow or 150,000 gallons per day for a 3 mgd WTP. Settled water (supernatant) from the top of the tank is then recycled back to the head of the plant for treatment or recycled to an existing 16-inch untreated CAP water irrigation line that serves five golf courses in the Gold Canyon area. Settled solids from the bottom of the tank are periodically pumped to a truck and properly disposed of in a landfill. A parallel operation backwash water transfer pump will be installed in order to provide for continuous operation of the WTP during equipment maintenance or in the event of equipment malfunction.

Over time, the permeability of the membrane after backwashing is compromised by particles and dissolved constituents that become embedded into or adsorbed onto the membrane. Air scouring will not restore the membranes to full performance and at this time a chemical cleaning cycle is needed to remove the contaminants and restore the membrane's permeability. Two separate clean in place cycles are typically used to restore the membranes permeability and flux rates. Citric acid is used for one clean in place cycle and NaOCl is used for the other clean in place cycle.

## 6.0 SUPPORT FACILITIES

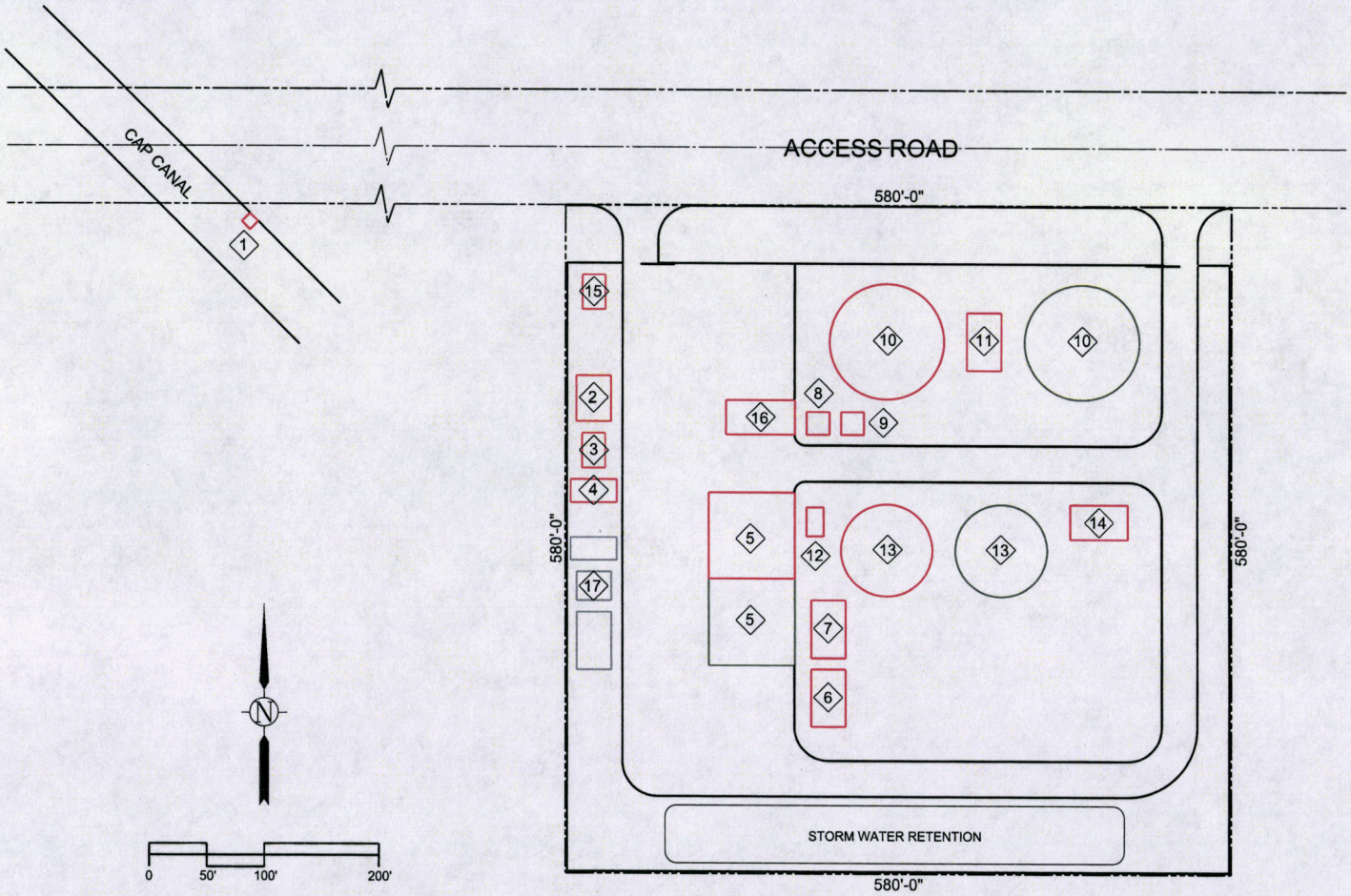
A pre-fabricated metal building will be constructed to enclose the UF membrane system to protect the system from exposure to sun and weather. An administration trailer containing communications equipment and a small lab for treatment process water quality testing will be located next to the UF membrane building. Also, in order to store spare WTP parts and perform maintenance work, a small maintenance building will be constructed next to the administration trailer.




**ARIZONA WATER COMPANY**

SUPERSTITION DIVISION CAP WTP ALTERNATIVE SITE LOCATIONS

FIGURE 1




SITE PLAN

## KEY NOTES

1. RAW WATER INTAKE
2. RAW WATER PUMP STATION
3. SELF CLEANING STRAINER & RAPID MIX
4. KMnO4 & PAC CHEMICAL SKID
5. MEMBRANE FILTRATION BUILDING
6. NaOCl & CITRIC ACID CHEMICAL SKID
7. NaHSO3 & NaOH CHEMICAL SKID
8. UV DISINFECTION SKID
9. NaOCl DISINFECTION SKID
10. FINISHED WATER STORAGE TANK
11. FINISHED WATER PUMP STATION
12. BACKWASH WATER TRANSFER PUMP
13. BACKWASH WATER SETTLING TANK
14. RECYCLE WATER PUMP STATION
15. ELECTRICAL EQUIPMENT
16. ADMINISTRATION/LAB/MAINTENANCE BUILDING
17. POTENTIAL COAGULATION/FLOCCULATION

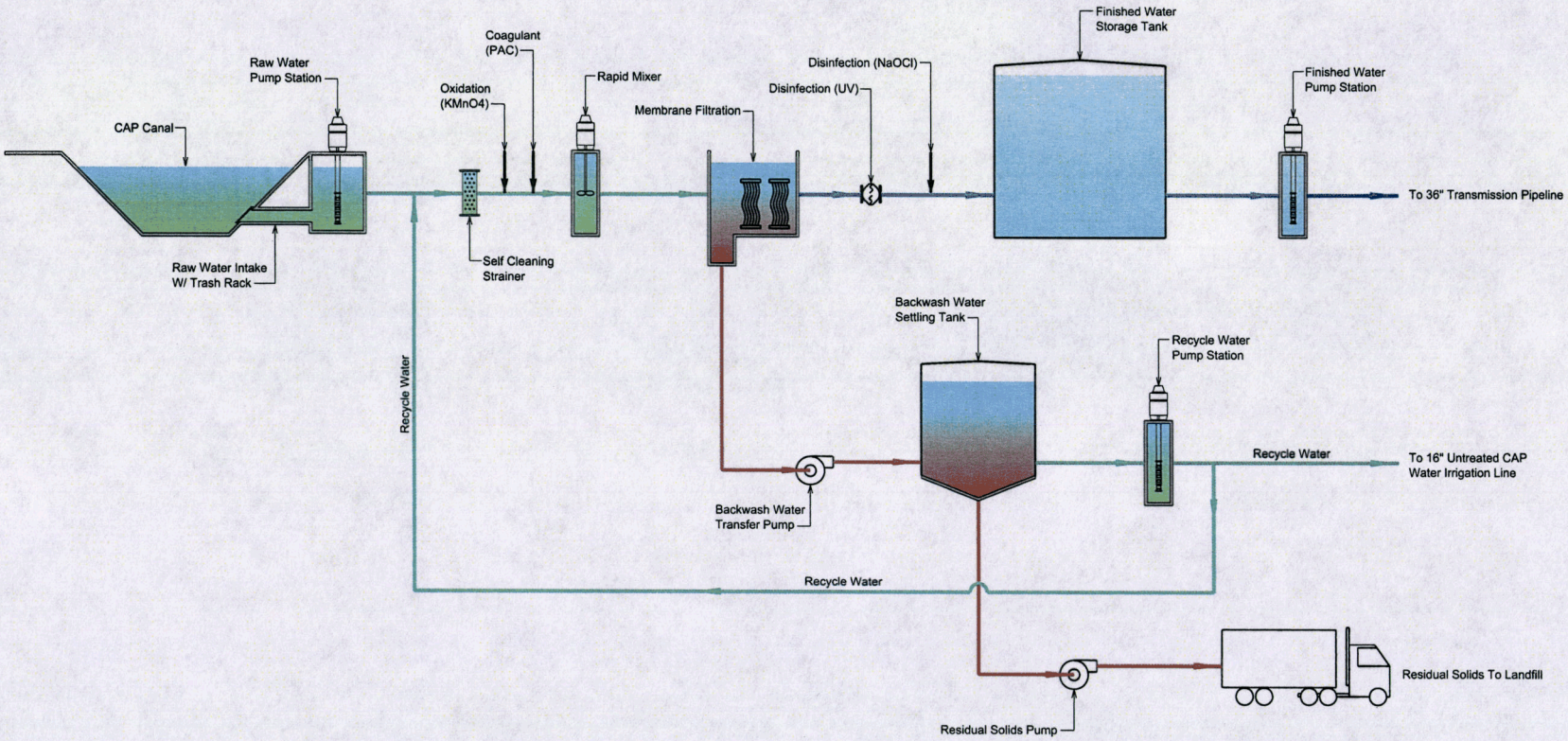
## LEGEND

- PHASE 1 STRUCTURE
- PHASE 2 STRUCTURE
- POTENTIAL STRUCTURE
- PROPERTY BOUNDARY

ARIZONA WATER COMPANY

SUPERSTITION DIVISION CAP WTP CONCEPTUAL DESIGN

FIGURE 2




PROCESS FLOW DIAGRAM

ARIZONA WATER COMPANY

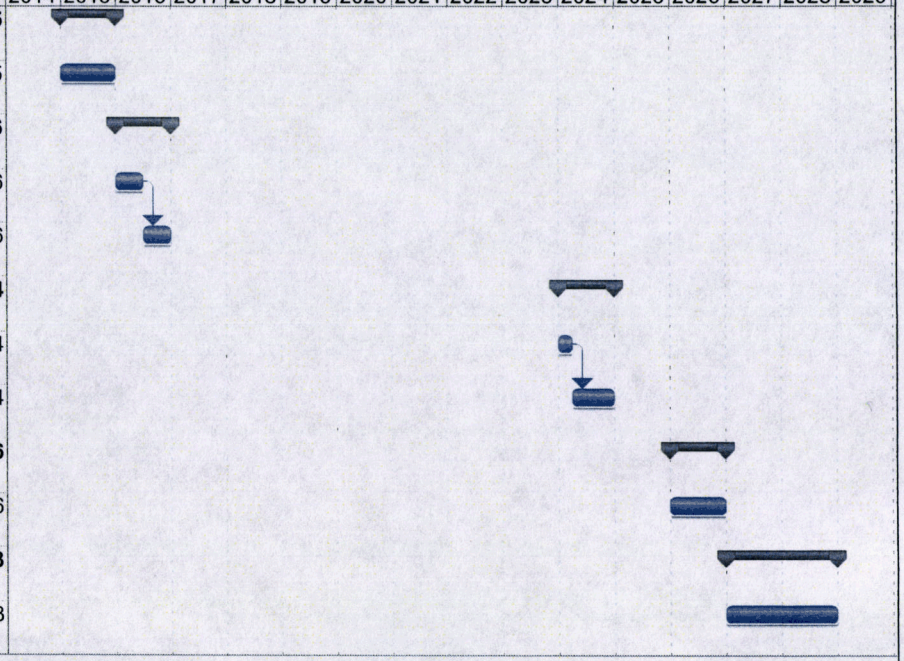
SUPERSTITION DIVISION CAP WTP CONCEPTUAL DESIGN

FIGURE 3

# FKS-10

# Off-site Facilities Fee - Infrastructure Phasing Plan

| ID | Task Name | Start | Finish |
|---|---|---|---|
| 1 | **30 - 60% Design** | **Thu 1/1/15** | **Thu 12/31/15** |
| 2 | Development of 30 & 60% Design Drawings | Thu 1/1/15 | Thu 12/31/15 |
| 3 | **Acquire Real Property** | **Fri 1/1/16** | **Sat 12/31/16** |
| 4 | Property Appraisal, Environmental Assessment & Survey | Fri 1/1/16 | Thu 6/30/16 |
| 5 | Close of Property Purchase | Fri 7/1/16 | Sat 12/31/16 |
| 6 | **90 - 100% Design, Permitting & Approvals** | **Mon 1/1/24** | **Tue 12/31/24** |
| 7 | Development of 90 & 100% Design Drawings | Mon 1/1/24 | Sun 3/31/24 |
| 8 | Permitting & Approvals | Mon 4/1/24 | Tue 12/31/24 |
| 9 | **Off-site Facilities/On-site Improvements** | **Thu 1/1/26** | **Thu 12/31/26** |
| 10 | Utilities & Streets/Grading, Walls & Landscaping | Thu 1/1/26 | Thu 12/31/26 |
| 11 | **Water Treatment Plant Construction** | **Fri 1/1/27** | **Sun 12/31/28** |
| 12 | Construct 3 mgd WTP | Fri 1/1/27 | Sun 12/31/28 |

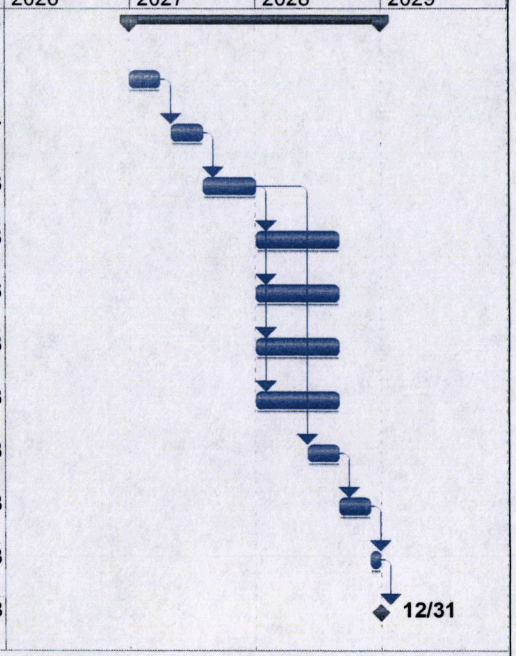



Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Deadline

# FKS-11

# CAP Surface Water Treatment Plant Construction Schedule

| ID | Task Name | Start | Finish |
|---|---|---|---|
| 1 | **Water Treatment Plant Construction** | **Fri 1/1/27** | **Sun 12/31/28** |
| 2 | Bid Construction & Select Contractor | Fri 1/1/27 | Wed 3/31/27 |
| 3 | Underground Yard Piping & Utilities | Mon 5/3/27 | Mon 8/2/27 |
| 4 | Civil Site Work (Grading, Drainage & Gravel Roads) | Tue 8/3/27 | Mon 1/3/28 |
| 5 | Raw Water System (Intake, Pump Station, Strainer, Rapid Mixer & Chemical Skids) | Tue 1/4/28 | Fri 9/1/28 |
| 6 | UF Membrane, Membrane Building & Chemical Skids | Tue 1/4/28 | Fri 9/1/28 |
| 7 | Backwash Water System (Transfer Pump, Settling Tank, Recycle Water Pump Station & Solids Pump) | Tue 1/4/28 | Fri 9/1/28 |
| 8 | Finished Water System (Storage Tank, Pump Station, UV, & Chemical Skid) | Tue 1/4/28 | Fri 9/1/28 |
| 9 | Administration\Lab\Maintenance Building, Parking & Site Lighting | Thu 6/1/28 | Thu 8/31/28 |
| 10 | WTP Startup & Commissioning | Fri 9/1/28 | Thu 11/30/28 |
| 11 | Obtain Operating & Ocupancy Permits | Fri 12/1/28 | Fri 12/29/28 |
| 12 | 3 mgd WTP Online | Sun 12/31/28 | Sun 12/31/28 |




Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

# FKS-12

# THIRD MANAGEMENT PLAN

## FOR

# PHOENIX
## ACTIVE MANAGEMENT AREA

# 2000-2010

ARIZONA DEPARTMENT OF WATER RESOURCES

In addition to these individual user requirements, the Third Management Plan contains an individual user requirement that was not included in the Second Management Plan. This additional requirement prohibits the use of groundwater to maintain a water feature installed in a publicly owned right-of-way after January 1, 2002.

Either the individual user or the municipal provider serving the individual user is responsible for complying with the individual user requirement. See section 5-112 for determining responsibility for compliance with the individual user requirements.

### 5.7.6.2 Distribution System Requirements

Lost and unaccounted for water is defined as the total water from any source, except direct use effluent, withdrawn, diverted, or received in a year minus the total amount of authorized deliveries made by the municipal provider in that year. Lost and unaccounted for water includes line leakage, meter under-registration, evaporation or leakage from storage ponds or tanks, system and hydrant leaks or breaks, and illegal connections.

All municipal providers are required to meet an efficient lost and unaccounted for water standard in their service areas. Lost and unaccounted for water will be determined for each municipal provider based on the total quantity of metered and unmetered water deliveries and the total water pumped, received, or diverted by the municipal provider for each calendar year, excluding direct use effluent. Small municipal providers must maintain lost and unaccounted for water at or below 15 percent. Large municipal providers are required to maintain their system not to exceed 10 percent lost and unaccounted for water. Large untreated water providers are required to either line all canals used to deliver untreated water to the provider's delivery points with a material that allows no more lost water than a well-maintained concrete lining, or operate and maintain its distribution system to limit lost and unaccounted for water at or below 10 percent.

For the third management period, the Department will allow providers to exclude water from the lost and unaccounted for water calculation that is either metered or estimated using approved estimating procedures and that is used pursuant to other regulatory requirements such as well purging and line flushing. Providers may also exclude estimated water uses such as construction (truck loads for dust control) or fire services, but all other uses of water within a distribution system must be metered. Appendix 5-M provides a complete list of uses that are considered in the lost and unaccounted for water calculation and those uses that can be estimated to determine the volume.

### 5.7.6.3 Monitoring and Reporting Requirements

All municipal providers are required to annually: (1) report to the Department information on the total quantity of water used within the service area and the total volume of water delivered for various municipal purposes, (2) calculate the volume of lost and unaccounted for water within the service area, and (3) report the total number of housing units, by unit type, added to the water service area from July 1 of the previous calendar year to July 1 of the reporting year.

Large municipal providers are required to separately measure and report the amount of water delivered each month for: irrigation uses; residential uses, separated by single family and multifamily; and non-residential uses, separated by water use categories, including turf-related facility use, commercial use, industrial use, government use, construction use, surface water treatment, and other uses.

All municipal providers are required to submit to the Department, on an annual basis, an updated service area and distribution system map delineating all potable and non-potable distribution lines greater than four inches, all potable treatment facilities, all well sites, and all non-potable treatment.

*untreated water to a user, and that provided a copy of that agreement to the director by June 22, 1992, is a large untreated water provider upon serving untreated water to at least 500 persons pursuant to the service agreement or upon supplying 100 acre-feet of untreated water during a calendar year pursuant to the agreement.*

26. *"Lost and unaccounted for water" means:*

    a. *With respect to a distribution system other than an untreated water municipal distribution system, the total quantity of water from any source, except direct use effluent, withdrawn, diverted or received by a municipal provider during a calendar year for non-irrigation use less the total quantity of authorized deliveries of water from any source, except direct use effluent, made by the municipal provider during the calendar year for non-irrigation use that are metered deliveries or deliveries that the municipal provider accounts for by a method of estimating water use approved by the director.*

    b. *With respect to an untreated water municipal distribution system, the total quantity of untreated water from any source, withdrawn, diverted or received by a large untreated water provider during a calendar year for non-irrigation use less the total quantity of authorized deliveries of untreated water from any source made by the provider during the calendar year for non-irrigation use that are metered deliveries or deliveries that the provider accounts for by a method of estimating water use approved by the director.*

27. *"Lost water" means untreated water from any source that enters an untreated water distribution system and is lost from the system during transportation or distribution due to seepage, evaporation, leaks, breaks, phreatophyte use or other similar or dissimilar causes.*

28. *"Mined groundwater" has the definition prescribed by A.R.S. § 45-561(9).*

29. *"Multifamily housing unit" means a mobile home in a mobile home park and any permanent housing unit having one or more common walls with another housing unit located in a multifamily residential structure, and includes a unit in a duplex, triplex, fourplex, condominium development, town home development, or apartment complex.*

30. *"Municipal distribution system" means a system of pipes, canals or other works within a municipal provider's service area that are owned and operated by the provider to collect, store, treat or deliver water for non-irrigation use.*

31. *"Municipal provider" means a city, town, private water company or irrigation district that supplies water for non-irrigation use.*

32. *"New individual user" means an individual user that begins receiving water from a municipal provider after adoption of the Third Management Plan.*

33. *"New large municipal provider" means a municipal provider that begins serving more than 250 acre-feet of water for non-irrigation use during a calendar year after January 1, 2000, not including untreated water served by a municipal provider that qualifies as a large untreated water provider.*

*requirements by the date specified by the director, but not later than January 1 of the year following the year in which the provider's application is approved, and shall remain in compliance with those requirements until the first compliance date for any substitute requirements in the Fourth Management Plan.*

### *5-109. Consolidation of Municipal Provider Service Areas; Acquisition of a Portion of Another Municipal Provider's Service Area*

#### *A. Notification*

1. *If two or more municipal providers consolidate their service areas into one service area, the consolidated provider shall notify the Department of the consolidation within 30 days after the consolidation becomes effective.*

2. *If a municipal provider acquires a portion of another municipal provider's existing service area, both the acquiring provider and the conveying provider shall notify the Department of the acquisition within 30 days after the acquisition becomes effective.*

#### *B. Regulation of Consolidated Provider*

1. *Upon consolidation, a consolidated provider that qualifies as a large municipal provider shall be regulated under the Total GPCD Program described in section 5-103, unless the consolidated provider applies for and is accepted for regulation under the Non-Per Capita Conservation Program described in section 5-104 or the Alternative Conservation Program described in section 5-105.*

2. *If the consolidated provider is regulated under the Total GPCD Program, the director shall establish a total GPCD requirement for the consolidated provider consistent with the methodology used by the director to establish the consolidating providers' total GPCD requirements as set forth in Appendix 5-C.1. The director shall also establish and maintain a flexibility account for the consolidated provider in accordance with section 5-106, subsection A, with a beginning balance to be established by the director based on the ending balances in the flexibility accounts of the consolidating providers.*

3. *If the consolidated provider is accepted for regulation under the Alternative Conservation Program, the director shall establish a residential GPCD requirement for the consolidated provider consistent with the methodology used by the director to establish the consolidating providers' residential GPCD requirements as set forth in Appendix 5-K. The director shall also establish and maintain a flexibility account for the consolidated provider in accordance with section 5-106, subsection B, with a beginning balance to be established by the director based on the ending balances in the flexibility accounts of the consolidating providers.*

4. *If the consolidated provider applies for regulation under the Non-Per Capita Conservation Program or the Alternative Conservation Program and one of the consolidating providers was regulated under that program immediately prior to consolidation, the consolidated provider's application for regulation under the program shall include only the information required by section 5-104 or section 5-105 that has changed since the consolidating provider filed its application for the program.*

**APPENDIX 5-M**
**THIRD MANAGEMENT PLAN**
**LOST & UNACCOUNTED FOR WATER REQUIREMENTS**

**Lost & Unaccounted For Water Includes:**

**Leaks:**
- Distribution Lines
- Sewer Lines
- Storage Tanks
- Storage Ponds
- Hydrants
- Other

**Breaks:**
- Distribution Lines
- Sewer Lines
- Mains
- Hydrants
- Other

**Measurement Errors:**
- Meter Under/Over-Registration
- Source Meter Errors
- Flumes/Weirs Errors

**Evaporation**

**Illegal Connections/Water Theft**

**Phreatophyte Uses**

**********

**Water System Uses Include:**

- Residential Metered Deliveries
- Non-Residential Metered Deliveries
- Standpipe Uses
- Fire Flow [1]
- Hydrant Meter Reading
- Hydrant Flow Tests [1]
- Fire Sprinkler System Flow Tests [1]
- Construction [1]
- Dust Control [1]
- Line Flushing (distribution, sewer, or treatment facility) [1]
- Street Cleaning [1]
- Storm Drain Flushing [1]
- Water Tests & Pressure Tests [1]
- Well Purging

[1] Estimates can be provided, using a method approved by the director. Documentation must be submitted with annual report.

# FKS-13

# WATER LOSS REDUCTION PROGRAM FOR WATER SYSTEMS IN THE EASTERN GROUP

**Water Systems Evaluated in this Program**

| | |
|---|---|
| PWSID #11-004 | Apache Junction |
| PWSID #02-001 | Bisbee |
| PWSID #04-002 | Miami |
| PWSID #11-019 | Oracle |
| PWSID #11-021 | Superior |

Prepared By: Arizona Water Company
3805 N. Black Canyon Highway
Phoenix, AZ 85015

Date: August 1, 2011

Registered Professional Engineer (Civil)
CERTIFICATE NO.
29338
FREDRICK K.
SCHNEIDER
Date Signed 8-2-11
ARIZONA, U.S.A.

Exp 9-30-13

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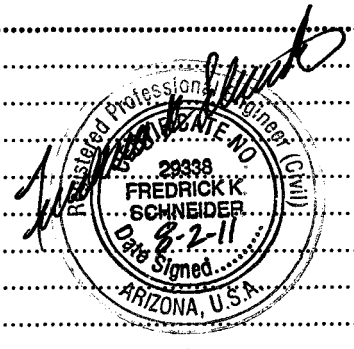


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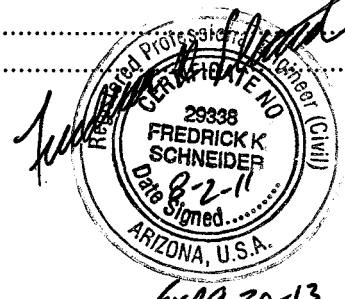


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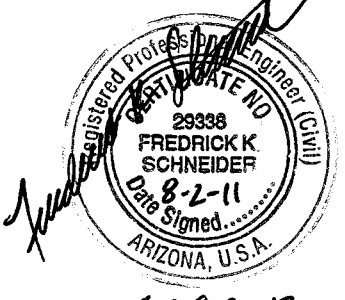


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## 1.0 EXECUTIVE SUMMARY

This Water Loss Reduction Program report was prepared by Arizona Water Company (the "Company") for specific water systems located within the Company's Eastern Group. The Eastern Group encompasses approximately 266 square miles and is comprised of the Apache Junction, Bisbee, Miami, Oracle, San Manuel, Sierra Vista, Superior, and Winkelman water systems. Specifically, this Water Loss Reduction Program evaluates the Apache Junction, Bisbee, Miami, Oracle and Superior water systems. Water losses in the Company's Bisbee, Miami, and Oracle water systems exceed ten percent. In addition, water losses in the Company's Apache Junction and Superior water systems are nearing ten percent. In Decision No. 71845, dated August 25, 2010, the Arizona Corporation Commission (the "Commission") ordered the Company to reduce water losses in all of its water systems to less than ten percent by July 1, 2011. The Commission also ordered the Company to evaluate the water systems that have not achieved a water loss rate of less than ten percent by July 1, 2011, and prepare a report demonstrating how the Company plans to reduce water losses to less than ten percent, or why it is not cost effective to do so. That report will be filed with the Commission by December 31, 2011.

The Company made a substantial effort and expended significant resources to reduce water losses through water system monitoring, leak detection, and by repairing and replacing of water mains and service lines. This report shows that water main and service line leaks and breaks are increasing in frequency. The Company's engineers analyzed each Eastern Group water system to assess the condition of water mains and service lines and determined that the oldest of these water mains and service lines need to be replaced. Subsequently, the Company's engineers determined that the primary causes of water losses are aging water mains and service lines.

There are over 600 miles of water mains currently in service within the Eastern Group water systems. Different types of materials have been used for water mains, with steel ("ST") pipe first used in the 1900s, galvanized steel ("GS") pipe first used in the 1910s, cast iron ("CI") pipe first used in the 1920s, cement asbestos ("CA") pipe first used in the 1930s and ductile iron ("DI") pipe first used in 1986. DI pipe water mains have been used exclusively in the Eastern Group water systems for new installations since 1986. Other less common types of water mains have also been used, but account for only a small portion of the water mains currently in use within the Eastern Group water systems.

The Eastern Group water systems have over 33,000 active water service connections. Different types of materials have been used for service lines including copper ("CU"), galvanized steel ("GS"), polybutylene ("PB"), polyethylene ("PE"), and polyvinyl chloride ("PVC").

Water mains and service lines must be properly managed, monitored, and maintained to minimize water losses. The Company's well-trained employees, using state-of-the-art leak detection equipment, identified the sources of such water losses and repaired or replaced leaky water mains and service lines. However, the effects of aging and failing water mains and water service lines are causing water losses beyond the Company's ability to control it through repair and maintenance efforts alone. That point has been reached in several of the Company's Eastern

Group water systems and, as a result, the rate at which infrastructure must be replaced is accelerating.

The Company's engineers conclude that a more aggressive distribution system replacement program is needed to make significant progress to reduce water losses, and now estimate that a minimum of $3.1 million of replacement water mains and service lines should be installed annually to replace aging and failing water mains and service lines for water systems in the Eastern Group. The Company developed distribution system replacement projects to reduce water losses and help to comply with the Commission's order in Decision No. 71845. The Company's engineers also prepared detailed cost estimates, for the first phase of replacements of the aging and failing water mains and service lines in the Eastern Group water systems, currently estimated at approximately $67 million. The detailed cost estimates included water mains and service lines identified for replacement during the 2011-2020 time period and are provided in Appendix 9.5. However, because of the sheer magnitude of this additional level of capital expenditures, the Company is seeking the Commission's authority to establish a Distribution System Improvement Charge ("DSIC") as part of its applications for new rates filed with the Commission.

In compliance with the Commission's order to reduce water losses in all of its systems to less than ten percent by July 1, 2011, within a month of the effective date of Decision No. 71845, the Company started the design and construction of several distribution system replacement projects in the Eastern Group water systems. These projects included the replacement of 3,350 LF of 6-inch water main, 8,600 LF of 8-inch water main, and 82 service lines at a total estimated cost of $1.1 million. As with the initial construction of arsenic treatment plants which received approval of an Arsenic Cost Recovery Mechanism ("ACRM") surcharge, without approval of a DSIC, the Company cannot begin to fund the needed distribution system replacement program at the levels identified above. The Company engineers determined that these replacements are critical to the Company's compliance with the Commission's directive in Decision No. 71845.

## 2.0 INTRODUCTION

### 2.1. Purpose

The purposes of this report are to evaluate the Company's Eastern Group water systems where water losses exceed, or are likely to exceed ten percent of water produced, evaluate the extent and impact of aging and failing infrastructure on water losses, and support the Company's proposal to establish a DSIC. This report presents the Company's plans to comply with the Commission's order in Decision No. 71845 by reducing water losses in such water systems to less than ten percent, where feasible, and describes the Company's aging and failing infrastructure replacement needs. An overview is provided for water systems in the Eastern Group that are the subject of this report including detailed information about the background of each water system, CCN areas, and respective sources of supply (including a water system characterization and assessment). A detailed analysis is provided, which shows the actions the Company is taking to identify and reduce water losses, the sources of water losses, and a break and repair history. Also included are recommendations needed for infrastructure replacements to further reduce water losses.

This report focuses on the Company's Eastern Group water systems where water losses are caused by aging and failing infrastructure and includes the Apache Junction, Bisbee, Miami, Oracle, and Superior water systems. These water systems have the highest level of water losses caused by breaks and leaks resulting from aging and failing water mains and service lines. The Company also closely monitors the other Eastern Group water systems, (San Manuel, Winkelman, and Sierra Vista) which already comply with the Commission's water loss standards.

### 2.2. Abbreviations

The following abbreviations and nomenclature are used throughout this report.

| | |
|---|---|
| ADWR | Arizona Department of Water Resources |
| ANSI | American National Standards Institute |
| AWWA | American Water Works Association |
| CA | Cement Asbestos |
| CCN | Certificate of Convenience and Necessity |
| CI | Cast Iron |
| CLC | Cement Lined Concrete |
| CU | Copper |
| Commission | Arizona Corporation Commission |
| Company | Arizona Water Company |
| DI | Ductile Iron |
| DIPRA | Ductile Iron Pipe Research Association |
| DSIC | Distribution System Improvement Charge |
| EPA | Environmental Protection Agency |
| GS | Galvanized Steel |
| HDPE | High Density Polyethylene |
| LF | Linear Feet |
| MGD | Millions of Gallons per Day |
| PB | Polybutylene |
| PE | Polyethylene |
| PSI | Pounds per Square Inch |
| PVC | Polyvinyl Chloride |
| PWSID | Public Water System Identification |
| ST | Steel |

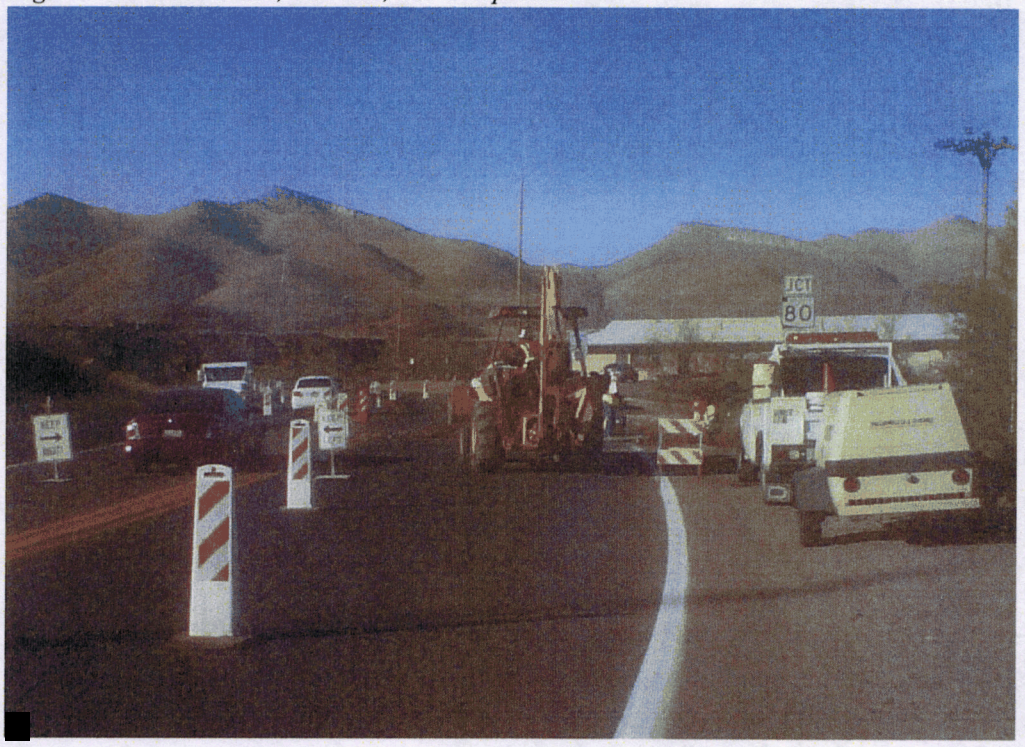
## 3.0 COMPANY MEASURES TO IDENTIFY AND REDUCE WATER LOSSES

### 3.1. Company Resources

The Company focuses its resources, including employees and equipment, on reducing water losses in all of its water systems, including its Eastern Group water systems. The Company has 56 full time service employees in the Eastern Group available to work on repairs, leaks and breaks. On average, each year the equivalent of 11 full time employees were assigned to locate and repair leaks and breaks in the Eastern Group. When necessary, service employees

are dispatched from other water systems to help with repairs of more extensive leaks. In addition to 47 service vehicles, the Eastern Group has eight backhoes and four dump trucks available for use in repairing water mains and service line leaks and breaks. Five portable welders, six mobile air compressors and six utility trailers are equipped with specialty tools and equipment needed to repair leaks and breaks. Figure 3-1 shows some of the equipment typically used by the Company on a water main break.

*Figure 3-1 Service Truck, Backhoe, and Compressor*




## 3.2. Locating and Detecting Leaks

Meter readers report observed service line and water main leaks in their normal course of reading meters. The role meter readers play is essential to system monitoring, as they visually inspect the entire system for leaks and breaks as part of their routine duties. When a meter reader discovers a leak, the information is entered into their handheld meter reading equipment, which then generates a service order at the local office. If the leak is severe and warrants immediate attention, the meter reader will contact the local office to immediately dispatch one of the repair crews. In this manner, repair of leaks can be started even before the meter readers complete their shift.

In addition to visual inspections conducted by the Company's meter readers, the Company uses three complementary types of leak detection equipment, which help employees identify the location of water leaks more efficiently than other more labor-intensive methods. The first type of leak detection equipment is a listening device, such as an acoustic noise amplifier or geophone.

*Figure 3-2 Acoustic Noise Amplifier*

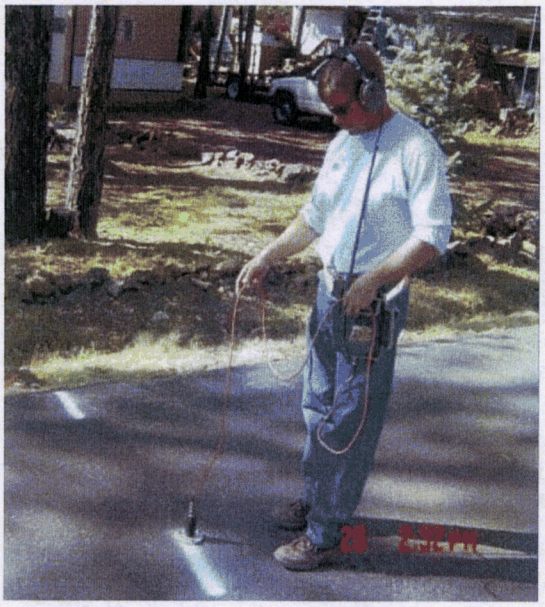
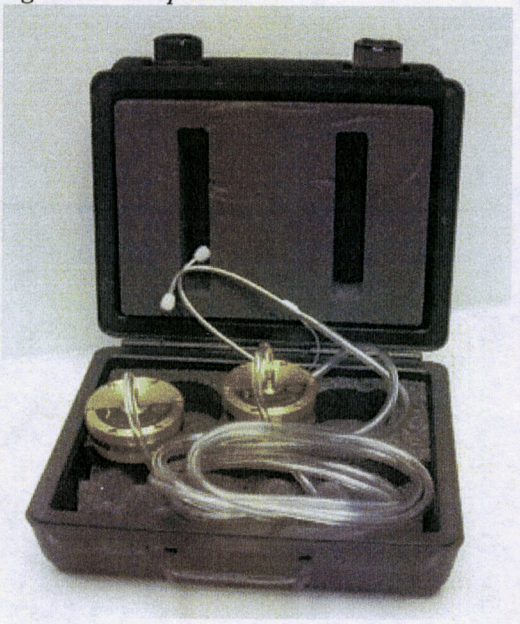


*Figure 3-3 Geophone*



The acoustic noise amplifier, as shown in Figure 3-2, is a highly sensitive set of "earphones" equipped with signal amplifiers and noise filters to isolate the sound vibrations of a water leak. It is usually placed on the ground above the water main, but can also be placed on meters, valves, or directly on the water main. In addition to the disc-shaped listening device, many models can be fitted with a listening "rod" for even more precise locating and ease of contact with the water main. The geophone, as shown in Figure 3-3, is a simplified version of the acoustic noise amplifier in that it is not electronic, but works in much the same manner, i.e. the listening device is placed on or above the water main and the operator listens for the sound of a leak.

A second type of leak detection equipment, known as the digital leak detection logger, as shown in Figure 3-4, uses multiple data loggers to survey a larger portion of the distribution system to locate potential leaks that would otherwise go undetected by visual inspection or through the use of other less sophisticated types of listening devices. Each data logger, as shown in Figure 3-5, is used in conjunction with other data loggers to gather data during low noise times (such as between midnight and 2 a.m.) when water use and related noise is lowest and traffic noise is at a minimum. The use of multiple data loggers helps to cross reference locations of potential leaks identified by each data logger used.

*Figure 3-4 Digital Leak Detection Logger*

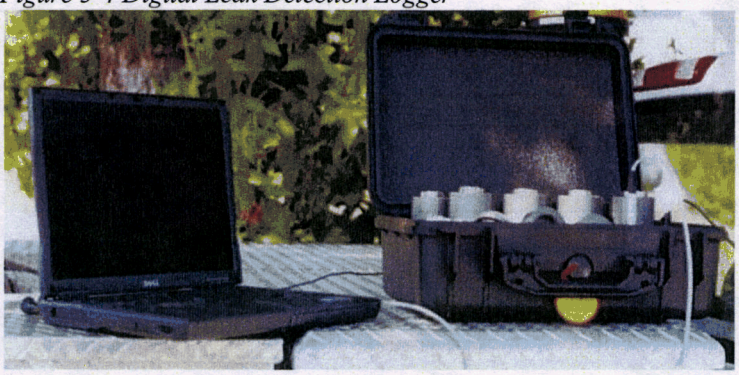
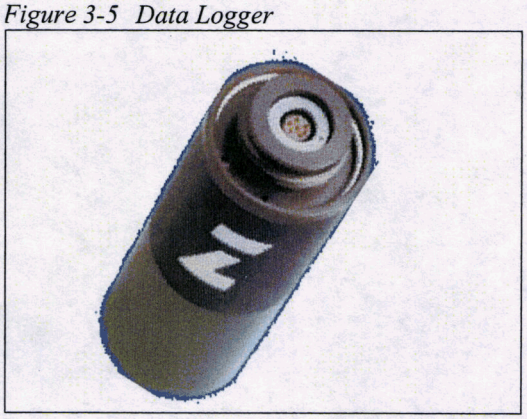


*Figure 3-5 Data Logger*

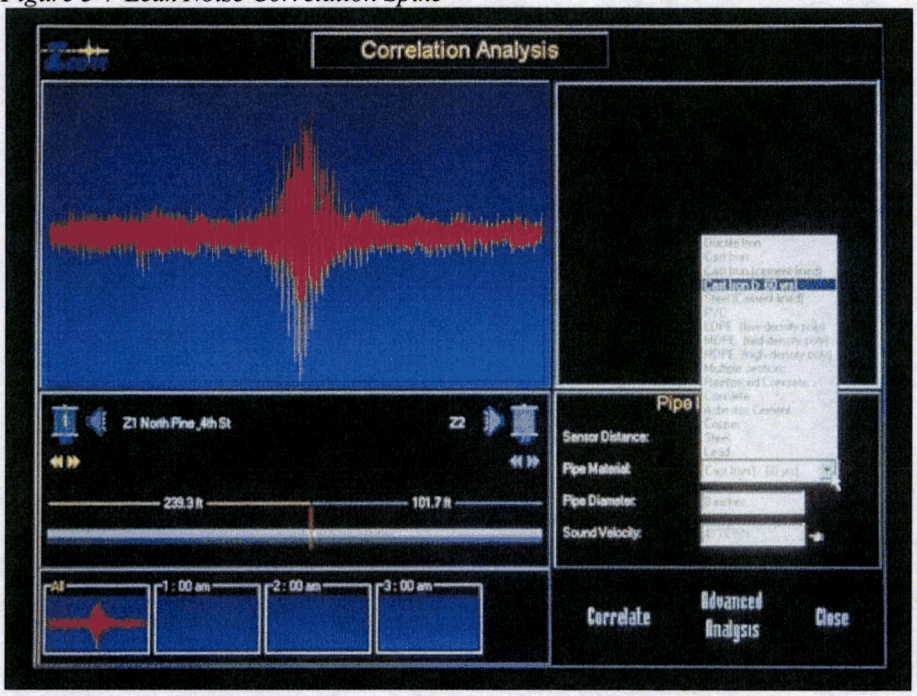


The digital leak detection logger uses up to eight data loggers, strategically placed on valves, hydrants, meters or directly on the water main throughout the water system. The data loggers are programmed (by data logging software installed on a laptop) to communicate with each other at three scheduled time intervals to pinpoint the location of a leak. The information is then downloaded onto a laptop computer and analyzed to determine if there was any leak "noise" identified between the loggers, as shown in Figure 3-6.

*Figure 3-6 Logger Data Download*

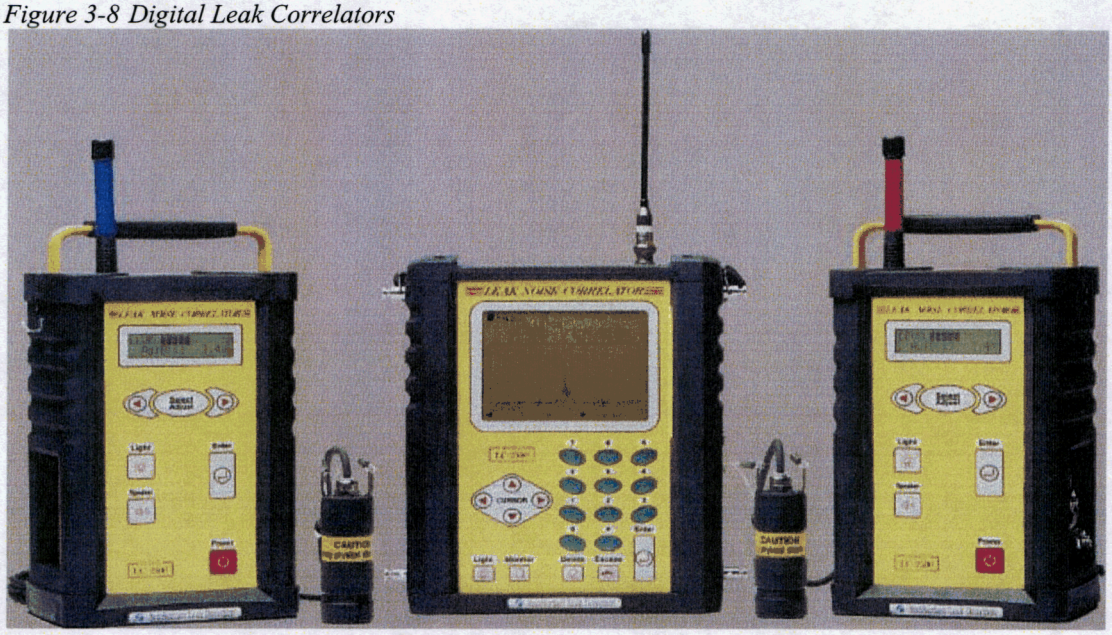
If leak noise is identified, a "correlation spike" will present itself in the data, as shown in Figure 3-7. At this time, the operator can input the pipe size, material type, and distance between the loggers to pinpoint the location of the leak.

*Figure 3-7 Leak Noise Correlation Spike*




The third type of leak detection equipment, the digital leak correlator, as shown in Figure 3-8, is used to pinpoint the location of the leak noise (and, presumably, also the leak) on a real-time basis, as well as confirming or validating locations of suspected leaks identified through surveys conducted by the digital leak detection logger or geophones.

*Figure 3-8 Digital Leak Correlators*



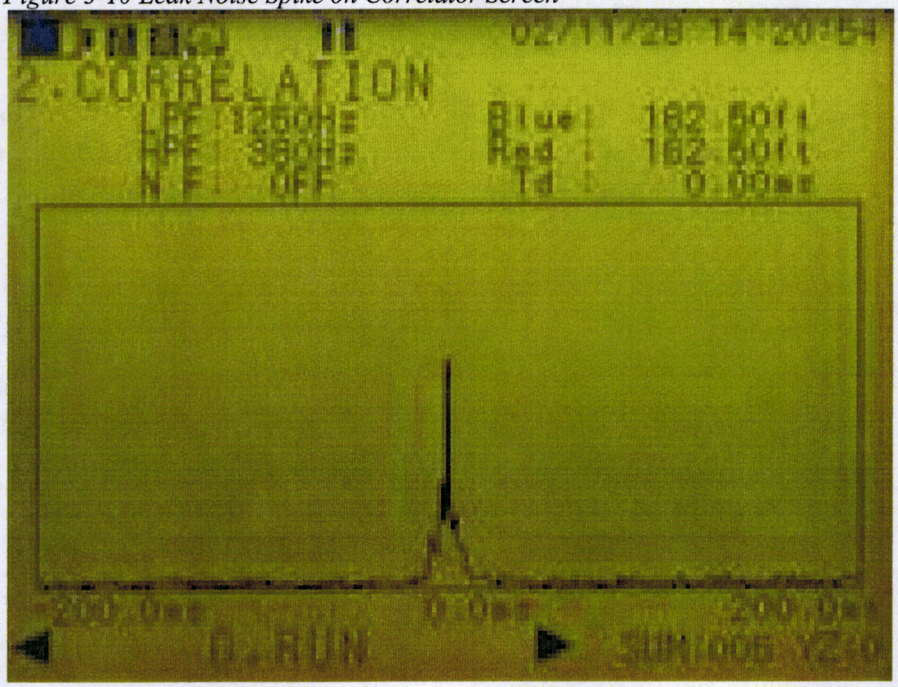
The digital leak correlator system consists of one main processor that is used to receive and process signals from two transmitters, which are placed on valves, hydrants, or meters by a special sensor mounting device or directly on the water main itself. When searching

for or pinpointing leaks, the size, material type, and length of each pipe that is located between the transmitters must be entered into the main processor, as shown in Figure 3-9.

*Figure 3-9 Data Entry for Use of Correlator*

If leak noise is observed, a spike appears on the main processor screen, along with the calculated distance from the leak to each of the transmitters, as shown in Figure 3-10.

*Figure 3-10 Leak Noise Spike on Correlator Screen*



Employees use digital leak correlators to confirm the validity of the data generated by the main processor by moving the transmitters to different locations, which can help to verify the original reported location of the leak (i.e. the indicated point of leak). When comparing the output from each correlation, locating or predicting the same point of leak confirms the point where repair crews should begin to excavate for repairs.

There are drawbacks and challenges to using any type of leak detection equipment, including electronic leak detection equipment. Because sound resonates much better on metal pipe, water systems with large amounts of non-metallic pipe (e.g. CA and PVC) do not always achieve consistent or reliable results when using leak detection equipment to locate smaller leaks. Background noise that is not associated with leaks, such as road traffic, electric transformers, other nearby utility lines, or functioning meters, can interfere with or skew the results from electronic leak detection equipment.

The Company's employees undergo extensive training in the proper operation, use, and interpretation of results generated from each type of leak detection equipment. The use of these types of equipment has proven to be an effective tool for locating water main and service line leaks and breaks, facilitating repairs and helping to reduce water losses. The Company also documents water leaks through the use of the Water Loss Control form, as shown in Figure 3-11, to assist in the collection of water leak data. This form is completed each time a leak is discovered and repaired, providing a detailed accounting of the leak and its repair, including the location, pipe condition, cause of leak, labor-hours expended and other associated costs. The information collected on this form is used to identify problem areas where additional leak detection efforts may be needed and also helps to determine the timing and priority of water main and service line replacements.

*Figure 3-11 Water Loss Control Form*

**ARIZONA WATER COMPANY**

**WATER LOSS CONTROL FORM**

**DATE:** _____ **SYSTEM:** _____ **PWSID AND NAME:** _____ **LEAK #:** _____

**TYPE OF LEAK:** SERVICE ☐ MAIN ☐ FITTING ☐ VOLUME (GPM) _____

**LOCATION OF LEAK:** LEGAL DESCRIPTION: ¼ SEC. _____ SEC. _____ T. _____ R. _____

ADDRESS #: _____ STREET NAME: _____

LOT#: _____ SUBDIVISION NAME: (e.g.. PINEWOOD UNIT 1) _____

LOCATION: (e.g. MAJOR CROSS STREETS, INTERSECTION) _____

**SERVICE/MAIN/FITTING CONDITION:**

YEAR: _____ MATERIAL: _____ SIZE: _____ LENGTH: _____ FITTING TYPE: (e.g. Meter/Valve) _____ DEPTH OF COVER: (inches) _____

**EXTERIOR CONDITION:** (CIRCLE ONE) BAD POOR FAIR GOOD EXCELLENT

**EXTERIOR CONDITION DESCRIPTION:** (e.g. CORROSION, PITS, CRACKS)

_____

_____

POLY-WRAPPED: YES ☐ NO ☐

**INTERIOR CONDITION:** (CIRCLE ONE) BAD POOR FAIR GOOD EXCELLENT

**INTERIOR CONDITION DESCRIPTION:** (e.g. CORROSION, PITS, TUBERCULATION, SCOURING, SLIME GROWTH)

_____

_____

DESCRIPTION OF LEAK: (e.g. PINHOLE, RADIAL CRACK, AXIAL CRACK, COUPLING/JOINT, COLLAPSE)

_____

_____

CAUSE OF LEAK: (e.g. CORROSION, FREEZING, BEDDING/BACKFILL, EARTH SETTLING, SURGE, ADJ. CONST. ACTIVITIES)

_____

_____

DESCRIPTION OF REPAIRS MADE: _____

_____

_____

_____

**REQUIRED ATTACHMENT: COPY OF ¼ ATLAS WITH LOCATION OF LEAK MARKED WITH A RED "X"**
**REQUIRED ATTACHMENT: MATERIAL(S) LIST AND COST(S)**
**REQUIRED DIGITAL PHOTOS: RENAME FILE TO *{LEAK #-YR-PIC#}*** {FORMAT 001-11-01.JPG, 001-11-02.JPG, ETC...}
PLACE DIGITAL PHOTOS IN THE LEAK DETECTION DIRECTORY UNDER THE APPROPRIATE DIVISION/SYSTEM ON THE COMPANY'S SHARED DRIVE

**TOTAL LABOR HOURS:** _____

**TOTAL MATERIAL COST:** $ _____

**LEAK DETECTION EQUIPMENT USED** (Y/N): _____

### 3.3. Leak Repair

The Company reduces water losses through timely maintenance and repairs of leaks and breaks. The Company's employees schedule repairs of smaller water main and service line leaks as soon as possible, while water main breaks are always repaired on an emergency basis. Water main leaks are much more difficult to locate than water main breaks as they are smaller and not always easily detectable or visible, except through more advanced methods of detection, such as through the use of listening devices, leak detection equipment (discussed in Section 3.2) and by conducting leak surveys.

### 3.4. Meter Maintenance Program

The Company's meter maintenance program establishes the criteria for meter repairs or replacement. The Company does not repair or replace water meters based solely on years in service. Repairing or replacing all meters based solely on years in service, without regard to gallonage and water quality, is not an effective and efficient use of resources. Instead, the Company's meter shop, through many years of experience testing and repairing water meters, has established comprehensive maintenance criteria based on gallonage, length of time in service, and water quality. Water quality varies between systems and can even vary within a system. These variances can have a significant impact on the useful life of a metering device. For example, the presence of sand and other fine materials can cause abrasive wear on meters and build up or deposits from hard water can increase friction on moving parts, causing a meter to "run slow", both of which can cause increased water losses (apparent losses, as defined later in this report).

The Company's meter shop also performs periodic, random tests of each water system's meters to provide an ongoing assessment of the suitability of meter maintenance criteria for each system. In this manner, the Company ensures that meter accuracy is maintained within industry standards for each water system, verified through random meter testing, while still keeping apparent losses due to meter inaccuracies low. The Company's meter maintenance and testing program benefit each of the Company's water systems. Nearly 2,000 meters were either repaired or replaced in the Eastern Group water systems in 2010 alone.

### 3.5. Meter Selection Review

Following guidelines provided by the Company's meter shop, the Company's engineering department reviews new meter applications prior to establishing water service. Typically, 5/8 x 3/4-inch water meters are installed for new residential subdivisions. Residential and non-residential meter applications that require 1-inch or larger water meters can result in wide ranges of flows, with the largest meter applications typically including fire flows. As a result, the Company's engineering department determines the appropriate size and type of meter for each specific use to meet the service needs and accurately measure all water provided throughout the anticipated range of flows. Again, apparent losses are minimized when the correct meter is chosen for the particular application.

## 4.0 WATER MAIN AND SERVICE LINE MATERIALS

### 4.1. Water Main Material Types

The Company has installed many sizes and various types of materials of water mains in the Eastern Group water systems. As shown in Graph 4-1 and Table 4-1, there are over 600 miles of water mains of various types of materials in service today.

*Graph 4-1 Miles of Water Mains in Service by Material Type - Eastern Group*

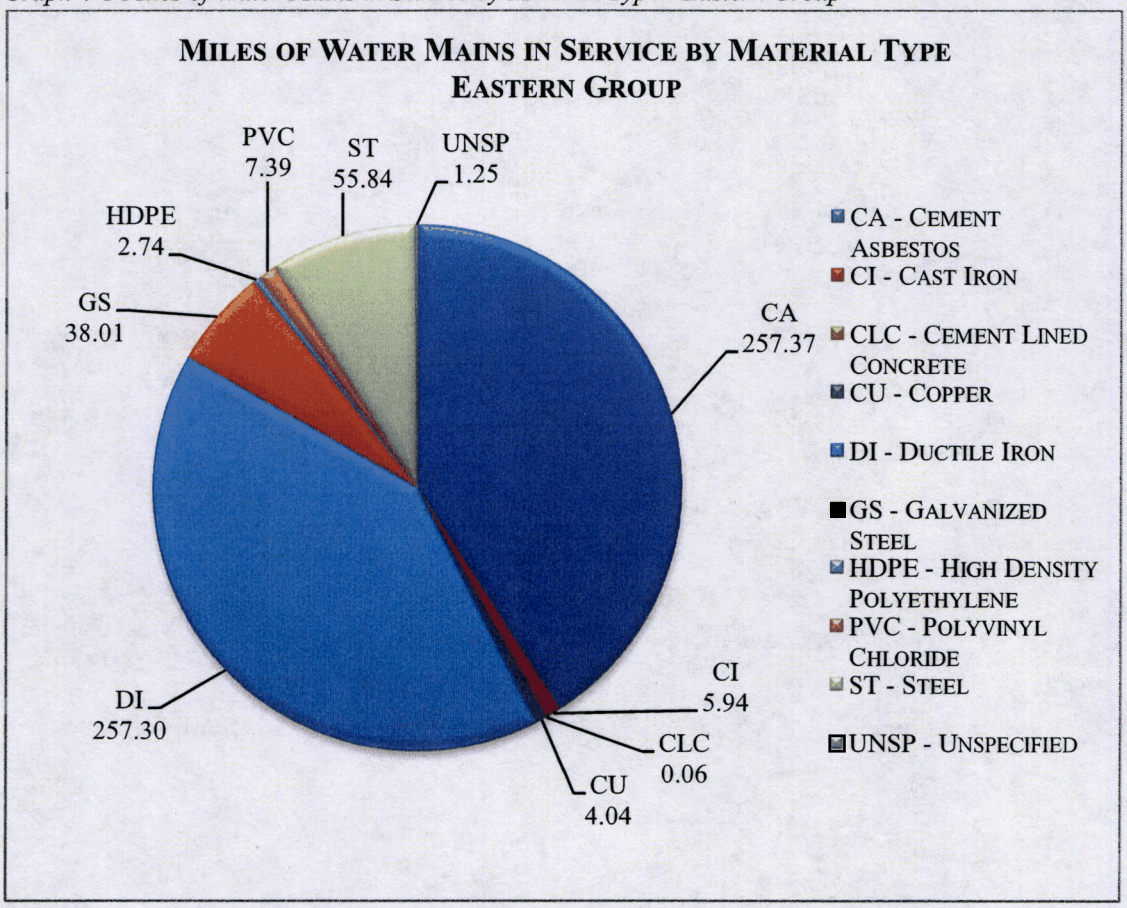


*Table 4-1 Miles and Linear Feet of Water Mains in Service by Material Type - Eastern Group*

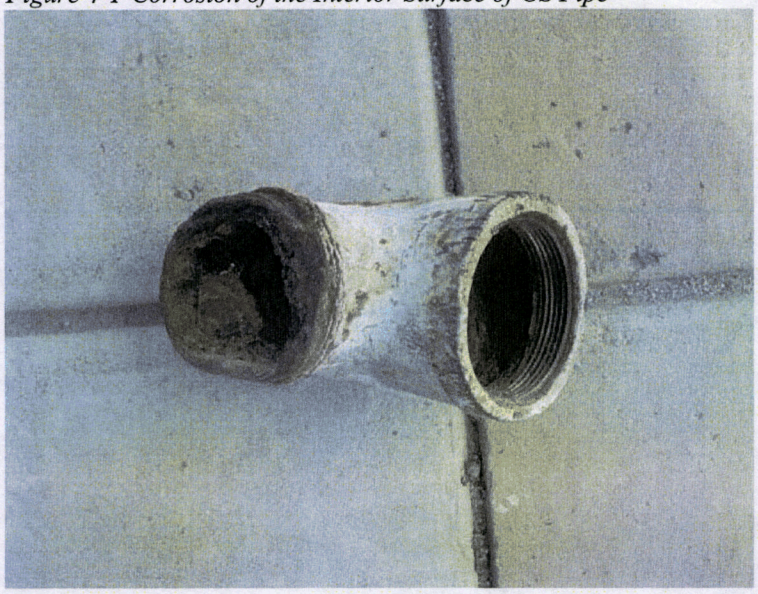
| MILES AND LINEAR FEET OF WATER MAINS IN SERVICE BY MATERIAL TYPE EASTERN GROUP | | |
|---|---|---|
| MATERIAL TYPE | MILES OF WATER MAINS | LF OF MAINS |
| CA - CEMENT ASBESTOS | 257.37 | 1,358,909 |
| CI - CAST IRON | 5.94 | 31,362 |
| CLC - CEMENT LINED CONCRETE | 0.06 | 316 |
| CU - COPPER | 4.04 | 21,342 |
| DI - DUCTILE IRON | 257.30 | 1,358,520 |
| GS - GALVANIZED STEEL | 38.01 | 200,715 |
| HDPE - HIGH DENSITY POLYETHYLENE | 2.74 | 14,480 |
| PVC - POLYVINYL CHLORIDE | 7.39 | 38,998 |
| ST - STEEL | 55.84 | 294,809 |
| UNSP - UNSPECIFIED | 1.25 | 6,598 |
| **TOTAL** | **629.94** | **3,326,049** |

Water mains of different material types have been installed over the past 100 years, starting with ST from the early 1900s to the early 1950s. Also, GS was commonly used on smaller diameter water mains from the 1910s to the 1960s. CI water mains were first installed in the 1930s. CA water mains were used predominantly from the 1930s to the mid 1980s. CA pipes were originally expected to have a longer useful life and better flow characteristics than CI, GS, or ST pipe. Since 1986, DI pipe has been used exclusively by the Company in the Eastern Group water systems for new installations.

Nearly 527,000 LF of water mains in service today were constructed of CI, GS, or ST pipe, without any additional form of corrosion protection. As with any ferrous type material, water mains deteriorate through pitting corrosion, graphitization, and tuberculation build-up. One form of corrosion protection, cement lining, applied to the interior of water mains reduces internal rates of corrosion. But, cement lining of pipes did not begin until the 1940s. Consequently, ferrous type water mains that were installed before 1940 suffer from both the internal and external effects of corrosion, further increasing the potential for leaks. The rate and extent of corrosion of water main materials is affected by environmental factors as well, such as the presence of oxygen, moisture, soluble salts, cathodic/anodic corrosion, sulfate reducing bacteria, water main installation methods, bedding materials, use of active and passive cathodic protection systems, and other environmental factors.

Some of the metal water mains in the Eastern Group water systems have failed from corrosion. Corrosion weakens the structural integrity of the pipe, increasing the likelihood of failure. Internal corrosion in unprotected metal water mains leads to the formation of loose, porous rust, ferric hydroxide, which crystallizes to form a build-up of corrosion on the internal, unlined surface of the pipe, commonly referred to as "tuberculation". Corrosion on the interior surface of the pipe results in encrustation inside the pipe, reducing the flow capacity to a point that it has to be replaced to provide required flow. Figure 4-1 provides an example of corrosion on a 2-inch GS pipe elbow installed in 1949.

*Figure 4-1 Corrosion of the Interior Surface of GS Pipe*



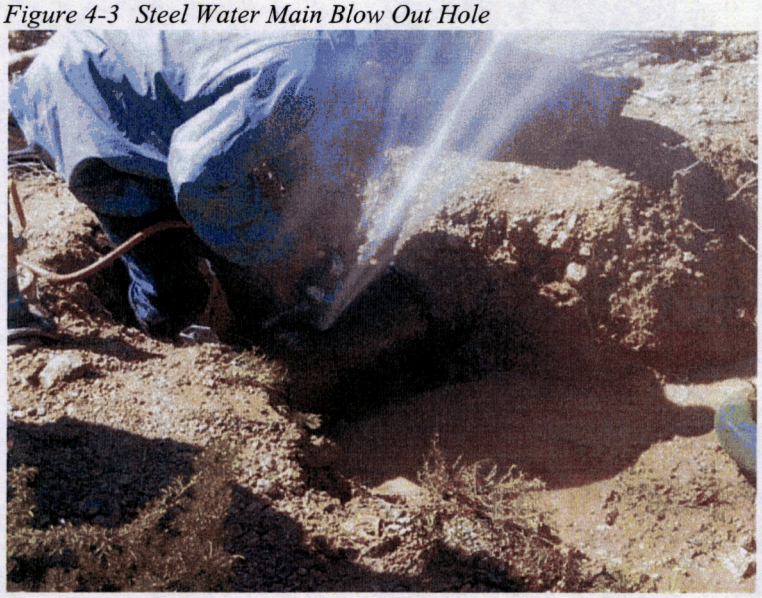
Corrosion pitting usually occurs below the build-up of corrosion scale on the inner wall of the pipe. Such build-up causes operating problems by reducing the flow capacity of the water pipe. Removing the build-up without applying an internal protective lining only accelerates the rate of pit corrosion until a new build-up of corrosion scale is formed (Thomson and Wang 2009). For these reasons, the standard industry practice is to not clean or otherwise disturb the corrosion build-up inside uncoated CI, GS, and ST water mains. Another type of corrosion process is graphitization, that causes some of the iron to be removed from the pipe wall, leaving behind a graphite flake matrix held together by rust. Graphitization can form a solid substance, creating the illusion of undamaged material. The matrix of graphite flakes is significantly weaker than the original CI material. This matrix may be strong enough to temporarily resist the forces of the pipe's internal water pressure, but ultimately, these pipes will leak or fail.

Water main failures are typically caused by forces applied to the pipe that exceed its residual strength, which has been reduced by the effects of corrosion. Forces on water mains include those produced by internal water pressure, bending, crushing, soil movement, and thermal expansion. Bending of ferrous metal pipes, a type of loading condition, is a common cause of failure made worse by the effects of corrosion. Another loading condition that commonly causes water main failures results from soil locking to the pipe wall through friction forces, after which, soil movement creates tension in the water main resulting in water main failures (Makar et al. 2001). Corrosion (rusting) of the outer pipe wall is shown in Figure 4-2. The rust effectively increases the coefficient of static friction between the pipe wall and soil, which can lead to increased tensile forces, and ultimately, to increased water main failures.

*Figure 4-2 Corrosion of the Outer Wall of Pipe*

Common causes of water main failure include blowout holes, circumferential cracking, bell splitting, longitudinal cracking, bell shearing, and spiral cracking. Smaller diameter water mains experience smaller forces from internal water pressure, but have smaller moments of inertia, making them susceptible to longitudinal bending failures. Larger diameter water mains experience larger forces from internal water pressure and have higher moments of inertia, making them susceptible to longitudinal cracking and shearing at the bell (Makar et al. 2001). Blowout hole failures occur when corrosion pitting thins the pipe wall to the point where the internal water pressure blows out the remaining reduced thickness pipe wall, as shown on Figure 4-3.

*Figure 4-3 Steel Water Main Blow Out Hole*



One of the most common modes of failure of smaller diameter pipe observed by the Company is circumferential cracking caused by bending forces applied to the pipe. The failure crack propagates around the circumference of the pipe, and is visually similar to a twig snapping. Bell splitting is another common type of failure for smaller diameter pipe caused by thermal expansion and contraction. Longitudinal cracking and bell shearing are common types of failures seen in larger (larger than 16 inches in diameter) pipes, since larger water mains have a high moment of inertia that does not lead to circumferential failures. Bell shearing failures are caused by bending forces or from compressive forces pushing the spigot of one length of pipe into the bell of the next pipe.

Graph 4-2 and Table 4-2 show that a significant portion of the distribution system in the Eastern Group (approximately 82 percent) is comprised of CA or DI water mains. In addition, 1,770,000 LF (over 50 percent) of water mains in service within the Eastern Group water systems are 6-inch or smaller. As described in this section, 6-inch and smaller water mains fail more frequently and have a shorter useful life.

*Graph 4-2 Breakdown of Water Mains in Service by Material Type - Eastern Group*

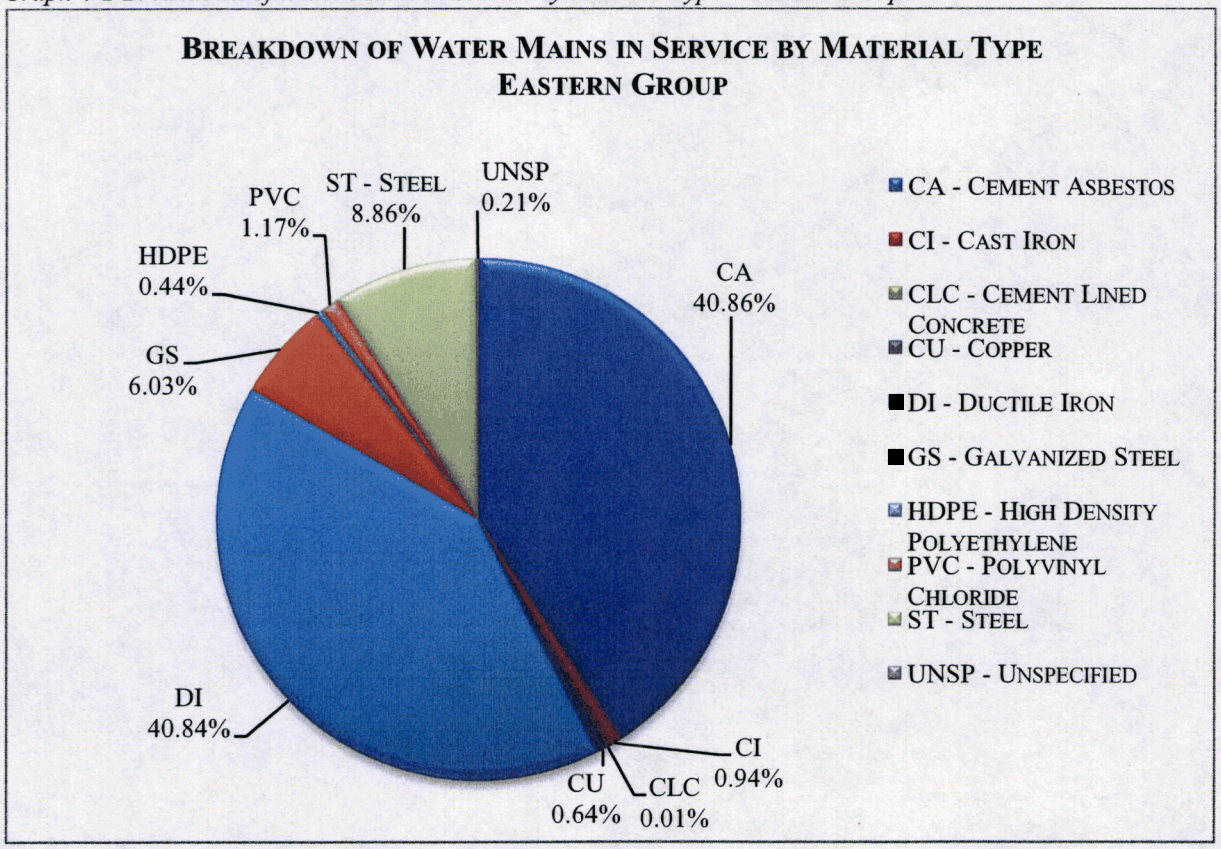


*Table 4-2 Breakdown and Linear Feet of Water Mains in Service by Material Type - Eastern Group*

| BREAKDOWN AND LINEAR FEET OF WATER MAINS IN SERVICE BY MATERIAL TYPE EASTERN GROUP | | |
|---|---|---|
| MATERIAL TYPE | PERCENTAGE OF WATER MAINS | LF OF WATER MAINS |
| CA - CEMENT ASBESTOS | 40.86% | 1,358,909 |
| CI - CAST IRON | 0.94% | 31,362 |
| CLC - CEMENT LINED CONCRETE | 0.01% | 316 |
| CU - COPPER | 0.64% | 21,342 |
| DI - DUCTILE IRON | 40.84% | 1,358,520 |
| GS - GALVANIZED STEEL | 6.03% | 200,715 |
| HDPE - HIGH DENSITY POLYETHYLENE | 1.17% | 38,998 |
| PVC - POLYVINYL CHLORIDE | 0.44% | 14,480 |
| ST - STEEL | 8.86% | 294,809 |
| UNSP - UNSPECIFIED | 0.21% | 6,598 |
| **TOTAL** | **100%** | **3,326,049** |

CA water mains were commonly used in the Company's water systems since the 1930s. CA does not corrode in the same manner as ferrous (i.e. CI, GS, ST) water mains and was considered a superior product compared to CI or GS water mains because of its low friction factors and non-metallic construction. However, chemical changes can occur in the cement substrate of the CA pipe due to the interaction of water and the internal surface of the pipe and from the interaction of the surrounding soil and the external surface of the pipe. These chemical changes cause a loss of strength in the composite material. Deterioration of the pipe and changes in material or pipe integrity are not immediately visible as there is no color change or reduction in wall thickness. CA pipe deteriorates through the decomposition of hydrated silicates in the cement substrate, due to the leaching of calcium hydroxide. As the calcium hydroxide leaches out of the CA pipe, hydrated silicates decompose and release more calcium hydroxide. This degenerative process continues until most of the hydrated silicates are decomposed, resulting in material that is weak and unstable, leading to leaks, breaks, and failure of the pipe. The Company discontinued the use of CA for new water mains in 1986, when it updated its specifications to require the use of DI or PVC pipe.

Concerns over the failure and useful life of CA water mains have prompted many studies. For example, a study that analyzed pipe breaks in urban water systems identified the positive relationship between the rate of pipe breakage and age (Kettler and Goulter 1985). This study confirms the effects of age on pipe breaks and validates the Company's observation that water leaks are increasing as its water systems age. Other studies have shown that the pipe breakage rate is also influenced by pipe diameter, with a higher breakage rate for smaller diameters (Guan 1995, Mordak and Wheeler 1988). The higher breakage rate can be attributed to thinner pipe wall and lower bending resistance of smaller diameter pipe (Mordak and Wheeler 1988). The Eastern Group has nearly 1,038,000 LF (76 percent) of CA water mains in service that are 6 inches or smaller in diameter, as shown in Table 4-3.

*Table 4-3 Linear Feet of CA Water Mains in Service by Diameter - Eastern Group*

| LINEAR FEET OF CA WATER MAINS IN SERVICE BY DIAMETER EASTERN GROUP | |
|---|---|
| WATER MAIN SIZE | LF OF WATER MAIN |
| ≤ 6-INCH | 1,037,842 |
| > 6-INCH | 321,067 |
| **TOTAL** | **1,358,909** |

Based on the leak repair history data collected and presented in Appendix 9.1 the Company has observed a considerable increase in the number of leaks on 6-inch and smaller diameter water mains than it has for water mains larger than 6 inches in diameter. For example, Figure 4-4 shows a picture of a blowout hole failure for a CA water main in the Company. This is the most common type of water main failure in the Company, due to deterioration of CA water mains, as described above. The Mordak and Wheeler 1988 study observed this same phenomenon.

*Figure 4-4 Blowout Hole Failure in a CA Water Main*

All water mains deteriorate with age, creating an increased risk of failure over time. The water mains made of CI, GS, and ST must be replaced because they are reaching the end of their useful lives, and account for over 85 percent of all water mains installed between 1900 and 1949 in the Eastern Group water systems, as shown in Graph 4-3 and Table 4-4. Based on this information, a primary focus of the Company's proposed replacement projects identified in Sections 5.4.2 and 7.4.2, is the replacement of CI, GS, and ST water mains which have shown excessive instances of breaks and leaks.

*Graph 4-3 Breakdown of Water Mains Installed 1900-1949 in Service by Material Type - Eastern Group*

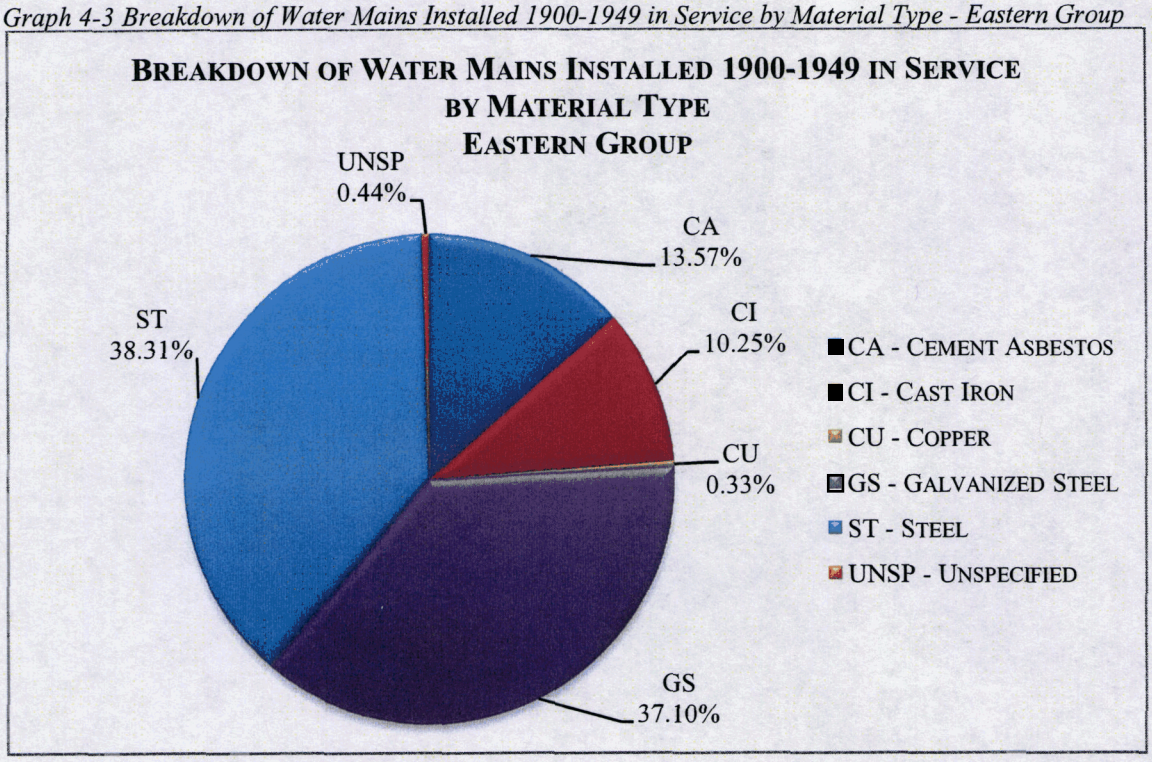



*Table 4-4 Breakdown and Linear Feet of Water Mains Installed 1900-1949 in Service by Material Type - Eastern Group*

| BREAKDOWN AND LINEAR FEET OF WATER MAINS INSTALLED 1900-1949 IN SERVICE BY MATERIAL TYPE EASTERN GROUP | | |
|---|---|---|
| **MATERIAL TYPE** | **LF OF MAIN** | **PERCENTAGE** |
| CA - Cement Asbestos | 31,444 | 13.57% |
| CI - Cast Iron | 23,767 | 10.25% |
| CU - Copper | 764 | 0.33% |
| GS - Galvanized Steel | 85,986 | 37.10% |
| ST - Steel | 88,782 | 38.31% |
| UNSP - Unspecified | 1,025 | 0.44% |
| **TOTAL** | **231,768** | **100.00%** |

The useful life of water mains varies considerably based on a number of factors, including pipe material, soil conditions, and water quality. Failing water mains are replaced where feasible, subject to budget constraints. Recent construction budgets have not had sufficient funds to replace aging infrastructure within the useful life of such infrastructure and, as a result, there has been an increase in the frequency of water main breaks in the Eastern Group. The Company is unable to adequately fund the replacement of aging infrastructure; with such circumstance affecting utilities nationwide (Leaks 1994).

The oldest CI pipes manufactured date to the late 1800s and had an average life span of about 120 years. CI pipes manufactured in the 1920s had an average life span of about 100 years. In general, water pipes installed since World War II have a life span estimated to be only around 75 years. The problem is that all three eras of pipe manufacture and installation will need to be replaced at about the same time (Cooper et al. 2009).

The AWWA has coined the term "The Replacement Era" to refer to the years 2000 to 2030, in which a significant portion of the nation's water distribution system infrastructure will need to be replaced (Cromwell et al. 2001). The AWWA projects that utilities, such as the Company, will require significant adjustments in revenues to recover the costs associated with these expenditures (Cromwell et al. 2001).

Significant capital investment is needed in the Eastern Group to replace aging infrastructure and ensure safe, reliable, and adequate water service to the Company's customers. The Company's investment needs for water main replacements are forecasted on an annual basis for the Eastern Group water systems and are based on the current age of the water mains and their estimated useful lives.

### 4.2. Service Line Material Types

Water service lines are typically constructed from several different types of materials, including CU, GS, PB, PE, and PVC. GS water service lines are subject to corrosion and show signs of failure similar to those seen in CI, GS and ST water mains, including pitting corrosion and internal corrosion build up.

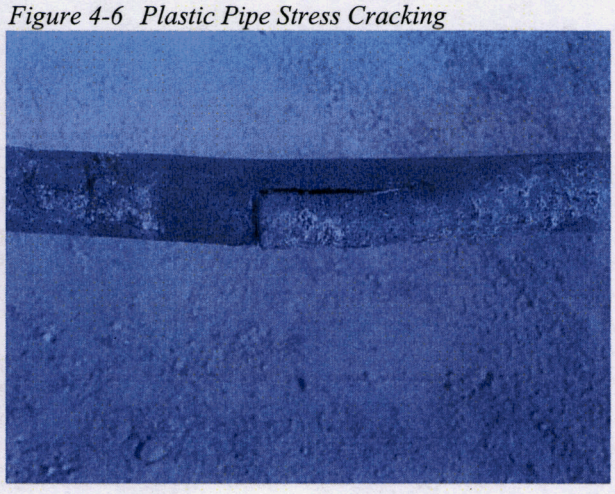
Plastic pipe was first commercially introduced in the United States in the 1940s. In 1948, large-scale production of plastic pipe began with the introduction of PE which was used in various water applications (DeBerry et al. 1982) and was first used for water service lines and household plumbing. PE is formed by the polymerization of ethylene. PE has a very high chemical resistance and, as a result, cannot be joined using adhesives or solvent cements, but instead must be joined by compression or thermal fittings. PE service lines used by the Company had carbon black added as part of the manufacturing process, which was a common method to protect from ultraviolet radiation (sunlight deterioration). Another type of plastic pipe used for service lines was PB, which has a rigidity similar to that of low density PE, but has a strength greater than that of HDPE. Unlike PE, PB has the ability to retain strength with increasing temperature. Its initial flexibility made it a prime candidate for use in water service lines. Compared to most metals used in the water industry, thermoplastics such as PB and PE offer significantly higher corrosion resistance. Thermoplastics are also not significantly affected by the inorganics in drinking water or the chemicals used in water treatment, such as acids, bases and brines. Thermoplastics are not susceptible to electrochemical and galvanic corrosion because they are not conductors, unlike metal water mains. PB and PE pipes are also not affected by stray currents in the soil. Stray currents in soil can come from active cathodic protection system such as those used by gas utilities for protection of steel gas pipelines. Stray current can also come from various electrical sources, such as power lines. This resistance to electrochemical corrosion eliminates the need for cathodic protection and special coatings. At

the time of their installation, the water industry expected that PB and PE service lines would prove to be superior to CU and GS as service line materials.

However, unlike CU, DI, GS, and ST, environmental stress cracking is a significant factor in PB and PE plastic pipe degradation, as shown in Figure 4-6. This form of degradation is due to stress concentrations on the PB and PE plastic pipe, particularly at joints and fittings. These concentrated stresses arise from: 1) forced alignment of pipe and fittings, 2) thermal expansion and contraction, 3) settling structures, and 4) long-term dimensional changes (DeBerry et al. 1982).

*Figure 4-5 Plastic Service Leak*

*Figure 4-6 Plastic Pipe Stress Cracking*

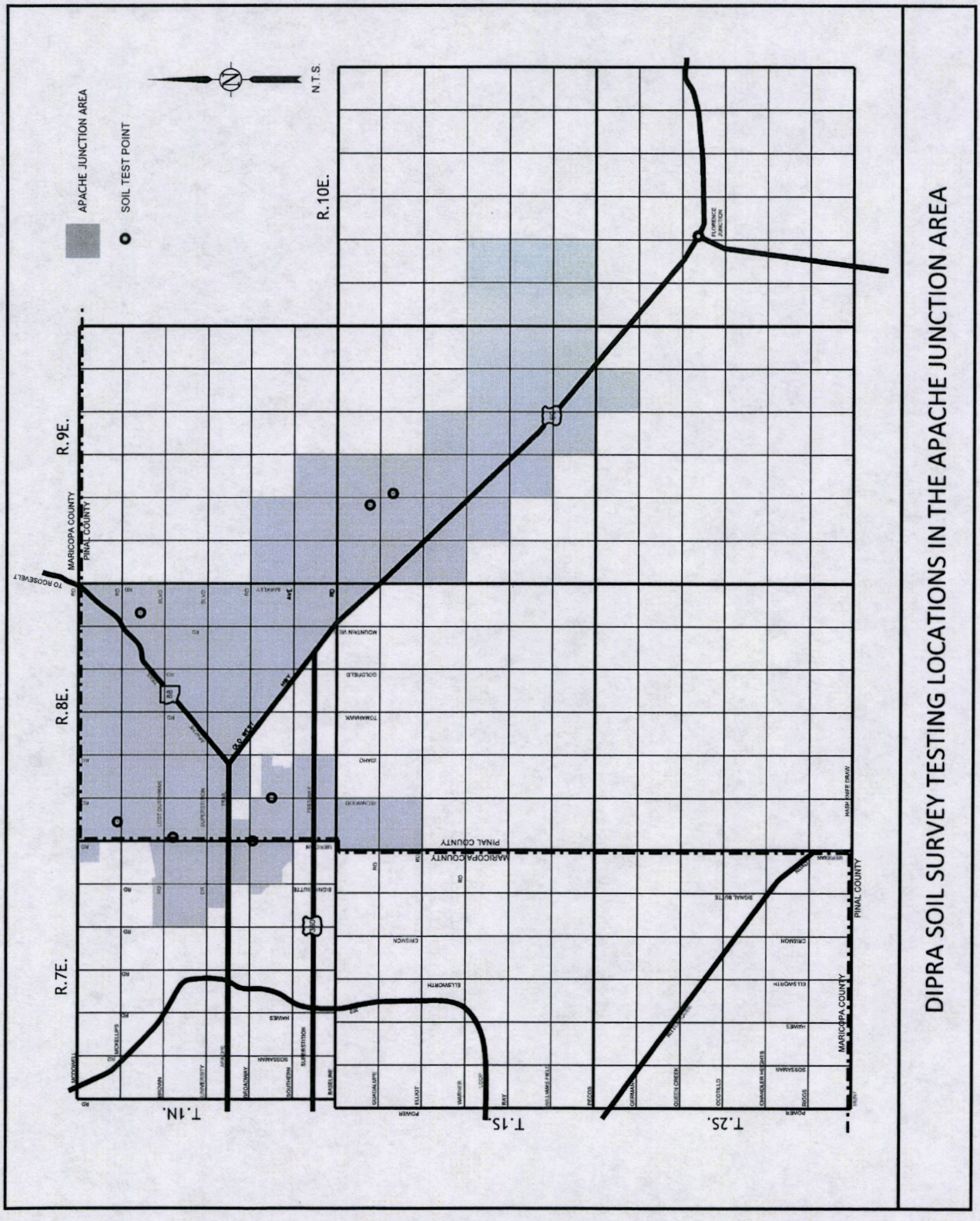


Plastic services like PB and PE were commonly used by the water industry from the 1960s to the 1980s. The Company installed most of its plastic water service lines in the 1970s. Decades later, these plastic service lines have increasingly failed, as shown in Figure 4-5, leading to increased leaks and breaks, initially requiring repairs but eventually requiring replacement. The Company estimates that over 7,000 or 25% of all existing water service lines installed in the Eastern Group water systems were constructed of either PB or PE materials. Because of the high percentage of PB and PE water service lines and their increasing failures, these types of service lines contribute significantly to increased water losses. Two of the leading causes of failed plastic services seen by the Company are forced alignment of pipe and fittings and thermal expansion and contraction. Currently, CU is used for all new water service line installations 2 inches and smaller in diameter.

## 4.3. Soil Corrosivity Surveys and Polyethylene Encasement

In June 1986, DIPRA performed a soil corrosivity survey for several of the Company's water systems. This survey was performed in conjunction with the Company's update in specifications from CA to DI water mains and was used to identify where external corrosion protection was needed for the installation of DI pipe in its various water systems. For example, test locations were selected in various portions of the Apache Junction area, see Map 4-1. All field and laboratory procedures were conducted in accordance with Appendix A of ANSI/AWWA C105/A21.5 Standard.

*Map 4-1 DIPRA Soil Survey Testing Locations in the Apache Junction area*



The soil survey report used the industry adopted "10-Point" method to determine soil corrosivity per Appendix A of ANSI/AWWA C105/A21.5 Standard. Under this method, the soil is analyzed for resistivity, pH, redux potential, sulfides, and moisture. All of these characteristics have been shown to contribute to soil corrosivity. Points are assigned through a piecewise function of each of the soil characteristics' measurements. Values that are more corrosive are assigned more points. The soil is considered corrosive to ferrous metal pipes when the sum of all the points for the five soil properties listed above is greater than or equal to ten points. However, the point scale for soil resistivity has changed since the soil survey report was performed in 1986. Table 4-5 shows the difference in values.

*Table 4-5 Corrosivity Point Scale*

| | CORROSIVITY POINT SCALE | | |
|---|---|---|---|
| **Year** | **1982** | **2010** | |
| **Standard** | **AWWA C105/A21.5-82** | **AWWA C105/A21.5-10** | |
| | **RESISTIVITY - OHM-CM** | | **POINTS** |
| | ≤700 | <1500 | 10 |
| | 700-1000 | ≥1500-1800 | 8 |
| | 1000-1200 | >1800-2100 | 5 |
| | 1200-1500 | >2100-2500 | 2 |
| | 1500-2000 | >2500-3000 | 1 |
| | >2000 | >3000 | 0 |

The point scale in 1986 required the resistivity value to be much lower in order to be considered corrosive. However, there have been studies (Tucker 1986) showing that soil resistivity is the soil characteristic that contributes the most to soil corrosivity. Table 4-6 shows the results of the soil resistivity measurements taken from the sample locations in the Apache Junction area reported in the soil survey report.

*Table 4-6 Results of Apache Junction Soil Survey Soil Resistivity*

| APACHE JUNCTION TEST LOCATIONS | RESISTIVITY OHM-CM | POINT SCORE | |
|---|---|---|---|
| | | OLD | NEW |
| IRONWOOD - 200 FEET NORTH OF 16TH AVE. | 1,360 | 2 | 10 |
| BROADWAY AND MERIDIAN | 2,000 | 1 | 2 |
| FOOTHILLS EAST OF MERIDIAN | 5,200 | 0 | 0 |
| WARNER AND WHITELY | 3,000 | 0 | 1 |
| SIX SHOOTER AND SIGNAL TREE | 2,000 | 1 | 5 |
| BALBOA AND DEL MONTE | 1,600 | 1 | 8 |
| GOLF COURSE TANK SITE | 2,850 | 0 | 1 |

Using the old point scale, the highest corrosivity reading was two points, with six out of seven sample sites assigned zero or one point. Under the new point scale, four of the seven sample sites were assigned five or more points, with one sample site being given 10 points, showing the soils in the Apache Junction area are much more corrosive to DI pipe than was previously considered.

PE encasement (or polywrap) acts as a protective barrier between the water line and the surrounding soil. Any water that enters the annular space between the PE encasement and the water line, with its available oxygen, reaches a point at which the oxidation process stops long before damage occurs to the DI or CU pipe. This is due to the limited availability of oxygen, which is needed for corrosion to occur. Further, pinholes in the loose polyethylene wrapping material do not significantly diminish its ability to protect the water line against corrosion.

In the last four to five years, the Company began to see pinhole corrosion leaks develop in copper water service lines, caused by corrosive soils. As a result, the Company now requires PE encasement for CU service line installations. In addition, the Company also requires the use for PE encasement (or polywrap) for its DI water main installations, which consists of wrapping the DI water main with PE tubes or sheets. PE encasement has been used worldwide for more than fifty years as an effective external corrosion protection system for CI, CU and DI pipe. Once installed, PE encasement is a passive protection system that does not require monitoring, supervision, or maintenance. The first national standard in the United States for PE encasement ANSI/AWWA C105/A21.5 was adopted in 1972 and, in 1974, the American Society of Testing and Materials issued its standard for PE (ASTM A674).

Under the new point scale system, the June 1986 soil survey report would now confirm that PE encasement, in accordance with ANSI/AWWA C105/A21.5 Standard, is required for DI water main installations in the Apache Junction area to protect against corrosive soils.

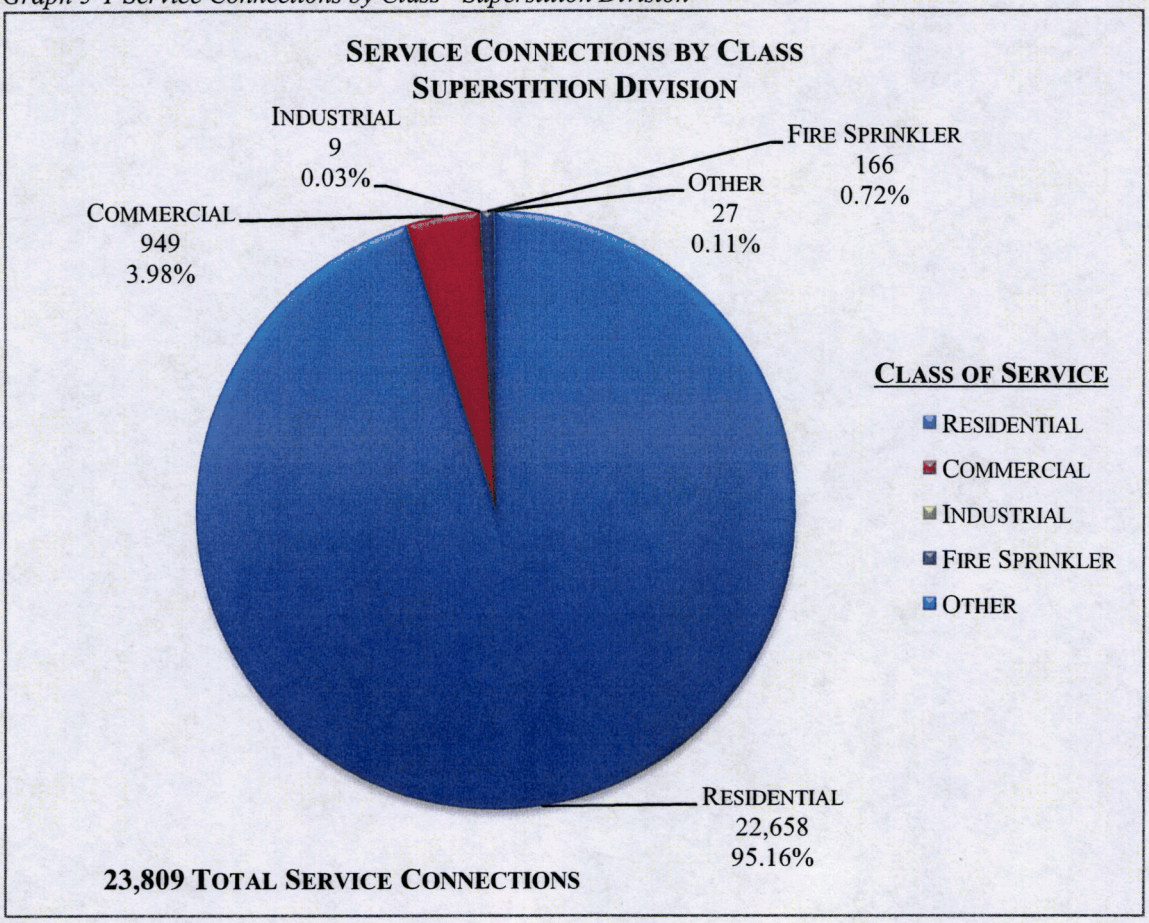
## 5.0 SUPERSTITION DIVISION

### 5.1. Overview of the Existing Water Systems

#### 5.1.1. Water System Background

The Company's Superstition Division includes the Apache Junction, Miami and Superior water systems, within which include a number of communities in Gila, Maricopa, and Pinal Counties, including portions of the City of Apache Junction, the City of Mesa, the City of Globe, Gold Canyon, Florence Junction, the Town of Superior and the Town of Miami. The Superstition Division water systems currently serve over 23,800 residential, commercial, and industrial customers, with an estimated population of more than 70,000 people.

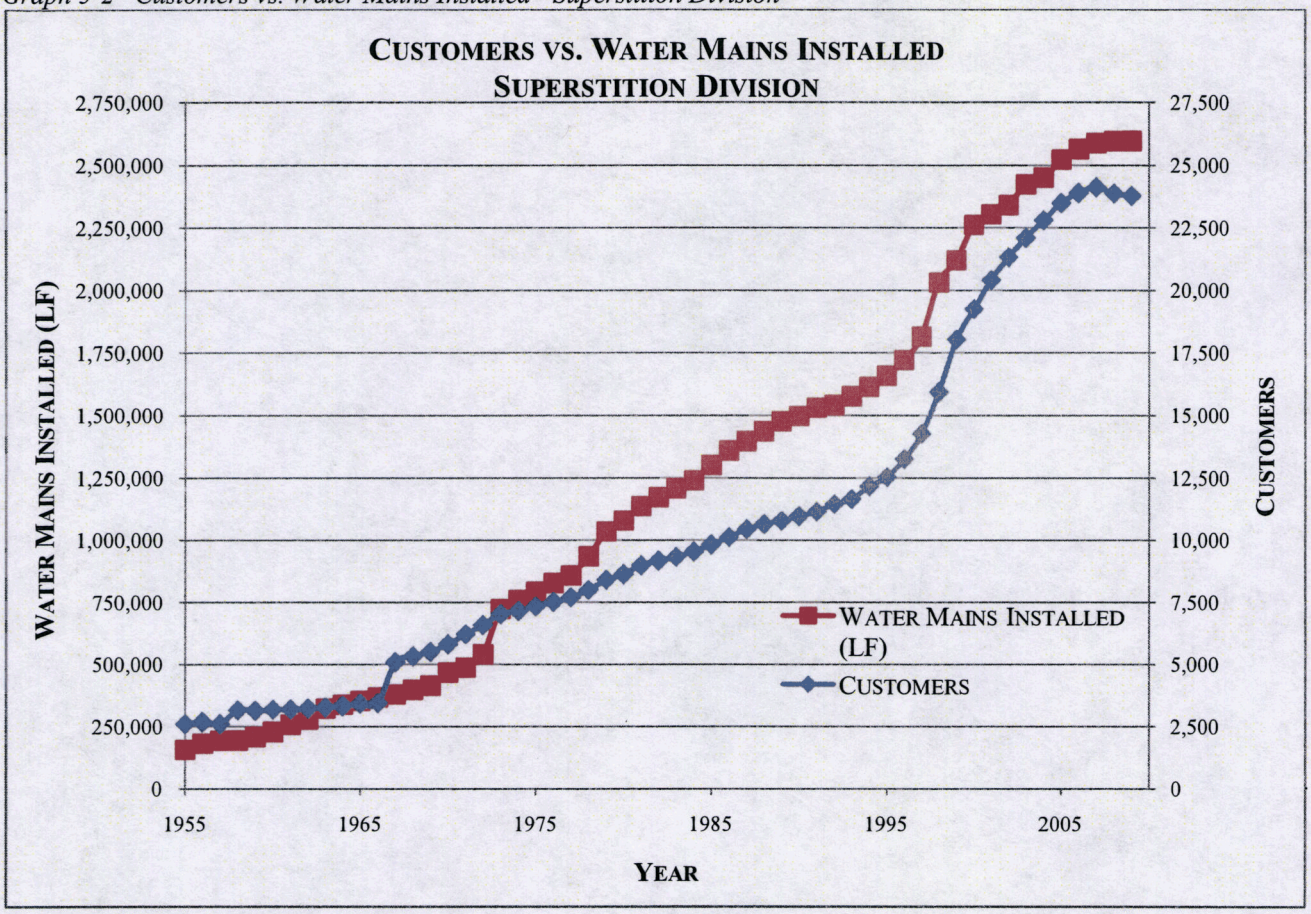
*Graph 5-1 Service Connections by Class - Superstition Division*




As shown in Graph 5.1 above, 95 percent of all service connections are classified as residential (most of which use 5/8 x 3/4-inch meters). Four percent of service connections are classified as commercial and one percent is classified as industrial, fire sprinkler, or other.

Like other water systems in the Company, water main installations track customer growth in the Superstition Division and, although many new miles of transmission and distribution water mains and service connections were constructed in the mid-1990s and the mid-2000s, as shown in Graph 5-2, the Superstition Division water systems still utilize many older water mains and service connections constructed of GS, ST, CI and CA. The oldest of these mains were first installed in the late 1910s and remain in service today. These older water mains show extensive corrosion and other visible signs of aging, such as increasing occurrences of leaks and breaks, which lead to increased water losses and repairs.

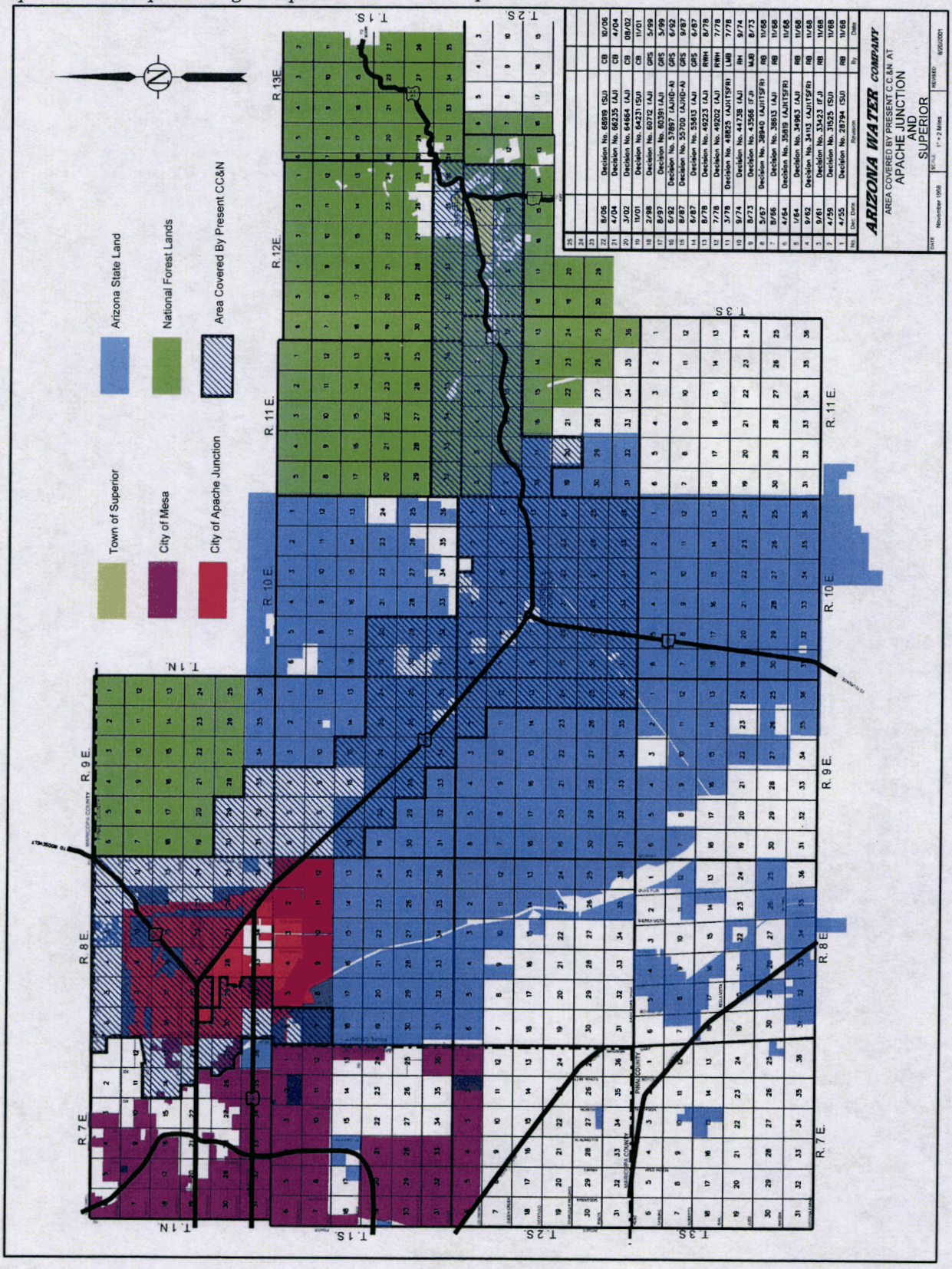
*Graph 5-2 Customers vs. Water Mains Installed - Superstition Division*




5.1.2. Certificate of Convenience and Necessity

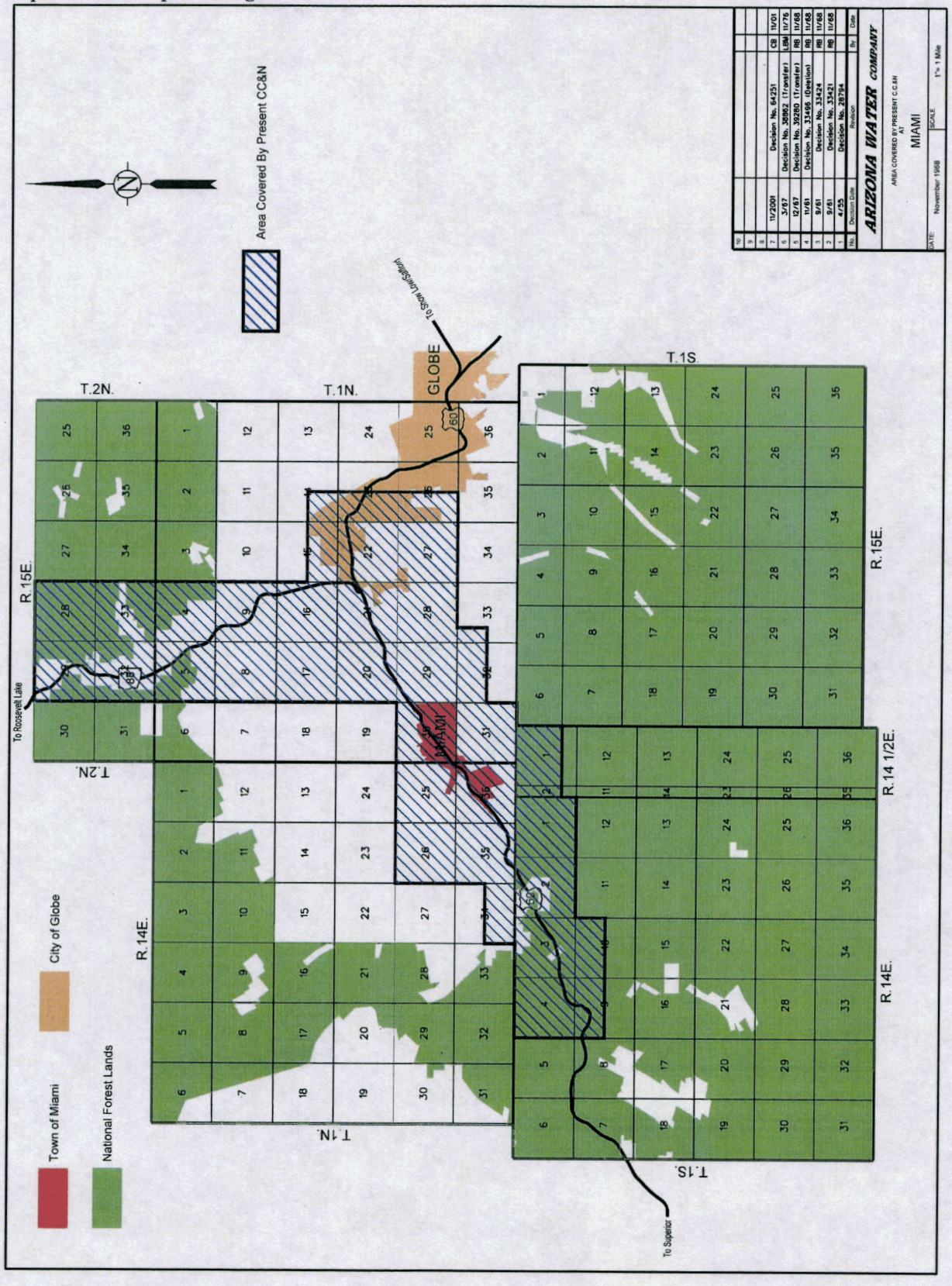
The CCN covering the Apache Junction and Superior areas is comprised of over 152 square miles, located mostly in northern Pinal County with a small portion located in eastern Maricopa County, as depicted in Map 5-1. The water system extends into portions of the City of Mesa to the West, includes most of the City of Apache Junction and the Town of Superior, is bordered by the Tonto National Forest to the North and East and by Arizona State Land to the South.

*Map 5-1 CCN Map Covering the Apache Junction and Superior areas*



The CCN covering the Miami area is comprised of over 31 square miles located in Gila County, as depicted in Map 5-2 and includes the Town of Miami, portions of the City of Globe, and certain unincorporated areas in Gila County. This CCN area is bordered by the Tonto National Forest on the North, West, and South, and the City of Globe on the East.

*Map 5-2 CCN Map Covering the Miami area*



### 5.1.3. Source of Supply

Apache Junction water system customers receive their water from eight wells that have a combined maximum production capacity of over 17 MGD. All of the water from these wells is pumped to one of two centralized arsenic treatment plants. The treated water is delivered to ground level water storage tanks, and is then pumped into the distribution system from two points of entry. The Apache Junction water system has 12 elevated storage water tanks that store over 16 million gallons of water. 15 pump stations distribute water throughout the Apache Junction water system's 11 pressure zones.

Miami water system customers receive their water from 16 wells that have a combined maximum production capacity of over 2.2 MGD. More than half of the water production comes from three of the Miami water system's largest wells that pump into a transmission line located in the northernmost portion of this water system. The other 13 wells deliver water to one of five pressure zones in the distribution system. The Miami water system has over 2.7 million gallons of water storage capacity. Nine pump stations and the 13 wells described above distribute water throughout the Miami water system's eight pressure zones.

Superior water system customers receive their water from three wells that have a combined maximum production capacity of over 1.8 MGD. All of the wells pump to a single centralized arsenic treatment plant. The treated water is delivered to a ground water storage tank and then pumped through a 26-mile transmission line that delivers water to two elevated storage water tanks that have a capacity of approximately 2.5 million gallons of water. The static pressure at the booster station is over 545 psi and the pressure increases to over 800 psi when the booster pumps are operating. The transmission line is above ground and the water temperature in the pipe can reach 140 degrees Fahrenheit. A cooling tower cools the water to less than 100 degrees Fahrenheit before being delivered into the distribution system. There are three pressure zones, one high pressure booster pump station, and one small booster station in this water system.

### 5.1.4. Distribution System

There are approximately 500 miles of water mains of varying size, material, and age in service in the Superstition Division's three water systems. The 2.6 million linear feet of water mains in the Superstition Division's water systems are constructed from a number of different materials, such as CA, CI, CLC, CU, DI, GS, HDPE, PVC, ST, and other materials. There are approximately 23,800 water service connections which use primarily CU, DI, GS, PB, PE and ST materials.

Water mains vary in size from less than 2 inches to 36 inches in diameter. Graph 5-3 and Table 5-1 show the lengths of water mains in service (in miles and linear feet) by water main size diameters (in inches). There are over 81 miles or 429,000 LF of water mains 4 inches or smaller in diameter, as shown in Table 5-1. In accordance with the Company's Terms and Conditions for the Provision of Water Service, Tariff TC-243, the Company's current design standards require new water mains to be no smaller than 6 inches in diameter.

*Graph 5-3 Miles of Water Mains in Service by Diameter - Superstition Division*

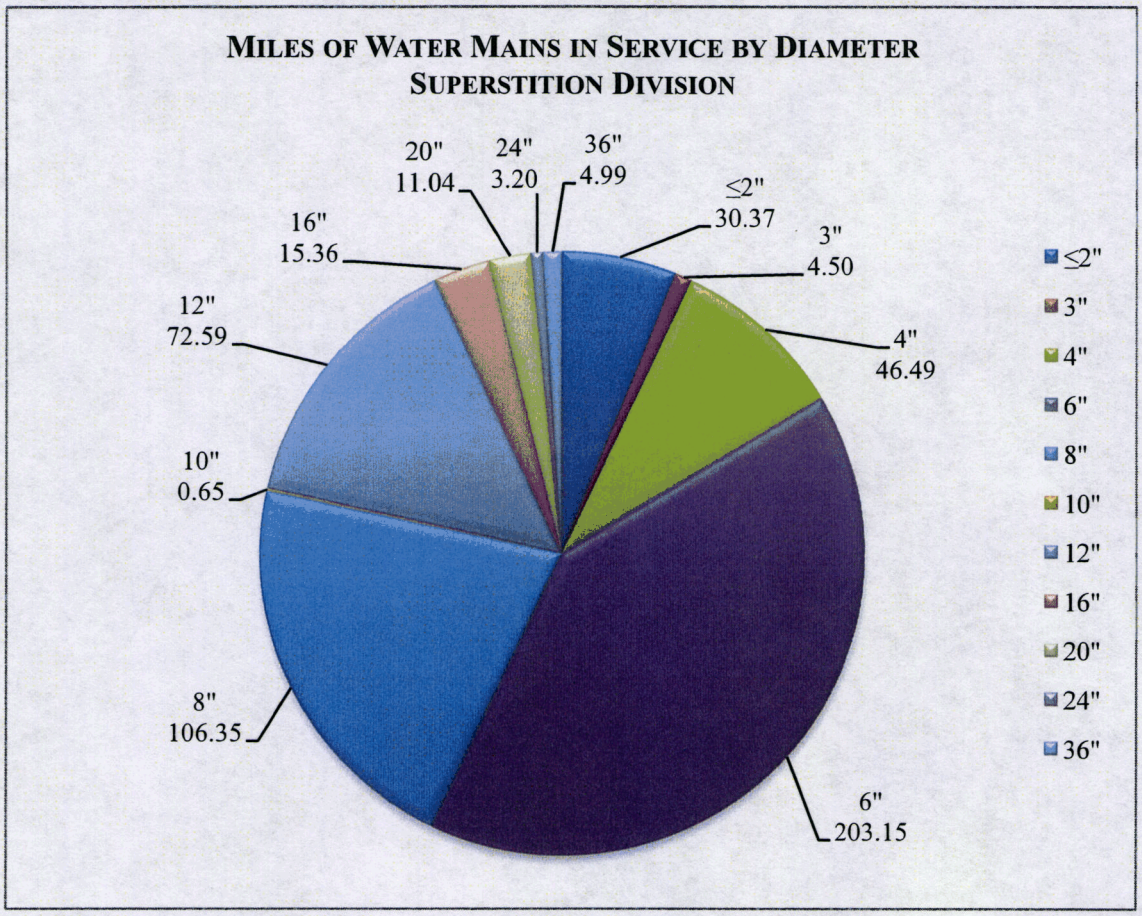



*Table 5-1 Miles and Linear Feet of Water Mains in Service by Diameter - Superstition Division*

| MILES AND LINEAR FEET OF WATER MAINS IN SERVICE BY DIAMETER SUPERSTITION DIVISION | | |
|---|---|---|
| **WATER MAIN SIZE** | **MILES OF WATER MAINS** | **LF OF WATER MAINS** |
| ≤2" | 30.37 | 160,358 |
| 3" | 4.50 | 23,777 |
| 4" | 46.49 | 245,491 |
| 6" | 203.15 | 1,072,611 |
| 8" | 106.35 | 561,522 |
| 10" | 0.65 | 3,432 |
| 12" | 72.59 | 383,297 |
| 16" | 15.36 | 81,114 |
| 20" | 11.04 | 58,293 |
| 24" | 3.20 | 16,900 |
| 36" | 4.99 | 26,363 |
| **TOTAL** | **498.68** | **2,633,158** |

## 5.2. System Characterization and Assessment

As stated earlier, the Superstition Division water systems have approximately 500 miles of water mains, some of which were installed as far back as 1917. Graph 5-4 and Table 5-2 show the length of water main in service in the Superstition Division by decade installed. This table also shows that there are over 100,000 LF of active water mains installed before 1950.

*Graph 5-4 Miles of Water Mains in Service by Decade Installed - Superstition Division*

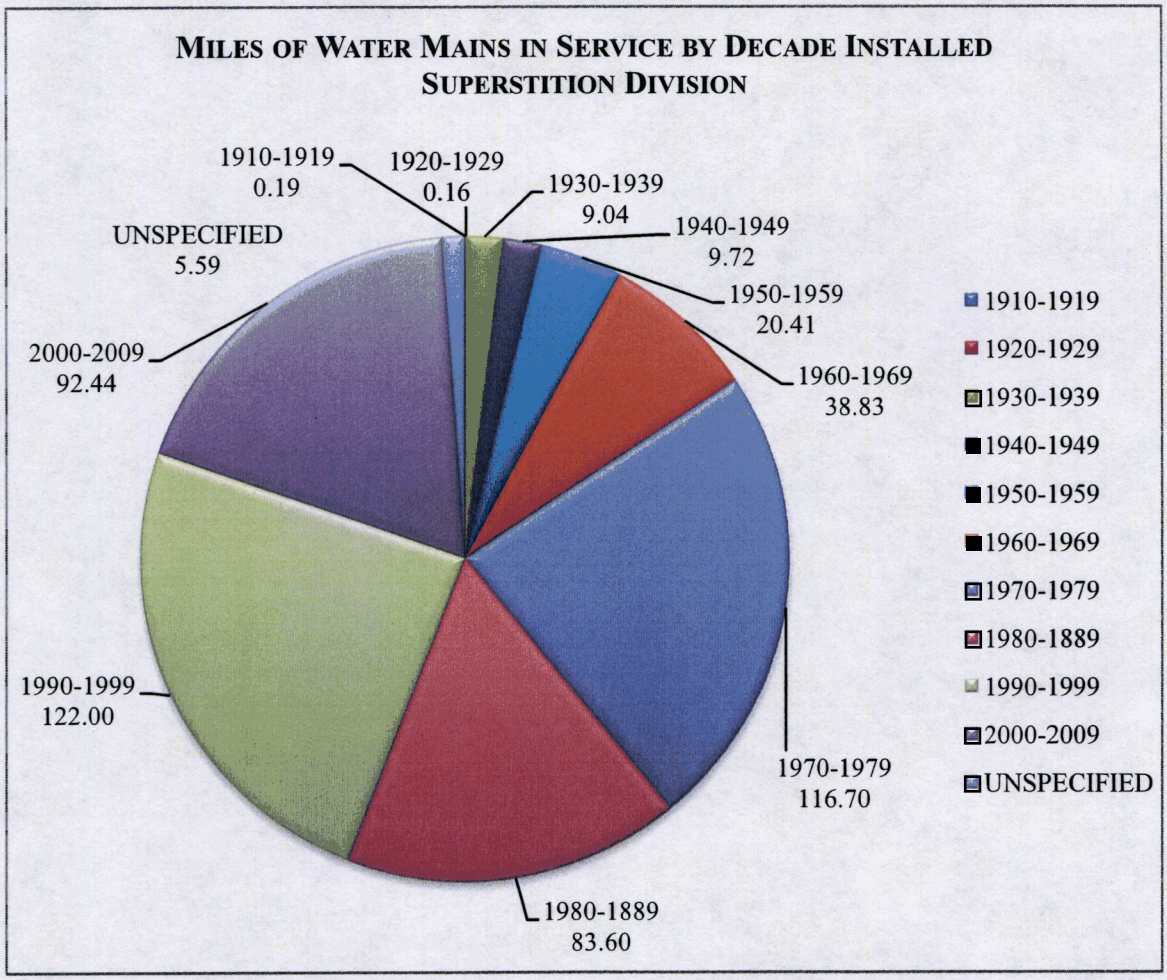


*Table 5-2 Miles and Linear Feet in Service by Decade Installed - Superstition Division*

| MILES AND LINEAR FEET OF WATER MAINS IN SERVICE BY DECADE INSTALLED SUPERSTITION DIVISION | | |
|---|---|---|
| **DECADE WATER MAINS INSTALLED** | **MILES OF WATER MAINS** | **LF OF MAINS** |
| 1910-1919 | 0.19 | 1,011 |
| 1920-1929 | 0.16 | 860 |
| 1930-1939 | 9.04 | 47,743 |
| 1940-1949 | 9.72 | 51,333 |
| 1950-1959 | 20.41 | 107,780 |
| 1960-1969 | 38.83 | 205,024 |
| 1970-1979 | 116.70 | 616,198 |
| 1980-1889 | 83.60 | 441,405 |
| 1990-1999 | 122.00 | 644,179 |
| 2000-2009 | 92.44 | 488,086 |
| UNSPECIFIED | 5.59 | 29,539 |
| **TOTAL** | **498.68** | **2,633,158** |

### 5.2.1. Average Age of Water Mains

The Company's installation records for its Superstition Division show that the GS and ST water mains were installed beginning in the 1910s and the CA and CI water mains were installed beginning in the 1930s. These water main material types make up 50 percent of the Superstition Division, as shown in Graph 5-5 and Table 5-3, and some have been in service for over 80 years. The number of leaks has been increasing, according to the Company's records, showing that the older water mains have reached the end of their useful life and now require replacement.

*Graph 5-5 Breakdown of Water Mains in Service by Material Type - Superstition Division*

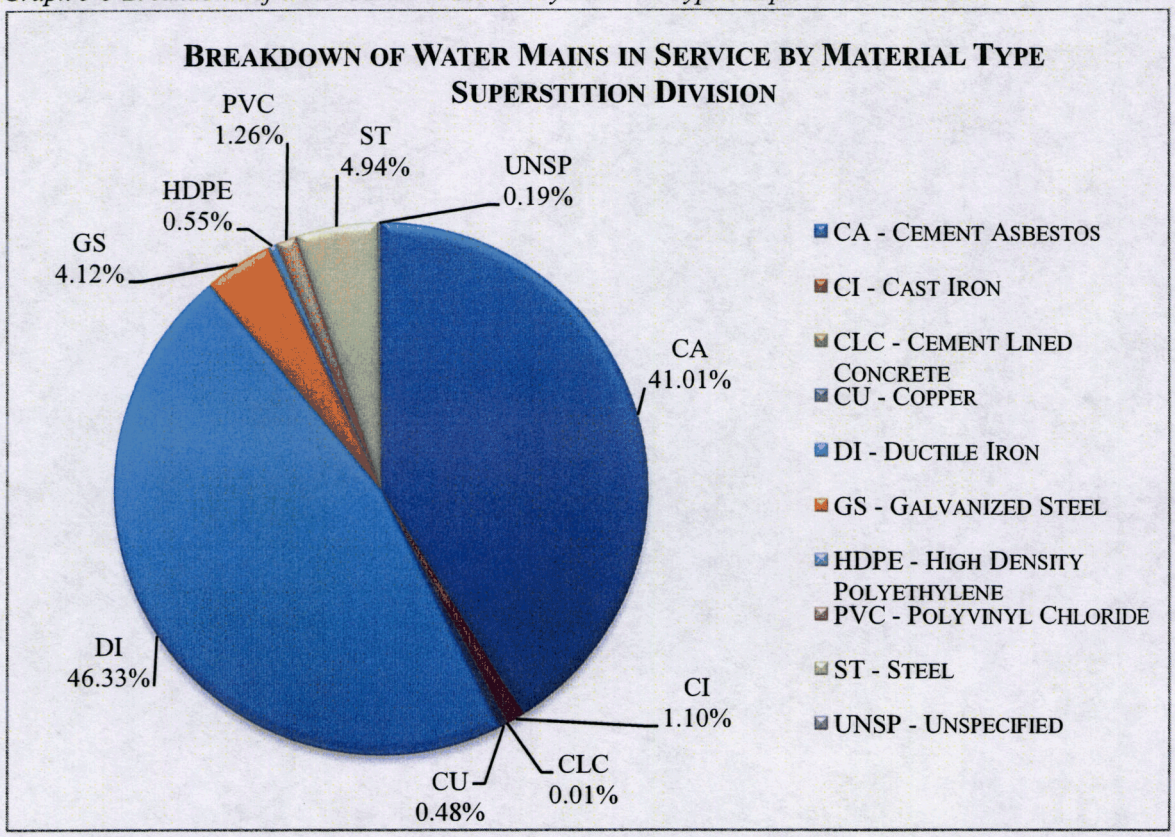
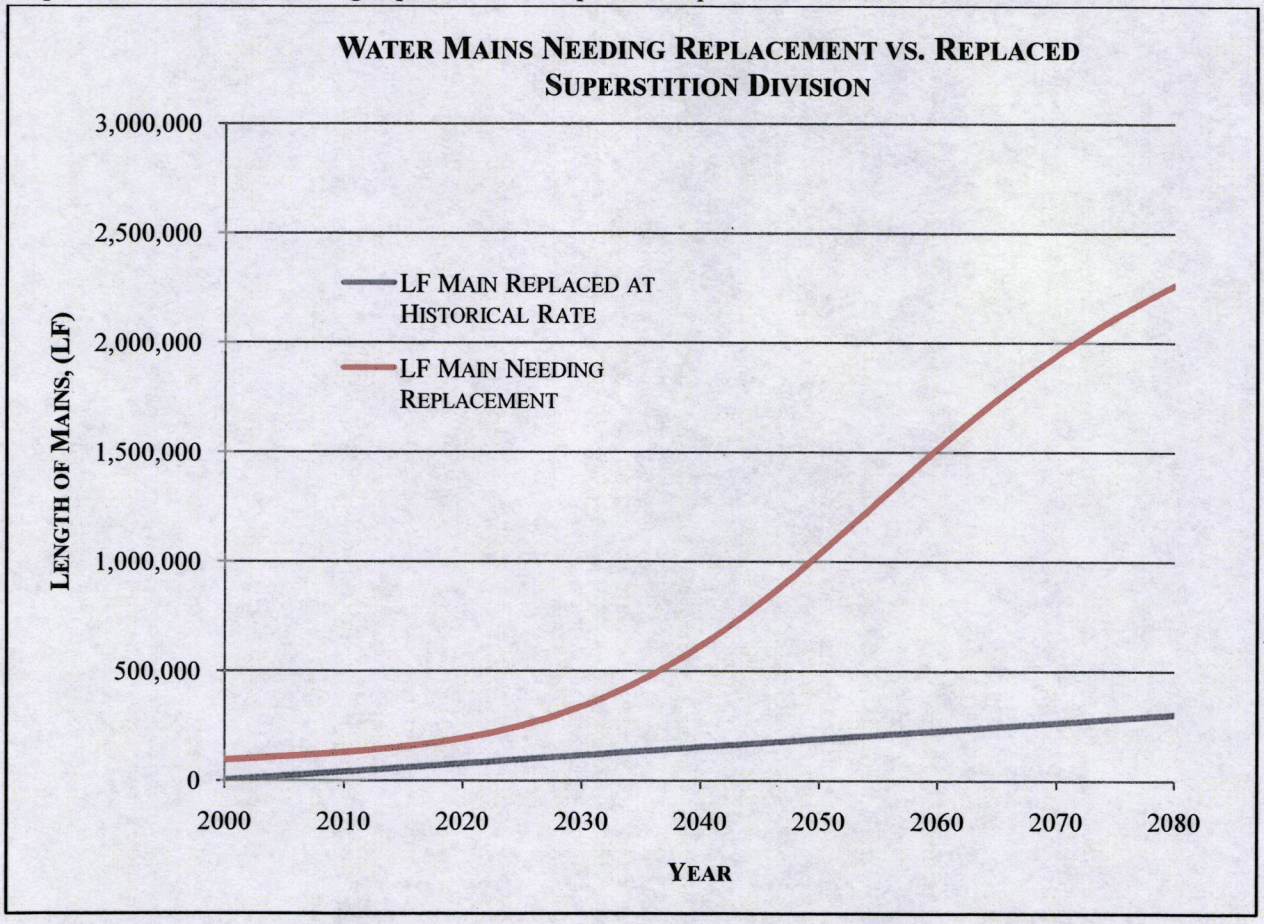



*Table 5-3 Breakdown and Linear Feet of Water Mains in Service by Material Type - Superstition Division*

| BREAKDOWN AND LINEAR FEET OF WATER MAINS IN SERVICE BY MATERIAL TYPE SUPERSTITION DIVISION | | |
|---|---|---|
| **MATERIAL TYPE** | **PERCENTAGE OF WATER MAINS** | **LF OF WATER MAINS** |
| CA - CEMENT ASBESTOS | 41.01% | 1,079,968 |
| CI - CAST IRON | 1.10% | 28,964 |
| CLC - CEMENT LINED CONCRETE | 0.01% | 316 |
| CU - COPPER | 0.48% | 12,711 |
| DI - DUCTILE IRON | 46.33% | 1,219,909 |
| GS - GALVANIZED STEEL | 4.12% | 108,426 |
| HDPE - HIGH DENSITY POLYETHYLENE | 0.55% | 14,480 |
| PVC - POLYVINYL CHLORIDE | 1.26% | 33,171 |
| ST - STEEL | 4.94% | 130,182 |
| UNSP - UNSPECIFIED | 0.19% | 5,031 |
| **TOTAL** | **100%** | **2,633,158** |

The Nessie Curve analysis is a predictive method to graph annual replacement needs based on the date of water main installations and their expected useful life. The Nessie Curve shows the original water main installation pattern for the Superstition Division. That pattern is similar to the graph of demographics that predicts future liabilities for the Social Security Trust Fund (Cromwell et al. 2001). By modeling the installation pattern and the useful life expectancy of water mains, the Company has estimated the timing and magnitude of the investment needed to fund these replacements. The analysis shows that approximately 160,000 LF of water main or approximately six percent of the Superstition Division needs to be replaced, including 4,250 plastic service lines and another 2,350 GS service lines over the next 10 years, at an estimated cost of $41.6 million in today's dollars, as detailed in Appendix 9.5.1. This analysis is based on the Company's review of the documented water main and service line repair history summarized in Appendix 9.1.1. Graph 5-6 shows the predicted water main replacements needed versus historical replacement rates in the Superstition Division, based on the Nessie Curve analysis and various other water industry studies, some of which are listed in this section.

*Graph 5-6 Water Mains Needing Replacement vs. Replaced - Superstition Division*



Graph 5-6 shows a growing need to replace water mains. The historical replacement rate of water mains from 2000 - 2009 is approximately 4,100 LF per year and is the starting point for the graph. Graph 5-6 shows that the current replacements needed are approximately three times greater than the current rate of replacement. Each year, replacement costs and the quantity of aging and failing water mains and service lines are escalating, making it increasingly more difficult to replace such aging mains and services.

### 5.2.2. Break and Repair History

Approximately 2,800 leaks and breaks have been recorded, mostly since 2005, in the Superstition Division. Leaks, repairs and replacement histories are listed in Appendix 9.1.1. Data collected included the date and location of the leak, as well as the source of the information. This data was gathered from the Company's records, which include Water Loss Control forms, Work Orders, Blue Stake Records, repair records noted on the Company's water system maps, Company databases, Property Disposal records, and Company employee notes. Per Graph 5-7, the number of leaks and breaks per year has been increasing, showing a deterioration of water mains and service lines, as well as a higher probability of future water main and service line leaks and breaks in the Superstition Division.

*Graph 5-7 Water Leaks by Type and Year - Superstition Division*

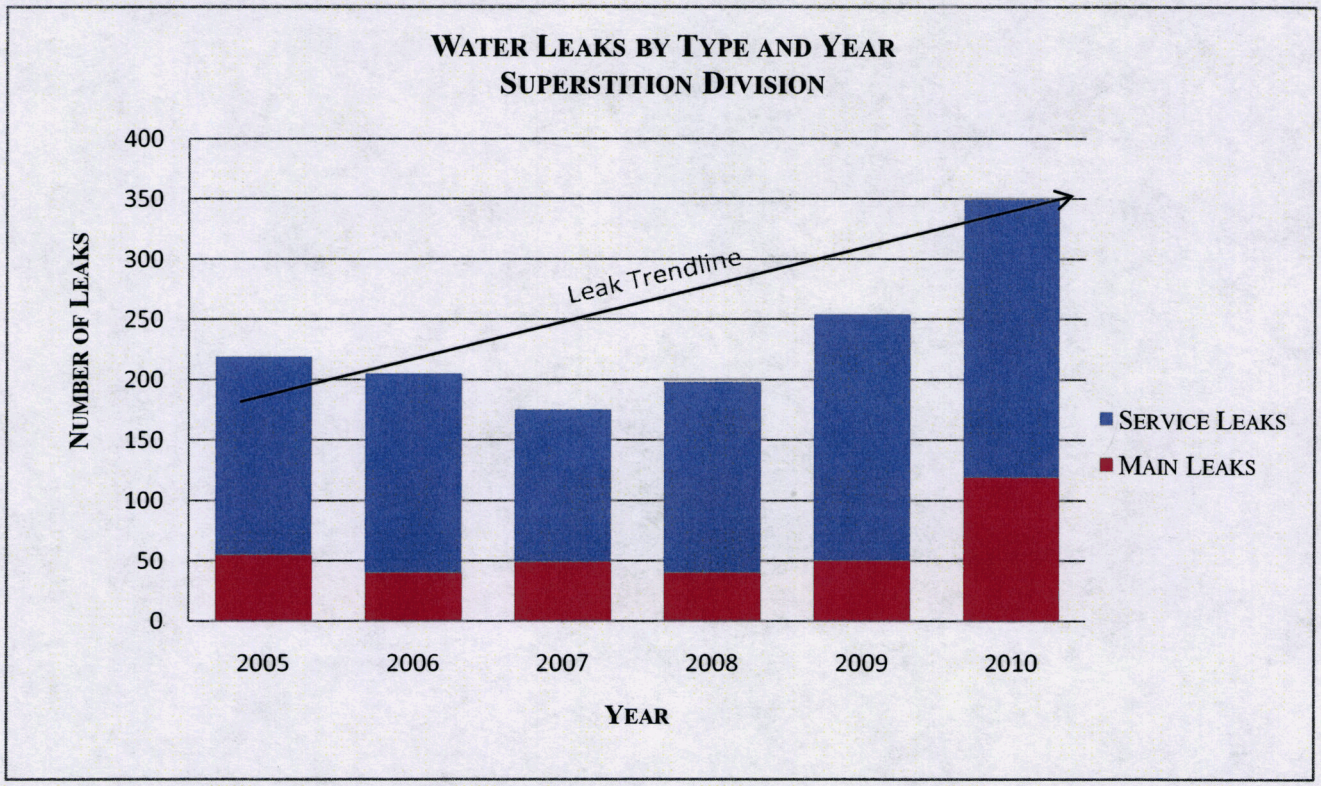


*Table 5-4 Water Leaks by Type and Year - Superstition Division*

| WATER LEAKS BY TYPE AND YEAR SUPERSTITION DIVISION | | |
|---|---|---|
| YEAR | MAIN LEAKS | SERVICE LEAKS |
| 2004 AND EARLIER | 256 | 1157 |
| 2005 | 55 | 164 |
| 2006 | 40 | 165 |
| 2007 | 49 | 126 |
| 2008 | 40 | 158 |
| 2009 | 50 | 204 |
| 2010 | 119 | 230 |
| **TOTAL** | **609** | **2204** |

In 2010, there were 349 recorded leaks or breaks, or more than one leak or break per work day. Additionally, as also shown in Table 5-4, the number of recorded water main breaks alone has increased in recent years, reaching almost 120 water main breaks in 2010. According to the EPA, there are more than 240,000 water main breaks per year or 650 water main breaks per day in the United States (AWI 2009). Information on water main and service line leaks, breaks, repairs, and replacements was used in this report to assess the condition of infrastructure. Graph 5-7 shows an upward trend in water main leaks and breaks from 2005 through 2010. Water main and service line leaks and breaks are commonly located under asphalt or sidewalks, which adds difficulty to locating the leak, as well as increasing the cost of repairs or replacements. In addition, traffic control is often required to redirect vehicular and pedestrian traffic around the affected areas, to provide sufficient work area for employees and equipment to excavate, stockpile materials, locate, and repair the leak or break. These are just some of the challenges the Company faces in making timely repairs and replacements of failed infrastructure in order to reduce water losses. The cost to repair a leak or replace a section of pipe can be significant, so it is important to address the causes of this increase in water main and service line leaks and breaks.

Graph 5-7 shows signs of a deteriorating distribution system in the Superstition Division. An EPA research program titled "Aging Water Infrastructure Research Program" supports this finding. The EPA program concluded that the number of water main breaks increases substantially as water mains near the end of their useful service life (AWI 2009). Water main and service line leaks and breaks in the Superstition Division have been plotted on a series of maps that can be found in Appendix 9.2.1. Water main repairs are indicated by a water drop with an "M" inside, while service line repairs are indicated by a water drop with an "S" inside, and water drops with "F" inside indicate a fitting leak. The maps are also color-coded based on the installation year of the water main. (Refer to the map legends for details.)

## 5.3. Water Losses

The Company calculates and reports water losses for the Apache Junction and Superior water systems each year in accordance with Arizona Department of Water Resources ("ADWR") reporting requirements in ADWR's Third Management Plan for the Phoenix Active Management Area. The Company files an annual report with ADWR for its Miami water system, stating how much water was produced and delivered during each calendar year.

For the Third Management Plan period, ADWR provides that certain non-billable uses are excluded from the water loss calculation. The categories of non-billable uses are summarized in Section 5.7.6.2 of the Third Management Plan titled "Distribution System Requirements" and are also listed in detail in Appendix 5-M of the Third Management Plan. Non-billable uses include water delivered for fire flows, distribution system flushing, tank overflows, well flushing, and water necessary for efficient pump operation. Water losses are calculated by subtracting both billable and non-billable deliveries and uses from the amount of water produced, and are usually reported as a percentage of the total amount of water produced. Pertinent excerpts from the ADWR Third Management Plan related to water losses are included in Appendix 9.3.

Water losses can be grouped into two broad categories: real and apparent. Real losses are the actual physical losses of water from the distribution system caused by leaks and breaks. Apparent losses are accounting losses that occur due to meter inaccuracies, data handling errors, and unauthorized uses. Real losses can be reduced by timely repairs of leaks and breaks, a comprehensive leak detection program, and the replacement of aging infrastructure. Apparent losses can be accounted for and reduced by comprehensive record keeping, the implementation of a meter maintenance program and meter selection review, as well as implementing procedures to deter or prevent water theft.

Water Losses for the Miami water system, which currently exceed 10 percent, are shown in Table 5-5 and Graph 5-8.

*Graph 5-8 Water Losses by Year - Miami water system*

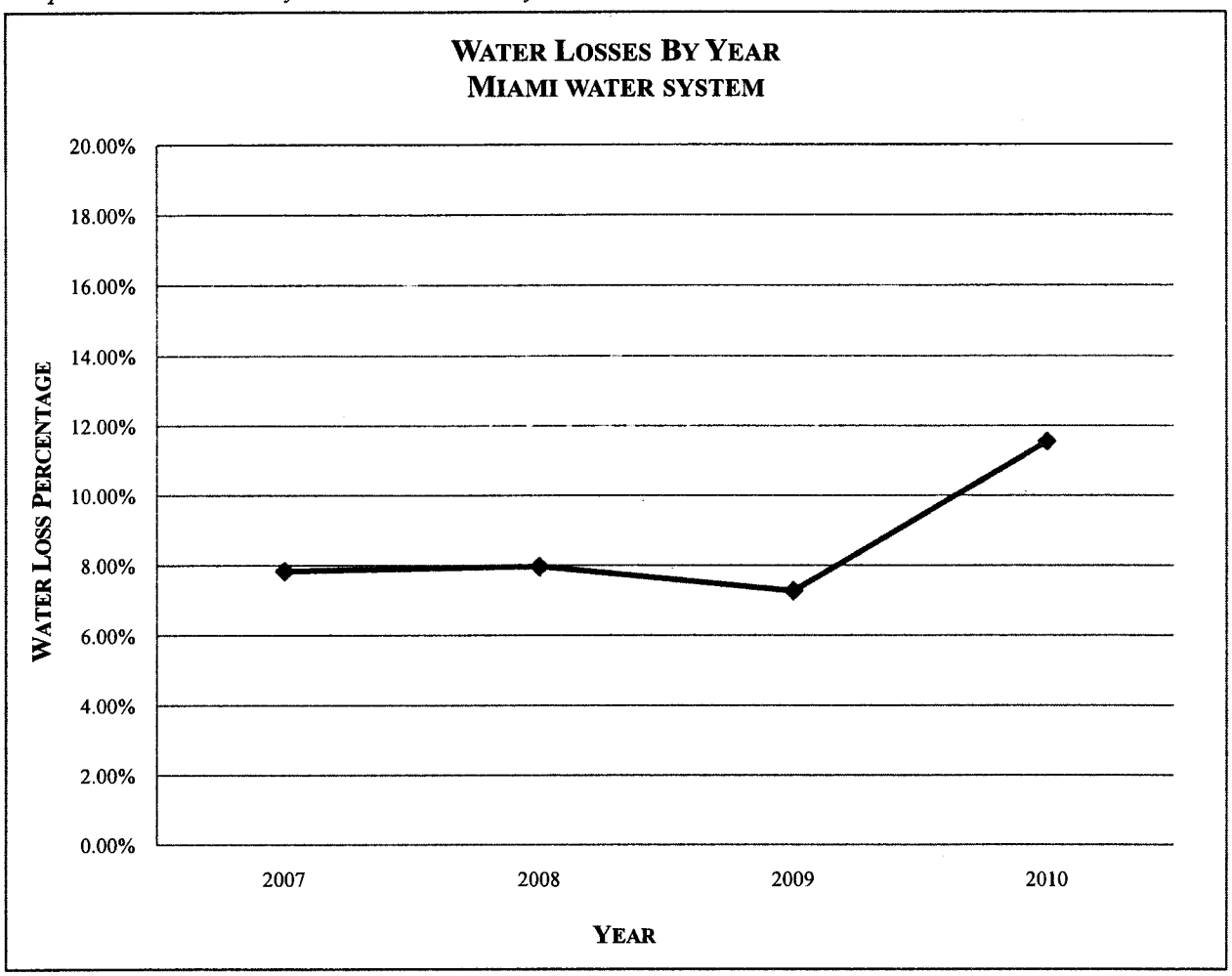



*Table 5-5 Water Losses by Year - Miami water system*

| WATER LOSSES BY YEAR<br>MIAMI WATER SYSTEM<br>(THOUSANDS OF GALLONS) | | | | |
|---|---|---|---|---|
| YEAR | PRODUCTION | BILLABLE DELIVERIES | NON-BILLABLE DELIVERIES | PERCENTAGE WATER LOSS |
| 2007 | 333,765.0 | 306,175.7 | 1,460.0 | 7.83% |
| 2008 | 319,058.3 | 292,770.4 | 871.0 | 7.97% |
| 2009 | 320,319.2 | 296,462.5 | 595.0 | 7.26% |
| 2010 | 304,361.3 | 267,219.6 | 2,013.7 | 11.54% |

Water losses in the Apache Junction water system have approached, but are currently below, 10 percent and water losses in the Superior water system have exceeded 10 percent in recent years, but are currently below 10 percent, as shown in Graph 5-9 and Table 5-6.

*Graph 5-9 Water Losses by Year - Superior water system*

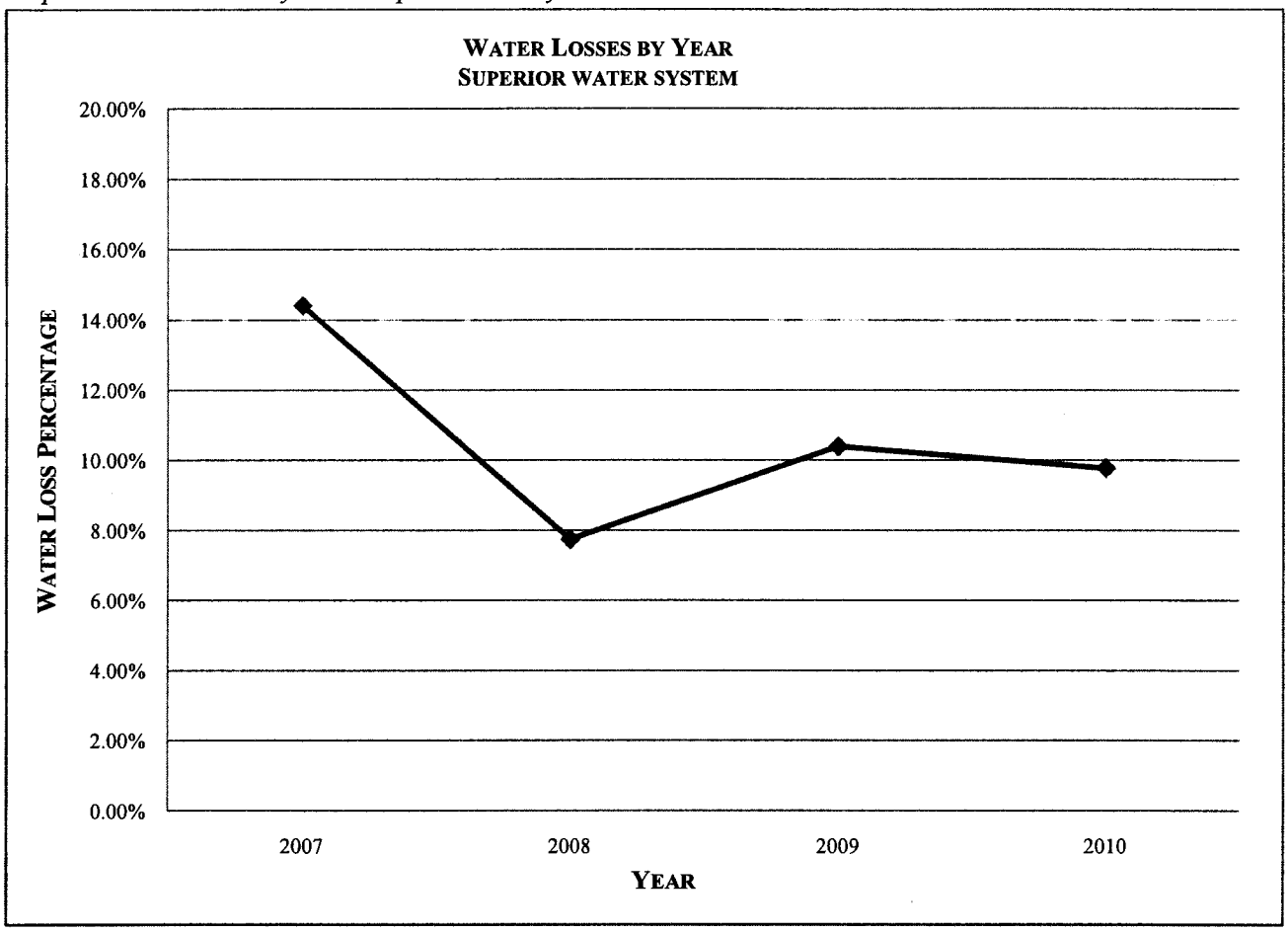
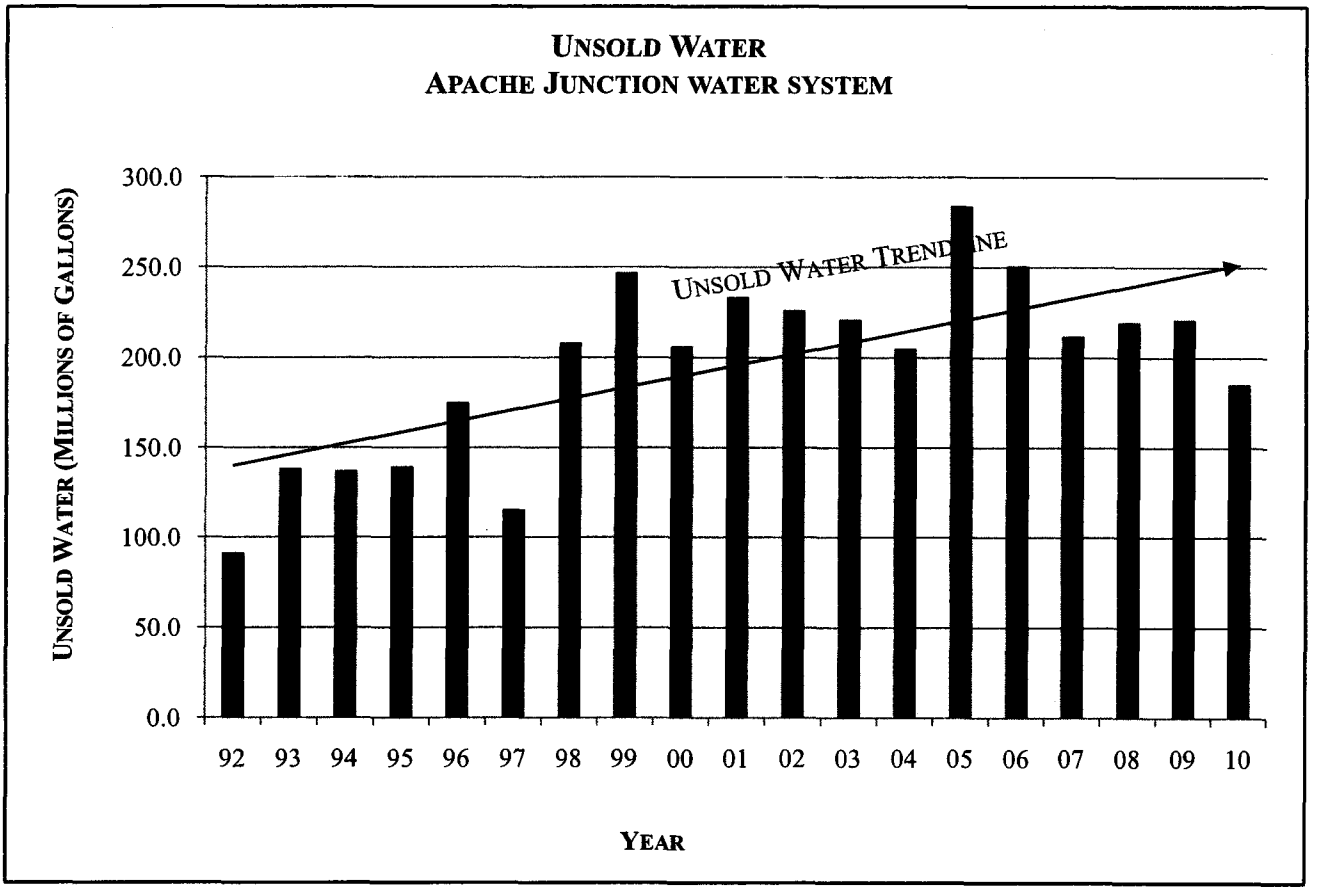



*Table 5-6 Water Losses by Year - Superior water system*

| WATER LOSSES BY YEAR SUPERIOR WATER SYSTEM (THOUSANDS OF GALLONS) | | | | |
|---|---|---|---|---|
| YEAR | PRODUCTION | BILLABLE DELIVERIES | NON-BILLABLE DELIVERIES | PERCENTAGE WATER LOSS |
| 2007 | 183,719.0 | 154,735.4 | 28,983.6 | 14.40% |
| 2008 | 175,581.0 | 157,856.8 | 17,724.2 | 7.74% |
| 2009 | 146,810.0 | 127,564.9 | 19,245.1 | 10.39% |
| 2010 | 140,925.0 | 124,196.2 | 16,728.8 | 9.77% |

Although water losses for the Apache Junction water system are currently less than 10 percent, water losses have been increasing in volume. As shown in Graph 5-10, volumes of unsold water, which tracks closely with the water losses for the Apache Junction water system, have increased since 1992. However, because of the overall increase in the number of customers and individual customer demand, the percentage of water losses has not exceeded 10 percent. Representing 10,500 new service connections, the tremendous customer growth between 1995 and 2005 has caused overall water sales to double during this time period, offsetting and driving down the percentage of water losses.

*Graph 5-10 Unsold Water - Apache Junction water system*




## 5.4. Recommendations

### 5.4.1. Areas Where Replacement of Aging Infrastructure is Needed

The Company's field employees reported that approximately 2,800 leaks were located and repaired in recent years, as discussed in detail within Section 5.2.2.

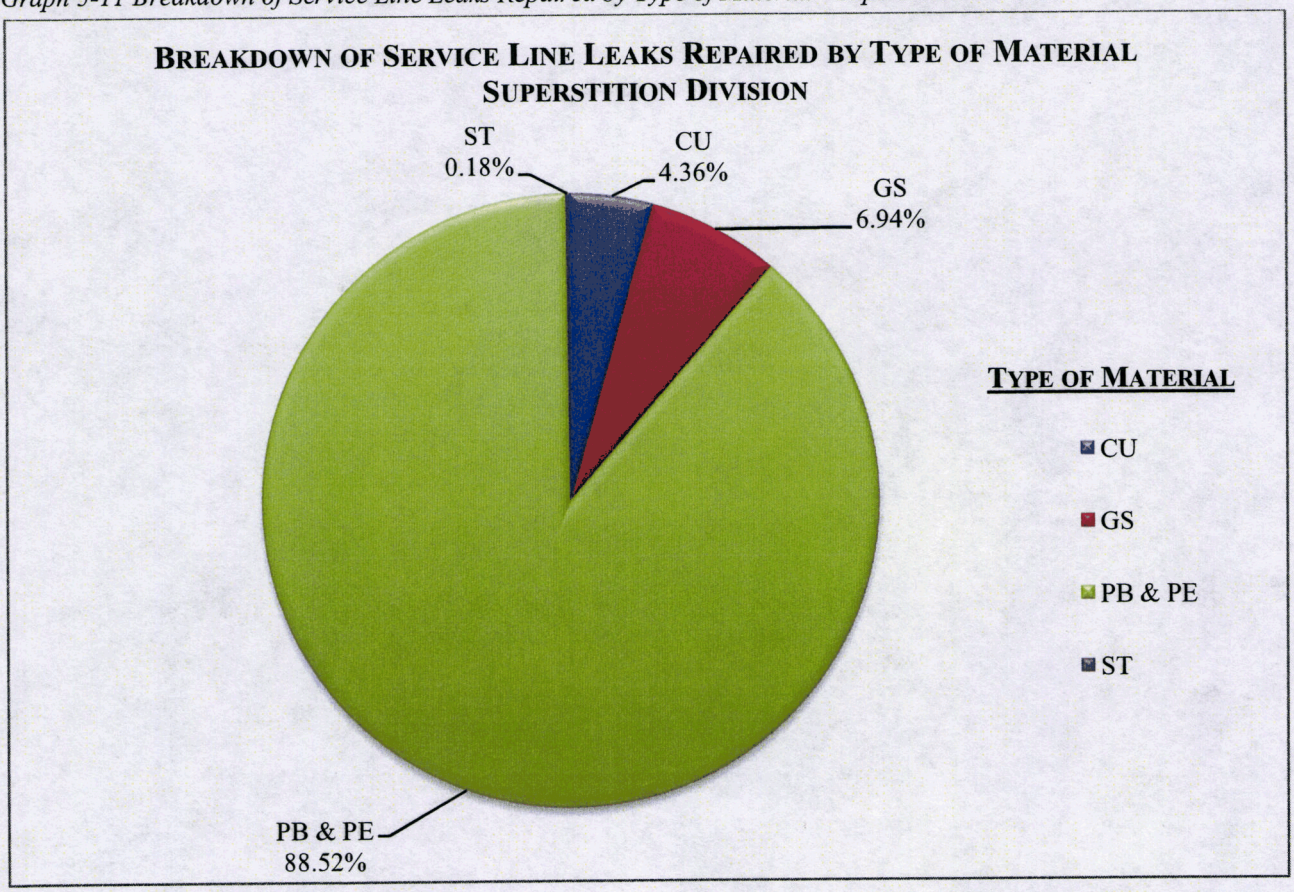
Appendix 9.1.1 lists all recorded leaks and breaks which provides more detailed information, including:

1. Location of the leak;
2. Date of leak;
3. Type of leak (i.e. water main or service line); and
4. Repair vs. replacement.

The maps included in Appendix 9.2.1, show the location (by section, township, and range) within the Company's Superstition Division where extensive leaks (greater than 20 per section) were found. On this map, each section has different color and cross-hatching to distinguish between the following areas:

1. Areas with more than 20 reported leaks repaired since 2000;
2. Areas with water mains installed prior to 1960; and
3. Areas evaluated for replacement projects.

*Graph 5-11 Breakdown of Service Line Leaks Repaired by Type of Material - Superstition Division*




Approximately 89 percent of the service line leaks that were repaired, as shown in Graph 5-11, were related to failing PB and PE service lines, most of which were installed on CA water mains.

Where reports on service line leaks did not note the material type of the failed service line, the majority were found to be tapped onto water mains installed during the 1970s, when, as mentioned earlier, PB and PE water service lines were typically installed in the Superstition Division. The failure of PB and PE water service lines has been a growing problem in the Superstition Division, as well as the Company's other systems. Based on documented failures of PB and PE service lines, the Company has determined that a more aggressive PB and PE service replacement program is needed in the Superstition Division's water systems. Proposed projects to address failing service lines are discussed in Section 5.4.2.

A majority of the failed water mains are small-diameter GS pipes that were installed between the 1910s and the 1950s. Based on the types of leaks reported, the Company needs to replace these GS pipes. Proposed projects to address failing GS and other types of water mains are further addressed in Section 5.4.2.

Water main and service line replacements proposed for the Superstition Division were prioritized, based on the areas with the highest number and frequency of leaks and breaks. Table 5-7 shows the geographic areas of the distribution system with the largest number of recorded leaks.

*Table 5-7 Largest Number of Leaks by Geographic Area - Superstition Division*

| LARGEST NUMBER OF LEAKS BY GEOGRAPHIC AREA SUPERSTITION DIVISION | | | | |
|---|---|---|---|---|
| AREA | MAP | MAIN LEAKS | SERVICE LEAKS | TOTAL LEAKS |
| Central Heights | MI-5 | 51 | 170 | 221 |
| Downtown Miami | MI-7 | 59 | 160 | 219 |
| Downtown Superior | SU-4 | 36 | 127 | 163 |
| Downtown Apache Junction | AJ-17 | 12 | 136 | 148 |
| Gold Canyon | AJ-21 | 2 | 130 | 132 |
| Downtown Apache Junction | AJ-12 | 43 | 84 | 127 |
| Downtown Miami | MI-8 | 38 | 78 | 116 |
| Downtown Superior | SU-1 | 34 | 84 | 118 |
| Downtown Apache Junction | AJ-11 | 20 | 92 | 112 |
| Pinal County | AJ-14 | 15 | 96 | 111 |
| Old Town Apache Junction | AJ-8 | 10 | 93 | 103 |

The Miami water system has the highest number of reported leaks per square mile in the Superstition Division. This water system will require a greater level of water main and service line replacements. The first areas to be addressed correspond to Maps MI-5, MI-7, and MI-8 in Appendix 9.4.1. The majority of water mains in these areas are GS water mains installed from the 1930s through the 1950s. There have been more than 550 repairs recorded in these areas in the last five years alone. Because both water main and service line leaks and breaks are highest in these areas, the replacement program proposes to replace both water mains and service lines. Replacement projects for the Central Heights and Downtown Miami areas are listed in Section 5.4.2.

The second water system to be addressed is the Superior water system, with problem areas to be addressed corresponding to Maps SU-4 and SU-1 in Appendix 9.4.1. This system has some of the oldest water mains still in service in the Superstition Division. The majority of the failing water mains in the Superior water system are CI and GS, which were installed in the 1910s. CI and GS water mains have had frequent leaks and breaks showing signs of advanced corrosion and aging. The break and leak repair history for CI and GS water mains shows that these types of water mains have exceeded their useful life. Also, significant rust and scale build-up requires extraordinary volumes of flushing to maintain water quality. In addition to causing increased water losses, CI and GS water mains also do not provide sufficient fire flows, restricted, in large part, by rust and the presence of scale build-up. The CI and GS water mains in the Downtown Superior area are included in the proposed replacement projects listed in Section 5.4.2.

The third water system to be addressed is the Apache Junction water system, with targeted areas of replacement corresponding to Maps AJ-17, AJ-21, AJ-12, AJ-11, AJ-14, and AJ-8 in Appendix 9.4.1. Water mains and services in these areas were installed during the 1960s and 1970s. The break and repair history shows that there have been a significant number of service line leak repairs on PB and PE service lines in these areas. Most of the proposed projects for replacing service lines in these areas are listed in Section 5.4.2.

### 5.4.2. Three-Year Plan to Replace Aging Infrastructure

The Company determined that a water main and service line replacement program, as summarized in Table 5-8, is needed, based on analysis of the available data shown in Appendix 9.1.1.

*Table 5-8 Summary of Three-Year Plan to Replace Aging Infrastructure - Superstition Division*

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PERALTA ESTATES UNIT 2 | | | | 126 | | | 0 | 0 | 25 | 25 | $523,827 |
| 2 | BOISE STREET & AVALON | 1,350 | 6 | DI | 88 | 4 | CA | 1 | 0 | 21 | 22 | $544,964 |
| 3 | 114TH STREET | 650 | 6 | DI | 102 | | | 1 | 3 | 18 | 22 | $432,978 |
| 4 | DELAWARE DRIVE | | | | 87 | | | 0 | 0 | 22 | 22 | $346,461 |
| 5 | GLOBE AVENUE | | | | 10 | | | 0 | 0 | 22 | 22 | $42,274 |
| 6 | GREASEWOOD DRIVE | | | | 25 | | | 1 | 0 | 19 | 20 | $102,008 |
| 7 | CHISOLM AVENUE | | | | 22 | | | 0 | 0 | 20 | 20 | $92,818 |
| 8 | RANCH ROAD | 600 | 6 | DI | | 2 | PVC | 0 | 18 | 2 | 20 | $57,240 |
| 9 | HIDALGO STREET | 4,700 | 6 | DI | 32 | 1, 1.5, 2 | GS | 1 | 12 | 6 | 19 | $563,475 |
| 10 | SUGAR CREEK DRIVE | | | | 46 | | | 0 | 0 | 19 | 19 | $191,151 |
| 11 | PINYON DRIVE | | | | 101 | | | 0 | 0 | 18 | 18 | $416,305 |
| 12 | PERALTA ESTATES | | | | 44 | | | 0 | 0 | 17 | 17 | $182,880 |
| 13 | RUSSELL AVENUE | 1,050 | 6 | DI | 23 | | | 0 | 0 | 17 | 17 | $190,232 |
| 14 | COPPER DRIVE | | | | 121 | | | 0 | 1 | 15 | 16 | $509,123 |
| 15 | MCKINNEY AVENUE | | | | 18 | | | 0 | 0 | 16 | 16 | $74,439 |
| 16 | MONROE STREET | 250 | 6 | DI | 6 | 2 | PVC, GS | 0 | 12 | 4 | 16 | $46,212 |
| 17 | SLEEPY HOLLOW & LAZY | | | | 25 | | | 0 | 0 | 15 | 15 | $102,927 |
| 18 | HIDEAWAY LANE | | | | 21 | | | 0 | 0 | 14 | 14 | $84,548 |
| 19 | STONE AVENUE | 1,350 | 6 | DI | 25 | 2, 4 | CI, CA | 0 | 2 | 12 | 14 | $222,528 |
| 20 | CENTRAL AVENUE | 550 | 6 | DI | 25 | 6 | ST | 0 | 1 | 13 | 14 | $154,785 |
| 21 | ORPHAN STREET | 1,700 | 6 | DI | 33 | 1, 2 | CA, GS | 0 | 4 | 10 | 14 | $280,425 |
| 22 | FREDRIC STREET | 2,750 | 6 | DI | 53 | 2, 4 | GS, CA | 0 | 10 | 3 | 13 | $464,224 |
| 23 | GLENDALE AVENUE | | | | 17 | | | 0 | 1 | 12 | 13 | $69,844 |
| 24 | STORY STREET | 600 | 6 | DI | 11 | | | 0 | 0 | 12 | 12 | $98,595 |
| 25 | MOUNTAIN ROAD | | | | 48 | | | 0 | 0 | 11 | 11 | $193,908 |
| 26 | YOUNG STREET | 800 | 6 | DI | 17 | 1,2 | ST, CU, PVC | 0 | 9 | 2 | 11 | $138,506 |
| 27 | EMERALD DRIVE | 500 | 6 | DI | 8 | 2 | ST | 0 | 10 | 0 | 10 | $78,640 |
| 28 | SLEEPY HOLLOW TRAIL | | | | 30 | | | 0 | 0 | 10 | 10 | $121,307 |
| 29 | WASHBORN ROAD | 1,600 | 6 | DI | | 6 | HDPE | 0 | 9 | 0 | 9 | $142,838 |
| 30 | LOOMIS AVENUE | 500 | 6 | DI | 5 | 1 | GS | 0 | 9 | 0 | 9 | $63,017 |
| 31 | HUMMINGBIRD LANE | | | | 14 | | | 0 | 0 | 7 | 7 | $57,897 |
| 32 | BROADWAY AVENUE | 600 | 6 | DI | 3 | 6 | CA | 0 | 7 | 0 | 7 | $67,349 |
| 33 | BOISE STREET | 1,400 | 6 | DI | 13 | 2 | PVC | 0 | 7 | 0 | 7 | $176,447 |
| 34 | HILL STREET | | | | 28 | | | 0 | 0 | 7 | 7 | $114,874 |
| 35 | ALHAMBRA WAY | | | | 14 | | | 0 | 0 | 6 | 6 | $57,897 |
| 36 | GARROT AVENUE | 1,250 | 6 | DI | 31 | 1,2,6 | CA,CU | 0 | 0 | 6 | 6 | $278,915 |
| | | | | | | | | | | | **Total** | **$7,285,858** |

Project 1

Replace 126 service connections in Peralta Estates Unit Two. The existing water mains have 25 recorded service line leaks. The cost to complete this project is estimated to be $523,827. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 2

Install approximately 1,350 LF of 6-inch DI replacement pipe with polywrap and replace 87 service connections between Boise Street and Avalon Street. This project will replace approximately 800 LF of 4-inch CA water main installed in 1970 in an alley between 113th Way and 114th Street. The existing 4-inch CA water main has 21 recorded service line leaks and 1 fitting leak. The cost to complete this project is estimated to be $544,964. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 3

Install approximately 650 LF of 6-inch DI replacement pipe with polywrap and replace 102 service connections between 114th Street and Meridian Road. The existing water mains have 18 recorded service line leaks, 3 water main leaks, and 1 fitting leak. The cost to complete this project is estimated to be $432,978. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 4

Replace 87 service connections along Delaware and Lawther Drives. The existing water mains have 22 recorded service line leaks. The cost to complete this project is estimated to be $346,461. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 5

Replace 10 service connections along Globe Avenue. The existing water main has 22 recorded service line leaks. The cost to complete this project is estimated to be $42,274. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 6

Replace 25 service connections along Greasewood Drive and Escondido Court. The existing water main has 19 recorded service line leaks and 1 fitting leak. The cost to complete this project is estimated to be $102,008. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 7

Replace 22 service connections along Chisolm Avenue. The existing water main has 20 recorded service line leaks. The cost to complete this project is estimated to be $92,818. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 8

Install approximately 600 LF of 6-inch DI replacement pipe with polywrap and replace 1 service connection along Ranch Road. This project will replace approximately 600 LF of 2-inch

PVC water main installed in 1984 on Ranch Road. The existing water main to be replaced has 2 recorded service line leaks and 18 water main leaks. The cost to complete this project is estimated to be $57,240. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 9

Install approximately 4,700 LF of 6-inch DI replacement pipe with polywrap and replace 32 service connections along Hidalgo Street and Concho Street. This project will replace approximately 2,950 LF of 1.5-inch and 2-inch GS water main installed in 1959 and 1960 along Hidalgo Street and will also replace approximately 2,350 LF of 1-inch and 2-inch GS water main installed in 1960 along Concho Street. These existing water mains have 6 recorded service line leaks, 12 water main leaks, and 1 fitting leak. The cost to complete this project is estimated to be $563,475. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 10

Replace 47 service connections along Sugar Creek Drive, Pleasant Place and Breathless Drive. The existing water mains have 19 recorded service line leaks. The cost to complete this project is estimated to be $191,151. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 11

Replace 101 service connections along Pinyon Drive and Virginia, Scenic, Cactus Wren, and Gregory Streets. The existing water mains have 18 recorded service line leaks. The cost to complete this project is estimated to be $416,305. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 12

Replace 44 service connections in Peralta Estates Unit Two. The existing water main has 17 recorded service line leaks. The cost to complete this project is estimated to be $182,880. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 13

Install approximately 1,050 LF of 6-inch DI replacement pipe with polywrap and replace 23 service connections along Snedden Avenue east of Russell Avenue. This project will replace approximately 650 LF of 2-inch CA water main installed in 1949, approximately 200 LF of 1-inch GS water main installed in 1950, and approximately 200 LF of 3-inch CA water main installed in 1965. The existing water mains to be replaced have 17 recorded service line leaks. The cost to complete this project is estimated to be $190,232. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 14

Replace 17 service connections along Glendale Avenue from Braley Street to Hill Street. The existing water main has 12 recorded service line leaks and 1 water main leak. The cost to complete this project is estimated to be $69,844. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 15

Replace 18 service connections along McKinney Avenue from Braley Street to Hill Street. The existing water main has 16 recorded service line leaks. The cost to complete this project is estimated to be $74,439. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 16

Install approximately 250 LF of 6-inch DI replacement pipe with polywrap and replace 6 service connections along Monroe Street from Miami Street to Marion Street. This project will replace approximately 400 LF of 2-inch PVC water main installed in 1976 and 2-inch GS water main installed in 1936 on Monroe Street. The existing water mains to be replaced have 4 recorded service line leaks and 12 water main leaks. The cost to complete this project is estimated to be $46,212. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 17

Replace 25 service connections along Sleepy Hollow Trail and Lazy Lane. The existing water mains have 15 recorded service line leaks. The cost to complete this project is estimated to be $102,927. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 18

Replace 21 service connections along Hideaway Lane, Lazy Lane, and Breathless Drive. The existing water mains have 14 recorded service line leaks. The cost to complete this project is estimated to be $84,548. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 19

Install approximately 1,350 LF of 6-inch DI replacement pipe with polywrap and replace 25 service connections along Stone Avenue from Kiser Street to Mofatt Street. This project will replace approximately 950 LF of 4-inch CI water main installed in 1937 along Stone Avenue and approximately 400 LF of 2-inch CA water main installed in 1942 along Kiser Street. The existing water mains to be replaced have 12 recorded service line leaks and 2 water main leaks. The cost to complete this project is estimated to be $222,528. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 20

Install approximately 550 LF of 6-inch DI replacement pipe with polywrap and replace 25 service connections along Central Avenue from Braley Street to Monroe Street. This project will replace approximately 550 LF of 6-inch ST water main installed in 1955 on Central Avenue. The existing water mains to be replaced have 13 recorded service line leaks and 1 water main leak. The cost to complete this project is estimated to be $154,785. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 21

Install approximately 1,700 LF of 6-inch DI replacement pipe with polywrap and replace 33 service connections along Orphan Street and Kenzie Avenue. This project will replace approximately 1,050 LF of 2-inch CA water main installed in 1949 on Orphan Avenue, and will replace approximately 650 LF of 1-inch and 2-inch GS water mains installed in 1932 on Kenzie Avenue. The existing water mains to be replaced have 10 recorded service line leaks and 4 water main leaks. The cost to complete this project is estimated to be $280,425. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 22

Install approximately 2,750 LF of 6-inch DI replacement pipe with polywrap and replace 53 service connections along Fredric Street and Bird Street. This project will replace approximately 1,450 LF of 2-inch GS water main installed in 1930 and 1936 on Fredric Street and approximately 1,300 LF of 2-inch GS and 4-inch CA water main installed in 1930 and 1949, respectively, and in 1949 on Bird Street. The existing water mains to be replaced have 3 recorded service line leaks and 10 water main leaks. The cost to complete this project is estimated to be $464,224. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 23

Install approximately 600 LF of 6-inch DI replacement pipe with polywrap and replace 11 service connections along Story Street east of Russell Avenue. This project will replace approximately 600 LF of 2-inch GS water main installed in 1956. The existing water mains to be replaced have 12 recorded service line leaks. The cost to complete this project is estimated to be $98,595. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 24

Replace 121 service connections along Copper, Gold and Silver Drives. The existing water mains have 15 recorded service line leaks and 1 water main leak. The cost to complete this project is estimated to be $509,123. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 25

Replace 48 service connections along Mountain Road, Elmont Drive and Malcolm Drive. The existing water mains have 11 recorded service line leaks. The cost to complete this project is estimated to be $193,908. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 26

Install approximately 800 LF of 6-inch DI replacement pipe with polywrap and replace 17 service connections along Young Street, Second Avenue, Hill Street, and Third Avenue. This project will replace approximately 300 LF of 1-inch ST water main installed in 1975, approximately 350 LF of 1-inch PVC water main installed in 1979, and approximately 100 LF of 2-inch PVC water main installed in 1975. The existing water mains to be replaced have 2 recorded service line leaks and 9 water main leaks. The cost to complete this project is estimated

to be $138,506. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 27

Replace 30 service connections along Sleepy Hollow Trail, Breathless Drive and Tum Tum Court. The existing water mains have 10 recorded service line leaks. The cost to complete this project is estimated to be $121,307. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 28

Install approximately 500 LF of 6-inch DI replacement pipe with polywrap and replace 8 service connections along South Emerald Drive. This project will replace approximately 500 LF of 2-inch ST water main installed in 1955 along South Emerald Drive. The existing water main to be replaced has 10 recorded water main leaks. The cost to complete this project is estimated to be $78,640. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 29

Install approximately 1,600 LF of 6-inch DI replacement pipe with polywrap along Washborn Road. This project will replace approximately 1,600 LF of 6-inch HDPE water main along Washborn Road. The existing water main to be replaced has 9 recorded water main leaks. The cost to complete this project is estimated to be $142,838. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 30

Install approximately 500 LF of 6-inch DI replacement pipe with polywrap and replace 5 service connections east of Loomis Avenue. This project will replace approximately 500 LF of 1-inch GS water main installed in 1935 east of Loomis Avenue. The existing water main to be replaced has 9 recorded water main leaks. The cost to complete this project is estimated to be $63,017. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 31

Replace 14 service connections along Hummingbird Lane. The existing water main has 7 recorded service line leaks. The cost to complete this project is estimated to be $57,897. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 32

Replace 28 service connections along Hill Street from Church Avenue to Terrance Drive. The existing water main has 7 recorded service line leaks. The cost to complete this project is estimated to be $114,874. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 33

Install approximately 600 LF of 6-inch DI replacement pipe with polywrap and replace 3 service connections along Broadway Avenue from Tomahawk Road to Vista Road. This project

will replace approximately 600 LF of 6-inch CA water main installed in 1960 and 1984 along Broadway Avenue. The existing water main to be replaced has 7 recorded water main leaks. The cost to complete this project is estimated to be $67,349. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 34

Install approximately 1,400 LF of 6-inch DI replacement pipe with polywrap and replace 13 service connections along Boise Street and 105th Place. This project will replace approximately 1,100 LF of 2-inch PVC water main installed in 1966 along Boise Street and approximately 300 LF of 2-inch PVC water main installed in 1966 along 105th Place. The existing water mains to be replaced have 7 recorded water main leaks. The cost to complete this project is estimated to be $176,447. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 35

Replace 14 service connections along Hummingbird Avenue and Alhambra Way. The existing water main has 6 recorded service line leaks. The cost to complete this project is estimated to be $57,897. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

Project 36

Install approximately 1,250 LF of 6-inch DI replacement pipe with polywrap and replace 31 service connections along Garrot Avenue and Stansberry Avenue. This project will replace approximately 650 LF of 2-inch CA water main installed in 1939 in the alley west of Garrot Avenue and approximately 600 LF of 6-inch CA water main installed in 1930 on Stansberry Avenue. The existing water mains to be replaced have 6 recorded service line leaks. The cost to complete this project is estimated to be $278,915. See Appendix 9.4.1 for the map depicting the project limits and the detailed cost estimate.

### 5.4.3. Conclusions

The Company's efforts to reduce water losses by locating and repairing leaks and breaks in the Superstition Division's three water systems are well-documented. The Company uses various types of leak detection equipment to effectively reduce water losses. However, many miles of water main are at or near the end of their useful service lives. In addition, PE, PB, and GS service lines are failing and need to be replaced. Detecting, locating and repairing leaks and breaks will continue to be a high priority for the Company's water system operators. Based on the historical rate of replacement, however, it will take nearly 640 years to replace the existing water distribution system infrastructure. This rate of replacement is too low, since the useful service life for water mains installed in the Superstition Division has already been reached or exceeded for some water mains and service lines. A more aggressive water distribution system replacement program is required to reduce water losses in the Superstition Division's three water systems.

The Company has identified the 11 most critical geographic areas where main or service line replacements are needed in the Superstition Division. 36 projects have been

identified in these critical areas that need to be completed to reduce water losses by replacing aging water mains and failing service lines over the next three years, to help comply with the Commission's directive in Decision No. 71845. The Company estimates the annual cost of this replacement program to be $2.4 million for the Superstition Division.

Within a month of Decision No. 71845, the Company began design and construction of three replacement projects in the Superstition Division, to reduce water losses as the Commission had directed. These projects included:

Project 1

Install approximately 1,645 LF of 8-inch pipe with polywrap along Live Oak Street (US 60) from Marion Street to New Street. This project will replace approximately 1,645 LF of 6-inch CA water main installed in 1953. The existing water main to be replaced has had nine leaks over the past six years alone. The cost to complete this project is estimated to be $156,984.

Project 2

Install a 12-inch in-line high pressure isolation valve for the Superior Transmission line. The existing valves installed in 1973 are no longer available, including spare parts. The cost to complete this project is estimated to be $21,620.

Project 3

Install approximately 270 8-inch pipe gaskets on the transmission water line from the Town Tank to the Queen Creek Tank. This project will replace the 8-inch pipe gaskets installed in 1973 and bury the water main. The existing water main to be repaired has had 28 leaks in the last year. The cost to complete this project is estimated to be $186,769.

Construction on these three projects has been completed.

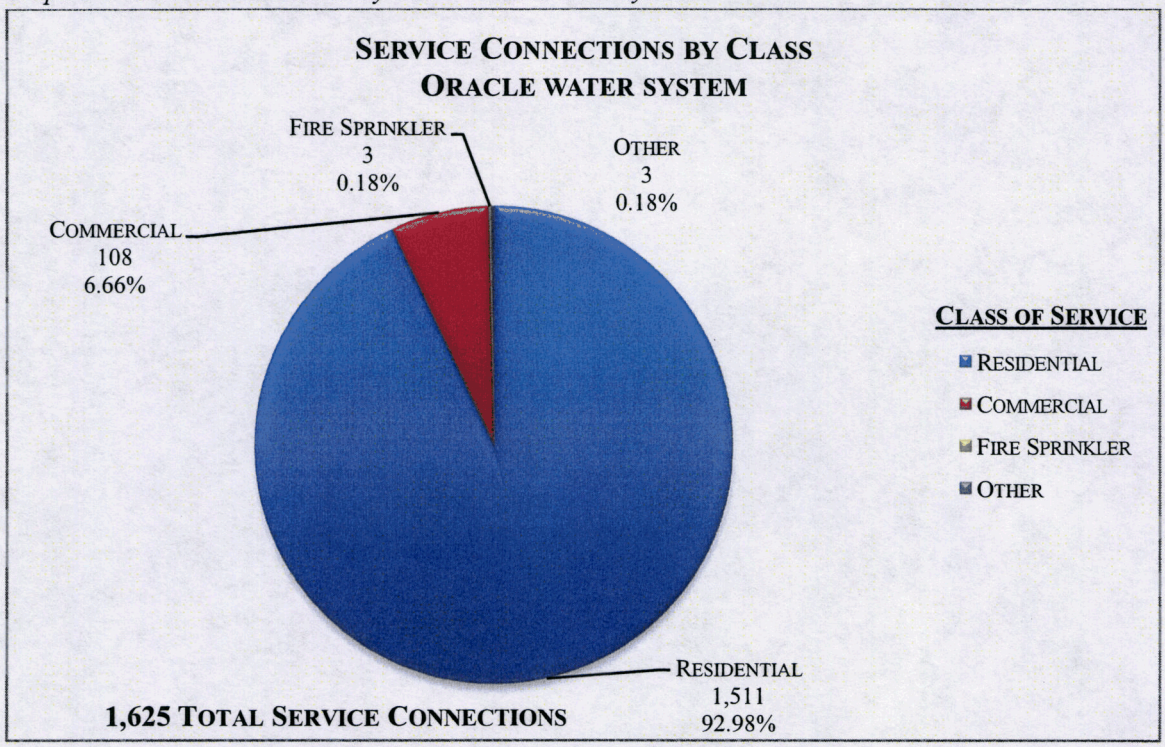
## 6.0 ORACLE WATER SYSTEM

### 6.1. Overview of the Existing Water System

#### 6.1.1. Water System Background

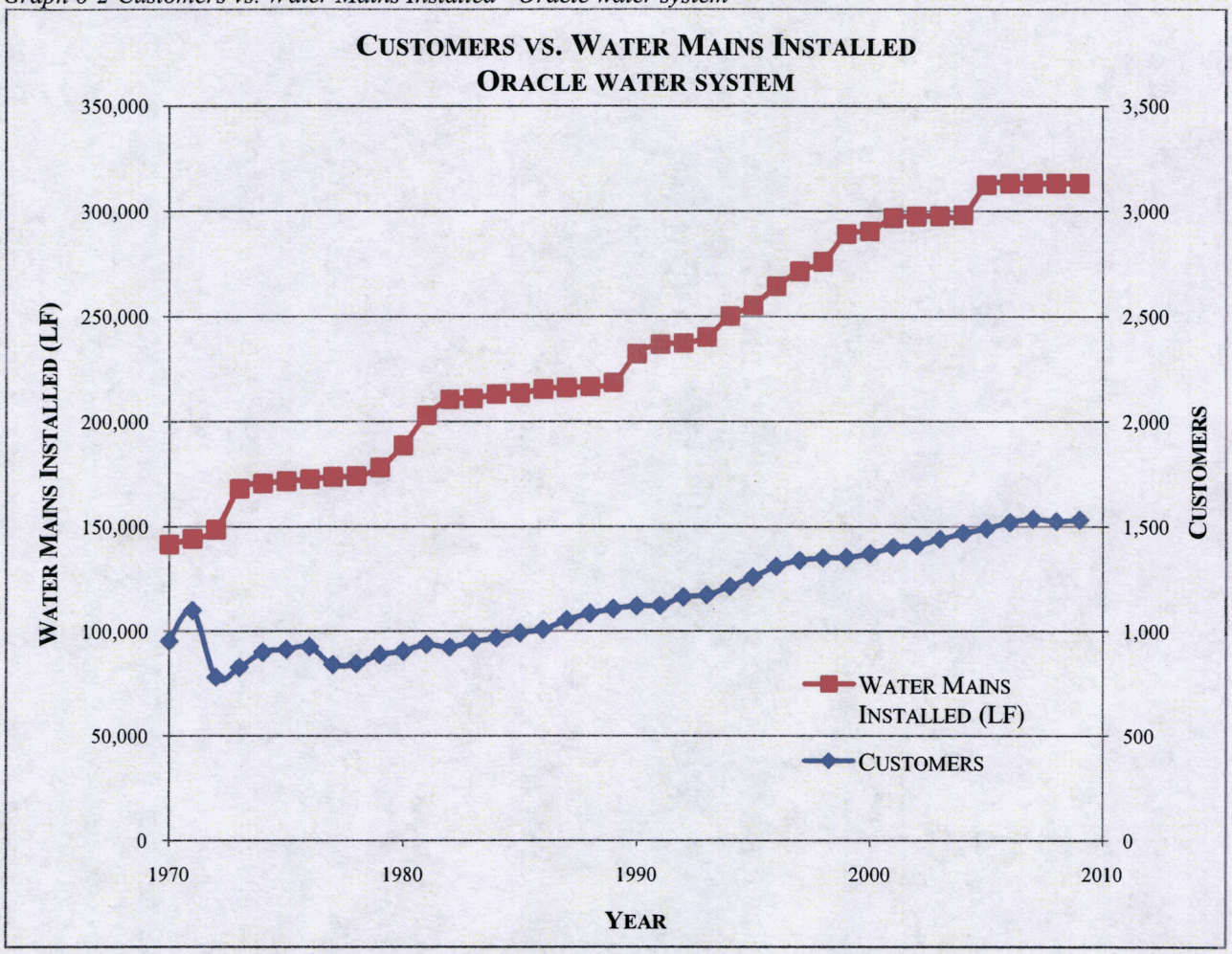
The Oracle water system encompasses the following three communities located in Pinal County: Oracle Junction, SaddleBrooke Ranch and Oracle. These three communities combined have more than 1,600 residential and commercial service connections. As shown in Graph 6-1, 90 percent of the service connections are residential 5/8 x 3/4-inch meters.

*Graph 6-1 Service Connections by Class - Oracle water system*




Unlike other water systems in the Company, the amount of water mains installed does not track customer growth in the Oracle water system. This is because the source of supply for the Oracle water system is located approximately seven miles from the majority of customers located in Oracle, which contributes to a higher than average amount of water mains per customer existing in this water system. Graph 6-2 shows the number of customers vs. the quantity of water mains installed over the past 40 years. This rural area also requires more water mains to be installed per customer, due to lower zoning densities and larger parcels.

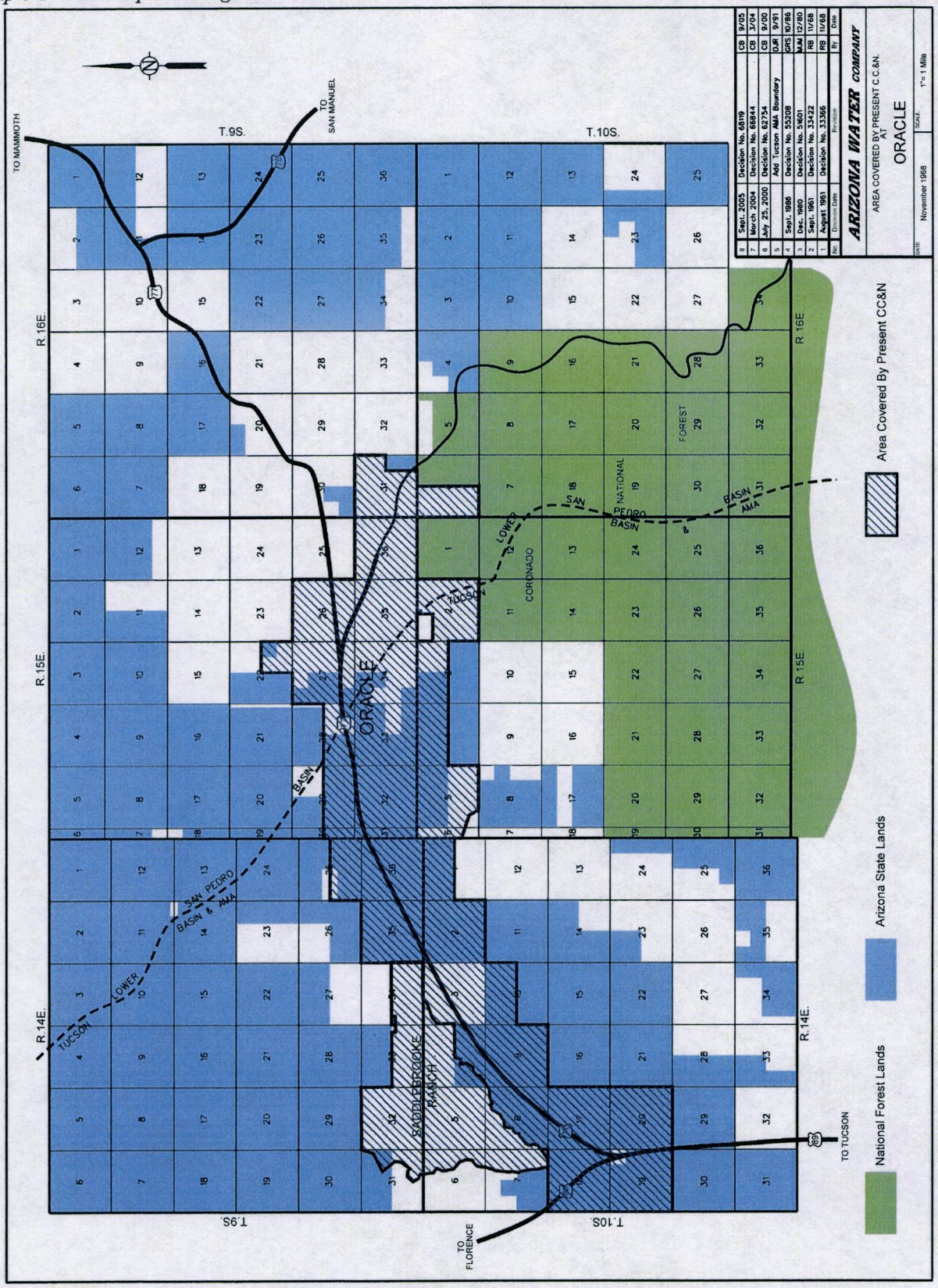
*Graph 6-2 Customers vs. Water Mains Installed - Oracle water system*




### 6.1.2. Certificate of Convenience and Necessity

The CCN covering Oracle and adjacent areas includes over 29 square miles located in southern Pinal County, as depicted in Map 6-1. The CCN area begins in Oracle Junction to the West, SaddleBrooke Ranch to the North, Arizona State Land and National Forest to the South, and ending in Oracle to the East.

*Map 6-1 CCN Map Covering the Oracle area*



### 6.1.3. Source of Supply

Oracle water system customers receive water from five wells that have a combined production capacity of over 3.1 MGD. Three of the wells are located in Oracle Junction and the other two are located in the SaddleBrooke Ranch development. The three wells located in Oracle Junction pump directly into a ground water storage tank located at Booster Station 2. Booster Station 3 receives water from Booster Station 2 and/or the two wells located in the SaddleBrooke Ranch development. Water is transmitted through three booster pump stations and seven miles of transmission line before it reaches the main water distribution system serving Oracle. The water system has over 1.5 million gallons of water storage capacity. Four booster pump stations and eight pressure zones serve the Oracle water system.

### 6.1.4. Distribution System

There are approximately 60 miles of water mains in the Oracle water system which are constructed from a variety of materials, such as CA, CU, DI, GS, PVC, and ST. There are more than 1,600 water service connections which are comprised primarily of CU, DI, PB and PE.

Water mains vary in size from less than 2 inches up to 12 inches in diameter. Graph 6-3 and Table 6-1 show the length of water mains in service by diameter. There are over seven miles of 12-inch DI pipe that transmit water from the booster pump stations to the gravity storage tanks. Almost 40 percent of the existing water mains are 4-inch and smaller in diameter. In accordance with the Company's Terms and Conditions for the Provisions of Water Service, Tariff TC-243, the Company's current design standards require new water mains to be no smaller than 6 inches in diameter.

*Graph 6-3 Miles of Water Mains in Service by Diameter - Oracle water system*

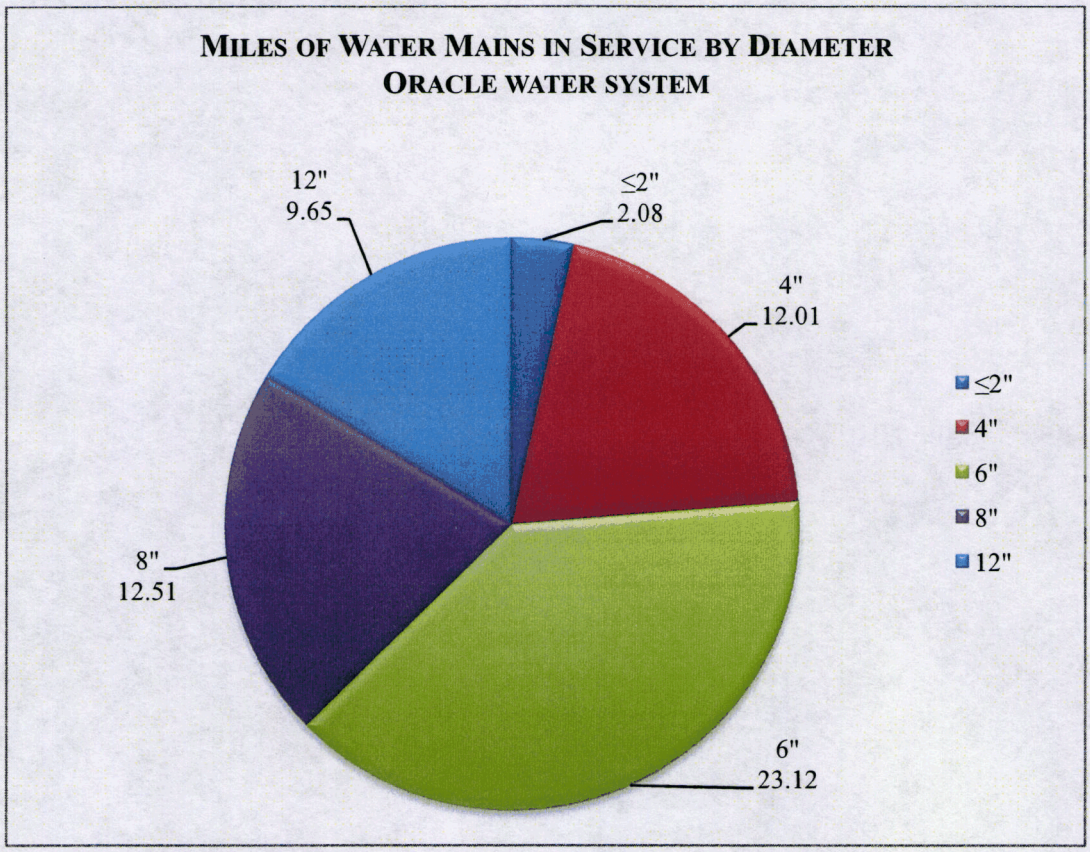



*Table 6-1 Miles and Linear Feet of Water Mains in Service by Diameter - Oracle water system*

| MILES AND LINEAR FEET OF WATER MAINS IN SERVICE BY DIAMETER ORACLE WATER SYSTEM | | |
|---|---|---|
| **WATER MAIN SIZE** | **MILES OF WATER MAINS** | **LF OF WATER MAINS** |
| ≤2" | 2.08 | 10,921 |
| 4" | 12.01 | 63,423 |
| 6" | 23.12 | 122,096 |
| 8" | 12.51 | 66,079 |
| 12" | 9.65 | 50,953 |
| **TOTAL** | **59.37** | **313,472** |

## 6.2. System Characterization and Assessment

The Oracle water system is predominantly made up of CA water main installed from the early 1950s to the 1980s. Graph 6-4 and Table 6-2 show the length of water mains in service in the Oracle water system by decade installed.

*Graph 6-4 Miles of Water Mains in Service by Decade Installed - Oracle water system*

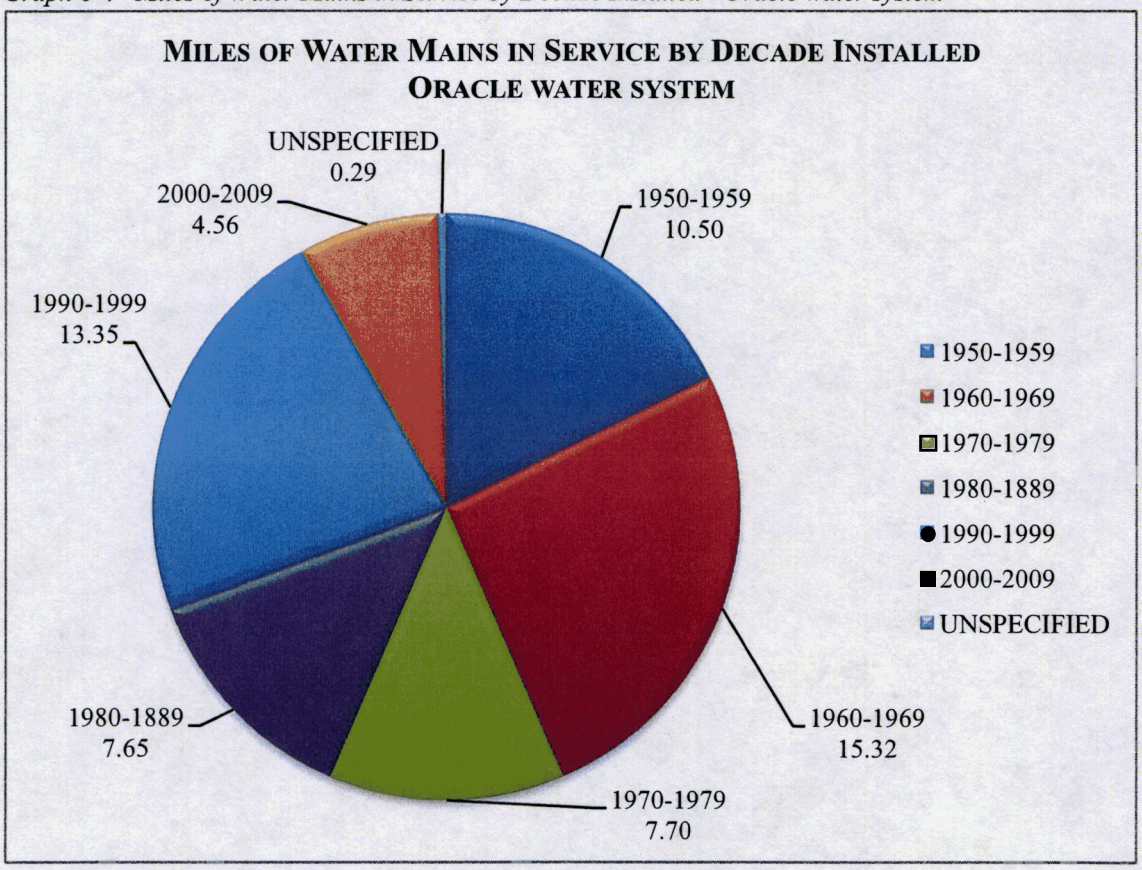



*Table 6-2 Miles and Linear Feet of Water Mains by Decade Installed - Oracle water system*

| MILES AND LINEAR FEET OF WATER MAINS BY DECADE INSTALLED ORACLE WATER SYSTEM | | |
|---|---|---|
| **DECADE WATER MAINS INSTALLED** | **MILES OF WATER MAINS** | **LF OF MAINS** |
| 1950-1959 | 10.50 | 55,423 |
| 1960-1969 | 15.32 | 80,887 |
| 1970-1979 | 7.70 | 40,680 |
| 1980-1889 | 7.65 | 40,366 |
| 1990-1999 | 13.35 | 70,468 |
| 2000-2009 | 4.56 | 24,095 |
| UNSPECIFIED | 0.29 | 1,553 |
| **TOTAL** | **59.37** | **313,472** |

With the installation of CA water mains came PB and PE service lines. There are over 1,000 PB and PE service lines currently in service in the Oracle water system.

### 6.2.1. Average Age of Water Mains

The oldest water mains in the Oracle water system have been in service for approximately 60 years. These water mains are nearing the end of their useful life and some will need to be replaced within the next decade. CA water mains make up over 65 percent of the Oracle water system as shown on Graph 6-5 and Table 6-3. 205,000 linear feet of CA main were installed between 1950 and 1989, most of which included the installation of PE or PB water service lines. The large quantity of aging water mains and service lines reaching the end of their useful lives and the water losses associated with such infrastructure are expected to increase making their replacement even more necessary.

*Graph 6-5 Breakdown of Water Mains in Service by Material Type - Oracle water system*

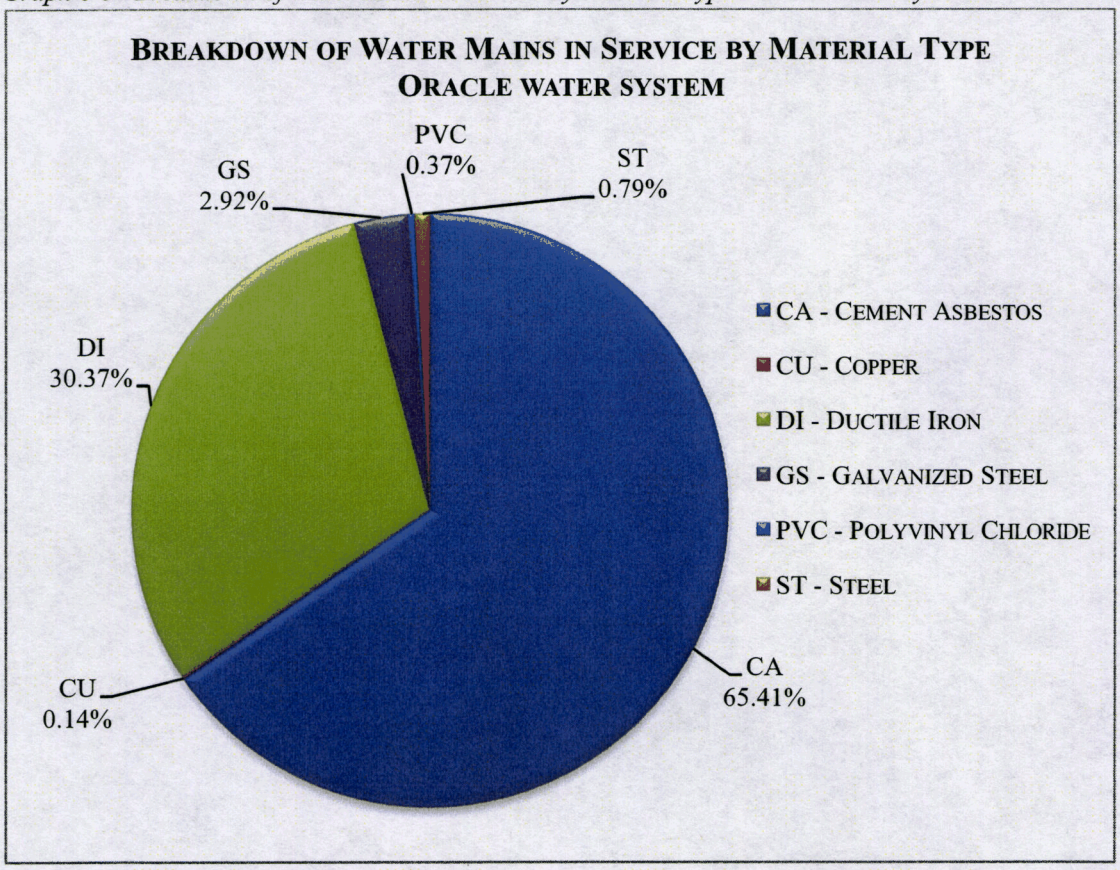
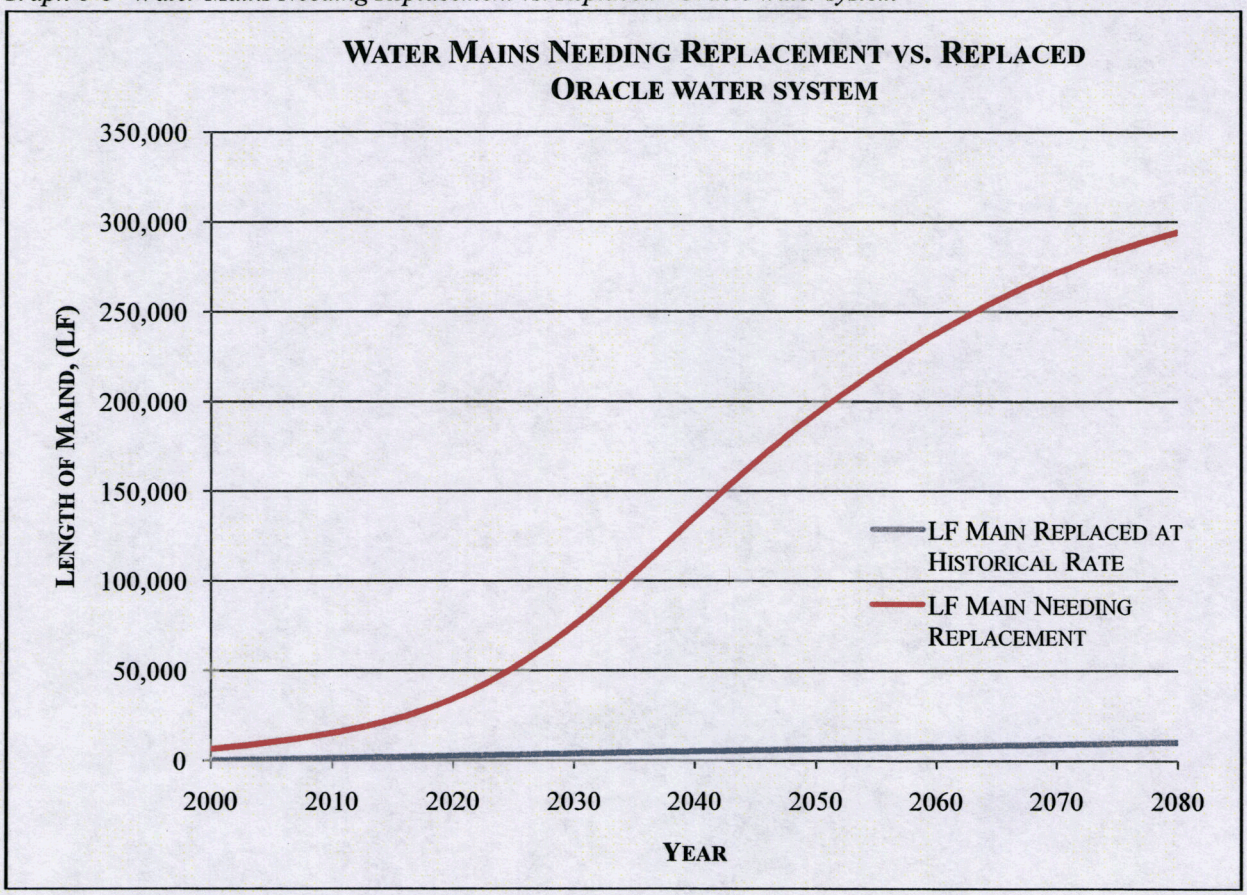


*Table 6-3 Breakdown and Linear Feet of Water Mains in Service by Material Type - Oracle water system*

| BREAKDOWN AND LINEAR FEET OF WATER MAINS IN SERVICE BY MATERIAL TYPE ORACLE WATER SYSTEM | | |
|---|---|---|
| **MATERIAL TYPE** | **PERCENTAGE OF WATER MAINS** | **LF OF MAINS** |
| CA - CEMENT ASBESTOS | 65.41% | 205,041 |
| CU - COPPER | 0.14% | 430 |
| DI - DUCTILE IRON | 30.37% | 95,203 |
| GS - GALVANIZED STEEL | 2.92% | 9,151 |
| PVC - POLYVINYL CHLORIDE | 0.37% | 1,158 |
| ST - STEEL | 0.79% | 2,489 |
| **TOTAL** | **100%** | **313,472** |

The same Nessie Curve analysis described earlier in this report shows the original water main installation pattern for the Oracle water system. By modeling the installation pattern and the useful life expectancy of water mains, the Company has estimated the timing and magnitude of the investment needed to fund these replacements. The Company is planning to replace approximately 10,500 LF of problematic mains based on a complete review of the documented water main and service line repair history in Appendix 9.1.2 and the Nessie Curve analysis. The estimated cost to replace approximately 10,500 LF of water mains and 450 service lines is $1.8 million over the next 10 years, as detailed in Appendix 9.5.2. Graph 6-6 shows the predicted water main replacements needed versus historical replacements rates in the Oracle water system, based on the Nessie Curve analysis and other various water industry studies, some of which are listed in this report.

*Graph 6-6 Water Mains Needing Replacement vs. Replaced - Oracle water system*




At the historical rate of water main replacement, the Company anticipates it will not be able to keep up with the needed replacements of failing and aging water mains over the next ten years. The historical replacement rate of water mains from 2000 to 2009 was 140 LF per year showing that the Company is not keeping up with water main replacements. Graph 6-6 shows that a significant increase in the rate of water main replacements will be necessary in the future. As shown in Appendix 9.1.2, the historical rate of service line replacements is approximately 10 service lines per year. The Company would have to increase replacements of aging and failing service lines to approximately 45 per year, which is more than four times as much as was historically replaced annually. Each year, replacement costs and the quantity of aging and failing water mains and services are escalating making it increasingly difficult to replace such aging mains and services. The aging and failing service lines are discussed in detail in the Section 6.2.2, below.

### 6.2.2. Break and Repair History

There have been over 215 leaks and breaks recorded since 2000 in the Oracle water system, 103 of which have been recorded in the last 5 years. Leaks, repairs and replacement histories are listed in Appendix 9.1.2. This data, gathered from the Company's records and shown in Graph 6-7 and Table 6-4, indicates that the number of leaks and breaks has been increasing each year and, every indication shows that this trend will continue in the future.

Water mains in the Oracle water system are installed in areas that include hills, canyons, and washes, making it very difficult to perform leak surveys. Also, most leaks do not surface, further adding to the difficulty of locating and repairing such leaks. The Company has found that the use of leak detection equipment described earlier to be indispensible in locating the leaks and breaks that do not surface.

*Graph 6-7 Water Leaks by Type and Year - Oracle water system*

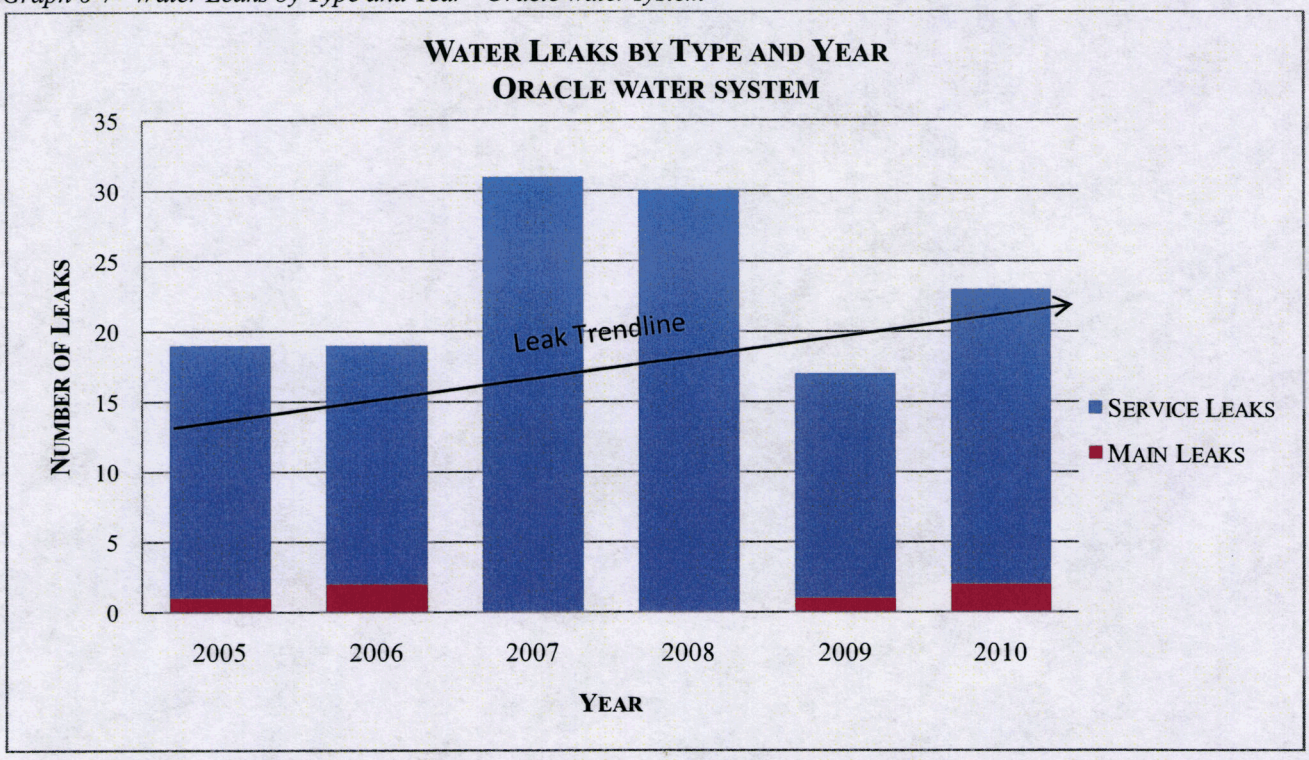



*Table 6-4 Water Leaks by Type and Year - Oracle water system*

| WATER LEAKS BY TYPE AND YEAR ORACLE WATER SYSTEM | | |
|---|---|---|
| YEAR | MAIN LEAKS | SERVICE LEAKS |
| 2004 AND EARLIER | 14 | 62 |
| 2005 | 1 | 18 |
| 2006 | 2 | 17 |
| 2007 | 0 | 31 |
| 2008 | 0 | 30 |
| 2009 | 1 | 16 |
| 2010 | 2 | 21 |
| **TOTAL** | **20** | **195** |

Failing PB and PE water service lines account for more than 90 percent of the total repairs and replacements in the Oracle water system and, to date, the Company has already replaced nearly 10 percent of the PB and PE service lines in this water system. Because failing PB and PE service lines are the cause for most of the Oracle water system's current water

losses, the main focus of the Company's replacement program for its Oracle water system is to replace service lines.

## 6.3. Water Losses

The Oracle water system is located in the Tucson Active Management Area, and the Company calculates and reports water losses in accordance with ADWR reporting requirements addressed earlier in this report.

The following Graph 6-8 and Table 6-5 show that the Oracle water system water losses have exceeded 12 percent for the last three years. The Company has been working diligently to locate leaks and breaks in the area to reduce water losses.

*Graph 6-8 Water Losses by Year - Oracle water system*

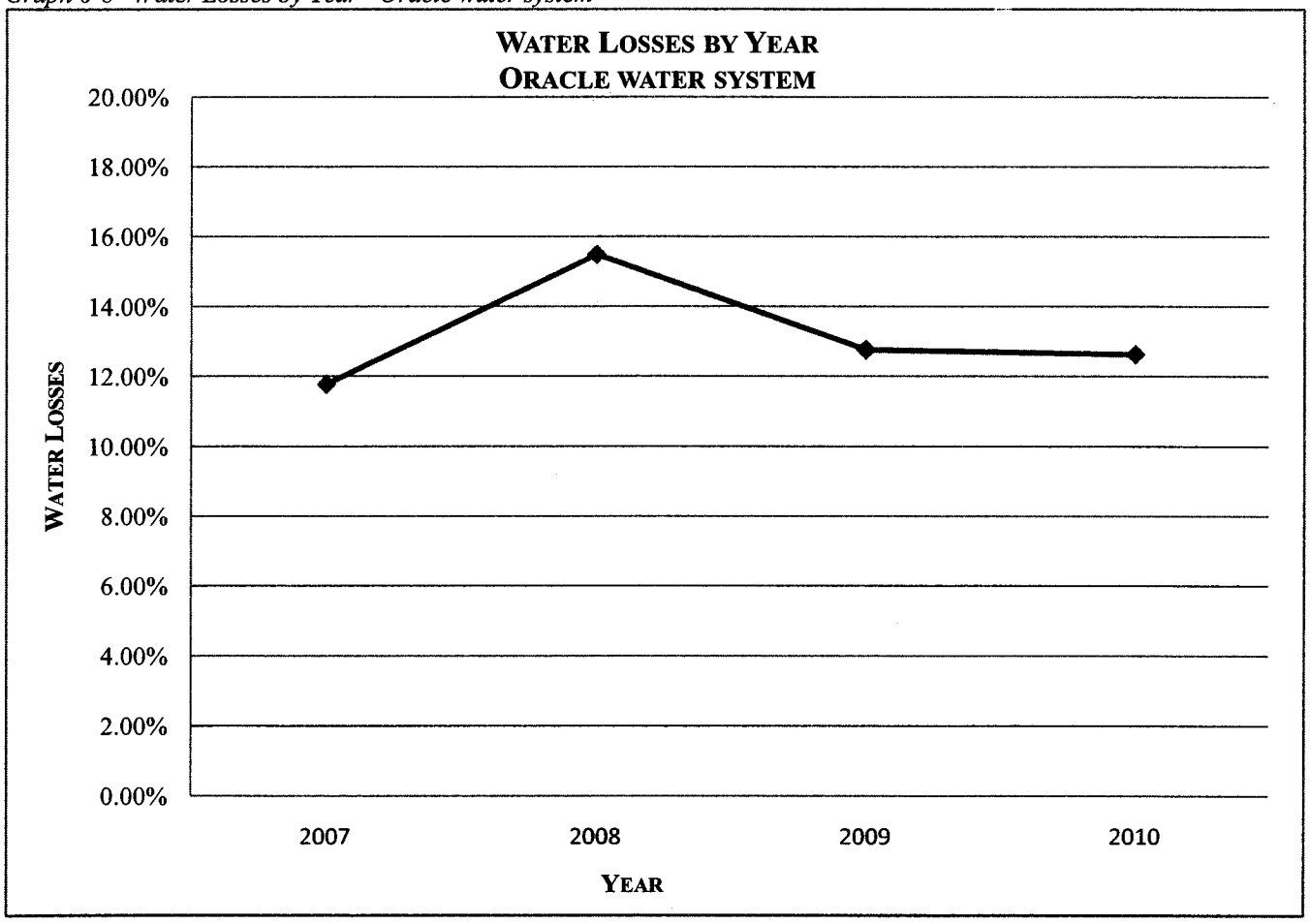


*Table 6-5 Water Losses by Year - Oracle water system*

| WATER LOSSES BY YEAR ORACLE WATER SYSTEM (THOUSANDS OF GALLONS) | | | | |
|---|---|---|---|---|
| YEAR | PRODUCTION | BILLABLE DELIVERIES | NON-BILLABLE DELIVERIES | PERCENTAGE WATER LOSS |
| 2007 | 147,782.0 | 128,457.2 | 1,941.0 | 11.76% |
| 2008 | 145,421.0 | 121,018.3 | 1,889.0 | 15.48% |
| 2009 | 150,728.0 | 130,859.0 | 649.0 | 12.75% |
| 2010 | 150,594.0 | 131,010.6 | 571.9 | 12.62% |

## 6.4. Recommendations

### 6.4.1. Areas Where Replacement of Aging Infrastructure is Needed

The Company's employees reported that 215 leaks and breaks were repaired. This was discussed in detail in Section 6.2.2.

Appendix 9.1.2 lists all recorded leaks and breaks which provides more detailed information, including:

1. Location of the leak;
2. Date of leak;
3. Type of leak (i.e. water main or service line); and
4. Repair vs. replacement.

The maps included in Appendix 9.2.2 show the locations (by section, township, and range) within the Company's Oracle water system where most of the leaks (greater than 20 per section) were found. On these maps, each section has different colors and cross-hatching to distinguish between the following areas:

1. Areas with more than 20 reported leaks repaired since 2000;
2. Areas with water mains installed prior to 1960; and
3. Areas evaluated for replacement projects.

Of the reported service line leaks that noted the material of the failed service lines, approximately 94 percent were constructed of PB or PE, the majority of which were associated with CA water mains installed from the 1950s through the 1980s. The failure of PB and PE water service lines has been a growing problem in the Oracle water system. The Company has determined that a more aggressive plastic service replacement program is needed in the Oracle water system. Proposed projects to replace failing PB and PE water service lines are discussed in Section 6.4.2.

*Table 6-6 Largest Number of Leaks by Geographic Area - Oracle water system*

| LARGEST NUMBER OF LEAKS BY GEOGRAPHIC AREA ORACLE WATER SYSTEM | | | | |
|---|---|---|---|---|
| AREA | MAP | MAIN LEAKS | SERVICE LEAKS | TOTAL LEAKS |
| North Downtown Oracle | OR-1 | 2 | 72 | 74 |
| Coronado Ridge | OR-4 | 3 | 52 | 55 |
| South Downtown Oracle | OR-3 | 14 | 27 | 41 |

The areas that are targeted for PB and PE water service line replacements in the Oracle Water System are included in Maps OR-1, OR-4 and OR-3 in Appendix 9.4.2 and are associated with water mains that were installed in the 1960s and 1970s. The break and repair data indicates there has been a significant number of PB and PE service leaks and repairs in these three areas, as shown in Table 6-6.

### 6.4.2. Three-Year Plan to Replace Aging Infrastructure

The Company developed a three-year service line replacement program to address the first phase of service line replacements to reduce water losses, as shown in Table 6-7.

*Table 6-7 Summary of Three-Year Plan to Replace Aging Infrastructure - Oracle water system*

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | BEVERLY CIRCLE | | | | 61 | | | 0 | 0 | 36 | 36 | $170,671 |
| 38 | SONBERG DRIVE | | | | 35 | | | 0 | 0 | 21 | 21 | $95,182 |
| 39 | CAMINO SECO | | | | 19 | | | 0 | 0 | 9 | 9 | $53,499 |
| 40 | ADAMS STREET | | | | 27 | | | 0 | 1 | 7 | 8 | $78,771 |
| 41 | TWO O'CLOCK HILLS ROAD | | | | 24 | | | 0 | 0 | 8 | 8 | $65,971 |
| 42 | CEDAR RIDGE DRIVE | | | | 16 | | | 0 | 0 | 6 | 6 | $44,637 |
| | | | | | | | | | | | **Total** | **$508,729** |

Project 37

Replace 61 service connections along Beverly Circle. The existing water mains have 36 recorded service line leaks. The cost to complete this project is estimated to be $170,671. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

Project 38

Replace 35 service connections along Sonberg Drive, Harold Drive and Rockcliff Boulevard. The existing water mains have 21 recorded service line leaks. The cost to complete this project is estimated to be $95,182. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

Project 39

Replace 19 service connections along Camino Seco and Calle Valencia. The existing water mains have 9 recorded service line leaks. The cost to complete this project is estimated to be $53,499. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

Project 40

Replace 27 service connections along Adams Street, Howard Street and Logan Street. The existing water mains have 7 recorded service line leaks and 1 water main leak. The cost to complete this project is estimated to be $78,771. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

Project 41

Replace 24 service connections along North Two O'clock Hills Road and Chaparral Street. The existing water mains have 8 recorded service line leaks. The cost to complete this project is estimated to be $65,971. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

Project 42

Replace 16 service connections along North Cedar Ridge Drive. The existing water main has 6 recorded service line leaks. The cost to complete this project is estimated to be $44,637. See Appendix 9.4.2 for the map depicting the project limits and the detailed cost estimate.

## 6.5. Conclusions

The Company's employees are working diligently to reduce water losses in the Oracle water system. The Company has purchased leak detection equipment to aid employees in detecting and reducing water loss. Based on the historical rate of water service line replacement in the Oracle water system, it will take more than 70 years to replace the failing service lines alone. This rate of service line replacements is too low, considering that the useful life of a PB and PE water service line is only 40 years.

The Oracle water system has three critical geographic areas that need to be addressed, based on the historical data. These three areas have a significant amount of service line leaks and breaks. A replacement program has been developed to resolve the service line

replacement needs. Over the next three years, six service line replacement projects have been developed to reduce water losses to help comply with the Commission's water loss reduction directive in Decision No. 71845. The Company estimates the annual cost of this water service line replacement program to be $173,300 for the Oracle water system.

The Company has started on the design and construction of three replacement projects in the Oracle water system to reduce water losses, as directed by the Commission in Decision No. 71845. These projects include:

Project 1

Install approximately 270 LF of 6-inch DI replacement pipe with polywrap and replace 2 service connections along American Avenue and College Drive. This project will replace approximately 270 LF of 4-inch ST water main installed in 1962. The existing water main to be replaced had three water main leaks. The cost to complete this project is estimated to be $40,113.

Project 2

Install approximately 440 LF of 6-inch DI replacement pipe with polywrap and replace 6 service connections along Discover Street. This project will replace approximately 440 LF of 2-inch GS water main installed in 1961. The existing water mains had three water main leaks. The cost to complete this project is estimated to be $51,218.

Project 3

Install approximately 1,100 LF of 6-inch DI replacement pipe with polywrap and replace 12 service connections along Stewart Road, Truman Street and Sherman Road. This project will replace 1,100 LF of 2-inch GS water main installed in 1965. The existing water mains had seven water main leaks. The cost to complete this project is estimated to be $87,853.

Construction of these three projects has been completed.

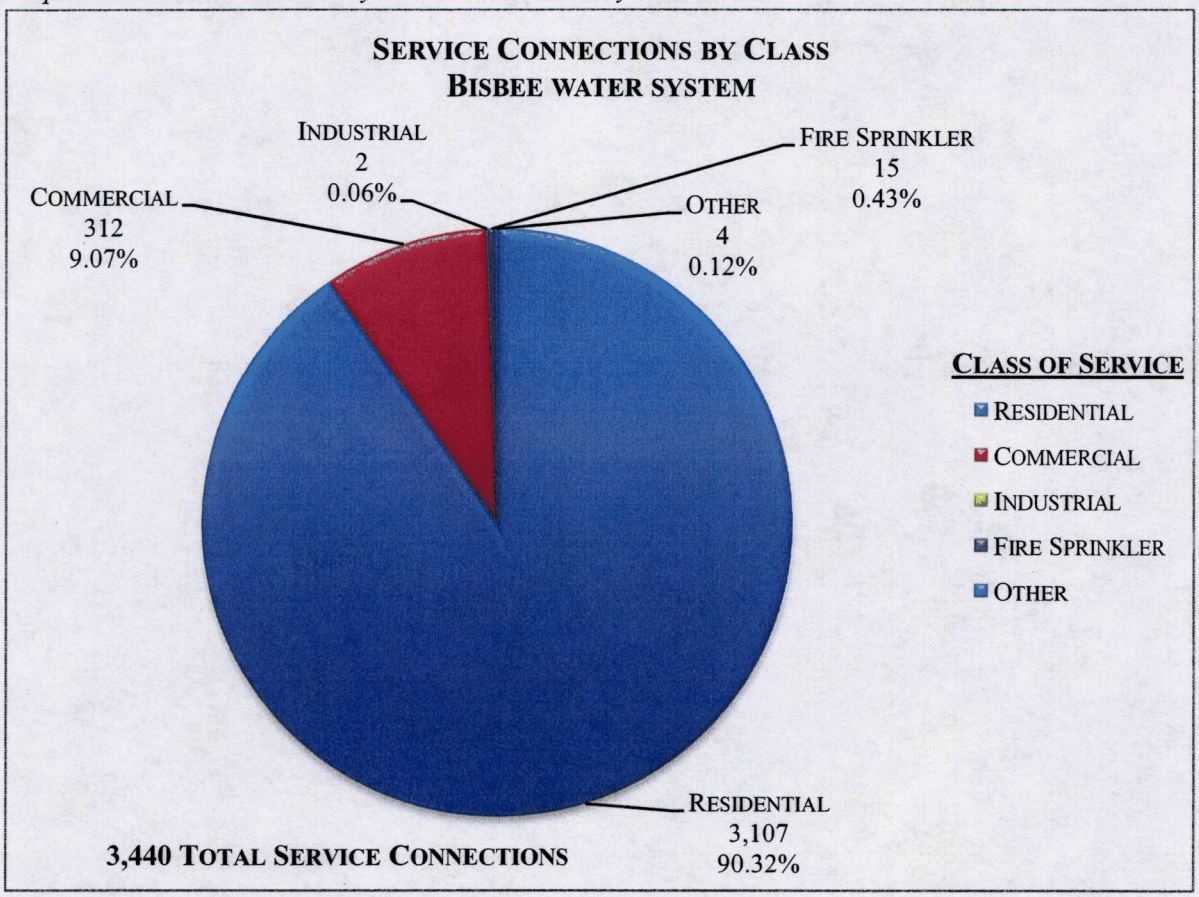
## 7.0 BISBEE WATER SYSTEM

### 7.1. Overview of the Existing Water System

#### 7.1.1. Water System Background

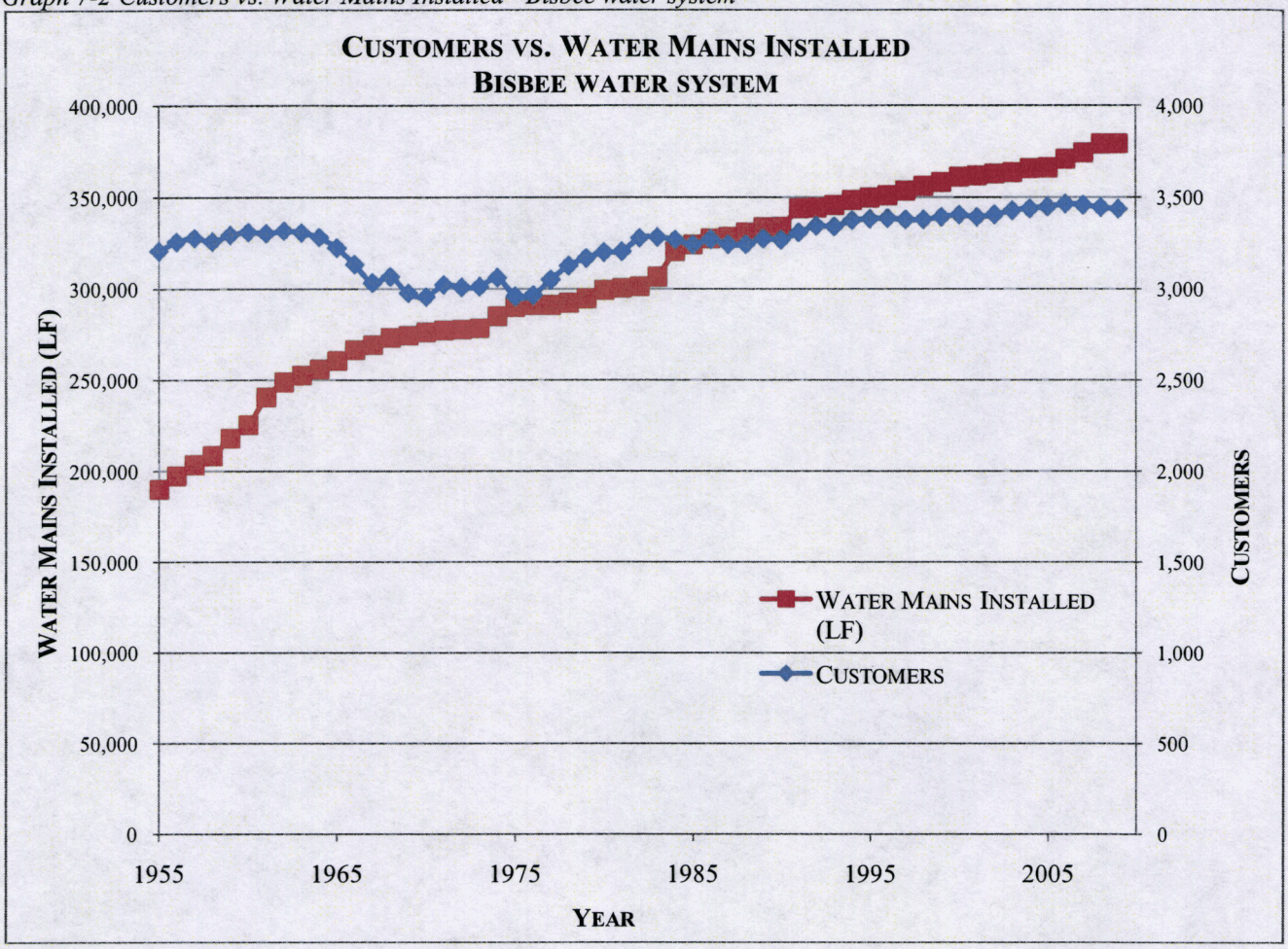
The Bisbee water system is located in southeastern Arizona along the border of Mexico. Bisbee is one of the oldest water systems in the State of Arizona, dating back to the late 1800s. The Bisbee water system serves the City of Bisbee and adjacent unincorporated areas in Cochise County and has over 3,400 residential and commercial service connections. 90 percent of the service connections are residential, as shown in Graph 7-1.

*Graph 7-1 Service Connections by Class - Bisbee water system*




The number of customers in the Bisbee water system, has remained relatively unchanged since 1955, however, the quantity of water mains installed has doubled over this period of time as shown in Graph 7-2.

*Graph 7-2 Customers vs. Water Mains Installed - Bisbee water system*

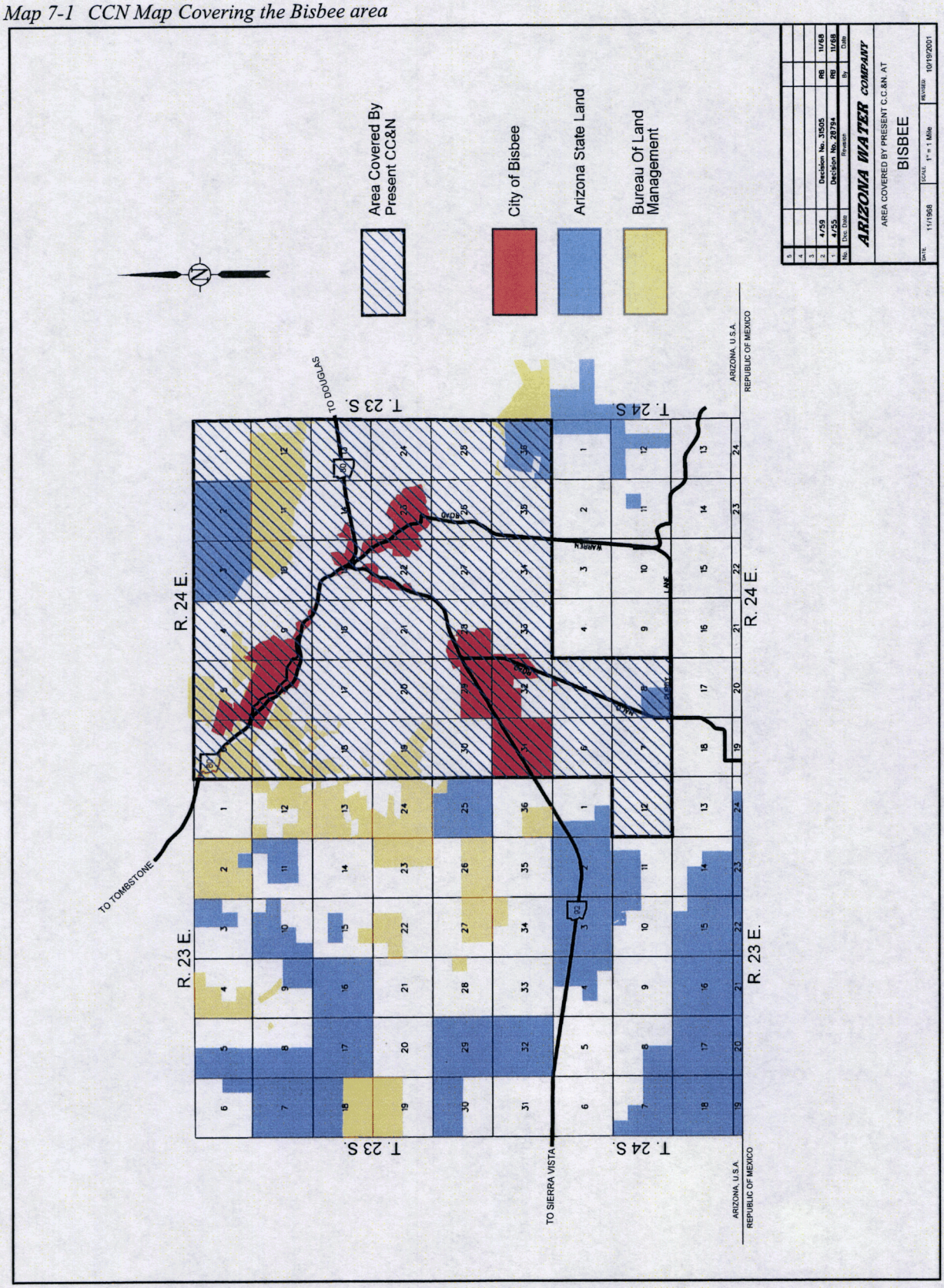



The amount of water mains installed per customer has increased partly because the unincorporated areas are starting to develop, creating larger parcel sizes, which increases the amount of water mains that need to be installed.

### 7.1.2. Certificate of Convenience and Necessity

The CCN covering the Bisbee area encompasses over 41 square miles of service territory located in southern Cochise County, as depicted in Map 7-1. The CCN area begins one mile north of the border between the United States and Mexico. Arizona State Land and Bureau of Land Management surround the system to the East, West, and North.

*Map 7-1 CCN Map Covering the Bisbee area*



### 7.1.3. Source of Supply

The Bisbee water system has four wells that have a maximum production capacity of over 2.8 MGD, and which pump directly into a ground water storage tank. The major booster pump stations that serve this water system are described as follows. First, water is pumped by the Naco Booster Pump Station to one of two elevated water storage tanks, Tin Town and Warren tanks, at a discharge pressure of 470 psi. Second, water is pumped by the Tin Town Booster Pump Station at a discharge pressure of 350 psi to the Tombstone Canyon tank. Third, water is pumped by the Tombstone Canyon Pump Station to the Spring Canyon tank at a discharge pressure of 120 psi. There are 23 regulator stations that regulate the pressure into separate pressure zones located throughout the Bisbee water system.

### 7.1.4. Distribution System

The installation of water mains in the Bisbee water system began in the late 1800s, however, the oldest water main in service today dates back to 1901. There are over 71 miles of water mains varying in size, material, and age. The Bisbee water system is comprised of water mains constructed of several different types of material, such as CA, CI, CU, DI, GS, PVC, and ST. There are approximately 3,400 service line connections in service which are constructed from CU, DI, GS, PB, PE, and ST materials.

Water mains installed in the Bisbee water system vary in size smaller than 2-inch to 14 inches in diameter. The length of water mains in service by pipe diameter are shown in Graph 7-3 and Table 7-1. The majority of the 10-inch and 12-inch water mains in service are used to transmit water from the well field to the gravity storage tanks.

*Graph 7-3 Miles of Water Mains in Service by Diameter - Bisbee water system*

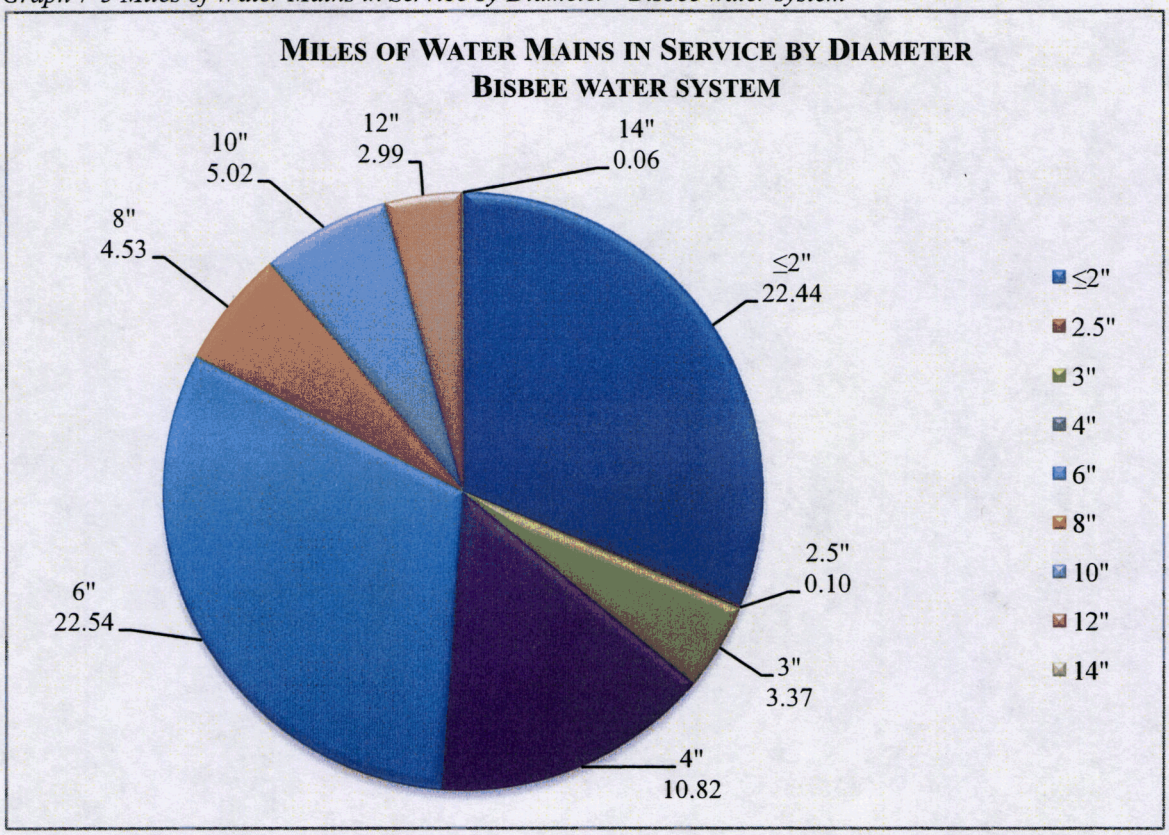



*Table 7-1 Miles and Linear Feet of Water Mains in Service by Diameter - Bisbee water system*

| MILES AND LINEAR FEET OF WATER MAINS IN SERVICE BY DIAMETER BISBEE WATER SYSTEM | | |
|---|---|---|
| **WATER MAIN SIZE** | **MILES OF WATER MAINS** | **LF OF WATER MAINS** |
| ≤2" | 22.44 | 118,467 |
| 2.5" | 0.10 | 513 |
| 3" | 3.37 | 17,788 |
| 4" | 10.82 | 57,125 |
| 6" | 22.54 | 119,037 |
| 8" | 4.53 | 23,901 |
| 10" | 5.02 | 26,486 |
| 12" | 2.99 | 15,794 |
| 14" | 0.06 | 308 |
| **TOTAL** | **71.87** | **379,419** |

## 7.2. System Characterization and Assessment

Steel was the predominant material used for water mains in the Bisbee water system from the early 1900s to the late 1950s. Most of these water mains are at or near the end of their useful life, as indicated by the map showing leaks and breaks.

### 7.2.1. Average Age of Water Mains

The oldest ST water mains in the Bisbee water system are over 100 years old and the oldest GS water mains are nearly as old as the ST water mains. There have been more than 1,000 repairs of reported water main breaks and leaks, as summarized in Appendix 9.1.3, and almost 80 percent of the leaks and breaks have been on ST and GS water mains installed from the 1900s through the 1960s. Most of these water mains in the Bisbee water system have reached the end of their useful life and now require replacement.

More than 55 percent of the water mains in the distribution system are over 50 years old, as shown in Graph 7-4 and Table 7-2, and are now reaching the end of their useful life.

*Graph 7-4 Breakdown of Water Mains in Service by Decade Installed - Bisbee water system*

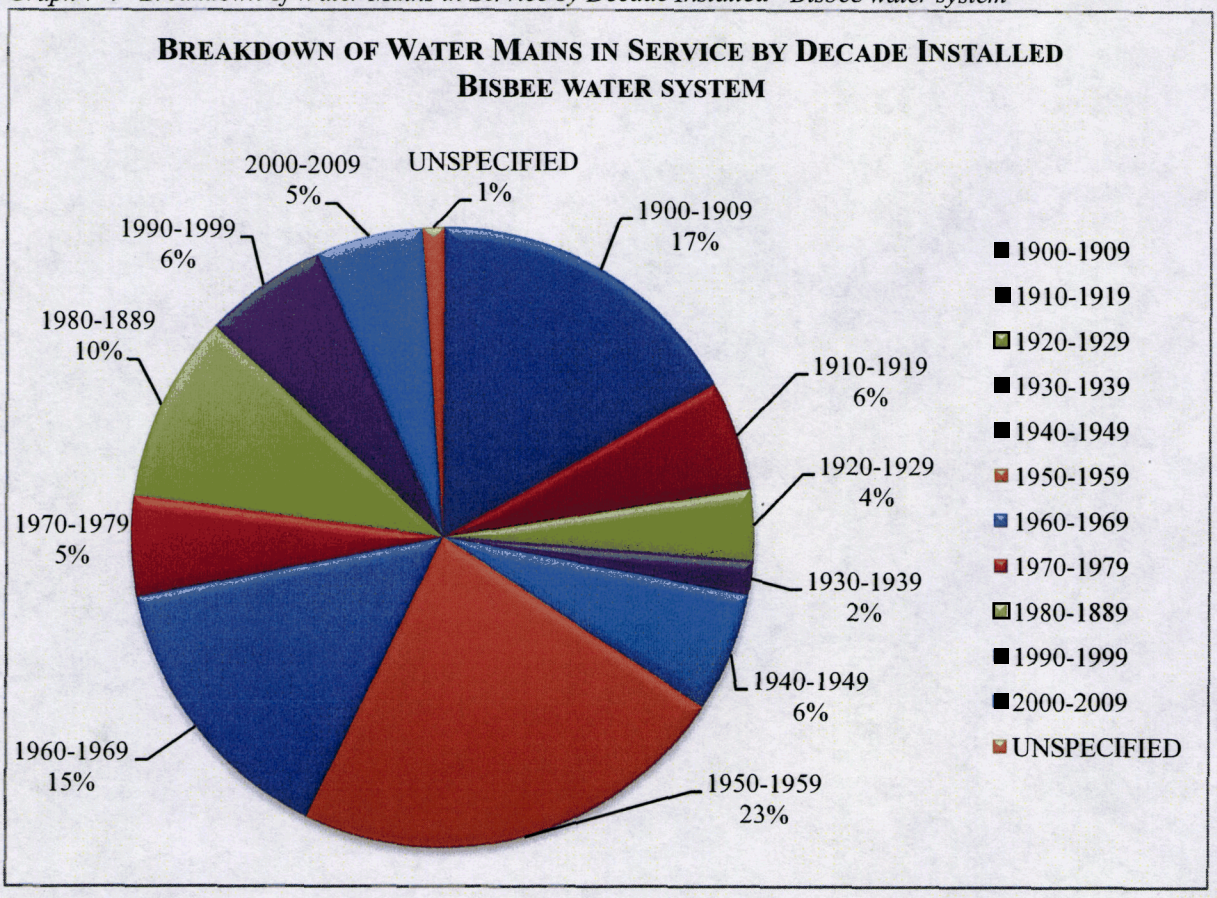
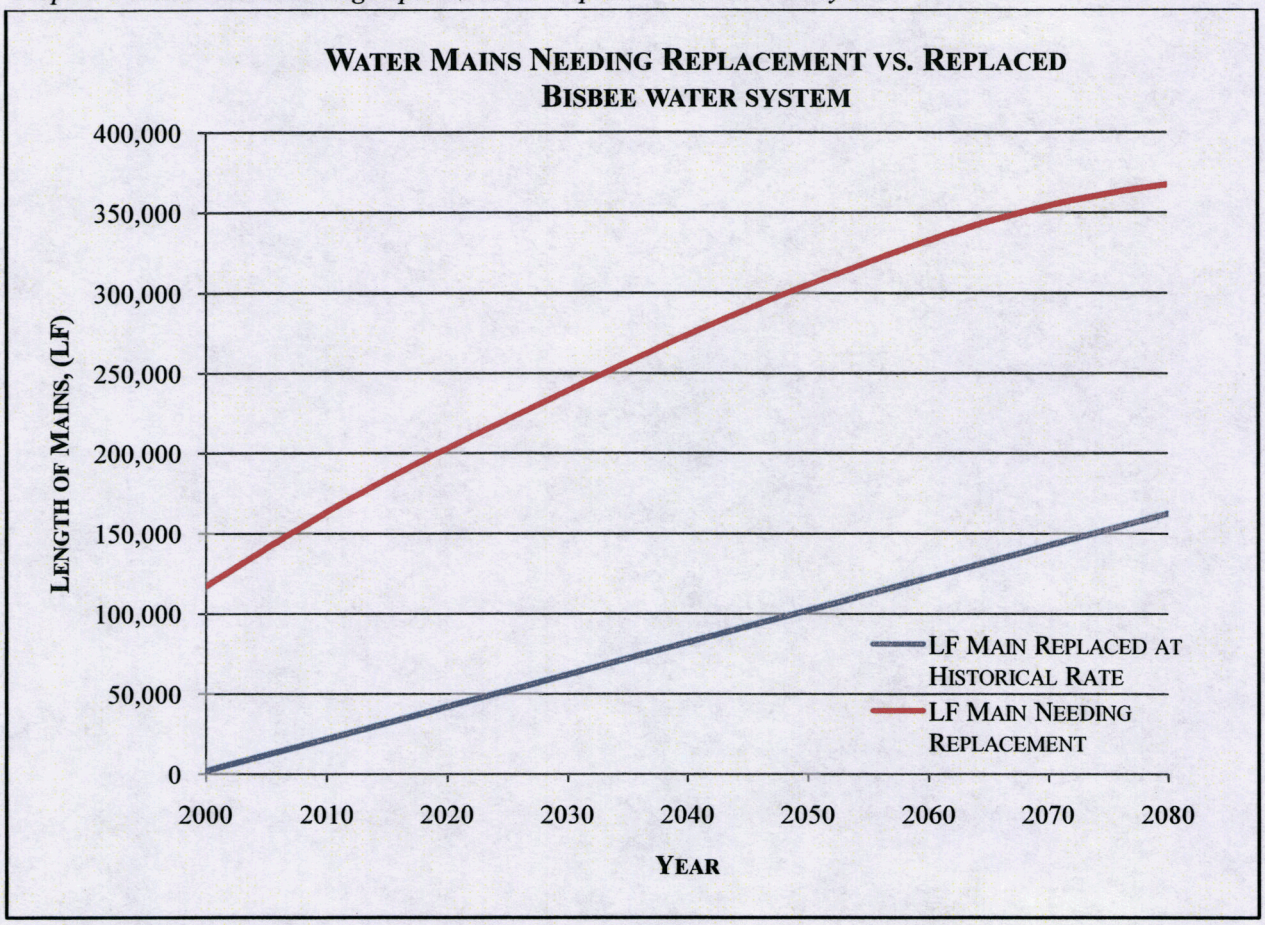


*Table 7-2 Breakdown and Linear Feet of Water Mains in Service by Decade Installed - Bisbee water system*

| BREAKDOWN AND LINEAR FEET OF WATER MAINS IN SERVICE BY DECADE INSTALLED BISBEE WATER SYSTEM | | |
|---|---|---|
| DECADE WATER MAINS INSTALLED | PERCENTAGE OF WATER MAINS | LF OF MAINS |
| 1900-1909 | 17% | 63,671 |
| 1910-1919 | 6% | 21,701 |
| 1920-1929 | 4% | 14,077 |
| 1930-1939 | 2% | 6,731 |
| 1940-1949 | 6% | 23,684 |
| 1950-1959 | 23% | 87,088 |
| 1960-1969 | 15% | 55,786 |
| 1970-1979 | 5% | 19,925 |
| 1980-1889 | 10% | 36,977 |
| 1990-1999 | 6% | 24,469 |
| 2000-2009 | 5% | 20,981 |
| UNSPECIFIED | 1% | 4,329 |
| **TOTAL** | **100%** | **379,419** |

Following the same Nessie Curve analysis, modeling the Bisbee water system for the installation pattern and the useful life expectancy of water mains, the Company has estimated the timing and magnitude of the investment needed to fund these replacements. The analysis shows that approximately 140,000 LF of water mains already need to be replaced in the Bisbee water system. Another 40,000 LF of water main will need to be replaced over the next 10 years. The 180,000 LF of water main that needs to be replaced represents 47 percent of the Bisbee water system. The estimated cost to replace this 180,000 LF of water main is $23.5 million, as detailed in Appendix 9.5.3. This analysis is based on a complete review of the documented water main and service line repair history summarized in Appendix 9.1.3. Graph 7-5 shows the predicted water main replacements needed versus historical replacement rates in the Bisbee water system.

*Graph 7-5 Water Mains Needing Replacement vs. Replaced - Bisbee water system*




At the historical replacement rate of 2,200 LF per year, the Company will continue to fall further behind on water main and service line replacements for its Bisbee water system. Replacement costs will continue to increase further limiting the quantity of aging and failing water mains and service lines that the Company may be able to replace.

### 7.2.2. Break and Repair History

Water main and service line breaks and repairs are frequent in the Bisbee water system and have been increasing. The Bisbee water system averages over 100 leaks and breaks per year, a number that has risen sharply in recent years. The number of leaks and breaks on water mains equates to one leak for every 400 feet of water main currently in service and totals more than one break for every mile of water main each year. As shown in Graph 7-6 and Table 7-3, the number and frequency of leaks and breaks are increasing per year, indicating further deterioration and the increased need for replacements.

*Graph 7-6 Water Leaks by Type and Year - Bisbee water system*

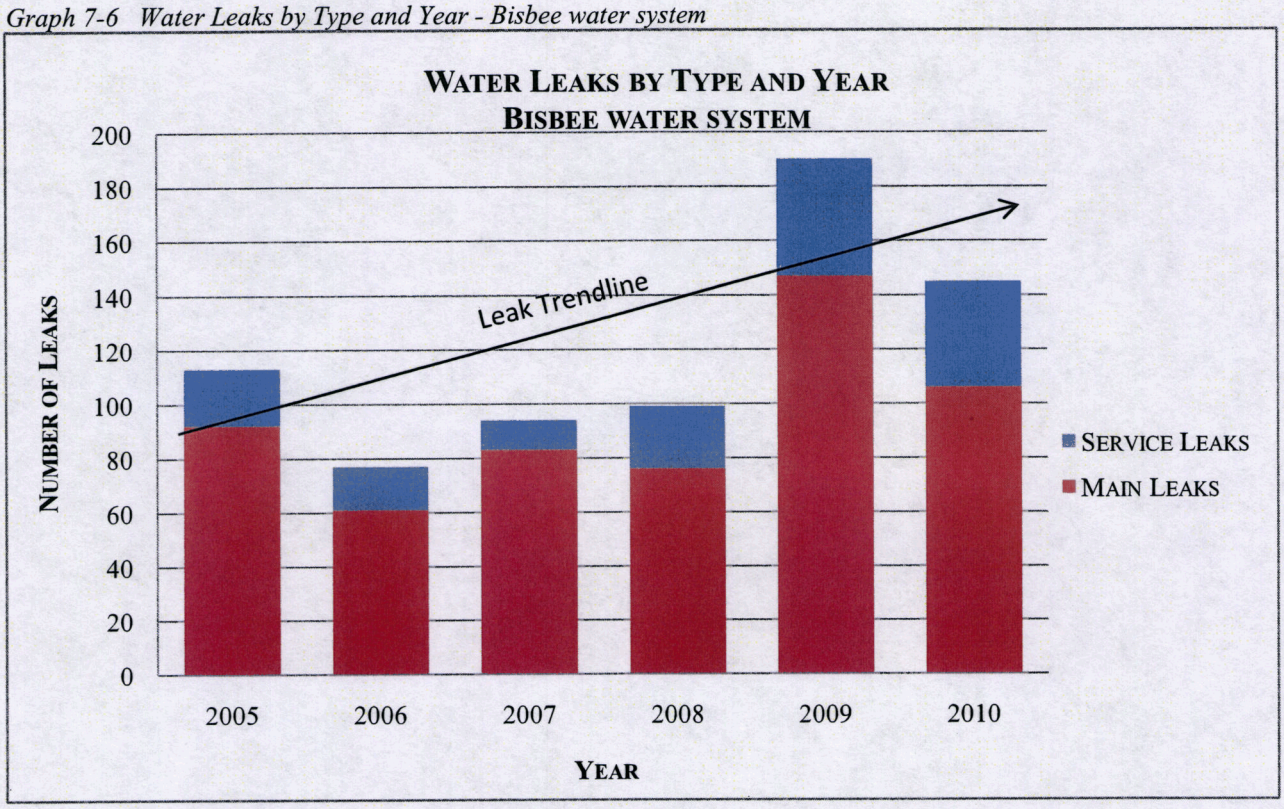



*Table 7-3 Water Leaks by Type and Year - Bisbee water system*

| WATER LEAKS BY TYPE AND YEAR BISBEE WATER SYSTEM | | |
|---|---|---|
| **YEAR** | **MAIN LEAKS** | **SERVICE LEAKS** |
| 2004 and earlier | 453 | 190 |
| 2005 | 92 | 21 |
| 2006 | 61 | 16 |
| 2007 | 83 | 11 |
| 2008 | 76 | 23 |
| 2009 | 147 | 43 |
| 2010 | 106 | 39 |
| **TOTAL** | **1018** | **343** |

## 7.3. Water Losses

Bisbee water system water losses have exceeded 10 percent for the last 20 years, and have exceeded 15 percent for the past 4 years, as shown in Graph 7-7 and Table 7-4. As directed by the Commission in Decision No. 71845, the Company is required to lower water losses to below 10 percent, wherever feasible.

*Graph 7-7 Water Losses by Year - Bisbee water system*

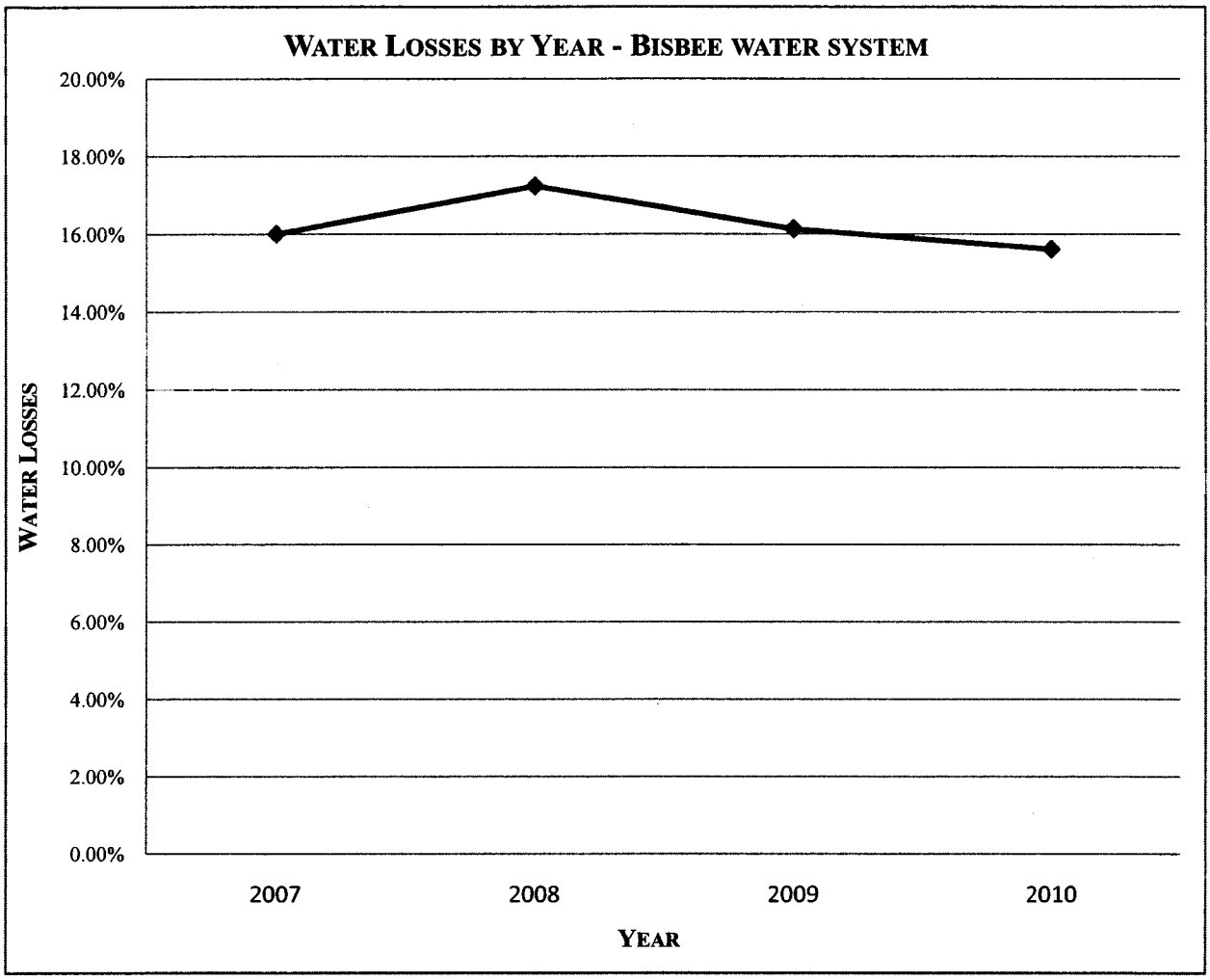



*Table 7-4 Water Losses by Year - Bisbee water system*

| WATER LOSSES BY YEAR<br>BISBEE WATER SYSTEM<br>(THOUSANDS OF GALLONS) | | | | |
|---|---|---|---|---|
| YEAR | PRODUCTION | BILLABLE DELIVERIES | NON-BILLABLE DELIVERIES | PERCENTAGE WATER LOSS |
| 2007 | 356,545.7 | 297,398.8 | 2,121.9 | 15.99% |
| 2008 | 363,577.1 | 299,360.3 | 1,582.4 | 17.23% |
| 2009 | 345,648.8 | 287,197.8 | 2,712.7 | 16.13% |
| 2010 | 344,857.4 | 290,368.6 | 667.6 | 15.61% |

## 7.4. Recommendations

### 7.4.1. Areas Where Replacement of Aging Infrastructure is Needed

The Company's employees identified more than 1,350 repairs of leaks and breaks within the Bisbee water system. As shown in Table 7-3, almost 75 percent of the repairs and replacements have been on water mains alone.

Appendix 9.1.3 lists all recorded leaks and breaks which provides more detailed information, including:

1. Location of the leak;
2. Date of leak;
3. Type of leak (i.e. water main or service line); and
4. Repair vs. replacement.

The maps included in Appendix 9.2.3 show the location (by section, township, and range) within the Company's Bisbee water system where a high proportion of leaks (greater than 20 per section) were found. On these maps, each section has a different color and cross-hatching to distinguish between the following:

1. Areas with more than 20 reported leaks repaired since 2000;
2. Areas with water mains installed prior to 1960; and
3. Areas evaluated for replacement projects.

The number of recorded leaks per year has increased over the past five years, see Graph 7-6.

Of the reported water main leaks that noted the material of the failed water mains, approximately 60 percent were ST. The majority of the water main leaks have been on ST water mains installed prior to 1960. Based on this evidence, the Company has determined that a more aggressive water main replacement program is needed for the Bisbee water system. Proposed projects to address this issue are discussed in Section 7.4.2.

*Table 7-5 Largest Number of Leaks by Geographic Area - Bisbee water system*

| LARGEST NUMBER OF LEAKS BY GEOGRAPHIC AREA BISBEE WATER SYSTEM | | | | |
|---|---|---|---|---|
| AREA | MAP | MAIN LEAKS | SERVICE LEAKS | TOTAL LEAKS |
| Warren | BE-10 | 298 | 90 | 388 |
| Old Bisbee | BE-3 | 160 | 73 | 233 |
| Old Bisbee | BE-4 | 157 | 62 | 219 |
| Don Luis | BE-15 | 83 | 25 | 108 |

The three geographic areas that need to be addressed in the Bisbee water system are included in Maps BE-10, BE-3, BE-4, and BE-15 in Appendix 9.4.3, which include water mains installed in the early 1900s, where there have been a significant number of water main leaks and repairs.

The first geographic area to be addressed is the Warren area, which corresponds with Map BE-10 in Appendix 9.4.3. This area has seen a significant number of water main breaks and leaks. The majority of the ST water mains were installed in 1908. There were over 388 leaks repaired in the past few years in this area, per Table 7-5. Because of the large number leaks and breaks in the Warren area, the proposed replacement program will include both water mains and service lines. Individual replacement projects for this area are listed in Section 7.4.2.

The second geographic area to be addressed is the Old Bisbee area, which corresponds with Maps BE-3 and BE-4 in Appendix 9.4.3. This area has small-diameter GS water mains that are over 50 years old. The break and repair history for these GS water mains indicates that these water mains have likely reached the end of their useful lives. The water mains have shown signs of advanced aging, resulting in higher water losses. The GS water mains in the Old Bisbee area are included in the proposed replacement projects listed in Section 7.4.2.

The third geographic area to be addressed is the Don Luis area, which corresponds to Map BE-15 in Appendix 9.4.3. Water mains and service lines in this area are over 50 years old and are made of ST and GS pipe. The break and repair history shows numerous leaks on water mains in this area. The proposed projects for replacing ST and GS water mains in this area are listed in Section 7.4.2.

### 7.4.2. Three-Year Plan to Replace Aging Infrastructure

The Company determined that a water main and service line replacement program, as summarized in Table 7-6, is needed, based on analysis of the available data shown in Appendix 9.1.3.

*Table 7-6 Summary of Three-Year Plan to Replace Aging Infrastructure - Bisbee water system*

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | BOWERS STREET | 1,900 | 6 | DI | 22 | 2, 4 | ST, GS | 0 | 76 | 4 | 80 | $232,374 |
| 44 | OCOTILLO AVENUE | 700 | 6 | DI | 11 | 1,2,4 | PVC, GS, CU, ST | 0 | 34 | 1 | 35 | $94,656 |
| 45 | LEDGE AVENUE | 2,450 | 6 | DI | 41 | 1, 2, 4 | ST, GS | 0 | 22 | 13 | 35 | $318,891 |
| 46 | HIGHWAY 80 | 900 | 6 | DI | 0 | 1 | PVC | 0 | 22 | 0 | 22 | $84,679 |
| 47 | LEDGE AVENUE | 1,650 | 6 | DI | 20 | 1, 2, 3 | GS, PVC | 0 | 19 | 2 | 21 | $192,464 |
| 48 | TERAN STREET | 2,900 | 6 | DI | 22 | 1, 2, 6 | ST, GS | 0 | 20 | 0 | 20 | $312,721 |
| 49 | PARK AVENUE | 700 | 6 | DI | 12 | 2, 4, 6 | GS, ST | 0 | 16 | 0 | 16 | $98,070 |
| 50 | BROPHY AVENUE | 600 | 6 | DI | 11 | 1, 2 | CU, GS | 0 | 13 | 2 | 15 | $76,802 |
| 51 | COLE AVENUE | 1,000 | 6 | DI | 7 | 6,8 | ST | 0 | 8 | 6 | 14 | $112,905 |
| 52 | CHURCH STREET | 400 | 6 | DI | 7 | 4, 6 | ST | 0 | 11 | 1 | 12 | $54,877 |
| | | | | | | | | | | | **Total** | **$1,578,440** |

Project 43

Install approximately 1,900 LF of 6-inch DI replacement pipe with polywrap and replace 22 service connections along Bowers Street from Marie Street to McDonald Street. This project will replace approximately 1,250 LF of 4-inch ST water main installed in 1958 and approximately 150 LF of 1-inch GS water main installed in 1961 on Bowers Street; and approximately 500 LF of 2-inch GS water main installed in 1958 on Marie Street. The existing water mains to be replaced have 4 recorded service line leaks and 76 recorded water main leaks. The cost to complete this project is estimated to be $244,847. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 44

Install approximately 700 LF of 6-inch DI replacement pipe with polywrap and replace 11 service connections along Ocotillo Street. This project will replace approximately 600 LF of 1-inch GS water main installed in 1945, 1947, and 1950, approximately 250 LF of 1-inch PVC water main installed in 1980, approximately 150 LF of 4-inch ST water main installed in 1960, and approximately 100 LF of 2-inch CU water main installed in 2007 on Ocotillo Street. The existing water mains to be replaced have 1 recorded service line leaks and 34 recorded water main leaks. The cost to complete this project is estimated to be $94,656. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 45

Install approximately 1,650 LF of 6-inch DI replacement pipe with polywrap and replace 20 service connections along Ledge Avenue, Quality Road and Alleys. This project will replace approximately 150 LF of 1-inch GS water main installed in 1939, approximately 100 LF of 1-inch PVC water main installed in 1976, approximately 750 LF of 2-inch GS water main installed in 1939 and 1947; and approximately 350 LF of 3-inch GS water main installed in 1932 and 1952. The existing water mains to be replaced have 2 recorded service line leaks and 19 recorded water main leaks. The cost to complete this project is estimated to be $192,464. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 46

Install approximately 900 LF of 6-inch DI replacement pipe with polywrap along Highway 80 and Winwood Road. This project will replace approximately 900 LF of 1-inch PVC water main installed in 1980 on Winwood Road. The existing water main to be replaced has 22 recorded water main leaks. The cost to complete this project is estimated to be $84,617. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 47

Install approximately 2,450 LF of 6-inch DI replacement pipe with polywrap and replace 41 service connections along Ledge Avenue and Quality Road. This project will replace approximately 1,050 LF of 1-inch GS water main installed in 1937, 1939, 1958, and 1962; approximately 100 LF of 2-inch ST water main installed in 2002; approximately 1,000 LF of 2-inch GS water main installed in 1932 and 1947; and approximately 200 LF of 3-inch GS water main installed in 1947. The existing water mains to be replaced have 13 recorded service line leaks and 22 recorded water main leaks. The cost to complete this project is estimated to be

$318,891. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 48

Install approximately 2,900 LF of 6-inch DI replacement pipe with polywrap and replace 22 service connections along Teran Street, Aruizu Street, Carbajal Street, and Vargas Street. This project will replace approximately 700 LF of 1-inch GS water main installed in 1938, approximately 800 LF of 2-inch GS water main installed in 1938, and approximately 1,300 LF of 6-inch ST water main installed in 1908 and 1976. The existing water mains to be replaced have 20 recorded water main leaks. The cost to complete this project is estimated to be $312,721. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 49

Install approximately 700 LF of 6-inch DI replacement pipe with polywrap and replace 12 service connections along Park Avenue. This project will replace approximately 650 LF of 2-inch GS water main installed in 1920 and 1967; approximately 300 LF of 4-inch GS water main installed in 1922; and approximately 250 LF of 6-inch ST water main installed in 1922 on Second Street. The existing water mains to be replaced have 16 recorded water main leaks. The cost to complete this project is estimated to be $98,070. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 50

Install approximately 600 LF of 6-inch DI replacement pipe with polywrap and replace 11 service connections along Brophy Avenue. This project will replace approximately 400 LF of 1-inch GS water main installed in 1944 and approximately 200 LF of 2-inch CU water main installed in 1980 on Brophy Avenue. The existing water mains to be replaced have 2 recorded service line leaks and 13 recorded water main leaks. The cost to complete this project is estimated to be $76,802. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 51

Install approximately 1,000 LF of 6-inch DI replacement pipe with polywrap and replace 7 service connections along Cole Avenue. This project will replace approximately 800 LF of 6-inch ST water main installed in 1908 and approximately 150 LF of 8-inch ST water main installed in 1908 on Cole Avenue. The existing water mains to be replaced have 6 recorded service line leaks and 8 recorded water main leaks. The cost to complete this project is estimated to be $112,905. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

Project 52

Install approximately 400 LF of 6-inch DI replacement pipe with polywrap and replace 7 service connections along Church Street from Clawson Avenue to Sowels Avenue. This project will replace approximately 300 LF of 4-inch ST water main installed in 1930, 1975, and 1978 and approximately 100 LF of 6-inch ST water main installed in 1908 on Church Street. The existing water mains to be replaced have 1 recorded service line leak and 11 recorded water main

leaks. The cost to complete this project is estimated to be $57,503. See Appendix 9.4.3 for the map depicting the project limits and the detailed cost estimate.

## 7.5. Conclusions

Water losses in the Bisbee water system have been managed well, considering that the average age of the water mains in the system is over 65 years. The leak and break history of the Bisbee water system is well documented. The Company uses various types of leak detection equipment to help locate and repair leaks in a timely manner, however, miles of water mains have reached the end of their useful lives and need to be replaced. Based on the historical rate of water main replacement, it will take over 170 years to replace the existing water mains.

There are three critical geographic areas in the Bisbee water system where water mains need to be replaced: the Warren, Old Bisbee, and Don Luis areas, which have shown a significant number of water main and service line leaks and breaks. A specific replacement program has been developed to reduce water losses for these three areas and to help comply with the Commission directive under Decision No. 71945 by replacing aging water mains and service lines. Replacement of the aging and failing water mains and service lines over the next 10 years equates to a annual replacement program of over $2.0 million. A replacement program of this magnitude would significantly increase water rates. The Company proposed a more reasonable initial three-year replacement program and estimates the annual cost of this initial three-year infrastructure replacement program to be $500,000 for the Bisbee water system.

Within months after the Commission's directions to reduce water loss, the Company began the design and construction of several replacement projects in the Bisbee water system. These projects include:

Project 1

Install approximately 1,960 LF of 6-inch and 8-inch DI replacement pipe with polywrap and replace 45 service connections along Campbell Street and Cole Avenue. This project will replace approximately 460 LF of 8-inch ST, 1,500 LF of 6-inch ST, and replace 45 service connections that were installed in 1908. The existing water mains had 32 leaks in the last ten years. The cost to complete this project is estimated to be $375,720.

Project 2

Install approximately 1,140 LF of 6-inch and 8-inch DI replacement pipe with polywrap and replace 17 service connections along Clawson Avenue. This project will replace approximately 40 LF of 6-inch ST, 1,100 LF of 8-inch ST, and replace 17 service connections that were installed in 1908. The existing water mains had over 70 leaks. The cost to complete this project is estimated to be $193,147.

Construction on these two projects has been completed.

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# Appendices

# APPENDICES

# 9.0

# APPENDIX

# 9.1

# Leak and Break Repair History

# APPENDIX

# 9.1.1

# Leak and Break Repair History

# Superstition Division

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apache Junction | | | | | | | | | | | | | | | | | | | | | | |
| 001-98 | 1/9/1998 | NE | 13 | 1N | 8E | 5727 E FOREST STREET | 14 | SERVICE REPLACEMENT | | | | | | X | | | | | | | | |
| 002-98 | 1/15/1998 | SE | 25 | 1N | 8E | 6084 E 20TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | | | | | | | | | |
| 003-98 | 1/22/1998 | SW | 13 | 1N | 7E | 514 N 110TH STREET | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1998 |
| 004-98 | 1/31/1998 | NE | 25 | 1N | 7E | 11412 E MARGUERITE AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 005-98 | 1/31/1998 | NW | 20 | 1N | 8E | 1110 W ROOSEVELT STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 006-98 | 1/31/1998 | SE | 9 | 1S | 9E | 10523 E SLEEPY HOLLOW TRAIL | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 007-98 | 2/2/1998 | SE | 24 | 1N | 7E | 11336 E 6TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 008-98 | 2/5/1998 | SW | 14 | 1N | 7E | 715 N 102ND PLACE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 009-98 | 2/6/1998 | NE | 24 | 1N | 7E | 11313 E BOISE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 010-98 | 2/12/1998 | SW | 9 | 1S | 9E | 10181 E HUMMINGBIRD LANE | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1980 |
| 011-98 | 2/13/1998 | NW | 30 | 1N | 8E | 1500 S WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 012-98 | 3/3/1998 | NW | 19 | 1N | 8E | 2449 W OHIO STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |
| 013-98 | 3/13/1998 | NE | 30 | 1N | 8E | 1041 S DELAWARE DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 014-98 | 3/17/1998 | NE | 19 | 1N | 8E | 234 N PALO VERDE DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 015-98 | 3/17/1998 | NW | 20 | 1N | 8E | 451 N IRONWOOD DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 016-98 | 4/4/1998 | NE | 12 | 1N | 8E | 3724 N LA BARGE ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 017-98 | 4/13/1998 | NW | 30 | 1N | 8E | 1343 S WARNER DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 018-98 | 4/28/1998 | SE | 29 | 1N | 8E | 567 W 20TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 019-98 | 5/1/1998 | SE | 27 | 1N | 8E | 1980 S HILTON ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 020-98 | 5/12/1998 | NW | 30 | 1N | 8E | 990 S CEDAR DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 021-98 | 5/29/1998 | SE | 18 | 1N | 8E | 1123 N GRAND DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 022-98 | 6/9/1998 | SE | 17 | 1N | 8E | 441 W ROUNDUP STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 023-98 | 6/11/1998 | SW | 22 | 1N | 8E | 200 S WICKIUP ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 024-98 | 6/12/1998 | NW | 25 | 1N | 8E | 5380 E 12TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 025-98 | 7/29/1998 | SW | 20 | 1N | 8E | 637 S SILVER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 026-98 | 8/5/1998 | NW | 19 | 1N | 8E | 2975 W SUPERSTITION BOULEVARD | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 027-98 | 8/11/1998 | SE | 29 | 1N | 8E | 627 W 16TH AVENUE | 32 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1963 |
| 028-98 | 8/12/1998 | SE | 20 | 1N | 8E | 725 W APACHE TRAIL | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1979 |
| 029-98 | 8/12/1998 | NE | 19 | 1N | 8E | 2031 W GREGORY STREET | 28 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 030-98 | 8/24/1998 | SE | 21 | 1N | 8E | 953 E 2ND AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1984 |
| 031-98 | 8/25/1998 | NW | 27 | 1N | 8E | 841 S WICKIUP ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 032-98 | 8/25/1998 | NW | 20 | 1N | 8E | 648 N THUNDERBIRD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 033-98 | 8/25/1998 | SE | 14 | 1N | 8E | 4617 E GREASEWOOD STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 034-98 | 9/1/1998 | NE | 9 | 1S | 9E | 5842 S EASY STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1979 |
| 035-98 | 9/2/1998 | NE | 22 | 1N | 8E | 431 N ACACIA ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 036-98 | 9/2/1998 | SE | 27 | 1N | 8E | 2949 E 20TH AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 037-98 | 9/6/1998 | SE | 24 | 1N | 7E | 11522 E 4TH AVENUE | 28 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1982 |
| 038-98 | 9/7/1998 | SE | 24 | 1N | 7E | 11301 E 4TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1982 |
| 039-98 | 9/21/1998 | SW | 13 | 1N | 8E | 4928 E RAWHIDE STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1966 |
| 040-98 | 9/21/1998 | NE | 13 | 1N | 8E | 1724 N LA BARGE ROAD | 2 | SERVICE REPAIR | | | | | | | | 1 | POLY | 3/4 | | | | 1966 |
| 041-98 | 10/13/1998 | NE | 24 | 1N | 7E | 11313 E BOISE STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 042-98 | 10/25/1998 | NE | 30 | 1N | 8E | 1521 S DELAWARE DRIVE | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 043-98 | 10/25/1998 | NW | 25 | 1N | 7E | 11118 E CRESCENT AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1962 |
| 044-98 | 10/28/1998 | NE | 22 | 1N | 8E | 554 N ACACIA ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 045-98 | 10/30/1998 | SW | 25 | 1N | 7E | 10855 E LA SALLE STREET | 5 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 046-98 | 11/12/1998 | SE | 13 | 1N | 8E | 5962 E SIESTA STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 047-98 | 11/13/1998 | NW | 19 | 1N | 8E | 2627 GREGORY STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 048-98 | 11/16/1998 | SE | 17 | 1N | 8E | 175 W TEPEE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 049-98 | 11/17/1998 | SE | 22 | 1N | 8E | 2760 E BROADWAY AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 050-98 | 11/18/1998 | SW | 18 | 1N | 8E | 2690 W ROUNDUP STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1972 |
| 051-98 | 11/19/1998 | SE | 24 | 1N | 7E | 341 S ELMONT DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 052-98 | 11/20/1998 | SW | 25 | 1N | 8E | 1675 S MOUNTAIN VIEW ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 053-98 | 11/23/1998 | SW | 25 | 1N | 7E | 11137 E PUEBLO AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 054-98 | 11/25/1998 | NE | 18 | 1N | 8E | 2237 W FOOTHILL STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 055-98 | 12/8/1998 | SW | 25 | 1N | 8E | 2051 S MOUNTAIN VIEW ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 056-98 | 12/9/1998 | SE | 24 | 1N | 7E | 11435 E 4TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 001-99 | 1/5/1999 | NE | 27 | 1N | 8E | 2450 E 15TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 002-99 | 1/12/1999 | NE | 8 | 1S | 9E | 6010 S KINGS RANCH ROAD | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1979 |
| 003-99 | 1/15/1999 | NE | 30 | 1N | 8E | 922 S MARA DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 004-99 | 1/26/1999 | NE | 29 | 1N | 8E | 97 W 14TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 005-99 | 1/27/1999 | NE | 19 | 1N | 8E | 546 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 006-99 | 1/27/1999 | NE | 30 | 1N | 8E | 1553 S OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 007-99 | 1/28/1999 | NW | 19 | 1N | 8E | 2430 W APACHE TRAIL | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1968 |
| 008-99 | 2/3/1999 | NW | 20 | 1N | 8E | 543 N IRONWOOD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 009-99 | 2/18/1999 | SE | 20 | 1N | 8E | 461 W APACHE TRAIL | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 010-99 | 2/24/1999 | NE | 30 | 1N | 8E | 1147 S DELAWARE DRIVE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 011-99 | 3/5/1999 | NW | 30 | 1N | 8E | 1502 S CEDAR DRIVE | 20 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 012-99 | 3/8/1999 | NE | 19 | 1N | 8E | 1680 W APACHE TRAIL | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 1989 |
| 013-99 | 3/17/1999 | SE | 22 | 1N | 8E | 745 S STARR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 014-99 | 3/24/1999 | SW | 14 | 1N | 7E | 437 N 100TH PLACE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 015-99 | 3/26/1999 | NE | 20 | 1N | 8E | 350 W APACHE TRAIL | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 016-99 | 3/29/1999 | SW | 18 | 1N | 8E | 1265 N WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 017-99 | 3/29/1999 | NW | 30 | 1N | 8E | 1490 S WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 018-99 | 4/1/1999 | NE | 27 | 1N | 8E | 1589 S STARR ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 019-99 | 4/6/1999 | NW | 9 | 1S | 9E | 10011 E LA PALMA AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 020-99 | 4/7/1999 | SE | 18 | 1N | 8E | 905 N OCOTILLO DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 021-99 | 4/8/1999 | SE | 18 | 1N | 8E | 985 N OCOTILLO DRIVE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 022-99 | 4/9/1999 | NW | 25 | 1N | 7E | 11137 E BROADWAY ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 023-99 | 4/19/1999 | NE | 26 | 1N | 7E | 10711 E BROADWAY ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 024-99 | 4/19/1999 | NE | 25 | 1N | 7E | 11412 E WIER AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 025-99 | 4/21/1999 | NE | 25 | 1N | 7E | 11345 E MARGUERITE AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 026-99 | 4/23/1999 | NW | 24 | 1N | 8E | 4995 E ROOSEVELT STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 027-99 | 4/23/1999 | NW | 24 | 1N | 8E | 4995 E ROOSEVELT STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 028-99 | 4/27/1999 | NE | 30 | 1N | 8E | 959 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 029-99 | 4/29/1999 | NW | 20 | 1N | 8E | 264 N THUNDERBIRD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 030-99 | 5/4/1999 | SE | 14 | 1N | 8E | 4674 E ROUNDUP STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 031-99 | 5/4/1999 | NW | 22 | 1N | 8E | 181 N CHAPARRAL ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 032-99 | 5/10/1999 | NW | 27 | 1N | 8E | 2330 E 10TH AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 033-99 | 5/14/1999 | SW | 13 | 1N | 7E | 568 N 111TH STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1964 |
| 034-99 | 5/19/1999 | SE | 9 | 1S | 8E | ALHAMBRA WAY & BREATHLESS DRIVE | 20 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 035-99 | 5/19/1999 | SW | 18 | 1N | 8E | 923 N WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 036-99 | 5/20/1999 | SE | 25 | 1N | 8E | 6360 E 22ND AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 037-99 | 5/21/1999 | NE | 30 | 1N | 8E | 1951 W 9TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 038-99 | 5/28/1999 | SW | 9 | 1S | 9E | 10253 E HUMMINGBIRD LANE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 039-99 | 5/31/1999 | NE | 30 | 1N | 8E | 1165 S DELAWARE DRIVE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 040-99 | 6/2/1999 | NW | 25 | 1N | 8E | 1375 S MOUNTAIN VIEW ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 041-99 | 6/2/1999 | SE | 23 | 1N | 8E | 4666 E BROADWAY AVENUE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 042-99 | 6/4/1999 | NE | 27 | 1N | 8E | 2588 E 15TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 043-99 | 6/10/1999 | NE | 21 | 1N | 8E | 355 E JUNCTION STREET | 6 | SERVICE REPAIR | | | | | | | | | CU | 3/4 | | | | 1997 |
| 044-99 | 6/15/1999 | NE | 9 | 1S | 9E | 9987 E LA PALMA AVENUE | 32 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1979 |
| 045-99 | 6/23/1999 | SE | 24 | 1N | 7E | 11341 E 4TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 046-99 | 7/4/1999 | SW | 20 | 1N | 8E | 321 S SILVER DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 047-99 | 7/6/1999 | SE | 17 | 1N | 8E | 1368 N PLAZA DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 048-99 | 7/7/1999 | SW | 25 | 1N | 7E | 11020 E GROVE STREET | 18 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1973 |
| 049-99 | 7/8/1999 | NE | 9 | 1S | 9E | 11086 E HUMMINGBIRD LANE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 050-99 | 7/8/1999 | SW | 18 | 1N | 8E | 1480 N DESERT VIEW DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 051-99 | 7/13/1999 | NE | 21 | 1N | 8E | 938 E SCENIC STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 052-99 | 7/19/1999 | NE | 17 | 1N | 8E | 680 W FOOTHILL STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 053-99 | 7/21/1999 | NE | 27 | 1N | 8E | 1372 S STARR ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 054-99 | 7/25/1999 | NW | 19 | 1N | 8E | 2574 W CACTUS WREN STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 055-99 | 7/26/1999 | NE | 30 | 1N | 8E | 1584 S GRAND DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 056-99 | 7/26/1999 | SW | 20 | 1N | 8E | 1474 W 2ND AVENUE | 36 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 057-99 | 7/28/1999 | SW | 21 | 1N | 8E | 417 S WINCHESTER ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 058-99 | 7/31/1999 | NE | 30 | 1N | 8E | 1241 S DELAWARE DRIVE | 36 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 059-99 | 8/3/1999 | SW | 20 | 1N | 8E | 353 S SILVER DRIVE | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 060-99 | 8/4/1999 | SE | 17 | 1N | 8E | 1373 N SAN MARCOS DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 061-99 | 8/4/1999 | SE | 17 | 1N | 8E | 681 W SHIPROCK STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 062-99 | 8/4/1999 | SE | 17 | 1N | 8E | 1355 N SAN MARCOS DRIVE | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 063-99 | 8/4/1999 | SE | 17 | 1N | 8E | 1370 N MONTEREY DRIVE | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 064-99 | 8/5/1999 | SE | 21 | 1N | 8E | 340 S BELAIRE ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 065-99 | 8/9/1999 | NW | 32 | 1N | 8E | 801 W SOUTHERN AVENUE | 12 | SERVICE REPAIR | | | | | | | | | GS | 2 | | | | 1981 |
| 066-99 | 8/10/1999 | NW | 22 | 1N | 8E | 2056 S SCENIC STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 067-99 | 8/11/1999 | SE | 24 | 1N | 8E | 603 S PROSPECTOR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 068-99 | 8/11/1999 | NE | 17 | 1N | 8E | 668 W TEPEE STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 069-99 | 8/12/1999 | NE | 9 | 1S | 9E | 6033 S ALHAMBRA WAY | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1979 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 070-99 | 8/12/1999 | NE | 30 | 1N | 8E | 1276 S OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 071-99 | 8/19/1999 | SW | 18 | 1N | 8E | 2986 W MOCKINGBIRD STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 072-99 | 8/25/1999 | SE | 9 | 1S | 9E | 6279 S ALHAMBRA WAY | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 073-99 | 8/26/1999 | SE | 21 | 1N | 8E | 357 S WINCHESTER ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 074-99 | 8/27/1999 | NE | 25 | 1N | 7E | 11345 E MARGUERITE AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 075-99 | 9/1/1999 | SE | 20 | 1N | 8E | 461 W APACHE TRAIL | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1962 |
| 076-99 | 9/2/1999 | SE | 20 | 1N | 8E | 486 S PINO CIRCLE | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 077-99 | 9/2/1999 | SE | 15 | 1N | 8E | 888 N ACACIA ROAD | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 078-99 | 9/7/1999 | NE | 21 | 1N | 8E | 942 E SCENIC STREET | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1964 |
| 079-99 | 9/7/1999 | SW | 9 | 1S | 9E | 6275 S ALAMEDA ROAD | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1980 |
| 080-99 | 9/10/1999 | SE | 17 | 1N | 8E | 1562 N IDAHO ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 081-99 | 9/13/1999 | SE | 18 | 1N | 8E | 1834 W ROUNDUP STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 082-99 | 9/14/1999 | SW | 17 | 1N | 8E | 1074 N GOLD DRIVE | 14 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1980 |
| 083-99 | 9/14/1999 | SE | 25 | 1N | 8E | 6255 E 20TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 084-99 | 9/17/1999 | NW | 19 | 1N | 8E | 2645 - 2678 W CACTUS WREN STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1970 |
| 085-99 | 9/22/1999 | SE | 13 | 1N | 7E | ON DOVER STREET WEST OF TAMBOR | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 1 | | | | 1998 |
| 086-99 | 9/24/1999 | NE | 30 | 1N | 8E | 903 S SAGUARO DRIVE | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 087-99 | 9/27/1999 | NE | 30 | 1N | 8E | 1319 S GRAND DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 088-99 | 9/28/1999 | NE | 9 | 1S | 9E | LOT 25 ON CORDOVA STREET EAST OF ALHAMBRA W/ | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 089-99 | 9/28/1999 | NE | 22 | 1N | 8E | 668 N HILTON ROAD | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1968 |
| 090-99 | 9/28/1999 | SE | 20 | 1N | 8E | 636 W SIERRA VISTA DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1977 |
| 091-99 | 9/30/1999 | NE | 30 | 1N | 8E | 1776 W 9TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 4 | POLY | 1 | | | | 1971 |
| 092-99 | 9/30/1999 | NE | 29 | 1N | 8E | 153 W 15TH AVENUE | 11 | SERVICE REPLACEMENT | | | | | | | | 3 | POLY | 3/4 | | | | 1973 |
| 093-99 | 10/3/1999 | NW | 24 | 1N | 8E | 5380 E CACTUS WREN STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 094-99 | 10/5/1999 | SW | 9 | 1S | 9E | 9895 E SLEEPY HOLLOW TRAIL | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 095-99 | 10/12/1999 | NE | 9 | 1S | 9E | 5679 S EASY STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 096-99 | 10/13/1999 | NW | 12 | 1N | 8E | 3451 N VAL VISTA ROAD | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 097-99 | 10/14/1999 | SE | 20 | 1N | 8E | 431 W APACHE TRAIL | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 098-99 | 10/19/1999 | SE | 27 | 1N | 8E | 3032 E 18TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 099-99 | 10/19/1999 | SW | 18 | 1N | 8E | 2687 W COYOTE STREET | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 100-99 | 10/22/1999 | NW | 9 | 1S | 9E | 5950 S ALAMEDA ROAD | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1984 |
| 101-99 | 10/27/1999 | NW | 27 | 1N | 8E | 1491 S CONESTOGA ROAD | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 102-99 | 10/27/1999 | NW | 30 | 1N | 8E | 1543 S WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 103-99 | 11/1/1999 | SW | 22 | 1N | 8E | 2077 E 4TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 104-99 | 11/2/1999 | SE | 21 | 1N | 8E | 444 S CACTUS ROAD | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 105-99 | 11/3/1999 | SW | 19 | 1N | 8E | 3050 W 4TH AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1969 |
| 106-99 | 11/5/1999 | NE | 25 | 1N | 7E | 11411 E CRESCENT AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 107-99 | 11/17/1999 | NE | 19 | 1N | 8E | 1932 W GREGORY STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 108-99 | 11/17/1999 | NE | 21 | 1N | 8E | 389 N ROYAL PALM ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 109-99 | 11/19/1999 | NE | 30 | 1N | 8E | 1351 S OCOTILLO DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 110-99 | 11/23/1999 | NW | 30 | 1N | 8E | 1307 S HALE DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 111-99 | 11/24/1999 | SW | 25 | 1N | 8E | 1863 S SIXSHOOTER ROAD | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 112-99 | 11/24/1999 | SE | 12 | 1N | 8E | 2650 N PROSPECTOR ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 113-99 | 11/30/1999 | NW | 13 | 1N | 8E | 5072 E PIONEER STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 114-99 | 12/1/1999 | NE | 17 | 1N | 8E | 552 W TEPEE STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 115-99 | 12/2/1999 | NE | 18 | 1N | 8E | 1911 N DELAWARE DRIVE | 14 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 116-99 | 12/3/1999 | NE | 21 | 1N | 8E | 144 N CACTUS ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 117-99 | 12/6/1999 | NE | 30 | 1N | 8E | 1349 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 118-99 | 12/7/1999 | NE | 21 | 1N | 8E | 820 E JUNCTION STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1978 |
| 119-99 | 12/8/1999 | SW | 9 | 1S | 9E | 9685 E PALERMO AVENUE | 10 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1983 |
| 120-99 | 12/9/1999 | NE | 13 | 1N | 8E | 6121 E FOREST STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 121-99 | 12/10/1999 | NW | 30 | 1N | 8E | 3109 W 9TH PLACE | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1969 |
| 122-99 | 12/12/1999 | NE | 18 | 1N | 8E | 1911 N DELAWARE DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 123-99 | 12/14/1999 | SE | 20 | 1N | 8E | 452 S PICANA CIRCLE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 001-00 | 1/5/2000 | NW | 30 | 1N | 8E | 2763 W 14TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 002-00 | 1/10/2000 | NE | 20 | 1N | 8E | 666 N IDAHO ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1986 |
| 003-00 | 1/10/2000 | SW | 21 | 1N | 8E | 325 S WINCHESTER ROAD | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 004-00 | 1/16/2000 | NW | 19 | 1N | 8E | 517 N DESERT VIEW DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 005-00 | 1/17/2000 | NE | 30 | 1N | 8E | 1185 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 006-00 | 1/18/2000 | SE | 24 | 1N | 7E | 11319 E 4TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 007-00 | 1/19/2000 | SE | 24 | 1N | 7E | 101 S MOUNTAIN ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 008-00 | 1/19/2000 | SE | 24 | 1N | 7E | 103 S MOUNTAIN ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 009-00 | 1/25/2000 | NW | 27 | 1N | 8E | 1424 S CONESTOGA ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 010-00 | 1/27/2000 | NE | 23 | 1N | 7E | 10433 E BOISE STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1969 |
| 011-00 | 1/31/2000 | NE | 26 | 1N | 7E | 502 S SIGNAL BUTTE ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 012-00 | 2/3/2000 | NE | 25 | 1N | 7E | 528 S MERIDIAN ROAD | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1971 |
| 013-00 | 2/28/2000 | SW | 25 | 1N | 7E | GROVE STREET & CAP CANAL | 12 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1985 |
| 014-00 | 3/1/2000 | SE | 17 | 1N | 8E | 926 N MONTEREY DRIVE | 16 | SERVICE REPAIR | | | | | | | | | GS | 2 | | | | 2002 |
| 015-00 | 3/3/2000 | SW | 19 | 1N | 8E | 473 W LAWSON DRIVE | 15 | MAIN REPLACEMENT | X | | | | | | | | | | 8 | GS | 1 1/4 | 1955 |
| 016-00 | 3/7/2000 | NE | 22 | 1N | 8E | 2715 E SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 017-00 | 3/8/2000 | NW | 30 | 1N | 8E | 1587 S HALE DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 018-00 | 3/8/2000 | NE | 24 | 1N | 7E | MERIDIAN ROAD & UNIVERSITY DRIVE | 24 | MAIN REPAIR | X | | | | | | | | | | | DIP | 20 | 1997 |
| 019-00 | 3/9/2000 | NE | 30 | 1N | 8E | 1337 S DELAWARE DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 020-00 | 3/10/2000 | NE | 30 | 1N | 8E | 1243 S LAWTHER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 021-00 | 3/13/2000 | NE | 30 | 1N | 8E | 1265 S LAWTHER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 022-00 | 3/13/2000 | SW | 9 | 1S | 9E | 10310 E HUMMINGBIRD LANE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 023-00 | 3/14/2000 | SW | 20 | 1N | 8E | 1380 W 2ND AVENUE | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 024-00 | 3/16/2000 | NE | 25 | 1N | 8E | 6335 E BROADWAY AVENUE | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 025-00 | 3/23/2000 | SE | 24 | 1N | 8E | 235 S PROSPECTOR ROAD | 32 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1983 |
| 026-00 | 3/27/2000 | NE | 19 | 1N | 8E | 2030 W GREGORY STREET | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 027-00 | 3/30/2000 | NE | 30 | 1N | 8E | 1373 S DELAWARE DRIVE | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 028-00 | 4/4/2000 | NE | 7 | 1S | 9E | 7186 E PALO BREA DRIVE | 4 | SERVICE REPAIR | | | | | | | | | CU | 1 | | | | 1998 |
| 029-00 | 4/6/2000 | NE | 29 | 1N | 8E | 1486 S BUENA VISTA DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 030-00 | 4/6/2000 | NE | 29 | 1N | 8E | 1455 S SAN MARCOS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 031-00 | 4/7/2000 | NW | 6 | 1S | 9E | 6513 E HACIENDA LA COLORADA DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 1 | | | | 1997 |
| 032-00 | 4/7/2000 | NW | 19 | 1N | 8E | 224 N PINYON DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 033-00 | 4/11/2000 | NW | 24 | 1N | 8E | 4980 E ROOSEVELT STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 034-00 | 4/18/2000 | SW | 14 | 1N | 7E | 521 N CRISMON ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 035-00 | 5/1/2000 | NE | 29 | 1N | 8E | 1567 S SAN MARCOS DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 036-00 | 5/2/2000 | SW | 17 | 1N | 8E | 510 N GOLD DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 037-00 | 5/4/2000 | NW | 30 | 1N | 8E | 870 S WARNER DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 038-00 | 5/4/2000 | NW | 19 | 1N | 8E | 2539 W SCENIC STREET | 9 | SERVICE REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 039-00 | 5/5/2000 | NW | 25 | 1N | 8E | MOUNTAIN VIEW ROAD & 12TH AVENUE | 40 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1979 |
| 040-00 | 5/8/2000 | NE | 30 | 1N | 8E | 1391 S OCOTILLO DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 041-00 | 5/17/2000 | NW | 25 | 1N | 7E | 11011 E ELTON AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 042-00 | 5/20/2000 | SW | 19 | 1N | 8E | 2767 W 5TH AVENUE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1955 |
| 043-00 | 5/20/2000 | SW | 19 | 1N | 8E | 2767 W 5TH AVENUE | 8 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 044-00 | 5/22/2000 | NW | 19 | 1N | 8E | 2560 W GREGORY STREET | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 045-00 | 5/25/2000 | NW | 20 | 1N | 8E | 1151 W VIRGINIA STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 046-00 | 5/26/2000 | SW | 14 | 1N | 7E | 450 N 100TH PLACE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 047-00 | 6/1/2000 | NE | 21 | 1N | 8E | 30 N TOMAHAWK ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 048-00 | 6/1/2000 | NW | 25 | 1N | 8E | BROADWAY AVENUE & VAL VISTA ROAD | 24 | SERVICE REPLACEMENT | | | | | | | | 4 | POLY | 3/4 | | | | 1972 |
| 049-00 | 6/9/2000 | NE | 24 | 1N | 8E | 163 N 113TH WAY | 8 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1970 |
| 050-00 | 6/9/2000 | NE | 25 | 1N | 7E | 11439 E MARGUERITE AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 051-00 | 6/12/2000 | SW | 30 | 1N | 8E | 2101 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 052-00 | 6/13/2000 | SE | 27 | 1N | 8E | 2935 E 18TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 053-00 | 6/14/2000 | NE | 30 | 1N | 8E | 1065 S DELAWARE DRIVE | 20 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 054-00 | 6/14/2000 | SE | 20 | 1N | 8E | 437 S PICANA CIRCLE | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 055-00 | 6/15/2000 | NE | 30 | 1N | 8E | 1235 S OCOTILLO DRIVE | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 056-00 | 6/15/2000 | NW | 30 | 1N | 8E | DESERT VIEW DRIVE & LAWSON DRIVE | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 057-00 | 6/16/2000 | SE | 15 | 1N | 8E | 1145 N CORTEZ ROAD | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 058-00 | 6/16/2000 | NE | 21 | 1N | 8E | 1061 E SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 059-00 | 6/19/2000 | SE | 20 | 1N | 8E | 437 S PICANA CIRCLE | 14 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 060-00 | 6/21/2000 | NE | 20 | 1N | 8E | 185 N APACHE TRAIL | 36 | SERVICE REPLACEMENT | | | | | | | | 10 | POLY | 1 | | | | 1978 |
| 061-00 | 6/21/2000 | NE | 21 | 1N | 8E | 614 N TOMAHAWK ROAD | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 062-00 | 6/22/2000 | NE | 30 | 1N | 8E | 1183 S DELAWARE DRIVE | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 063-00 | 6/22/2000 | NW | 22 | 1N | 8E | 2280 E SCENIC STREET | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 064-00 | 6/26/2000 | SE | 8 | 1S | 9E | 6558 E FOOTHILL STREET | 4 | SERVICE REPAIR | | | | | | | | 2 | POLY | 1 | | | | 1997 |
| 065-00 | 6/26/2000 | NE | 24 | 1N | 7E | 11313 E BOISE STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 066-00 | 6/26/2000 | SW | 25 | 1N | 7E | 11001 E PUEBLO AVENUE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 067-00 | 6/28/2000 | SW | 9 | 1S | 9E | 10275 E HUMMINGBIRD LANE | 21 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1980 |
| 068-00 | 7/5/2000 | NW | 19 | 1N | 8E | 2584 W GREGORY STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 069-00 | 7/6/2000 | NE | 30 | 1N | 8E | 1406 S PALO VERDE DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1977 |
| 070-00 | 7/7/2000 | SE | 29 | 1N | 8E | 1866 S BUENA VISTA DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1969 |
| 071-00 | 7/10/2000 | SE | 20 | 1N | 8E | 722 W ROSAL CIRCLE | 24 | MAIN REPLACEMENT | X | | | | | | | | | | 20 | BLE POLY | 2 | 1977 |
| 072-00 | 7/11/2000 | SW | 30 | 1N | 8E | 1821 S MERIDIAN ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 073-00 | 7/11/2000 | SE | 20 | 1N | 8E | 5TH AVENUE & HIGO CIRCLE | 18 | MAIN REPLACEMENT | X | | | | | | | | | | 40 | BLE POLY | 2 | 1976 |
| 074-00 | 7/11/2000 | SE | 20 | 1N | 8E | 5TH AVENUE & PINTO DRIVE | 40 | MAIN REPAIR | X | | | | | | | | | | 20 | BLE POLY | 2 | 1976 |
| 075-00 | 7/12/2000 | NE | 22 | 1N | 8E | 544 N HILTON ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1968 |
| 076-00 | 7/13/2000 | NE | 30 | 1N | 8E | 1335 S MARA DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 077-00 | 7/14/2000 | NE | 29 | 1N | 8E | 190 W 16TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 078-00 | 7/17/2000 | NE | 25 | 1N | 7E | 11521 E BROADWAY ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 079-00 | 7/18/2000 | NW | 9 | 1S | 9E | 5461 S ALAMEDA ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1982 |
| 080-00 | 7/20/2000 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #23 | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1980 |
| 081-00 | 7/21/2000 | SW | 13 | 1N | 7E | 409 N 111TH STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 082-00 | 7/26/2000 | SW | 19 | 1N | 8E | 473 S LAWSON DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1955 |
| 083-00 | 7/26/2000 | SW | 19 | 1N | 8E | 405 S LAWSON DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1955 |
| 084-00 | 7/26/2000 | SW | 19 | 1N | 8E | 405 S LAWSON DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1955 |
| 085-00 | 7/27/2000 | SW | 19 | 1N | 8E | 2636 W 5TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1955 |
| 086-00 | 7/27/2000 | SW | 19 | 1N | 8E | 2551 W APACHE TRAIL | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1955 |
| 087-00 | 7/27/2000 | SW | 19 | 1N | 8E | 2551 W APACHE TRAIL | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1955 |
| 088-00 | 7/27/2000 | SW | 19 | 1N | 8E | 475 S LAWSON DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1955 |
| 089-00 | 7/29/2000 | NE | 18 | 1N | 8E | 2075 W SMOKETREE STREET | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1975 |
| 090-00 | 7/30/2000 | SE | 9 | 1S | 9E | 10793 E SUGAR CREEK DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 091-00 | 7/30/2000 | SE | 9 | 1S | 9E | 10810 E SUGAR CREEK DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 092-00 | 7/30/2000 | SE | 9 | 1S | 9E | 11008 E SUGAR CREEK DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 093-00 | 7/30/2000 | SE | 9 | 1S | 9E | 10784 E SUGAR CREEK DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 094-00 | 7/30/2000 | SE | 9 | 1S | 9E | 10793 E SUGAR CREEK DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 095-00 | 7/31/2000 | SW | 20 | 1N | 8E | 444 S COPPER DRIVE | 1 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 096-00 | 8/1/2000 | SE | 29 | 1N | 8E | 790 W SOUTHERN AVENUE | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1988 |
| 097-00 | 8/2/2000 | NW | 30 | 1N | 8E | 1215 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 098-00 | 8/3/2000 | NE | 25 | 1N | 7E | 538 S MERIDIAN ROAD | 11 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 099-00 | 8/3/2000 | NE | 25 | 1N | 7E | 11430 E CRESCENT AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 100-00 | 8/5/2000 | SE | 22 | 1N | 8E | 713 S CORTEZ ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 101-00 | 8/7/2000 | SW | 14 | 1N | 7E | 551 N MERRILL ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 102-00 | 8/11/2000 | NW | 30 | 1N | 8E | 1415 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 103-00 | 8/14/2000 | SE | 20 | 1N | 8E | 722 W ROSAL CIRCLE | 6 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1977 |
| 104-00 | 8/16/2000 | NE | 23 | 1N | 7E | 10709 E BOULDER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 105-00 | 8/16/2000 | SE | 13 | 1N | 8E | 6222 E ROUNDUP STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 106-00 | 8/16/2000 | SE | 24 | 1N | 7E | 65 S MOUNTAIN ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1963 |
| 107-00 | 8/17/2000 | SW | 14 | 1N | 7E | 509 N 100TH PLACE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 108-00 | 8/17/2000 | SW | 21 | 1N | 8E | 111 S OUTPOST ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 109-00 | 8/18/2000 | NW | 30 | 1N | 8E | 2824 W 9TH PLACE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 110-00 | 8/18/2000 | NW | 29 | 1N | 8E | 1320 S PINTO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 111-00 | 8/18/2000 | NE | 22 | 1N | 8E | 363 N HILTON ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 112-00 | 8/19/2000 | NE | 23 | 1N | 7E | 10426 E ALBANY STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 113-00 | 8/20/2000 | NE | 24 | 1N | 7E | 220 N 114TH STREET | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 114-00 | 8/21/2000 | SE | 27 | 1N | 8E | 1929 S VAQUERO ROAD | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115-00 | 8/21/2000 | NW | 13 | 1N | 8E | 4884 E PIONEER STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 116-00 | 8/22/2000 | NE | 25 | 1N | 7E | 11509 E CRESCENT AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 117-00 | 8/23/2000 | SW | 25 | 1N | 8E | 1693 S SIXSHOOTER ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 118-00 | 8/24/2000 | NW | 30 | 1N | 8E | 1251 S DESERT VIEW PLACE | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1970 |
| 119-00 | 8/25/2000 | SE | 25 | 1N | 8E | 1751 S GERONIMO ROAD | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 120-00 | 8/28/2000 | SW | 9 | 1S | 9E | E HUMMINGBIRD LANE #56 | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1980 |
| 121-00 | 8/29/2000 | NE | 19 | 1N | 8E | 2047 W BELMAR COURT | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 122-00 | 8/30/2000 | SW | 20 | 1N | 8E | 336 S WEAVER CIRCLE | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1961 |
| 123-00 | 8/30/2000 | SE | 20 | 1N | 8E | 50 W APACHE TRAIL | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 124-00 | 8/31/2000 | SW | 20 | 1N | 8E | 376 S GOLD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 125-00 | 9/1/2000 | SE | 22 | 1N | 8E | 651 S STARR ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 126-00 | 9/6/2000 | NE | 29 | 1N | 8E | 1353 S SAN MARCOS DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1976 |
| 127-00 | 9/7/2000 | NE | 13 | 1N | 8E | 1717 N PROSPECTOR ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 128-00 | 9/7/2000 | SW | 25 | 1N | 7E | 10838 E SUNLAND AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 129-00 | 9/8/2000 | NW | 19 | 1N | 8E | 732 N PINAL DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 130-00 | 9/8/2000 | SW | 25 | 1N | 7E | 11107 E SUNLAND AVENUE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1985 |
| 131-00 | 9/12/2000 | SW | 25 | 1N | 7E | 11101 E LA SALLE STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 132-00 | 9/14/2000 | NW | 22 | 1N | 8E | 2280 E SCENIC STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 133-00 | 9/14/2000 | SW | 30 | 1N | 8E | 2483 W 16TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 134-00 | 9/18/2000 | SE | 29 | 1N | 8E | 2341 S DEL RIO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 135-00 | 9/19/2000 | SW | 14 | 1N | 7E | 10249 E ADOBE ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 136-00 | 9/19/2000 | NE | 25 | 1N | 8E | 1549 S PROSPECTOR ROAD | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 137-00 | 9/20/2000 | SW | 14 | 1N | 7E | 655 N MERRILL ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 138-00 | 9/21/2000 | NE | 17 | 1N | 8E | 2095 N SAN MARCOS DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1985 |
| 139-00 | 9/26/2000 | NW | 24 | 1N | 7E | 332 N KEITH STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 140-00 | 9/26/2000 | NW | 19 | 1N | 8E | 2544 W CACTUS WREN STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 141-00 | 9/27/2000 | NE | 25 | 1N | 8E | 1557 S PROSPECTOR ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 142-00 | 9/29/2000 | NE | 25 | 1N | 7E | 409 S 113TH WAY | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 143-00 | 9/29/2000 | NE | 25 | 1N | 7E | 408 S 113TH WAY | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1975 |
| 144-00 | 9/30/2000 | SW | 17 | 1N | 8E | 1428 W GREASEWOOD STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 145-00 | 9/30/2000 | NE | 25 | 1N | 8E | 5824 E 10TH AVENUE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 146-00 | 10/4/2000 | SE | 17 | 1N | 8E | 480 W GREASEWOOD STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 147-00 | 10/11/2000 | NW | 36 | 1N | 8E | 4843 E 28TH AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1979 |
| 148-00 | 10/12/2000 | NE | 30 | 1N | 8E | 1023 S OCOTILLO DRIVE | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 149-00 | 10/12/2000 | SE | 29 | 1N | 8E | 2132 S BUENA VISTA DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 150-00 | 10/12/2000 | NE | 30 | 1N | 8E | 1115 S OCOTILLO DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 151-00 | 10/13/2000 | NW | 20 | 1N | 8E | 379 N THUNDERBIRD DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 152-00 | 10/13/2000 | SW | 16 | 1N | 8E | 1015 N IDAHO ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 153-00 | 10/13/2000 | NE | 25 | 1N | 8E | 6098 E 16TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 154-00 | 10/13/2000 | SW | 20 | 1N | 8E | 1151 W APACHE TRAIL | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1968 |
| 155-00 | 10/16/2000 | NW | 30 | 1N | 8E | 1347 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 156-00 | 10/21/2000 | SW | 22 | 1N | 8E | 2232 E 6TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 1991 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 157-00 | 10/21/2000 | SW | 22 | 1N | 8E | 2156 E 6TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 1991 |
| 158-00 | 10/21/2000 | NW | 17 | 1N | 8E | 1180 W TEPEE STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 159-00 | 10/31/2000 | NW | 12 | 1N | 8E | 5474 E SINGLETREE STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1986 |
| 160-00 | 11/1/2000 | SW | 8 | 1S | 9E | 6339 S FAIRWAY DRIVE | 4 | SERVICE REPAIR | | | | | | | | | CU | 1 | | | | 1998 |
| 161-00 | 11/2/2000 | NE | 13 | 1N | 7E | 920 N 113TH STREET | 6 | SERVICE REPAIR | | | | | | | | | CU | 1 | | | | 2002 |
| 162-00 | 11/3/2000 | NW | 29 | 1N | 8E | 992 W 15TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 1997 |
| 163-00 | 11/9/2000 | NW | 18 | 1N | 8E | 2703 W FOOTHILL STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1985 |
| 164-00 | 11/9/2000 | NE | 22 | 1N | 8E | 220 N STARR ROAD | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 165-00 | 11/10/2000 | SW | 17 | 1N | 8E | 888 W ROUNDUP STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 166-00 | 11/13/2000 | SW | 13 | 1N | 7E | 547 N 110TH STREET | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 167-00 | 11/15/2000 | NE | 30 | 1N | 8E | 830 S MARA DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 168-00 | 11/20/2000 | SE | 24 | 1N | 7E | 221 S MOUNTAIN ROAD | 4 | SERVICE REPAIR | | | | | | | | 1 | POLY | 3/4 | | | | 1987 |
| 169-00 | 11/20/2000 | SW | 13 | 1N | 8E | 1165 N MOUNTAIN VIEW ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 170-00 | 11/21/2000 | NW | 22 | 1N | 8E | 115 N CONESTOGA ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 171-00 | 11/21/2000 | NW | 9 | 1S | 9E | 6171 S ALAMEDA ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 172-00 | 11/22/2000 | NE | 9 | 1S | 9E | 10605 E CORDOVA AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 173-00 | 11/22/2000 | NW | 22 | 1N | 8E | 238 N CHAPARRAL ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 174-00 | 11/29/2000 | NW | 19 | 1N | 8E | 2424 W CODY STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |
| 175-00 | 11/29/2000 | SW | 22 | 1N | 8E | 2200 E 2ND AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 176-00 | 12/6/2000 | SE | 24 | 1N | 7E | 31 S EMERALD DRIVE | 32 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 177-00 | 12/6/2000 | SW | 25 | 1N | 7E | 10819 E GROVE STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 178-00 | 12/7/2000 | NE | 30 | 1N | 8E | 1716 W 10TH AVENUE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 179-00 | 12/15/2000 | NE | 30 | 1N | 8E | 1131 S DELAWARE DRIVE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 180-00 | 12/19/2000 | SE | 14 | 1N | 7E | 10527 E QUARTERLINE ROAD | 4 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1981 |
| 181-00 | 12/19/2000 | SE | 15 | 1N | 8E | 1325 N CORTEZ ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 182-00 | 12/19/2000 | SW | 9 | 1S | 9E | 10046 E HUMMINGBIRD LANE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 183-00 | 12/26/2000 | SE | 24 | 1N | 7E | 11422 E 4TH AVENUE | 20 | MAIN REPLACEMENT | X | | | | | | | | | | 5 | GS | 2 | 1955 |
| 184-00 | 12/27/2000 | NE | 9 | 1S | 9E | 10953 E PALM WAY | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 001-01 | 1/23/2001 | NE | 23 | 1N | 7E | 10401 E BOULDER DRIVE | 6 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1966 |
| 002-01 | 1/24/2001 | NE | 23 | 1N | 7E | 10402 E BOISE STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 1 | | | | 1966 |
| 003-01 | 1/29/2001 | NW | 24 | 1N | 8E | 169 N MOUNTAIN VIEW ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 004-01 | 2/2/2001 | NE | 22 | 1N | 8E | 325 N HILTON ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 005-01 | 2/2/2001 | SE | 7 | 1S | 9E | HIGHWAY 60 & MOUNTAIN BROOK | 28 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1985 |
| 006-01 | 2/13/2001 | SW | 17 | 1N | 8E | 1470 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 007-01 | 2/14/2001 | NW | 19 | 1N | 8E | 2600 W APACHE TRAIL | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1961 |
| 008-01 | 2/22/2001 | NW | 30 | 1N | 8E | MERIDIAN ROAD S OF BROADWAY AVENUE | 8 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 009-01 | 2/23/2001 | NW | 19 | 1N | 8E | 2625 E SCENIC STREET | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 010-01 | 2/26/2001 | SW | 22 | 1N | 8E | 2125 E 4TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 011-01 | 2/26/2001 | NW | 22 | 1N | 8E | 2281 E SUPERSTITION BOULEVARD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1986 |
| 012-01 | 3/8/2001 | NE | 25 | 1N | 8E | 5679 E 12TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 013-01 | 3/12/2001 | NE | 25 | 1N | 7E | 11519 E VINE AVENUE | 5 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 014-01 | 3/14/2001 | SE | 24 | 1N | 7E | 105 S MALCOLM DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 015-01 | 3/19/2001 | NE | 30 | 1N | 8E | 1554 S BUENA VISTA DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 016-01 | 3/19/2001 | NW | 19 | 1N | 8E | 2674 W VIRGINIA STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 017-01 | 3/21/2001 | SW | 19 | 1N | 8E | 2767 W 5TH AVENUE | 32 | MAIN REPLACEMENT | X | | | | | | | | | | 40 | GS | 2 | 1955 |
| 018-01 | 3/26/2001 | SW | 25 | 1N | 7E | GROVE STREET & CAP CANAL | 8 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1985 |
| 019-01 | 3/28/2001 | NE | 19 | 1N | 8E | 2072 W BELMAR COURT | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1961 |
| 020-01 | 3/30/2001 | NW | 30 | 1N | 8E | 1477 S WARNER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 021-01 | 4/3/2001 | NW | 23 | 1N | 7E | 10313 E BILLINGS STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 022-01 | 4/10/2001 | SE | 29 | 1N | 8E | 736 W 17TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1965 |
| 023-01 | 4/13/2001 | NW | 19 | 1N | 8E | 2444 W GREGORY STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 024-01 | 4/13/2001 | NW | 19 | 1N | 8E | 2449 W GREGORY STREET | 28 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 025-01 | 4/17/2001 | NW | 30 | 1N | 8E | 3085 W 9TH STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1971 |
| 026-01 | 4/17/2001 | NW | 30 | 1N | 8E | 3030 W 9TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1971 |
| 027-01 | 4/18/2001 | SW | 17 | 1N | 8E | 1309 N GOLD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 028-01 | 4/18/2001 | NW | 19 | 1N | 8E | 2470 W VIRGINIA STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 029-01 | 4/19/2001 | SE | 29 | 1N | 8E | 556 W 21ST AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1977 |
| 030-01 | 4/22/2001 | SW | 22 | 1N | 8E | 1712 E BROADWAY AVENUE | 40 | MAIN REPLACEMENT | X | | | | | | | | | | 15 | CA | 6 | 1960 |
| 031-01 | 4/29/2001 | SW | 22 | 1N | 8E | 1712 E BROADWAY AVENUE | 50 | MAIN REPLACEMENT | X | | | | | | | | | | 39 | CA | 6 | 1960 |
| 032-01 | 5/1/2001 | SE | 18 | 1N | 8E | 2180 W ROUNDUP STREET | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 033-01 | 5/15/2001 | NW | 18 | 1N | 8E | 2948 W TEPEE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 034-01 | 5/23/2001 | SW | 19 | 1N | 8E | 554 S PINAL DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1995 |
| 035-01 | 5/24/2001 | SE | 20 | 1N | 8E | HIGO CIRCLE & 5TH AVENUE | 32 | MAIN REPLACEMENT | X | | | | | | | | | | 10 | BLE POLY | 2 | 1976 |
| 036-01 | 5/30/2001 | NE | 21 | 1N | 8E | 575 N ROYAL PALM ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 037-01 | 5/31/2001 | NE | 23 | 1N | 8E | 520 N MULESHOE ROAD | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 038-01 | 5/31/2001 | SW | 22 | 1N | 8E | 2232 E 6TH AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1991 |
| 039-01 | 6/5/2001 | SE | 24 | 1N | 8E | 5901 E ARROYO LINDO | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 040-01 | 6/6/2001 | SE | 14 | 1N | 8E | 867 N ARROYO ROAD | 21 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1979 |
| 041-01 | 6/7/2001 | NE | 30 | 1N | 8E | 1946 W 13TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1979 |
| 042-01 | 6/11/2001 | NE | 29 | 1N | 8E | 120 W 16TH AVENUE | 2 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1973 |
| 043-01 | 6/11/2001 | NE | 29 | 1N | 8E | 88 W 16TH AVENUE | 2 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1973 |
| 044-01 | 6/20/2001 | SE | 17 | 1N | 8E | 1063 N SAN MARCOS DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 045-01 | 6/22/2001 | SE | 22 | 1N | 8E | 2683 E 2ND AVENUE | 16 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1973 |
| 046-01 | 6/26/2001 | SE | 20 | 1N | 8E | 461 W APACHE TRAIL | 3 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1962 |
| 047-01 | 6/26/2001 | NE | 9 | 1S | 9E | 10975 E HUMMINGBIRD LANE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 048-01 | 6/27/2001 | SW | 31 | 1N | 9E | 6560 E FLAT IRON LOOP | 4 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 1998 |
| 049-01 | 6/27/2001 | SE | 20 | 1N | 8E | ROSAL AVENUE & SIERRA VISTA DRIVE | 28 | MAIN REPLACEMENT | X | | | | | | | | | | 25 | BLE POLY | 2 | 1977 |
| 050-01 | 6/28/2001 | NE | 25 | 1N | 8E | 1300 S PROSPECTOR ROAD | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 051-01 | 7/3/2001 | SE | 9 | 1S | 9E | 6349 S HIDEAWAY LANE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 052-01 | 7/5/2001 | NE | 29 | 1N | 8E | 12TH AVENUE & BUENA VISTA DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 053-01 | 7/5/2001 | SW | 20 | 1N | 8E | 556 S COPPER DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 054-01 | 7/5/2001 | SW | 17 | 1N | 8E | 1326 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 055-01 | 7/10/2001 | SW | 25 | 1N | 7E | 11119 E PUEBLO AVENUE | 4 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 056-01 | 7/13/2001 | SW | 15 | 1N | 8E | 950 N WICKIUP ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1974 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 057-01 | 7/18/2001 | NW | 19 | 1N | 8E | 2425 W GREGORY STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 058-01 | 7/20/2001 | SE | 9 | 1S | 9E | 10950 E SUGAR CREEK DRIVE | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 059-01 | 7/20/2001 | SW | 17 | 1N | 8E | 1127 N IRONWOOD DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 2002 |
| 060-01 | 7/20/2001 | SE | 9 | 1S | 9E | 10950 E SUGAR CREEK DRIVE | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 061-01 | 7/21/2001 | NW | 19 | 1N | 8E | 2625 W OHIO STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1959 |
| 062-01 | 7/23/2001 | NE | 27 | 1N | 8E | 1041 S STARR ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 063-01 | 7/23/2001 | NE | 19 | 1N | 8E | 150 N OCOTILLO DRIVE | 4 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1960 |
| 064-01 | 7/23/2001 | NW | 12 | 1N | 8E | 5886 E MINING CAMP STREET | 9 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1977 |
| 065-01 | 7/25/2001 | SE | 27 | 1N | 8E | 2001 S STARR ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 066-01 | 7/26/2001 | SW | 1S | 1N | 8E | 921 N VISTA ROAD | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 067-01 | 7/27/2001 | NW | 12 | 1N | 8E | 5549 E REAVIS STREET | 27 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 068-01 | 7/31/2001 | SE | 18 | 1N | 8E | 2048 W SHIPROCK STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 069-01 | 7/31/2001 | SW | 20 | 1N | 8E | 1035 W 5TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1961 |
| 070-01 | 8/1/2001 | NW | 20 | 1N | 8E | 589 N THUNDERBIRD DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 071-01 | 8/1/2001 | NW | 30 | 1N | 8E | 990 S CEDAR DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 072-01 | 8/3/2001 | SE | 9 | 1S | 9E | 11126 E BREATHLESS DRIVE | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 073-01 | 8/7/2001 | SW | 14 | 1N | 7E | 508 N MERRILL ROAD | 20 | MAIN REPLACEMENT | X | | | | | | | | | | 10 | CA | 6 | 1975 |
| 074-01 | 8/8/2001 | SE | 20 | 1N | 8E | 431 W APACHE TRAIL | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 075-01 | 8/9/2001 | NE | 23 | 1N | 8E | 4375 E SUPERSTITION BOULEVARD | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 076-01 | 8/9/2001 | SE | 29 | 1N | 8E | 2309 S SAN MARCOS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 077-01 | 8/9/2001 | SE | 18 | 1N | 8E | 1022 N MAIN DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1968 |
| 078-01 | 8/14/2001 | SW | 36 | 1N | 8E | MOUNTAIN VIEW ROAD & US 60 | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1979 |
| 079-01 | 8/15/2001 | NE | 29 | 1N | 8E | 1238 S BUENA VISTA DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 080-01 | 8/15/2001 | SE | 22 | 1N | 8E | 24 S STARR ROAD | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 081-01 | 8/21/2001 | NW | 12 | 1N | 8E | 3450 N SIXSHOOTER ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 082-01 | 8/22/2001 | SW | 11 | 1N | 7E | 1234 N 104TH STREET | 22 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1985 |
| 083-01 | 8/23/2001 | NE | 25 | 1N | 7E | 427 S 113TH PLACE | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1975 |
| 084-01 | 8/24/2001 | SE | 29 | 1N | 8E | 585 W 20TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 085-01 | 8/29/2001 | SW | 21 | 1N | 8E | 95 S OUTPOST ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 086-01 | 8/30/2001 | NW | 13 | 1N | 7E | 10812 E ELMWOOD STREET | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 087-01 | 9/6/2001 | NW | 9 | 1S | 9E | 5650 S SAGE WAY | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1982 |
| 088-01 | 9/10/2001 | SE | 18 | 1N | 8E | 907 N GRAND DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 089-01 | 9/15/2001 | NE | 9 | 1S | 9E | 10600 E CORDOVA AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 090-01 | 9/18/2001 | NW | 27 | 1N | 8E | 2080 E 14TH AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 091-01 | 9/18/2001 | SE | 20 | 1N | 8E | 722 W ROSAL CIRCLE | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1977 |
| 092-01 | 9/20/2001 | NW | 27 | 1N | 8E | 1255 S WICKIUP ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 093-01 | 9/24/2001 | NE | 25 | 1N | 8E | 6285 E BROADWAY AVENUE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 094-01 | 9/24/2001 | SW | 25 | 1N | 7E | 11054 E GROVE STREET | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 095-01 | 9/24/2001 | NE | 25 | 1N | 8E | 6239 E BROADWAY AVENUE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1969 |
| 096-01 | 9/25/2001 | SE | 21 | 1N | 8E | 950 E 4TH AVENUE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 097-01 | 9/27/2001 | NE | 30 | 1N | 9E | 1990 W 9TH AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 098-01 | 9/28/2001 | NW | 27 | 1N | 8E | 862 S BOWMAN ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 099-01 | 10/1/2001 | NW | 22 | 1N | 8E | 2160 E SCENIC STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 100-01 | 10/2/2001 | SW | 20 | 1N | 8E | 556 S COPPER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 101-01 | 10/3/2001 | NE | 27 | 1N | 8E | 3032 E 16TH AVENUE | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 102-01 | 10/5/2001 | SW | 14 | 1N | 7E | 725 N 100TH PLACE | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 103-01 | 10/7/2001 | SE | 24 | 1N | 7E | 11422 E 4TH AVENUE | 32 | MAIN REPLACEMENT | X | | | | | | | | | | 25 | GS | 2 | 1955 |
| 104-01 | 10/16/2001 | NW | 13 | 1N | 8E | 5025 E PIONEER STREET | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 105-01 | 10/31/2001 | NW | 23 | 1N | 7E | 10358 E AKRON STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1955 |
| 106-01 | 10/31/2001 | NE | 24 | 1N | 7E | 134 N 114TH STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 107-01 | 11/5/2001 | SE | 14 | 1N | 8E | 4705 E SUPERSTITION BOULEVARD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1969 |
| 108-01 | 11/7/2001 | SE | 18 | 1N | 8E | 2338 W SHIPROCK STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 109-01 | 11/9/2001 | SE | 24 | 1N | 8E | 415 S PROSPECTOR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 110-01 | 11/15/2001 | NW | 30 | 1N | 8E | 1309 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 111-01 | 11/15/2001 | NE | 26 | 1N | 7E | 10726 E OASIS DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1961 |
| 112-01 | 11/27/2001 | SE | 20 | 1N | 8E | 730 W 5TH AVENUE | 8 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1976 |
| 113-01 | 11/27/2001 | SE | 20 | 1N | 8E | 730 W 5TH AVENUE | 8 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 114-01 | 11/29/2001 | NW | 30 | 1N | 8E | 1053 S WARNER DRIVE | 10 | SERVICE REPLACEMENT | | | | | | | | 3 | POLY | 3/4 | | | | 1976 |
| 115-01 | 11/30/2001 | NW | 30 | 1N | 8E | 1393 S HALE DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 116-01 | 12/1/2001 | NW | 25 | 1N | 7E | 11012 E ELTON AVENUE | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1978 |
| 117-01 | 12/5/2001 | NW | 19 | 1N | 8E | 2548 W OHIO STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 118-01 | 12/5/2001 | SW | 18 | 1N | 8E | 1223 N WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 119-01 | 12/7/2001 | SW | 15 | 1N | 8E | 1365 N WICKIUP ROAD | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 120-01 | 12/11/2001 | NW | 13 | 1N | 8E | 5151 E PIONEER STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 121-01 | 12/14/2001 | SW | 17 | 1N | 8E | 1280 W SHIPROCK STREET | 32 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1974 |
| 122-01 | 12/19/2001 | NE | 30 | 1N | 8E | 1207 S DELAWARE DRIVE | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 123-01 | 12/19/2001 | NW | 24 | 1N | 7E | 311 N SIGNAL BUTTE ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 124-01 | 12/21/2001 | NE | 30 | 1N | 8E | 1903 W 9TH PLACE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 125-01 | 12/31/2001 | SW | 17 | 1N | 8E | 1125 N VALLEY DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 001-02 | 1/2/2002 | NE | 23 | 1N | 7E | 222 N SIGNAL BUTTE ROAD | 11 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1971 |
| 002-02 | 1/10/2002 | NE | 30 | 1N | 8E | 1737 W 10TH AVENUE | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 003-02 | 1/15/2002 | NW | 19 | 1N | 8E | 2524 W CHOLLA STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 004-02 | 1/18/2002 | SW | 25 | 1N | 7E | 10819 E GROVE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 005-02 | 1/22/2002 | NE | 23 | 1N | 8E | 4115 E SUPERSTITION BOULEVARD | 16 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1969 |
| 006-02 | 1/23/2002 | SE | 22 | 1N | 8E | 331 S STARR ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 007-02 | 1/23/2002 | SW | 14 | 1N | 7E | 639 N 101ST PLACE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 008-02 | 1/25/2002 | NW | 20 | 1N | 8E | 840 W APACHE TRAIL | 12 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1981 |
| 009-02 | 2/5/2002 | SW | 12 | 1N | 8E | 2878 N GERONIMO ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1993 |
| 010-02 | 2/7/2002 | SW | 17 | 1N | 8E | 1064 N VALLEY DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 011-02 | 2/7/2002 | NW | 17 | 1N | 8E | 1320 W TEPEE STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 012-02 | 2/8/2002 | NW | 18 | 1N | 8E | 2855 W CHOLLA STREET | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 013-02 | 2/8/2002 | NW | 19 | 1N | 8E | 2827 W CHOLLA STREET | 14 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 014-02 | 2/13/2002 | SW | 19 | 1N | 8E | 3003 W APACHE TRAIL | 12 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1981 |
| 015-02 | 2/14/2002 | NW | 19 | 1N | 8E | 660 N PINYON DRIVE | 32 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 016-02 | 2/15/2002 | SE | 18 | 1N | 8E | 967 N OCOTILLO DRIVE | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 017-02 | 2/21/2002 | NW | 20 | 1N | 8E | 275 N THUNDERBIRD DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1961 |
| 018-02 | 2/21/2002 | NE | 30 | 1N | 8E | 1589 S DELAWARE DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 019-02 | 2/22/2002 | NE | 19 | 1N | 8E | 215 N SAGUARO DRIVE | 26 | MAIN REPLACEMENT | X | | | | | | | | | | 7 | CA | 4 | 1960 |
| 020-02 | 2/25/2002 | SW | 19 | 1N | 8E | APACHE TRAIL W OF DELAWARE DRIVE | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1964 |
| 021-02 | 2/27/2002 | NW | 19 | 1N | 8E | 723 N PINAL DRIVE | 6 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1970 |
| 022-02 | 3/1/2002 | NW | 30 | 1N | 8E | 1217 S DESERT VIEW PLACE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 023-02 | 3/7/2002 | NE | 25 | 1N | 7E | 538 N MERIDIAN ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1971 |
| 024-02 | 3/8/2002 | SE | 18 | 1N | 8E | 1460 N GRAND DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 025-02 | 3/12/2002 | NE | 19 | 1N | 8E | 210 N IRONWOOD DRIVE | 8 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1985 |
| 026-02 | 3/14/2002 | NW | 25 | 1N | 7E | 11038 E CRESCENT AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1962 |
| 027-02 | 3/18/2002 | SW | 30 | 1N | 8E | 1991 S MERIDIAN ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 028-02 | 3/19/2002 | NW | 20 | 1N | 8E | 731 N RENNICK DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 029-02 | 3/19/2002 | NW | 20 | 1N | 8E | 740 N SAN MARCOS DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 030-02 | 3/25/2002 | SE | 13 | 1N | 8E | 1333 N GERONIMO ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 031-02 | 3/26/2002 | NE | 24 | 1N | 7E | BOULDER DRIVE & 114TH STREET | 12 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1970 |
| 032-02 | 4/1/2002 | NW | 29 | 1N | 8E | 16TH AVENUE & SAN MARCOS DRIVE | 9 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1963 |
| 033-02 | 4/2/2002 | SE | 20 | 1N | 8E | 495 W APACHE TRAIL | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 034-02 | 4/3/2002 | NE | 17 | 1N | 8E | 747 W FOOTHILL STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 035-02 | 4/4/2002 | SW | 24 | 1N | 8E | 164 S SIXSHOOTER ROAD | 7 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 036-02 | 4/4/2002 | NW | 30 | 1N | 8E | 1429 S DESERT VIEW PLACE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 037-02 | 4/4/2002 | SW | 24 | 1N | 8E | 5250 E 2ND AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 038-02 | 4/6/2002 | SE | 20 | 1N | 8E | 720 W DATIL AVENUE | 12 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 039-02 | 4/12/2002 | SW | 20 | 1N | 8E | 1325 W 2ND AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 040-02 | 4/12/2002 | SE | 29 | 1N | 8E | 681 W 23RD AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1978 |
| 041-02 | 4/12/2002 | SE | 29 | 1N | 8E | 2125 S SAN MARCOS DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 042-02 | 4/15/2002 | NE | 25 | 1N | 7E | 11411 E MARGUERITE AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 043-02 | 4/16/2002 | SE | 29 | 1N | 8E | 370 W SOUTHERN AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 044-02 | 4/17/2002 | NW | 9 | 1S | 9E | 10428 E LA PALMA AVENUE | 12 | OTHER | | | | | | | | | POLY | 1 | | | | 1979 |
| 045-02 | 4/17/2002 | SW | 30 | 1N | 8E | 2483 W 16TH AVENUE | 28 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 046-02 | 4/17/2002 | SE | 13 | 1N | 8E | 5972 E ROUNDUP STREET | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 047-02 | 4/19/2002 | SE | 29 | 1N | 8E | 556 W 21ST AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1977 |
| 048-02 | 4/19/2002 | SE | 29 | 1N | 8E | 2145 S SAN MARCOS DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 049-02 | 4/19/2002 | NW | 23 | 1N | 8E | SUPERSTITION BOULEVARD E OF ARROYO ROAD | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1969 |
| 050-02 | 4/20/2002 | SE | 20 | 1N | 8E | 730 W 5TH AVENUE | 28 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 051-02 | 4/25/2002 | SW | 20 | 1N | 8E | 264 S COPPER DRIVE | 21 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 052-02 | 4/29/2002 | SW | 20 | 1N | 8E | 875 W APACHE TRAIL | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1984 |
| 053-02 | 5/1/2002 | SE | 14 | 1N | 7E | 10711 E ADOBE ROAD | 15 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 054-02 | 5/2/2002 | NE | 29 | 1N | 8E | 10 W 14TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1973 |
| 055-02 | 5/7/2002 | NE | 30 | 1N | 8E | 1515 S OCOTILLO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 056-02 | 5/17/2002 | SE | 13 | 1N | 8E | 5972 E ROUNDUP STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 057-02 | 5/18/2002 | SE | 24 | 1N | 7E | 113 S MALCOLM DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 058-02 | 5/21/2002 | NE | 27 | 1N | 8E | 3023 E 10TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 059-02 | 5/21/2002 | NE | 27 | 1N | 8E | 3135 E 10TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 060-02 | 5/21/2002 | SW | 25 | 1N | 7E | 10937 E PUEBLO AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 061-02 | 5/22/2002 | SE | 8 | 1S | 9E | 9805 E SLEEPY HOLLOW TRAIL | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1988 |
| 062-02 | 5/27/2002 | NE | 26 | 1N | 7E | 10672 E OASIS DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 063-02 | 5/28/2002 | SW | 6 | 1N | 8E | 2926 W WHITELEY STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 064-02 | 5/28/2002 | NE | 12 | 1N | 8E | 6176 E MINING CAMP STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 065-02 | 5/30/2002 | SE | 20 | 1N | 8E | 485 S PINO CIRCLE | 20 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 066-02 | 6/3/2002 | SW | 13 | 1N | 8E | 5430 E SHIPROCK STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1963 |
| 067-02 | 6/4/2002 | NW | 22 | 1N | 8E | 521 N TOMAHAWK ROAD | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1966 |
| 068-02 | 6/5/2002 | SE | 20 | 1N | 8E | 5TH AVENUE & PECANA CIRCLE | 14 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 069-02 | 6/6/2002 | SE | 17 | 1N | 8E | GREASEWOOD STREET & SAN MARCOS DRIVE | 4 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1978 |
| 070-02 | 6/7/2002 | SE | 20 | 1N | 8E | 5TH AVENUE & PECANA CIRCLE | 12 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 071-02 | 6/11/2002 | SW | 17 | 1N | 8E | 963 N GOLD DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 072-02 | 6/11/2002 | NE | 30 | 1N | 8E | 1043 S LAWTHER DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1963 |
| 073-02 | 6/11/2002 | NE | 25 | 1N | 7E | MARGUERITE AVENUE & CRESCENT AVENUE ALLEY | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1971 |
| 074-02 | 6/12/2002 | SW | 17 | 1N | 8E | 1368 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 075-02 | 6/17/2002 | NE | 17 | 1N | 8E | 2138 N APACHE DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 1 | | | | 2000 |
| 076-02 | 6/18/2002 | NE | 22 | 1N | 8E | 542 N STARR ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1966 |
| 077-02 | 6/19/2002 | NE | 21 | 1N | 8E | 1518 E SCENIC STREET | 2 | SERVICE REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 078-02 | 6/21/2002 | NE | 19 | 1N | 8E | 610 N OCOTILLO DRIVE | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1963 |
| 079-02 | 6/22/2002 | NE | 9 | 1S | 9E | 5842 S EASY STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1979 |
| 080-02 | 6/24/2002 | NE | 19 | 1N | 8E | UNIVERSITY DRIVE & IRONWOOD DRIVE | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1966 |
| 081-02 | 6/25/2002 | SW | 9 | 1S | 9E | ALAMEDA ROAD & DEL MONTE AVENUE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 082-02 | 6/25/2002 | SE | 18 | 1N | 8E | 925 N OCOTILLO DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 083-02 | 6/26/2002 | NW | 24 | 1N | 8E | 401 N VAL VISTA ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 084-02 | 6/27/2002 | NW | 9 | 1S | 9E | 5995 S ALHAMBRA WAY | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 085-02 | 6/28/2002 | NE | 30 | 1N | 8E | 1017 S DELAWARE DRIVE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 086-02 | 7/1/2002 | NE | 7 | 1S | 9E | 5443 S MOHAVE SAGE DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1998 |
| 087-02 | 7/3/2002 | SE | 18 | 1N | 8E | 2141 W SHIPROCK STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1972 |
| 088-02 | 7/4/2002 | SE | 20 | 1N | 8E | 5TH AVENUE & PECANA CIRCLE | 20 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 089-02 | 7/5/2002 | SE | 9 | 1S | 9E | 10862 E SUGAR CREEK DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 090-02 | 7/5/2002 | SE | 17 | 1N | 8E | 574 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 091-02 | 7/5/2002 | NE | 20 | 1N | 8E | SUPERSTITION BOULEVARD W OF IDAHO ROAD | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 16 | 1986 |
| 092-02 | 7/6/2002 | NE | 22 | 1N | 8E | 159 N ACACIA ROAD | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1971 |
| 093-02 | 7/6/2002 | SW | 18 | 1N | 8E | 3100 W ROUNDUP STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 094-02 | 7/8/2002 | SE | 29 | 1N | 8E | 410 W 18TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 095-02 | 7/8/2002 | SE | 29 | 1N | 8E | 440 W 18TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 096-02 | 7/9/2002 | SE | 18 | 1N | 8E | 1878 W ROUNDUP STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 097-02 | 7/9/2002 | SE | 18 | 1N | 8E | 1980 W SHIPROCK STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 098-02 | 7/9/2002 | SE | 23 | 1N | 8E | 415 S ROADRUNNER ROAD | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1975 |
| 099-02 | 7/11/2002 | NW | 21 | 1N | 8E | 721 E SCENIC STREET | 18 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1974 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100-02 | 7/18/2002 | NW | 9 | 1S | 9E | 5536 S SAGE WAY | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 101-02 | 7/18/2002 | NW | 9 | 1S | 9E | 5566 S SAGE WAY | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 102-02 | 7/18/2002 | SE | 24 | 1N | 7E | 123 S MALCOLM DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 103-02 | 7/18/2002 | SW | 17 | 1N | 8E | 1029 N IRONWOOD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 104-02 | 7/19/2002 | NW | 9 | 1S | 9E | 5580 S KINGS RANCH ROAD #2 & #3 | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1982 |
| 105-02 | 7/19/2002 | NW | 9 | 1S | 9E | 5580 S KINGS RANCH ROAD #1 | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1982 |
| 106-02 | 7/19/2002 | SW | 13 | 1N | 8E | 5180 E RAWHIDE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1966 |
| 107-02 | 7/19/2002 | SW | 13 | 1N | 8E | 1486 N VAL VISTA ROAD | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1966 |
| 108-02 | 7/19/2002 | SW | 17 | 1N | 8E | 1476 W SUPERSTITION BOULEVARD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1966 |
| 109-02 | 7/20/2002 | SE | 18 | 1N | 8E | 926 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 110-02 | 7/20/2002 | SE | 18 | 1N | 8E | 925 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 111-02 | 7/20/2002 | SW | 13 | 1N | 7E | 547 N 111TH PLACE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 112-02 | 7/20/2002 | SW | 13 | 1N | 8E | 850 N GERONIMO ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 113-02 | 7/22/2002 | SW | 17 | 1N | 8E | 1560 W SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1966 |
| 114-02 | 7/22/2002 | SW | 17 | 1N | 8E | 1504 W SUPERSTITION BOULEVARD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1966 |
| 115-02 | 7/24/2002 | SE | 18 | 1N | 8E | 1980 W SHIPROCK STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 116-02 | 7/24/2002 | SW | 13 | 1N | 8E | SIXSHOOTER ROAD & MANZANITA STREET | 12 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1963 |
| 117-02 | 7/25/2002 | SW | 29 | 1N | 8E | IRONWOOD DRIVE & SOUTHERN AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 1 | | | | 1998 |
| 118-02 | 7/25/2002 | NW | 24 | 1N | 8E | 5090 E ROOSEVELT STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 119-02 | 7/25/2002 | NE | 17 | 1N | 8E | 122 W FOOTHILL STREET | 4 | SERVICE REPAIR | | | | | | | | | POLY | 2 | | | | 1980 |
| 120-02 | 7/29/2002 | SW | 15 | 1N | 8E | 1527 N WICKIUP ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 121-02 | 7/29/2002 | SE | 18 | 1N | 8E | 832 N MAIN DRIVE | 20 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1970 |
| 122-02 | 7/30/2002 | SE | 20 | 1N | 8E | 442 S OLMO CIRCLE | 15 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 123-02 | 8/2/2002 | NE | 23 | 1N | 8E | 690 N MULESHOE ROAD | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 124-02 | 8/3/2002 | NW | 18 | 1N | 8E | 1750 N WARNER DRIVE | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1991 |
| 125-02 | 8/5/2002 | NW | 15 | 1N | 8E | 1715 N WICKIUP ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1984 |
| 126-02 | 8/5/2002 | NW | 25 | 1N | 7E | 635 S PARKWOOD | 6 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 1998 |
| 127-02 | 8/5/2002 | NE | 17 | 1N | 8E | 1710 N PLAZA DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 128-02 | 8/5/2002 | SE | 29 | 1N | 8E | 546 W 21ST AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 129-02 | 8/8/2002 | NE | 21 | 1N | 8E | 928 E JUNCTION STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 130-02 | 8/8/2002 | NE | 21 | 1N | 8E | 95 N ROYAL PALM ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 131-02 | 8/9/2002 | SW | 13 | 1N | 7E | 421 N 111TH STREET | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1964 |
| 132-02 | 8/9/2002 | SE | 17 | 1N | 8E | 274 W SHIPROCK STREET | 15 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1974 |
| 133-02 | 8/9/2002 | NE | 21 | 1N | 8E | 401 E SUPERSTITION BOULEVARD | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1972 |
| 134-02 | 8/12/2002 | NW | 17 | 1N | 8E | 2236 N VALLEY DRIVE | 11 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 135-02 | 8/13/2002 | NE | 24 | 1N | 7E | 11250 E APACHE TRAIL | 4 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1980 |
| 136-02 | 8/14/2002 | SE | 15 | 1N | 8E | 1126 N GOLDFIELD ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 137-02 | 8/14/2002 | SW | 13 | 1N | 8E | 5020 E SUPERSTITION BOULEVARD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 138-02 | 8/14/2002 | SW | 17 | 1N | 8E | NE CORNER IRONWOOD DRIVE & SUPERSTITION BOU | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1966 |
| 139-02 | 8/15/2002 | NW | 19 | 1N | 8E | 2475 W CODY STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 140-02 | 8/15/2002 | NE | 25 | 1N | 8E | 5801 E BROADWAY AVENUE | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1973 |
| 141-02 | 8/20/2002 | SE | 24 | 1N | 7E | 212 S MALCOLM DRIVE | 5 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 142-02 | 8/22/2002 | SE | 22 | 1N | 8E | 3032 E 4TH AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1984 |
| 143-02 | 8/23/2002 | NE | 30 | 1N | 8E | 1161 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 144-02 | 8/23/2002 | NE | 9 | 1S | 9E | 5727 S KINGS RANCH ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 145-02 | 8/29/2002 | SE | 29 | 1N | 8E | 261 W 23RD AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 146-02 | 8/29/2002 | SE | 17 | 1N | 8E | NE CORNER SAN MARCOS DRIVE & SUPERSTITION BO | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1974 |
| 147-02 | 8/30/2002 | NW | 19 | 1N | 8E | ON GREGORY STREET E OF PINAL DRIVE | 8 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1972 |
| 148-02 | 9/3/2002 | SW | 25 | 1N | 7E | 10819 E GROVE STREET | 9 | OTHER | | | | | | | | | POLY | 1 | | | | 1973 |
| 149-02 | 9/4/2002 | SW | 15 | 1N | 8E | N OF SUPERSTITION BOULEVARD ON VISTA DRIVE | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1960 |
| 150-02 | 9/5/2002 | SE | 12 | 1N | 8E | JACOB WALTZ STREET & PROSPECTOR ROAD | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1965 |
| 151-02 | 9/5/2002 | NW | 30 | 1N | 8E | 1529 S MERIDIAN ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 152-02 | 9/6/2002 | NW | 20 | 1N | 8E | 266 N IRONWOOD DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1963 |
| 153-02 | 9/8/2002 | NW | 9 | 1S | 9E | FORTUNA AVENUE & ALAMEDA ROAD | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1983 |
| 154-02 | 9/9/2002 | NE | 25 | 1N | 7E | 11520 E CRESCENT AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 155-02 | 9/10/2002 | NE | 30 | 1N | 8E | 903 S OCOTILLO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 156-02 | 9/11/2002 | SW | 19 | 1N | 8E | 2810 W 4TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1965 |
| 157-02 | 9/16/2002 | SE | 23 | 1N | 8E | 4230 E BROADWAY AVENUE | 6 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1972 |
| 158-02 | 9/16/2002 | SE | 24 | 1N | 7E | 152 S ELMONT DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 159-02 | 9/16/2002 | NE | 19 | 1N | 8E | IRONWOOD DRIVE & ROOSEVELT STREET | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1985 |
| 160-02 | 9/17/2002 | SE | 25 | 1N | 8E | 6374 E SOUTHERN AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 161-02 | 9/17/2002 | NE | 19 | 1N | 8E | OCOTILLO DRIVE YARD | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1963 |
| 162-02 | 9/17/2002 | NW | 22 | 1N | 8E | 1920 E SCENIC STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 163-02 | 9/19/2002 | NE | 26 | 1N | 7E | 10741 E OASIS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 164-02 | 9/20/2002 | SW | 17 | 1N | 8E | 1560 W SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1966 |
| 165-02 | 9/23/2002 | NE | 17 | 1N | 8E | 2095 N SAN MARCOS DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1985 |
| 166-02 | 9/24/2002 | NE | 27 | 1N | 8E | 1530 S STARR ROAD | 6 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1975 |
| 167-02 | 9/24/2002 | NE | 9 | 1S | 9E | 5575 S EASY STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 168-02 | 9/24/2002 | NE | 23 | 1N | 8E | 4375 E SUPERSTITION BOULEVARD | 4 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 169-02 | 9/26/2002 | NE | 30 | 1N | 8E | 1941 W 10TH AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 170-02 | 9/26/2002 | SE | 18 | 1N | 8E | 820 N MAIN DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 171-02 | 9/27/2002 | SW | 15 | 1N | 8E | 1378 N WICKIUP ROAD | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 172-02 | 9/27/2002 | NE | 26 | 1N | 7E | 10646 E OASIS DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 173-02 | 9/30/2002 | SE | 9 | 1S | 9E | 10729 E SUGAR CREEK DRIVE | 28 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 174-02 | 10/2/2002 | NW | 21 | 1N | 8E | 131 N COLT ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 175-02 | 10/2/2002 | NW | 21 | 1N | 8E | 183 N COLT ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1974 |
| 176-02 | 10/2/2002 | NW | 21 | 1N | 8E | 170 N ROYAL PALM ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 177-02 | 10/2/2002 | NW | 21 | 1N | 8E | 120 N ROYAL PALM ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1974 |
| 178-02 | 10/2/2002 | NE | 21 | 1N | 8E | 135 N ROYAL PALM ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 179-02 | 10/2/2002 | SW | 22 | 1N | 8E | 1633 E 2ND AVENUE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 180-02 | 10/3/2002 | SW | 14 | 1N | 7E | 729 N CRISMON ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 181-02 | 10/3/2002 | SW | 14 | 1N | 7E | 715 N CRISMON ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 182-02 | 10/7/2002 | NE | 23 | 1N | 8E | 690 N MULESHOE ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 183-02 | 10/8/2002 | SW | 17 | 1N | 8E | GOLD DRIVE & SUPERSTITION BOULEVARD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1967 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 184-02 | 10/9/2002 | SW | 17 | 1N | 8E | VALLEY DRIVE & SUPERSTITION BOULEVARD | 10 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1968 |
| 185-02 | 10/11/2002 | NW | 13 | 1N | 8E | 5511 E PIONEER STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1985 |
| 186-02 | 10/15/2002 | NE | 27 | 1N | 8E | 3076 E 10TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 187-02 | 10/15/2002 | NE | 27 | 1N | 8E | 2968 E 10TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1987 |
| 188-02 | 10/15/2002 | NE | 27 | 1N | 8E | 3012 E 10TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1987 |
| 189-02 | 10/16/2002 | NW | 30 | 1N | 8E | 816 S DESERT VIEW DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 190-02 | 10/24/2002 | NE | 27 | 1N | 8E | 2227 E 10TH AVENUE | 4 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1979 |
| 191-02 | 10/24/2002 | SE | 24 | 1N | 8E | 617 S CAMINO SAGUARO | 18 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1961 |
| 192-02 | 10/29/2002 | NE | 27 | 1N | 8E | 1059 S HILTON ROAD | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 193-02 | 10/31/2002 | NE | 13 | 1N | 8E | 5757 E LOST DUTCHMAN BOULEVARD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1968 |
| 194-02 | 11/1/2002 | SE | 24 | 1N | 7E | 11412 E BROADWAY ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1963 |
| 195-02 | 11/4/2002 | SE | 18 | 1N | 8E | 948 N MAIN DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1970 |
| 196-02 | 11/4/2002 | SW | 20 | 1N | 8E | 447 S SILVER DRIVE | 2 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 197-02 | 11/4/2002 | SW | 20 | 1N | 8E | 1451 W 4TH AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 198-02 | 11/7/2002 | SE | 21 | 1N | 8E | 1460 E BROADWAY AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1960 |
| 199-02 | 11/9/2002 | SE | 18 | 1N | 8E | 943 N OCOTILLO DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 200-02 | 11/15/2002 | SW | 13 | 1N | 7E | 441 N 111TH WAY | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 201-02 | 11/15/2002 | NW | 24 | 1N | 8E | 258 N GERONIMO ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 202-02 | 11/18/2002 | NE | 7 | 1S | 9E | 5571 S INDIGO DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1997 |
| 203-02 | 11/18/2002 | SE | 22 | 1N | 8E | 2470 E BROADWAY AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 204-02 | 11/20/2002 | SE | 25 | 1N | 7E | 1066 S CLANCY | 6 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 2001 |
| 205-02 | 11/21/2002 | NE | 27 | 1N | 8E | 2636 E 10TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 206-02 | 11/25/2002 | NW | 13 | 1N | 8E | 4979 E PIONEER STREET | 6 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1981 |
| 207-02 | 11/26/2002 | NE | 8 | 1S | 9E | 6100 S KINGS RANCH ROAD | 9 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1982 |
| 208-02 | 11/26/2002 | NE | 19 | 1N | 8E | 552 N IRONWOOD DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 1985 |
| 209-02 | 11/26/2002 | NW | 24 | 1N | 7E | 551 N 110TH STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 210-02 | 11/27/2002 | NE | 22 | 1N | 8E | 385 N STARR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 211-02 | 11/27/2002 | SE | 21 | 1N | 8E | 24 S STARR ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 212-02 | 12/2/2002 | NE | 22 | 1N | 8E | 415 N STARR ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 213-02 | 12/4/2002 | SW | 21 | 1N | 8E | 143 S OUTPOST ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1983 |
| 214-02 | 12/6/2002 | NW | 14 | 1N | 7E | 933 N 103RD STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1973 |
| 215-02 | 12/12/2002 | SE | 18 | 1N | 8E | 894 N OCOTILLO DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 216-02 | 12/16/2002 | SW | 12 | 1N | 8E | 2425 N VAL VISTA ROAD | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 217-02 | 12/17/2002 | NE | 25 | 1N | 8E | 11450 E MARGUERITE AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 218-02 | 12/19/2002 | SW | 13 | 1N | 8E | 5296 E SUPERSTITION BOULEVARD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 219-02 | 12/19/2002 | NE | 23 | 1N | 7E | 105TH PLACE & BOULDER DRIVE | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1968 |
| 220-02 | 12/23/2002 | NE | 19 | 1N | 8E | 515 N PALO VERDE DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1964 |
| 221-02 | 12/23/2002 | NE | 26 | 1N | 7E | 10723 E OASIS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 001-03 | 1/7/2003 | SW | 30 | 1N | 8E | 1979 S MERIDIAN ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 002-03 | 1/9/2003 | NW | 12 | 1N | 8E | 5424 E SINGLETREE STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 003-03 | 1/10/2003 | NW | 30 | 1N | 8E | 1282 S HALE DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 004-03 | 1/13/2003 | SE | 23 | 1N | 8E | 94 S MOUNTAIN VIEW ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 005-03 | 1/14/2003 | NW | 27 | 1N | 8E | 1560 S CHAPARRAL ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 006-03 | 1/14/2003 | SE | 29 | 1N | 8E | 405 W 17TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1965 |
| 007-03 | 1/14/2003 | NW | 27 | 1N | 8E | 2080 E 14TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 008-03 | 1/15/2003 | NW | 19 | 1N | 8E | 515 N DESERT VIEW DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 009-03 | 1/15/2003 | NE | 30 | 1N | 8E | 1417 S GRAND DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 010-03 | 1/16/2003 | SW | 21 | 1N | 8E | 143 S OUTPOST ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 011-03 | 1/17/2003 | SE | 14 | 1N | 8E | 4060 E BRISBANE ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 012-03 | 1/18/2003 | NW | 12 | 1N | 8E | 3924 N SIXSHOOTER ROAD | 4 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1978 |
| 013-03 | 1/20/2003 | NW | 12 | 1N | 8E | 5540 E MINING CAMP STREET | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 014-03 | 1/20/2003 | SE | 24 | 1N | 7E | 10540 E APACHE TRAIL | 20 | MAIN REPLACEMENT | X | | | | | | | | | | | GS | 1 1/4 | 1955 |
| 015-03 | 1/21/2003 | SE | 14 | 1N | 8E | 1296 N MOUNTAIN VIEW ROAD | 18 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1969 |
| 016-03 | 1/21/2003 | SE | 24 | 1N | 7E | S OF APACHE TRAIL ON ELMONT | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 017-03 | 1/21/2003 | SE | 24 | 1N | 7E | 11214 E 6TH AVENUE | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 018-03 | 1/22/2003 | NW | 22 | 1N | 8E | 242 N CONESTOGA ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 019-03 | 1/22/2003 | NW | 22 | 1N | 8E | 225 N CONESTOGA ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 020-03 | 1/28/2003 | SE | 24 | 1N | 7E | 4TH AVENUE & EMERALD DRIVE | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 021-03 | 1/29/2003 | SW | 17 | 1N | 8E | 1173 W ESCONDIDO COURT | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1973 |
| 022-03 | 1/29/2003 | SW | 17 | 1N | 8E | 1140 W ESCONDIDO COURT | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 023-03 | 1/29/2003 | NE | 23 | 1N | 7E | 104TH PLACE & BOISE STREET | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1966 |
| 024-03 | 1/30/2003 | NE | 23 | 1N | 7E | 10434 E BOISE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 025-03 | 2/7/2003 | SW | 14 | 1N | 7E | 658 N MERRILL ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 026-03 | 2/18/2003 | SE | 18 | 1N | 8E | 2264 W SHIPROCK STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 027-03 | 2/18/2003 | SE | 20 | 1N | 8E | 483 S HIGO CIRCLE | 6 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 028-03 | 2/20/2003 | NE | 19 | 1N | 8E | 182 N SAGUARO DRIVE | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | | | | | 1985 |
| 029-03 | 2/22/2003 | NE | 30 | 1N | 8E | 1282 S PALO VERDE DRIVE | 32 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1977 |
| 030-03 | 2/22/2003 | NE | 30 | 1N | 8E | 13TH AVENUE & PALO VERDE DRIVE | 32 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1977 |
| 031-03 | 2/24/2003 | NW | 19 | 1N | 8E | 620 N PINYON DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |
| 032-03 | 2/26/2003 | SE | 15 | 1N | 8E | 1033 N STARR ROAD | 4 | SERVICE REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 033-03 | 3/3/2003 | NE | 13 | 1N | 8E | 2140 N PROSPECTOR ROAD | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 034-03 | 3/5/2003 | SE | 25 | 1N | 8E | 6255 E 20TH AVENUE | 20 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1990 |
| 035-03 | 3/10/2003 | NW | 35 | 1N | 8E | GOLDFIELD ROAD & HIGHWAY 60 | 12 | MAIN REPAIR | X | | | | | | | | | | | DIP | 20 | 1989 |
| 036-03 | 3/20/2003 | SE | 16 | 1S | 9E | 10742 E SECRET CANYON | 4 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 2000 |
| 037-03 | 3/28/2003 | NE | 8 | 1S | 9E | 6100 S KINGS RANCH ROAD | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1982 |
| 038-03 | 3/31/2003 | SW | 20 | 1N | 8E | 374 S CARDINAL DRIVE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1961 |
| 039-03 | 4/4/2003 | NE | 23 | 1N | 7E | 257 N 104TH PLACE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 2000 |
| 040-03 | 4/21/2003 | NE | 30 | 1N | 8E | 1339 S LAWTHER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 041-03 | 5/5/2003 | SW | 25 | 1N | 8E | 4948 E SOUTHERN AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 042-03 | 5/5/2003 | NE | 30 | 1N | 8E | 906 S MAIN DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 043-03 | 5/5/2003 | SE | 29 | 1N | 8E | 1793 S SAN MARCOS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 044-03 | 5/5/2003 | SW | 25 | 1N | 8E | 4964 E SOUTHERN AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 045-03 | 5/5/2003 | SW | 25 | 1N | 8E | 4948 E SOUTHERN AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 046-03 | 5/6/2003 | NW | 9 | 1S | 9E | 10226 E DEL MONTE AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 047-03 | 5/8/2003 | NW | 22 | 1N | 8E | 562 N VISTA ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1960 |
| 048-03 | 5/8/2003 | NE | 30 | 1N | 8E | 906 S MAIN DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 049-03 | 5/9/2003 | SE | 24 | 1N | 8E | 619 S CAMINO SERENO | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1983 |
| 050-03 | 5/9/2003 | SE | 24 | 1N | 8E | 614 S CAMINO SERENO | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1983 |
| 051-03 | 5/12/2003 | SW | 12 | 1N | 8E | 2425 N VAL VISTA ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 052-03 | 5/13/2003 | SE | 20 | 1N | 8E | 730 W 5TH AVENUE | 9 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 053-03 | 5/14/2003 | SE | 25 | 1N | 8E | 1883 S GERONIMO ROAD | 4 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1973 |
| 054-03 | 5/19/2003 | NW | 9 | 1S | 9E | 6130 S ALHAMBRA WAY | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 055-03 | 5/21/2003 | NW | 30 | 1N | 8E | 845 S WARNER DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1976 |
| 056-03 | 5/22/2003 | NE | 24 | 1N | 8E | SUNSET ROAD & SUPERSTITION BOULEVARD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 057-03 | 5/28/2003 | SE | 20 | 1N | 8E | 735 W DATIL AVENUE | 18 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 058-03 | 5/30/2003 | SE | 24 | 1N | 7E | 55 S MOUNTAIN ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 059-03 | 5/30/2003 | NW | 19 | 1N | 8E | 2544 W CODY STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 060-03 | 6/3/2003 | NW | 16 | 1N | 8E | 1755 N IDAHO ROAD | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1974 |
| 061-03 | 6/4/2003 | NW | 9 | 1S | 9E | 9972 E DEL MONTE AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1984 |
| 062-03 | 6/9/2003 | SE | 25 | 1N | 8E | 1885 S GERONIMO ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 063-03 | 6/11/2003 | NE | 24 | 1N | 7E | 104 N 114TH STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 064-03 | 6/11/2003 | NW | 24 | 1N | 8E | SUPERSTITION BOULEVARD & GERONIMO ROAD | 6 | MAIN REPAIR | X | | | | | | | | | | | DIP | 12 | 1998 |
| 065-03 | 6/12/2003 | NE | 25 | 1N | 7E | 11540 E CRESCENT AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 066-03 | 6/13/2003 | SE | 9 | 1S | 9E | ALHAMBRA WAY & HUMMINGBIRD LANE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 067-03 | 6/13/2003 | SW | 17 | 1N | 8E | 1062 W ESCONDIDO COURT | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 068-03 | 6/13/2003 | NE | 29 | 1N | 8E | 1374 S BUENA VISTA DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 069-03 | 6/13/2003 | SE | 12 | 1N | 8E | PROSPECTOR ROAD & LOST DUTCHMAN BOULEVARD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 070-03 | 6/16/2003 | SW | 21 | 1N | 8E | COLT ROAD & OLD HIGHWAY 60 | 15 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1961 |
| 071-03 | 6/17/2003 | NE | 18 | 1N | 8E | 1949 W FOOTHILL STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1985 |
| 072-03 | 6/17/2003 | NW | 24 | 1N | 8E | 4916 E JUNCTION STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 073-03 | 6/17/2003 | NE | 13 | 1N | 8E | 5936 E WINDSONG STREET | 2 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 074-03 | 6/18/2003 | NW | 22 | 1N | 8E | 285 N CONESTOGA ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 075-03 | 6/20/2003 | SE | 24 | 1N | 7E | 11435 E APACHE TRAIL | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 076-03 | 6/20/2003 | NE | 30 | 1N | 8E | 1775 W 10TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 077-03 | 6/23/2003 | SW | 25 | 1N | 7E | 10919 E LA SALLE STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 078-03 | 6/24/2003 | SE | 9 | 1S | 9E | 6382 S LAZY LANE | 36 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 079-03 | 6/24/2003 | NE | 13 | 1N | 7E | 11242 E ENROSE STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 1 | | | | 2002 |
| 080-03 | 6/26/2003 | SE | 18 | 1N | 8E | 1838 W ROUNDUP STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 081-03 | 6/26/2003 | SE | 18 | 1N | 8E | 1836 W ROUNDUP STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 082-03 | 6/27/2003 | NW | 24 | 1N | 8E | 284 N GERONIMO ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 083-03 | 6/28/2003 | NE | 13 | 1N | 8E | WINDSONG STREET & PROSPECTOR ROAD | 2 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 084-03 | 6/30/2003 | NE | 12 | 1N | 8E | 6176 E MINING CAMP STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 085-03 | 7/1/2003 | NW | 19 | 1N | 8E | 2669 W GREGORY STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 086-03 | 7/5/2003 | NW | 19 | 1N | 8E | 2557 W SUPERSTITION BOULEVARD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 087-03 | 7/6/2003 | NW | 24 | 1N | 8E | 4947 E ROOSEVELT STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 088-03 | 7/6/2003 | SE | 21 | 1N | 8E | 1330 E BROADWAY AVENUE | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1960 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 089-03 | 7/7/2003 | SW | 14 | 1N | 7E | 725 N 102ND PLACE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1973 |
| 090-03 | 7/9/2003 | SW | 13 | 1N | 8E | 5430 E SHIPROCK STREET | 9 | MAIN REPLACEMENT | X | | | | | | | | | | 6 | GS | 2 | 1963 |
| 091-03 | 7/11/2003 | SW | 20 | 1N | 8E | 198 S THUNDERBIRD DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1961 |
| 092-03 | 7/16/2003 | SE | 9 | 1S | 9E | 11197 E SLEEPY HOLLOW TRAIL | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 093-03 | 7/17/2003 | SE | 20 | 1N | 8E | 452 S HIGO CIRCLE | 15 | MAIN REPLACEMENT | X | | | | | | | | | | 2 | BLE POLY | 2 | 1977 |
| 094-03 | 7/18/2003 | NE | 12 | 1N | 8E | 5911 E MINING CAMP STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 095-03 | 7/21/2003 | SW | 9 | 1S | 9E | 10096 E SLEEPY HOLLOW TRAIL | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 096-03 | 7/22/2003 | SW | 25 | 1N | 7E | 10901 E PUEBLO AVENUE | 6 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1973 |
| 097-03 | 7/26/2003 | SE | 24 | 1N | 7E | 4TH AVENUE & EMERALD DRIVE | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 098-03 | 7/28/2003 | NE | 30 | 1N | 8E | 1585 S OCOTILLO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 099-03 | 7/29/2003 | SW | 19 | 1N | 8E | 775 S SMYTHE DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1995 |
| 100-03 | 7/29/2003 | NW | 9 | 1S | 9E | 6171 S ALAMEDA ROAD | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 101-03 | 7/29/2003 | NE | 19 | 1N | 8E | 2210 W APACHE TRAIL | 4 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1960 |
| 102-03 | 7/30/2003 | NE | 21 | 1N | 8E | 508 N CACTUS ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1970 |
| 103-03 | 8/1/2003 | SW | 25 | 1N | 7E | 11035 E PUEBLO AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 104-03 | 8/4/2003 | SE | 9 | 1S | 9E | 11125 E SLEEPY HOLLOW TRAIL | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 105-03 | 8/4/2003 | SE | 9 | 1S | 9E | 11121 E SLEEPY HOLLOW TRAIL | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 106-03 | 8/4/2003 | SE | 13 | 1N | 8E | 5651 E MANZANITA STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 107-03 | 8/5/2003 | NE | 30 | 1N | 8E | 1187 S LAWTHER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 108-03 | 8/5/2003 | SE | 20 | 1N | 8E | 436 S HIGO CIRCLE | 15 | MAIN REPLACEMENT | X | | | | | | | | | | 10 | BLE POLY | 2 | 1977 |
| 109-03 | 8/6/2003 | SW | 9 | 1S | 9E | 10322 E BREATHLESS DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 110-03 | 8/7/2003 | NE | 25 | 1N | 8E | 5980 E 14TH AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 111-03 | 8/8/2003 | SW | 22 | 1N | 8E | 265 S WICKIUP ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 112-03 | 8/8/2003 | SW | 22 | 1N | 8E | 2063 E 2ND AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 113-03 | 8/8/2003 | SW | 22 | 1N | 8E | 2029 E 2ND AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 114-03 | 8/8/2003 | SW | 22 | 1N | 8E | 265 S WICKIUP ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 115-03 | 8/11/2003 | SE | 25 | 1N | 8E | 6171 E 22ND AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 116-03 | 8/11/2003 | SW | 25 | 1N | 7E | 10856 E SUNLAND AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 117-03 | 8/12/2003 | SE | 9 | 1S | 9E | 11125 E PLEASANT PLACE | 9 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 118-03 | 8/12/2003 | SW | 18 | 1N | 8E | 2746 W ROUNDUP STREET | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 119-03 | 8/12/2003 | NE | 27 | 1N | 8E | 1258 S GOLDFIELD ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 120-03 | 8/13/2003 | SW | 18 | 1N | 8E | 1332 N WARNER DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 121-03 | 8/14/2003 | NW | 12 | 1N | 8E | 5505 E MINING CAMP STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 122-03 | 8/15/2003 | SE | 9 | 1S | 9E | 10487 E BREATHLESS DRIVE | 20 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 123-03 | 8/15/2003 | NE | 22 | 1N | 8E | 246 N GOLDFIELD ROAD | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1984 |
| 124-03 | 8/18/2003 | SW | 21 | 1N | 8E | 127 S OUTPOST ROAD | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1983 |
| 125-03 | 8/18/2003 | SE | 9 | 1S | 9E | 6743 S LAZY LANE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 126-03 | 8/18/2003 | NE | 23 | 1N | 8E | 585 N MULESHOE ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 127-03 | 8/19/2003 | NE | 25 | 1N | 7E | 11451 E BROADWAY ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1972 |
| 128-03 | 8/20/2003 | SE | 9 | 1S | 9E | 10869 E PLEASANT PLACE | 20 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 129-03 | 8/22/2003 | NW | 19 | 1N | 8E | 2853 W OHIO STREET | 16 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1970 |
| 130-03 | 8/23/2003 | NE | 9 | 1S | 9E | 10605 E CORDOVA AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 131-03 | 8/27/2003 | NE | 30 | 1N | 8E | 1910 W 9TH AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 132-03 | 8/27/2003 | SW | 17 | 1N | 8E | 1448 W ROUNDUP STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 133-03 | 8/28/2003 | SE | 9 | 1S | 9E | 11122 E SLEEPY HOLLOW TRAIL | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 134-03 | 9/1/2003 | SE | 20 | 1N | 8E | 452 S OLMO CIRCLE | 20 | MAIN REPLACEMENT | X | | | | | | | | | | 2 | BLE POLY | 2 | 1977 |
| 135-03 | 9/2/2003 | NE | 19 | 1N | 8E | 546 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 136-03 | 9/8/2003 | SE | 9 | 1S | 9E | 11125 E PLEASANT PLACE | 12 | SERVICE REPLACEMENT | | | | | | | | 4 | POLY | 1 | | | | 1981 |
| 137-03 | 9/8/2003 | NE | 25 | 1N | 8E | 5980 E 14TH AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 138-03 | 9/8/2003 | NW | 13 | 1N | 8E | VAL VISTA ROAD & HIDALGO STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1959 |
| 139-03 | 9/9/2003 | NW | 19 | 1N | 8E | 518 N DESERT VIEW DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1959 |
| 140-03 | 9/9/2003 | SW | 18 | 1N | 8E | 2926 W ROUNDUP STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 141-03 | 9/10/2003 | SE | 14 | 1N | 8E | 1324 N BOYD ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 142-03 | 9/11/2003 | NW | 13 | 1N | 8E | 5251 E PIONEER STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1985 |
| 143-03 | 9/11/2003 | SE | 19 | 1N | 8E | 681 W 23RD AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 144-03 | 9/12/2003 | SW | 9 | 1S | 9E | 9841 E SLEEPY HOLLOW TRAIL | 32 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 145-03 | 9/15/2003 | NW | 27 | 1N | 8E | 2235 E 12TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 146-03 | 9/15/2003 | SE | 9 | 1S | 9E | 6379 S LAZY LANE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 147-03 | 9/16/2003 | SW | 13 | 1N | 7E | 523 N 110TH STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1964 |
| 148-03 | 9/18/2003 | SE | 9 | 1S | 9E | 11035 E SLEEPY HOLLOW TRAIL | 44 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 049-03 | 9/19/2003 | SE | 9 | 1S | 9E | 10916 E BREATHLESS DRIVE | 14 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 150-03 | 9/26/2003 | NW | 12 | 1N | 8E | 3316 N VAL VISTA ROAD | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 151-03 | 9/26/2003 | NW | 13 | 1N | 8E | 5075 E PIONEER STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 152-03 | 9/29/2003 | NW | 27 | 1N | 8E | 1029 S VISTA ROAD | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1975 |
| 153-03 | 9/30/2003 | SE | 22 | 1N | 8E | 549 S STARR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 154-03 | 10/1/2003 | NW | 25 | 1N | 8E | 5772 E 10TH AVENUE | 21 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |
| 155-03 | 10/1/2003 | NE | 29 | 1N | 8E | 1519 S SAN MARCOS DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1976 |
| 156-03 | 10/1/2003 | SW | 13 | 1N | 8E | 1025 N MOUNTAIN VIEW ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1969 |
| 157-03 | 10/1/2003 | NE | 27 | 1N | 8E | 1441 S CORTEZ ROAD | 21 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 158-03 | 10/3/2003 | SW | 6 | 1N | 8E | 2877 W KANIKSU STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 159-03 | 10/3/2003 | NE | 17 | 1N | 8E | 226 W FOOTHILL STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 160-03 | 10/6/2003 | SE | 29 | 1N | 8E | 1620 S PLAZA DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1965 |
| 161-03 | 10/8/2003 | NE | 25 | 1N | 8E | 1375 S PROSPECTOR ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1980 |
| 162-03 | 10/8/2003 | NE | 21 | 1N | 8E | 1468 E SCENIC STREET | 20 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1964 |
| 163-03 | 10/10/2003 | SW | 21 | 1N | 8E | 255 S WINCHESTER ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 164-03 | 10/14/2003 | SW | 13 | 1N | 8E | 5331 E MANZANITA STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1969 |
| 165-03 | 10/14/2003 | NE | 13 | 1N | 8E | 5775 E WINDSONG STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 166-03 | 10/15/2003 | NE | 27 | 1N | 8E | 2965 E 13TH AVENUE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1985 |
| 167-03 | 10/17/2003 | SE | 29 | 1N | 8E | 415 W 16TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1965 |
| 168-03 | 10/17/2003 | NE | 13 | 1N | 8E | 5786 E PIONEER STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 169-03 | 10/22/2003 | SE | 20 | 1N | 8E | 725 W APACHE TRAIL | 36 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 2 | | | | 1979 |
| 170-03 | 10/22/2003 | SW | 13 | 1N | 7E | 415 N 111TH STREET | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1964 |
| 171-03 | 10/23/2003 | SW | 17 | 1N | 8E | 1037 N VALLEY ROAD | 4 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1973 |
| 172-03 | 10/28/2003 | NE | 24 | 1N | 8E | 6100 E CHOLLA STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173-03 | 10/29/2003 | NE | 20 | 1N | 8E | 530 W APACHE TRAIL | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1984 |
| 174-03 | 10/30/2003 | SW | 19 | 1N | 8E | 450 S WARNER DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1995 |
| 175-03 | 10/30/2003 | NE | 25 | 1N | 7E | 11429 E CRESCENT AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 176-03 | 10/30/2003 | NE | 20 | 1N | 8E | 530 W APACHE TRAIL | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1984 |
| 177-03 | 11/3/2003 | SW | 9 | 1S | 9E | 10233 E SLEEPY HOLLOW TRAIL | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 178-03 | 11/9/2003 | NW | 17 | 1N | 8E | 1988 N VALLEY ROAD | 22 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 179-03 | 11/10/2003 | NE | 19 | 1N | 8E | 431 N DELAWARE DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1962 |
| 180-03 | 11/12/2003 | SW | 25 | 1N | 7E | SIGNAL BUTTE ROAD & GROVE STREET | 28 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1975 |
| 181-03 | 11/12/2003 | SW | 6 | 1N | 8E | MERIDIAN ROAD & MCKELLIPS ROAD | 40 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1978 |
| 182-03 | 11/18/2003 | SE | 12 | 1N | 8E | 5947 E SINGLETREE STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 183-03 | 11/19/2003 | SE | 23 | 1N | 8E | MULESHOE ROAD & BROADWAY AVENUE | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1975 |
| 184-03 | 11/19/2003 | NW | 30 | 1N | 8E | 1500 S WARNER DRIVE | 12 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1977 |
| 185-03 | 11/20/2003 | SE | 14 | 1N | 8E | 933 N ARROYO ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 186-03 | 11/21/2003 | SE | 14 | 1N | 7E | QUARTERLINE ROAD & SIGNAL BUTTE ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1970 |
| 187-03 | 11/26/2003 | NE | 13 | 1N | 8E | 1791 N GERONIMO ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1976 |
| 188-03 | 12/1/2003 | NE | 30 | 1N | 8E | 988 S SAGUARO DRIVE | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 189-03 | 12/2/2003 | SE | 13 | 1N | 8E | 1075 N BUCKSKIN ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 190-03 | 12/3/2003 | SE | 24 | 1N | 7E | 11312 E 6TH AVENUE | 10 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1963 |
| 191-03 | 12/3/2003 | SE | 24 | 1N | 7E | 11312 E 6TH AVENUE | 10 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1963 |
| 192-03 | 12/4/2003 | NE | 24 | 1N | 7E | 110 N 114TH STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 193-03 | 12/8/2003 | NW | 25 | 1N | 8E | 4860 E 12TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1983 |
| 194-03 | 12/11/2003 | NE | 13 | 1N | 8E | 5885 E WINDSONG STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 195-03 | 12/12/2003 | NE | 21 | 1N | 8E | 881 E SCENIC STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 196-03 | 12/12/2003 | SW | 9 | 1S | 9E | 10412 E HUMMINGBIRD LANE | 8 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 197-03 | 12/19/2003 | SE | 24 | 1N | 8E | 5768 E CALLE MIRAGE | 20 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1983 |
| 198-03 | 12/29/2003 | SE | 20 | 1N | 8E | 772 W ROSAL CIRCLE | 16 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 199-03 | 12/31/2003 | SE | 20 | 1N | 8E | 722 W ROSAL CIRCLE | 12 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 001-04 | 1/2/2004 | NE | 24 | 1N | 8E | 5768 ROOSEVELT STREET | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1979 |
| 002-04 | 1/2/2004 | NW | 30 | 1N | 8E | 1342 S DESERT VIEW PLACE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 003-04 | 1/2/2004 | NE | 18 | 1N | 8E | 1870 N GRAND DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 004-04 | 1/6/2004 | NW | 14 | 1N | 7E | 10218 E ADOBE ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 005-04 | 1/8/2004 | SE | 18 | 1N | 8E | 1325 N DELAWARE DRIVE | 9 | MAIN REPAIR | | | | | | X | | | GS | 2 | | | | 1972 |
| 006-04 | 1/9/2004 | SW | 13 | 1N | 8E | 5331 E MANZANITA STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 007-04 | 1/9/2004 | SE | 24 | 1N | 8E | 4TH AVENUE & SUNSET ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1971 |
| 008-04 | 1/9/2004 | NE | 30 | 1N | 8E | S MARA DRIVE & 15TH LANE | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1985 |
| 009-04 | 1/13/2004 | NE | 25 | 1N | 8E | 1375 S PROSPECTOR ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 010-04 | 1/13/2004 | NE | 22 | 1N | 8E | 176 N ACACIA ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 011-04 | 1/15/2004 | SE | 21 | 1N | 8E | 572 S CACTUS ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 012-04 | 1/15/2004 | NE | 30 | 1N | 8E | 860 S SAGUARO DRIVE | 21 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 013-04 | 1/15/2004 | SW | 17 | 1N | 8E | 1278 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 014-04 | 1/28/2004 | SE | 24 | 1N | 8E | 5926 E EL CAMINO QUINTO #92 | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1982 |
| 015-04 | 1/28/2004 | SE | 24 | 1N | 8E | E EL CAMINO QUINTO #91 | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1982 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 016-04 | 1/28/2004 | SE | 24 | 1N | 8E | 5915 E EL CAMINO QUINTO | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1982 |
| 017-04 | 2/5/2004 | NW | 6 | 1N | 8E | 5200 N WARNER DRIVE | 6 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1983 |
| 018-04 | 2/10/2004 | NE | 30 | 1N | 8E | 1311 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 019-04 | 2/10/2004 | NE | 19 | 1N | 8E | 2300 W APACHE TRAIL | 32 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1960 |
| 020-04 | 2/17/2004 | SW | 20 | 1N | 8E | 430 S THUNDERBIRD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 021-04 | 2/25/2004 | SE | 24 | 1N | 8E | 5860 E ARROYO LINDO | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 022-04 | 2/25/2004 | SW | 25 | 1N | 7E | GROVE STREET & CAP CANAL | 15 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1985 |
| 023-04 | 3/1/2004 | NE | 20 | 1N | 8E | 800 W APACHE TRAIL | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1964 |
| 024-04 | 3/2/2004 | SW | 25 | 1N | 7E | 949 S SIGNAL BUTTE ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1973 |
| 025-04 | 3/8/2004 | NW | 8 | 1S | 7E | 8210 E MULLIGAN COURT | 32 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1996 |
| 026-04 | 3/9/2004 | NW | 27 | 1N | 8E | 2283 E BROADWAY ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1973 |
| 027-04 | 3/9/2004 | NE | 25 | 1N | 8E | 1300 S PROSPECTOR ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 028-04 | 3/9/2004 | SE | 13 | 1N | 8E | 5964 E SUPERSTITION BOULEVARD | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1982 |
| 029-04 | 3/11/2004 | SW | 13 | 1N | 7E | 10933 E ADOBE ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1996 |
| 030-04 | 3/18/2004 | NW | 12 | 1N | 8E | 3480 N VAL VISTA ROAD | 24 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 031-04 | 3/24/2004 | SW | 13 | 1N | 7E | 525 N 111TH STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1994 |
| 032-04 | 3/24/2004 | NE | 23 | 1N | 7E | 10546 E BOISE STREET | 20 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1968 |
| 033-04 | 3/30/2004 | NW | 13 | 1N | 8E | 5511 E PIONEER STREET | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1985 |
| 034-04 | 3/31/2004 | SE | 20 | 1N | 8E | 482 S OLMO CIRCLE | 9 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 035-04 | 4/5/2004 | NW | 30 | 1N | 8E | 1131 S MERIDIAN ROAD | 24 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1971 |
| 036-04 | 4/6/2004 | NW | 14 | 1N | 7E | 937 N 103RD STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 037-04 | 4/6/2004 | NW | 19 | 1N | 8E | 514 N CORNWALL DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 038-04 | 4/6/2004 | SE | 24 | 1N | 7E | 340 S MALCOLM DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 039-04 | 4/15/2004 | SW | 25 | 1N | 7E | 10919 E LA SALLE STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 040-04 | 4/20/2004 | SE | 20 | 1N | 8E | 446 S OLMO CIRCLE | 12 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 041-04 | 4/24/2004 | SW | 22 | 1N | 8E | 1712 E BROADWAY AVENUE | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1960 |
| 042-04 | 4/25/2004 | SE | 21 | 1N | 8E | 505 S ROYAL PALM ROAD | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1989 |
| 043-04 | 4/25/2004 | NW | 27 | 1N | 8E | 1070 S VISTA ROAD | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 044-04 | 4/28/2004 | SW | 30 | 1N | 8E | 1650 S CEDAR DRIVE | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 045-04 | 5/5/2004 | SE | 24 | 1N | 7E | 11412 E BROADWAY ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 046-04 | 5/14/2004 | NE | 19 | 1N | 8E | 2106 E GREGORY STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1962 |
| 047-04 | 5/14/2004 | NW | 24 | 1N | 7E | 10992 E APACHE TRAIL | 12 | OTHER | | | | | | X | | | GS | 2 | | | | 1971 |
| 048-04 | 5/17/2004 | SW | 9 | 1S | 9E | 10322 E BREATHLESS DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 049-04 | 5/17/2004 | SE | 29 | 1N | 8E | 768 & 788 W 17TH AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1965 |
| 050-04 | 5/17/2004 | NE | 21 | 1N | 8E | 275 N ROYAL PALM ROAD | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1974 |
| 051-04 | 5/18/2004 | SW | 18 | 1N | 8E | 2544 W ROUNDUP STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1985 |
| 052-04 | 5/19/2004 | SE | 9 | 1S | 9E | 10812 E SLEEPY HOLLOW TRAIL | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 053-04 | 5/21/2004 | SW | 19 | 1N | 8E | 672 S WARNER DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1995 |
| 054-04 | 5/23/2004 | SE | 9 | 1S | 9E | 10430 E BREATHLESS DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 055-04 | 5/25/2004 | NW | 12 | 1N | 8E | 3480 N VAL VISTA ROAD | 28 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 056-04 | 5/26/2004 | SE | 8 | 1S | 9E | 10012 E SLEEPY HOLLOW TRAIL | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1988 |
| 057-04 | 6/2/2004 | SW | 32 | 1N | 9E | SUPERSTITION MOUNTAIN & LOST GOLD DRIVE | 8 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 2002 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 058-04 | 6/4/2004 | SE | 13 | 1N | 8E | 1490 N LA BARGE ROAD | 18 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1974 |
| 059-04 | 6/7/2004 | NW | 19 | 1N | 8E | 2646 E GREGORY STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1959 |
| 060-04 | 6/8/2004 | SW | 13 | 1N | 8E | 5331 E MANZANITA STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1969 |
| 061-04 | 6/10/2004 | SW | 17 | 1N | 8E | 1252 N SAN MARCOS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1995 |
| 062-04 | 6/15/2004 | SW | 13 | 1N | 8E | 5331 E MANZANITA STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 063-04 | 6/16/2004 | SE | 25 | 1N | 8E | 5872 E 20TH AVENUE | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 064-04 | 6/17/2004 | SE | 9 | 1S | 9E | 6416 E HIDEAWAY LANE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 065-04 | 6/17/2004 | SW | 17 | 1N | 8E | 1448 W ROUNDUP STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 066-04 | 6/22/2004 | SW | 15 | 1N | 8E | 1330 N WICKIUP ROAD | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 067-04 | 6/22/2004 | NE | 21 | 1N | 8E | 1341 E SCENIC STREET | 20 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1964 |
| 068-04 | 6/22/2004 | SW | 15 | 1N | 8E | 1150 N WICKIUP ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 069-04 | 6/22/2004 | NW | 30 | 1N | 8E | 1477 S WARNER DRIVE | 6 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 070-04 | 6/24/2004 | NE | 25 | 1N | 8E | 5824 E 10TH AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 071-04 | 6/25/2004 | SE | 9 | 1S | 9E | 10905 E BREATHLESS DRIVE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1981 |
| 072-04 | 6/26/2004 | SE | 24 | 1N | 8E | 5763 E EL CAMINO QUINTO | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1983 |
| 073-04 | 6/26/2004 | NE | 12 | 1N | 8E | 3044 N PROSPECTOR ROAD | 6 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1974 |
| 074-04 | 6/26/2004 | SE | 12 | 1N | 8E | BOULDER DRIVE W OF PROSPECTOR ROAD | 6 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1974 |
| 075-04 | 6/29/2004 | NW | 20 | 1N | 8E | 650 N RENNICK DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 076-04 | 7/1/2004 | NE | 30 | 1N | 8E | 1023 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 077-04 | 7/1/2004 | SE | 24 | 1N | 7E | 135 S EMERALD DRIVE | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 078-04 | 7/2/2004 | SE | 29 | 1S | 8E | 1984 S BUENA VISTA DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1972 |
| 079-04 | 7/2/2004 | NE | 30 | 1N | 8E | 1019 S LAWTHER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 080-04 | 7/2/2004 | SE | 24 | 1N | 7E | 11202 E 6TH AVENUE | 16 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 081-04 | 7/7/2004 | SE | 24 | 1N | 8E | 5864 E BROADWAY AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 082-04 | 7/7/2004 | SE | 29 | 1N | 8E | 612 W 21ST AVENUE | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1977 |
| 083-04 | 7/7/2004 | SW | 30 | 1N | 8E | 1651 S CEDAR DRIVE | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 084-04 | 7/8/2004 | SE | 9 | 1N | 9E | 10674 E SUGAR CREEK DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 085-04 | 7/10/2004 | SE | 20 | 1N | 8E | 575 W APACHE TRAIL | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | GS | 2 | | | | 1962 |
| 086-04 | 7/15/2004 | SW | 6 | 1N | 8E | 2800 W WHITELEY STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1984 |
| 087-04 | 7/16/2004 | SE | 9 | 1S | 9E | 11003 E BREATHLESS DRIVE | 20 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 088-04 | 7/19/2004 | SE | 14 | 1N | 8E | 1131 N BOYD ROAD | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 089-04 | 7/20/2004 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #29 & #30 | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 090-04 | 7/26/2004 | SW | 13 | 1N | 8E | 5323 E GREASEWOOD STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 091-04 | 7/26/2004 | NW | 12 | 1N | 8E | 5453 E REAVIS STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 092-04 | 7/29/2004 | SE | 20 | 1N | 8E | NE CORNER DATIL AVENUE & SIERRA VISTA DRIVE | 40 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 093-04 | 8/4/2004 | SW | 9 | 1S | 9E | 10322 E BREATHLESS DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 094-04 | 8/9/2004 | SW | 20 | 1N | 8E | 894 W 5TH AVENUE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 095-04 | 8/9/2004 | NW | 9 | 1S | 9E | 5737 S JACARANDA ROAD | 10 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1982 |
| 096-04 | 8/10/2004 | NW | 9 | 1S | 9E | 6038 S ALAMEDA ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1983 |
| 097-04 | 8/11/2004 | NW | 25 | 1N | 8E | 5153 E 10TH AVENUE | 16 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1959 |
| 098-04 | 8/12/2004 | SW | 17 | 1N | 8E | 1341 N GOLD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 099-04 | 8/12/2004 | NW | 22 | 1N | 8E | 2055 E SCENIC STREET | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100-04 | 8/20/2004 | SE | 29 | 1N | 8E | 1780 S MONTEREY DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1978 |
| 101-04 | 8/20/2004 | SE | 20 | 1N | 8E | 100 W APACHE TRAIL | 24 | SERVICE REPLACEMENT | | | | | | X | | 11 | POLY | 3/4 | | | | 1972 |
| 102-04 | 8/20/2004 | NW | 9 | 1S | 9E | 9946 E LA PALMA AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1983 |
| 103-04 | 8/21/2004 | SW | 29 | 1N | 8E | NE CORNER IRONWOOD DRIVE & SOUTHERN AVENUE | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1975 |
| 104-04 | 8/22/2004 | SE | 9 | 1S | 9E | 10861 E SLEEPY HOLLOW TRAIL | 32 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 105-04 | 8/23/2004 | NE | 21 | 1N | 8E | 135 N ROYAL PALM ROAD | 24 | SERVICE REPLACEMENT | | | | | | X | | 3 | POLY | 1 | | | | 1974 |
| 106-04 | 8/31/2004 | SE | 24 | 1N | 7E | 4TH AVENUE & EMERALD DRIVE | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 107-04 | 8/31/2004 | SW | 25 | 1N | 7E | PUEBLO AVENUE & CAP CANAL | 15 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1985 |
| 108-04 | 9/1/2004 | SW | 9 | 1S | 9E | 6951 S TUM TUM COURT | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 109-04 | 9/1/2004 | SW | 17 | 1N | 8E | 1024 W ESCONDIDO COURT | 2 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1974 |
| 110-04 | 9/2/2004 | SW | 18 | 1N | 8E | 3082 W ROUNDUP STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 111-04 | 9/2/2004 | NE | 22 | 1N | 8E | 264 N GOLDFIELD ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1984 |
| 112-04 | 9/8/2004 | NE | 21 | 1N | 8E | 1519 S SAN MARCOS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 113-04 | 9/15/2004 | NE | 19 | 1N | 8E | 2086 W GREGORY STREET | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1962 |
| 114-04 | 9/21/2004 | NW | 20 | 1N | 8E | 681 N THUNDERBIRD DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 115-04 | 9/21/2004 | NE | 12 | 1N | 8E | 5650 E MINING CAMP STREET | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1972 |
| 116-04 | 9/21/2004 | SW | 5 | 1N | 7E | SWEET ACACIA DRIVE & DESERT WILLOW DRIVE | 63 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1993 |
| 117-04 | 9/28/2004 | NE | 12 | 1N | 8E | 3556 N PROSPECTOR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 118-04 | 9/29/2004 | NE | 17 | 1N | 8E | 2158 N APACHE DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 119-04 | 9/29/2004 | SW | 29 | 1N | 8E | IRONWOOD DRIVE S OF SOUTHERN AVENUE | 40 | MAIN REPAIR | X | | | | | | | | | | | CA | 8 | 1970 |
| 120-04 | 9/30/2004 | NW | 27 | 1N | 8E | 896 S VISTA ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 121-04 | 10/1/2004 | NE | 29 | 1N | 8E | 1316 S BUENA VISTA DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 122-04 | 10/6/2004 | SE | 18 | 1N | 8E | 924 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 123-04 | 10/8/2004 | NW | 12 | 1N | 8E | 3310 N VAL VISTA ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 124-04 | 10/13/2004 | NW | 25 | 1N | 8E | SANDSTONE COURT & 10TH AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 4 | POLY | 1 | | | | 1972 |
| 125-04 | 10/19/2004 | NW | 19 | 1N | 8E | 642 N PINAL DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 126-04 | 10/19/2004 | SW | 20 | 1N | 8E | 513 S CARDINAL DRIVE | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1961 |
| 127-04 | 10/21/2004 | SW | 21 | 1N | 8E | 127 S OUTPOST ROAD | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1983 |
| 128-04 | 10/22/2004 | NW | 12 | 1N | 8E | 5301 E SINGLETREE STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | CU | 1 | | | | 2001 |
| 129-04 | 10/25/2004 | SW | 25 | 1N | 8E | 1691 S SIXSHOOTER ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 3 | POLY | 1 | | | | 1986 |
| 130-04 | 11/4/2004 | SE | 24 | 1N | 7E | 6TH DRIVE & ELMONT DRIVE | 56 | MAIN REPLACEMENT | X | | | | | | | | | | | GS | 2 | 1955 |
| 131-04 | 11/15/2004 | SW | 14 | 1N | 7E | 450 N 101ST PLACE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 132-04 | 11/16/2004 | SE | 22 | 1N | 8E | 2920 E 2ND AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1968 |
| 133-04 | 11/16/2004 | SW | 13 | 1N | 8E | 1050 N SIXSHOOTER ROAD | 4 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1970 |
| 134-04 | 11/18/2004 | SE | 9 | 1S | 9E | 10621 E SUGAR CREEK DRIVE | 15 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 135-04 | 11/19/2004 | SW | 14 | 1N | 7E | 535 N MERRILL ROAD | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 136-04 | 11/26/2004 | SE | 24 | 1N | 7E | 11335 E 5TH AVENUE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 137-04 | 11/29/2004 | SE | 24 | 1N | 8E | 5901 E ARROYO LINDO | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 138-04 | 12/9/2004 | NW | 22 | 1N | 8E | 532 N VISTA ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1960 |
| 139-04 | 12/13/2004 | NE | 30 | 1N | 8E | 1149 S LAWTHER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 140-04 | 12/15/2004 | NW | 30 | 1N | 8E | 1586 S HALE DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 141-04 | 12/18/2004 | SE | 24 | 1N | 8E | 418 S PROSPECTOR ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 142-04 | 12/18/2004 | SE | 8 | 1S | 9E | 9102 E CALLE LUNA | 32 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1983 |
| 143-04 | 12/20/2004 | NE | 23 | 1N | 7E | 105TH PLACE & BOULDER DRIVE | 20 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1968 |
| 144-04 | 12/22/2004 | SE | 7 | 1S | 9E | N SIDE US 60 & MOUNTAIN BROOK GOLF COURSE | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1985 |
| 145-04 | 12/29/2004 | SW | 30 | 1N | 8E | MERIDIAN ROAD N OF SOUTHERN AVENUE | 40 | MAIN REPAIR | X | | | | | | | | | | 400 | DIP | 12 | 1996 |
| 001-05 | 1/3/2005 | NE | 26 | 1N | 7E | 522 S SIGNAL BUTTE ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1961 |
| 002-05 | 1/7/2005 | SW | 6 | 1S | 9E | MOUNTAIN BROOK GOLF COURSE | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 003-05 | 1/10/2005 | NW | 30 | 1N | 8E | 1584 S CEDAR DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 004-05 | 1/10/2005 | SE | 24 | 1N | 7E | EMERALD DRIVE & 4TH AVENUE | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 005-05 | 1/16/2005 | NE | 26 | 1N | 7E | IN ALLEY BETWEEN 107TH STREET & BROADWAY AVE | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1961 |
| 006-05 | 1/24/2005 | SE | 14 | 1N | 7E | 10711 E ADOBE ROAD | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 007-05 | 2/3/2005 | NE | 27 | 1N | 8E | 974 S STARR ROAD | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 008-05 | 2/8/2005 | SE | 29 | 1N | 8E | 401 W 23RD AVENUE | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1978 |
| 009-05 | 2/8/2005 | SW | 25 | 1N | 7E | 11001 E GROVE STREET BEHIND HOUSE | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1985 |
| 010-05 | 2/12/2005 | SE | 22 | 1N | 8E | HILTON ROAD & 7TH AVENUE | 15 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 011-05 | 2/18/2005 | NW | 20 | 1N | 8E | 840 W APACHE TRAIL | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 012-05 | 2/24/2005 | NW | 22 | 1N | 8E | CHAPARRAL ROAD & SCENIC STREET | 18 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1978 |
| 013-05 | 2/28/2005 | SE | 24 | 1N | 7E | 232 S MALCOLM DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1974 |
| 014-05 | 3/9/2005 | SW | 22 | 1N | 8E | BROADWAY AVENUE & VISTA ROAD | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1960 |
| 015-05 | 3/11/2005 | NW | 23 | 1N | 7E | 10356 E BOISE STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1966 |
| 016-05 | 3/15/2005 | NE | 24 | 1N | 7E | 11250 E APACHE TRAIL | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 017-05 | 3/16/2005 | SE | 14 | 1N | 7E | 107TH STREET & ADOBE ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1982 |
| 018-05 | 3/17/2005 | NE | 29 | 1N | 8E | 1395 S SAN MARCOS DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1976 |
| 019-05 | 3/17/2005 | SW | 17 | 1N | 8E | 1381 W ROUNDUP STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 4 | POLY | 1 | | | | 1970 |
| 020-05 | 3/17/2005 | NW | 17 | 1N | 8E | 1813 N IRONWOOD DRIVE | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 021-05 | 3/17/2005 | SW | 22 | 1N | 8E | BROADWAY AVENUE & VISTA ROAD | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1960 |
| 022-05 | 3/22/2005 | NW | 25 | 1N | 7E | DELTA AVENUE & PARKWOOD RANCH | 24 | MAIN REPAIR | X | | | | | | | | | | | DIP | 8 | 1998 |
| 023-05 | 3/26/2005 | NW | 23 | 1N | 7E | BOISE STREET EAST OF MERRILL ROAD | 32 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 2002 |
| 024-05 | 3/28/2005 | SE | 17 | 1N | 8E | 701 W TEPEE STREET | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1977 |
| 025-05 | 3/29/2005 | SE | 13 | 1N | 8E | 5767 E ROUNDUP STREET | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 026-05 | 3/30/2005 | SW | 13 | 1N | 8E | 5430 E SHIPROCK STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1963 |
| 027-05 | 3/31/2005 | SE | 20 | 1N | 8E | 450 S OLMO CIRCLE | 16 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1976 |
| 028-05 | 4/8/2005 | NE | 17 | 1N | 8E | 181 W WINDSONG STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 029-05 | 4/13/2005 | NE | 8 | 1S | 9E | KINGS RANCH ROAD & AVENIDA LA MANANA | 8 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1979 |
| 030-05 | 4/18/2005 | SE | 24 | 1S | 7E | 31 S EMERALD DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1970 |
| 031-05 | 5/2/2005 | NE | 30 | 1N | 8E | 1555 S OCOTILLO DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 032-05 | 5/2/2005 | NE | 30 | 1N | 8E | 1453 S OCOTILLO DRIVE | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 033-05 | 5/9/2005 | NE | 29 | 1N | 8E | 1332 & 1354 S BUENA VISTA DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1976 |
| 034-05 | 5/10/2005 | SW | 18 | 1N | 8E | 1222 N WARNER DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 035-05 | 5/12/2005 | NE | 23 | 1N | 7E | 10544 E BOULDER DRIVE | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1996 |
| 036-05 | 5/17/2005 | NE | 24 | 1N | 7E | 104 N 114TH STREET | 4 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 037-05 | 5/19/2005 | NW | 22 | 1N | 8E | 2151 E SCENIC STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 038-05 | 5/20/2005 | SE | 22 | 1N | 8E | 538 S ACACIA ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 039-05 | 5/23/2005 | SW | 13 | 1N | 7E | 444 N 112TH STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1964 |
| 040-05 | 5/24/2005 | SE | 9 | 1S | 9E | 11014 E SLEEPY HOLLOW TRAIL | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 041-05 | 5/24/2005 | SW | 20 | 1N | 8E | 305 S COPPER DRIVE | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1970 |
| 042-05 | 5/31/2005 | NE | 27 | 1N | 8E | 2706 E 10TH AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 043-05 | 5/31/2005 | NW | 22 | 1N | 8E | 256 N CHAPARRAL ROAD | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 044-05 | 6/7/2005 | SE | 9 | 1S | 9E | 10995 E PLEASANT PLACE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 045-05 | 6/10/2005 | SE | 25 | 1N | 8E | 5798 E SOUTHERN AVENUE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | CU | 1 | | | | 1987 |
| 046-05 | 6/13/2005 | NW | 14 | 1N | 7E | 10208 E ADOBE ROAD | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 047-05 | 6/20/2005 | SE | 9 | 1S | 9E | 10734 E BREATHLESS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 048-05 | 6/27/2005 | SE | 20 | 1N | 8E | 180 N APACHE TRAIL | 25 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1962 |
| 049-05 | 6/28/2005 | NE | 30 | 1N | 8E | 1567 S LAWTHER DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 050-05 | 6/28/2005 | SE | 22 | 1N | 8E | 2624 E BROADWAY AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 051-05 | 7/6/2005 | NE | 30 | 1N | 8E | 1951 W 9TH AVENUE | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1971 |
| 052-05 | 7/7/2005 | NE | 13 | 1N | 7E | 11312 E ENROSE STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 1 | | | | 2002 |
| 053-05 | 7/8/2005 | SW | 9 | 1S | 9E | 6373 S ALAMEDA ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1980 |
| 054-05 | 7/8/2005 | SW | 29 | 1N | 8E | 2373 S CARDINAL DRIVE | 4 | SERVICE REPAIR | | | | | | | | | CU | 1 | | | | 2004 |
| 055-05 | 7/11/2005 | SW | 13 | 1N | 8E | 5471 E SHIPROCK STREET | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 056-05 | 7/13/2005 | NW | 25 | 1N | 7E | 10932 E CLOVIS AVENUE | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1999 |
| 057-05 | 7/18/2005 | NW | 9 | 1S | 9E | 5599 S ALAMEDA ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1982 |
| 058-05 | 7/19/2005 | NW | 19 | 1N | 8E | 342 N PINYON DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 059-05 | 7/21/2005 | NE | 9 | 1S | 9E | 10585 E LA PALMA AVENUE | 10 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1979 |
| 060-05 | 7/25/2005 | SE | 9 | 1S | 9E | 10712 E HUMMINGBIRD LANE | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 061-05 | 7/25/2005 | NE | 25 | 1N | 8E | 907 S GERONIMO ROAD | 14 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 062-05 | 7/25/2005 | SE | 20 | 1N | 8E | BETWEEN WELLS FARGO & CHAMBER OF COMMERCE | 8 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1962 |
| 063-05 | 7/26/2005 | NW | 17 | 1N | 8E | 1937 N VALLEY DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 064-05 | 7/26/2005 | SE | 29 | 1N | 8E | 1877 S SAN MARCOS DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 065-05 | 7/28/2005 | NW | 9 | 1S | 9E | 5557 S ALAMEDA ROAD | 4 | SERVICE REPAIR | | | | | | | | | POLY | 1 | | | | 1982 |
| 066-05 | 7/28/2005 | SW | 22 | 1N | 8E | 2225 E JUNCTION STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1978 |
| 067-05 | 7/29/2005 | SW | 22 | 1N | 8E | 2161 E JUNCTION STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 068-05 | 7/29/2005 | SW | 18 | 1N | 8E | 2655 W MOCKINGBIRD STREET | 6 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 069-05 | 8/2/2005 | NE | 24 | 1N | 7E | 11425 E UNIVERSITY DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | | GS | 2 | | | | 1972 |
| 070-05 | 8/8/2005 | SE | 20 | 1N | 8E | 231 S PHELPS DRIVE | 4 | MAIN REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 071-05 | 8/11/2005 | NW | 30 | 1N | 8E | 896 S CEDAR DRIVE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 072-05 | 8/12/2005 | SE | 20 | 1N | 8E | OLMO CIRCLE & 5TH AVENUE | 40 | MAIN REPLACEMENT | X | | | | | | | | | | 27 | BLE POLY | 2 | 1976 |
| 073-05 | 8/16/2005 | SE | 20 | 1N | 8E | ROSAL AVENUE & SIERRA VISTA DRIVE | 15 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 074-05 | 8/22/2005 | NE | 27 | 1N | 8E | 1271 S STARR ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1974 |
| 075-05 | 8/22/2005 | SE | 18 | 1N | 8E | 1930 W ROUNDUP STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 076-05 | 8/25/2005 | SE | 24 | 1N | 8E | 5840 E EL CAMINO QUINTO | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1982 |
| 077-05 | 8/26/2005 | NW | 9 | 1S | 9E | 9832 E LA PALMA AVENUE | 9 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1983 |
| 078-05 | 8/26/2005 | SE | 20 | 1N | 8E | 431 W APACHE TRAIL | 18 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 079-05 | 8/31/2005 | NE | 5 | 1S | 9E | 4236 S CAMINO DE VIDA | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 1 | | | | 1998 |
| 080-05 | 9/2/2005 | SE | 22 | 1N | 8E | 232 S HILTON ROAD | 20 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1987 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 081-05 | 9/8/2005 | SW | 33 | 1N | 9E | LATHAM WAY | 8 | OTHER | | | | | | | | 4 | CU | 1 | | | | 2003 |
| 082-05 | 9/12/2005 | SE | 9 | 1S | 9E | 6445 S LAZY LANE | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 083-05 | 9/12/2005 | SE | 20 | 1N | 8E | ROSAL AVENUE & SIERRA VISTA DRIVE | 16 | MAIN REPAIR | X | | | | | | | | | | | BLE POLY | 2 | 1977 |
| 084-05 | 9/14/2005 | SW | 18 | 1N | 8E | 929 N WARNER DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1972 |
| 085-05 | 9/15/2005 | SE | 9 | 1S | 9E | 11070 E BREATHLESS DRIVE | 6 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1981 |
| 086-05 | 9/19/2005 | NE | 27 | 1N | 8E | 1575 S CORTEZ ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3 | | | | 1974 |
| 087-05 | 9/19/2005 | NE | 27 | 1N | 8E | 1059 S HILTON ROAD | 4 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3 | | | | 1980 |
| 088-05 | 9/19/2005 | SW | 13 | 1N | 8E | GREASEWOOD STREET & AL SIEBER ROAD | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3 | | | | 1984 |
| 089-05 | 9/20/2005 | SE | 20 | 1N | 8E | PHELPS DRIVE | 10 | SERVICE REPAIR | | | | | | | | | CU | 2 | | | | 1976 |
| 090-05 | 9/20/2005 | NE | 24 | 1N | 7E | 11313 E BOISE STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 091-05 | 9/20/2005 | SE | 13 | 1N | 8E | 5962 E SIESTA STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3 | | | | 1978 |
| 092-05 | 9/21/2005 | NE | 13 | 1N | 8E | 5850 E CONCHO STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1960 |
| 093-05 | 9/23/2005 | NW | 12 | 1N | 8E | 5586 E MINING CAMP STREET | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1977 |
| 094-05 | 9/27/2005 | NE | 19 | 1N | 8E | GREGORY STREET & PALO VERDE DRIVE | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1962 |
| 095-05 | 9/30/2005 | SE | 9 | 1S | 9E | 10576 E SLEEPY HOLLOW TRAIL | 16 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1981 |
| 096-05 | 10/4/2005 | NE | 26 | 1N | 7E | 514 S 107TH STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1972 |
| 097-05 | 10/11/2005 | SW | 20 | 1N | 8E | 198 S THUNDERBIRD DRIVE | 24 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1961 |
| 098-05 | 10/13/2005 | NE | 29 | 1N | 8E | 1434 S BUENA VISTA DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 099-05 | 10/13/2005 | NW | 27 | 1N | 8E | 2038 N 14TH AVENUE | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1981 |
| 100-05 | 10/21/2005 | NE | 22 | 1N | 8E | 472 N HILTON ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1968 |
| 101-05 | 10/25/2005 | NW | 20 | 1N | 8E | 231 N THUNDERBIRD DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 102-05 | 10/27/2005 | SW | 17 | 1N | 8E | 1031 W ESCONDIDO COURT | 10 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1974 |
| 103-05 | 11/1/2005 | NE | 21 | 1N | 8E | 1335 E SCENIC STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 104-05 | 11/1/2005 | NE | 13 | 1N | 7E | 11354 E FOX STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 2002 |
| 105-05 | 11/3/2005 | SE | 12 | 1N | 8E | 2880 N LA BARGE ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1965 |
| 106-05 | 11/14/2005 | SW | 17 | 1N | 8E | 930 W ROUNDUP STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 107-05 | 11/15/2005 | NE | 23 | 1N | 7E | 343 & 350 N JAMES COURT | 14 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1975 |
| 108-05 | 11/17/2005 | NW | 27 | 1N | 8E | 2038 E 14TH AVENUE | 12 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1981 |
| 109-05 | 11/18/2005 | SE | 20 | 1N | 8E | 740 S PAUSTAIN CIRCLE | 12 | OTHER | | | | | | | | 2 | CU | 1 | | | | 2005 |
| 110-05 | 11/21/2005 | SE | 24 | 1N | 7E | 158 S ELMONT DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1972 |
| 111-05 | 11/28/2005 | SW | 30 | 1N | 8E | 16TH AVENUE EAST OF CEDAR DRIVE | 12 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1974 |
| 112-05 | 11/30/2005 | SW | 13 | 1N | 7E | 429 N 111TH STREET | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 113-05 | 12/5/2005 | NE | 21 | 1N | 8E | CACTUS ROAD & ROOSEVELT STREET | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1978 |
| 114-05 | 12/6/2005 | SW | 13 | 1N | 8E | 5086 E RAWHIDE STREET | 8 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1966 |
| 115-05 | 12/12/2005 | NE | 30 | 1N | 8E | 960 S MARA DRIVE | 4 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 116-05 | 12/16/2005 | NE | 18 | 1N | 8E | 1804 W TEPEE STREET | 21 | SERVICE REPLACEMENT | | | | | | | | 4 | POLY | 1 | | | | 1975 |
| 117-05 | 12/19/2005 | NW | 27 | 1N | 8E | 2286 E 14TH AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 118-05 | 12/28/2005 | SE | 9 | 1S | 9E | 6497 S LAZY LANE | 24 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1981 |
| 119-05 | 12/29/2005 | SE | 13 | 1N | 8E | 1255 N SUNSET ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 120-05 | 12/29/2005 | NW | 22 | 1N | 8E | 77 N TOMAHAWK ROAD | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 001-06 | 1/3/2006 | NE | 13 | 1N | 8E | 1775 N PROSPECTOR ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1966 |
| 002-06 | 1/4/2006 | NW | 14 | 1N | 7E | 890 N 103RD STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 003-06 | 1/5/2006 | SW | 13 | 1N | 8E | 974 N AL SIEBER ROAD | 21 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1959 |
| 004-06 | 1/9/2006 | SW | 17 | 1N | 8E | 1022 W ESCONDIDO COURT | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 005-06 | 1/10/2006 | NE | 18 | 1N | 8E | 1911 N MAIN DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1975 |
| 006-06 | 1/13/2006 | SW | 25 | 1N | 7E | 11102 E GROVE STREET | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 007-06 | 1/19/2006 | NW | 14 | 1N | 7E | 1326 E ADOBE ROAD | 24 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1973 |
| 008-06 | 1/19/2006 | NE | 18 | 1N | 8E | 1901 N GRAND DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 1 | | | | 1978 |
| 009-06 | 1/23/2006 | NE | 27 | 1N | 8E | 2726 E 12TH AVENUE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 010-06 | 1/26/2006 | NE | 30 | 1N | 8E | 1091 S OCOTILLO DRIVE | 4 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 011-06 | 1/28/2006 | NE | 24 | 1N | 7E | 11425 E UNIVERSITY DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | | 1970 |
| 012-06 | 1/28/2006 | SW | 16 | 1S | 9E | 9826 E PROSPECTOR ROAD | 20 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 1 | | | | 2005 |
| 013-06 | 2/1/2006 | NE | 17 | 1N | 8E | 288 W SMOKETREE STREET | 10 | OTHER | | | | | | X | | | POLY | 1 | | | | 1977 |
| 014-06 | 2/6/2006 | NE | 25 | 1N | 7E | 11402 E WEIR AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1979 |
| 015-06 | 2/6/2006 | SE | 9 | 1S | 9E | 10568 E BREATHLESS DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 016-06 | 2/6/2006 | NW | 12 | 1N | 8E | 5650 E MINING CAMP STREET | 12 | MAIN REPAIR | | | | X | | | | | | | | GS | 2 | 1977 |
| 017-06 | 2/9/2006 | NW | 27 | 1N | 8E | 2286 E 14TH AVENUE | 8 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1980 |
| 018-06 | 2/13/2006 | SE | 24 | 1N | 7E | 135 S EMERALD DRIVE | 8 | MAIN REPAIR | | | | X | | | | | | | | GS | 2 | 1955 |
| 019-06 | 2/13/2006 | SW | 21 | 1N | 8E | ROYAL PALM ROAD & BROADWAY AVENUE | 18 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1979 |
| 020-06 | 2/15/2006 | NW | 23 | 1N | 8E | 3945 E UNIVERSITY DRIVE | 8 | SERVICE REPAIR | | | | | | X | | 1 | CU | 1 | | | | 1995 |
| 021-06 | 2/15/2006 | NE | 23 | 1N | 7E | 10540 E APACHE TRAIL | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 022-06 | 2/17/2006 | NE | 30 | 1N | 8E | 1798 W 13TH AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1979 |
| 023-06 | 2/21/2006 | SW | 30 | 1N | 8E | 1775 S LAWSON DRIVE | 4 | SERVICE REPAIR | | | X | X | X | | | | CU | 3/4 | | | | 1989 |
| 024-06 | 2/27/2006 | SW | 9 | 1S | 9E | 6314 S EAGLE PASS ROAD | 4 | SERVICE REPAIR | | | | | X | | | | CU | 1 | | | | 2005 |
| 025-06 | 2/27/2006 | NE | 30 | 1N | 8E | 1798 W 13TH AVENUE | 24 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1979 |
| 026-06 | 3/1/2006 | NW | 22 | 1N | 8E | 245 N TOMAHAWK ROAD | 4 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1960 |
| 027-06 | 3/1/2006 | NW | 19 | 1N | 8E | 2539 W SCENIC STREET | 4 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1962 |
| 028-06 | 3/2/2006 | SE | 18 | 1N | 8E | 1835 W SHIPROCK STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1973 |
| 029-06 | 3/2/2006 | SW | 19 | 1N | 8E | 543 S CORNWALL DRIVE | 6 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1983 |
| 030-06 | 3/3/2006 | NE | 30 | 1N | 8E | 1900 W 13TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1979 |
| 031-06 | 3/6/2006 | NE | 7 | 1S | 9E | 7576 E WHISPERING MESQUITE LANE | 6 | SERVICE REPAIR | | | X | X | X | | | | CU | 3/4 | | | | 1995 |
| 032-06 | 3/13/2006 | SW | 22 | 1N | 8E | TOMAHAWK ROAD & VISTA ROAD | 42 | MAIN REPLACEMENT | | | | X | | | | | | | 10 | CA | 6 | 1960 |
| 033-06 | 3/14/2006 | NE | 25 | 1N | 7E | 11511 E BROADWAY ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1969 |
| 034-06 | 3/23/2006 | SE | 29 | 1N | 8E | 1861 S SAN MARCOS DRIVE | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 035-06 | 3/24/2006 | SE | 24 | 1N | 7E | 107 S MOUNTAIN ROAD | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1963 |
| 036-06 | 3/27/2006 | SE | 21 | 1N | 8E | 1136 E 4TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1986 |
| 037-06 | 3/27/2006 | SW | 19 | 1N | 8E | 543 S CORNWALL DRIVE | 6 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1983 |
| 038-06 | 3/27/2006 | SE | 9 | 1S | 9E | 10762 E SLEEPY HOLLOW TRAIL | 8 | SERVICE REPAIR | | | | | X | | | 2 | CU | 1 | | | | 1991 |
| 039-06 | 3/29/2006 | SW | 19 | 1N | 8E | BROADWAY AVENUE & MERIDIAN ROAD | 8 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1984 |
| 040-06 | 4/7/2006 | SE | 13 | 1N | 8E | 1544 N CHARLEBOIS AVENUE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 041-06 | 4/11/2006 | NW | 25 | 1N | 8E | 1075 S MOUNTAIN VIEW ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 042-06 | 4/12/2006 | NE | 13 | 1N | 7E | 11364 E FAIRBROOK STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 1 | | | | 2002 |
| 043-06 | 4/12/2006 | NE | 13 | 1N | 7E | 11331 E FAIRBROOK STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 1 | | | | 2002 |
| 044-06 | 4/18/2006 | NW | 9 | 1S | 9E | 9870 E LA PALMA AVENUE | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1985 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 045-06 | 4/19/2006 | SW | 13 | 1N | 8E | 1266 N GERONIMO ROAD | 20 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 046-06 | 4/19/2006 | SE | 9 | 1S | 9E | 10762 E SLEEPY HOLLOW TRAIL | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | CU | 1 | | | | 1991 |
| 047-06 | 4/26/2006 | NE | 13 | 1N | 8E | PIONEER STREET & GERONIMO ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 048-06 | 4/27/2006 | NE | 23 | 1N | 8E | 534 N MOUNTAIN VIEW ROAD | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 049-06 | 4/29/2006 | NW | 30 | 1N | 8E | 953 S WARNER DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1976 |
| 050-06 | 5/9/2006 | SE | 9 | 1S | 9E | 6963 S LAZY LANE | 14 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 051-06 | 5/17/2006 | NW | 17 | 1N | 8E | 1075 W SMOKETREE STREET | 10 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1987 |
| 052-06 | 5/17/2006 | SE | 13 | 1N | 8E | ROUNDUP STREET & MANZANITA STREET | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1971 |
| 053-06 | 5/23/2006 | SW | 22 | 1N | 8E | 185 N CONESTOGA ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 054-06 | 5/24/2006 | NE | 18 | 1N | 8E | 2321 N GRAND DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 055-06 | 6/5/2006 | NE | 30 | 1N | 8E | 1589 S LAWTHER DRIVE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 056-06 | 6/6/2006 | NW | 27 | 1N | 8E | 1029 S VISTA ROAD | 21 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 057-06 | 6/8/2006 | SE | 29 | 1N | 8E | 341 W 23RD AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 058-06 | 6/9/2006 | NW | 22 | 1N | 8E | 1676 E SCENIC STREET | 24 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1964 |
| 059-06 | 6/9/2006 | SW | 9 | 1S | 9E | 9702 E SLEEPY HOLLOW TRAIL | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 060-06 | 6/12/2006 | NW | 24 | 1N | 7E | 311 N 110TH STREET | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 061-06 | 6/13/2006 | SE | 24 | 1N | 7E | 11550 E 5TH AVENUE | 40 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1963 |
| 062-06 | 6/14/2006 | NW | 30 | 1N | 8E | 1665 S MERIDIAN ROAD | 16 | MAIN REPAIR | | | | X | | | | | | | | CA | 6 | 1974 |
| 063-06 | 6/16/2006 | SE | 29 | 1N | 8E | 485 W 16TH AVENUE | 18 | SERVICE REPAIR | | | X | X | X | | | | CU | 1 | | | | 1963 |
| 064-06 | 6/20/2006 | NW | 25 | 1N | 7E | 11044 E VINE AVENUE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1976 |
| 065-06 | 6/20/2006 | NE | 19 | 1N | 8E | 610 N OCOTILLO DRIVE | 9 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1963 |
| 066-06 | 6/21/2006 | NW | 9 | 1S | 9E | 10145 E AGUA VISTA WAY | 15 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1982 |
| 067-06 | 6/27/2006 | SE | 14 | 1N | 8E | 1244 N BOYD ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1981 |
| 068-06 | 6/29/2006 | NE | 13 | 1N | 8E | CONCHO STREET & SUNSET ROAD | 9 | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1960 |
| 069-06 | 6/30/2006 | NE | 13 | 1N | 8E | 5936 E WINDSONG STREET | 9 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 070-06 | 7/10/2006 | SE | 5 | 1S | 9E | 5379 S JUNIPER HILLS DRIVE | 24 | MAIN REPAIR | | | | X | | | | | | | | DIP | 8 | 1993 |
| 071-06 | 7/11/2006 | NW | 9 | 1S | 9E | 9750 E LA PALMA AVENUE #2 | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 072-06 | 7/13/2006 | NW | 17 | 1N | 8E | 1677 N IRONWOOD DRIVE | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | GS | 2 | | | | 1984 |
| 073-06 | 7/14/2006 | SE | 12 | 1N | 8E | 2880 N LA BARGE ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1965 |
| 074-06 | 7/14/2006 | SE | 9 | 1S | 9E | 11122 E SLEEPY HOLLOW TRAIL | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 075-06 | 7/14/2006 | NW | 24 | 1N | 8E | 4924 E ROOSEVELT STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 076-06 | 7/15/2006 | NE | 22 | 1N | 7E | 2977 E SUPERSTITION BOULEVARD | 21 | MAIN REPLACEMENT | | | | X | | | | | | | 5 | CA | 4 | 1966 |
| 077-06 | 7/17/2006 | SW | 22 | 1N | 8E | 2230 E 2ND AVENUE | 20 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 078-06 | 7/19/2006 | NE | 14 | 1N | 7E | 10620 E FENIMORE ROAD | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1982 |
| 079-06 | 7/21/2006 | NE | 5 | 1S | 9E | 4366 S AVENIDA DE ANGELES | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | CU | 1 | | | | 1998 |
| 080-06 | 7/21/2006 | SW | 25 | 1N | 8E | 11020 E GROVE STREET | 35 | MAIN REPLACEMENT | | X | | X | | | | | | | 9 | CA | 6 | 1985 |
| 081-06 | 7/24/2006 | NW | 17 | 1N | 8E | 1747 N VALLEY DRIVE | 9 | OTHER | | | X | | X | | | | POLY | 3/4 | | | | 1979 |
| 082-06 | 7/25/2006 | SE | 17 | 1N | 8E | 441 W ROUNDUP STREET | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1982 |
| 083-06 | 7/26/2006 | SE | 9 | 1S | 9E | 6559 S LAZY LANE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1981 |
| 084-06 | 7/28/2006 | SE | 24 | 1N | 7E | 11311 E 6TH AVENUE | 6 | SERVICE REPAIR | | | X | | X | | | | CU | 3/4 | | | | 1989 |
| 085-06 | 8/2/2006 | SW | 14 | 1N | 7E | 709 N MERRILL ROAD | 15 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 086-06 | 8/3/2006 | SE | 9 | 1S | 9E | 6559 S LAZY LANE | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1981 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 087-06 | 8/3/2006 | SE | 14 | 1N | 7E | 10609 E QUARTERLINE ROAD | 9 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 088-06 | 8/7/2006 | SW | 9 | 1S | 9E | 9880 E PALERMO AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 089-06 | 8/7/2006 | NE | 13 | 1N | 8E | 5786 E PIONEER STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 090-06 | 8/9/2006 | NW | 19 | 1N | 8E | 2548 W OHIO STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1959 |
| 091-06 | 8/9/2006 | NE | 25 | 1N | 7E | 555 S MOUNTAIN ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1970 |
| 092-06 | 8/14/2006 | NE | 30 | 1N | 8E | 1587 S GRAND DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 093-06 | 8/14/2006 | SE | 29 | 1N | 8E | 1844 S MONTEREY DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 094-06 | 8/15/2006 | NE | 17 | 1N | 8E | 85 W WINDSONG STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 3/4 | | | | 1982 |
| 095-06 | 8/15/2006 | NE | 17 | 1N | 8E | 2122 N IDAHO ROAD | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 096-06 | 8/16/2006 | NW | 13 | 1N | 8E | 2030 N DON PERALTA ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1960 |
| 097-06 | 8/18/2006 | NW | 13 | 1N | 8E | 2020 N DON PERALTA ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1960 |
| 098-06 | 8/25/2006 | NW | 14 | 1N | 7E | 10111 E FENIMORE ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1981 |
| 099-06 | 8/25/2006 | SW | 9 | 1S | 9E | 9962 E SLEEPY HOLLOW TRAIL | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 100-06 | 8/31/2006 | NW | 22 | 1N | 8E | 2633 E SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 101-06 | 9/7/2006 | NE | 30 | 1N | 8E | 1674 W 14TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 102-06 | 9/7/2006 | NW | 19 | 1N | 8E | 2470 W CHOLLA STREET | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1959 |
| 103-06 | 9/7/2006 | SW | 24 | 1N | 7E | 301 S SIGNAL BUTTE ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | STEEL | 4 | | | | 1983 |
| 104-06 | 9/8/2006 | NW | 19 | 1N | 8E | 290 N PINYON DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 105-06 | 9/11/2006 | NE | 18 | 1N | 8E | 2139 N GRAND DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 106-06 | 9/12/2006 | SE | 15 | 1N | 8E | 1020 N HILTON ROAD | 15 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1975 |
| 107-06 | 9/19/2006 | SE | 29 | 1N | 8E | 605 W 23RD AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 108-06 | 9/19/2006 | NE | 24 | 1N | 7E | 321 N 110TH STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 109-06 | 9/21/2006 | NE | 24 | 1N | 7E | 157 & 158 N 113TH WAY | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 110-06 | 10/12/2006 | SW | 17 | 1N | 8E | 1109 N VALLEY DRIVE | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 111-06 | 10/23/2006 | NW | 9 | 1S | 9E | 9892 E LA PALMA AVENUE #2 | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 112-06 | 10/24/2006 | NE | 13 | 1N | 8E | CONCHO STREET & SUNSET ROAD | 18 | MAIN REPLACEMENT | | X | | X | | | | | | | 80 | GS | 1 | 1960 |
| 113-06 | 10/25/2006 | SW | 13 | 1N | 8E | 4928 E RAWHIDE STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 114-06 | 10/27/2006 | SE | 13 | 1N | 8E | 5891 E SIESTA STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 115-06 | 11/2/2006 | SW | 24 | 1N | 7E | 11140 E 4TH AVENUE | 36 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | GS | 2 | | | | 1963 |
| 116-06 | 11/5/2006 | NE | 29 | 1N | 8E | 16TH AVENUE & IDAHO ROAD | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 117-06 | 11/7/2006 | SW | 29 | 1N | 8E | IRONWOOD DRIVE & SOUTHERN AVENUE | 16 | OTHER | | | X | | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 118-06 | 11/8/2006 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #40 | 28 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 119-06 | 11/17/2006 | SW | 13 | 1N | 7E | 401 N 111TH STREET | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1964 |
| 120-06 | 11/17/2006 | SW | 13 | 1N | 7E | 11109 E CHOLLA STREET | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1964 |
| 121-06 | 11/20/2006 | NE | 17 | 1N | 8E | 378 W FOOTHILL STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1983 |
| 122-06 | 11/27/2006 | NE | 30 | 1N | 8E | 960 S SAGUARO DRIVE | 21 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1963 |
| 123-06 | 12/1/2006 | SE | 25 | 1N | 8E | 6390 E 18TH AVENUE | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1982 |
| 124-06 | 12/7/2006 | NE | 27 | 1N | 8E | 2956 E 12TH AVENUE | 10 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 125-06 | 12/10/2006 | SE | 15 | 1N | 8E | 1235 N CORTEZ ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1983 |
| 126-06 | 12/14/2006 | NW | 21 | 1N | 8E | 378 N CACTUS ROAD | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 127-06 | 12/14/2006 | NW | 20 | 1N | 8E | 289 N THUNDERBIRD DRIVE | 9 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1981 |
| 128-06 | 12/19/2006 | SW | 17 | 1N | 8E | 1111 N SILVER DRIVE | 15 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001-07 | 1/4/2007 | NE | 23 | 1N | 7E | 10540 E APACHE TRAIL | 32 | MAIN REPLACEMENT | | | | X | | | | | | | 180 | GS | 1 1/4 | 1955 |
| 002-07 | 1/9/2007 | SE | 18 | 1N | 8E | 946 N OCOTILLO DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 003-07 | 1/9/2007 | SE | 18 | 1N | 8E | 926 N GRAND DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 004-07 | 1/15/2007 | NE | 18 | 1N | 8E | 1690 N IRONWOOD DRIVE | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1995 |
| 005-07 | 1/15/2007 | NW | 30 | 1N | 8E | 1451 S HALE DRIVE | 24 | MAIN REPAIR | | | | X | | | | | | | | CA | 4 | 1970 |
| 006-07 | 1/17/2007 | NW | 13 | 1N | 8E | 2025 N DON PERALTA ROAD | 21 | MAIN REPLACEMENT | | | | X | | | | | | | 32 | GS | 1 | 1960 |
| 007-07 | 1/20/2007 | NW | 19 | 1N | 8E | 2600 W APACHE TRAIL | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1961 |
| 008-07 | 1/22/2007 | NE | 23 | 1N | 7E | 10536 E BOISE STREET | 12 | MAIN REPLACEMENT | X | | | | | | | | | | 2 | GS | 2 | 1968 |
| 009-07 | 1/26/2007 | SW | 18 | 1N | 8E | 3046 W GREASEWOOD STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1971 |
| 010-07 | 1/26/2007 | SW | 13 | 1N | 7E | 424 N 111TH WAY | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1964 |
| 011-07 | 1/26/2007 | NE | 19 | 1N | 8E | 2300 W APACHE TRAIL | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1960 |
| 012-07 | 2/2/2007 | SE | 24 | 1N | 7E | 233 S ELMONT DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 013-07 | 2/2/2007 | SW | 18 | 1N | 8E | 3088 W GREASEWOOD STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 014-07 | 2/2/2007 | SW | 22 | 1N | 8E | TOMAHAWK ROAD & VISTA | 30 | MAIN REPLACEMENT | X | | | | | | | | | | 16 | CA | 6 | 1960 |
| 015-07 | 2/6/2007 | NE | 19 | 1N | 8E | 2300 W APACHE TRAIL | 28 | MAIN REPLACEMENT | | X | | X | | | | | | | 8 | CA | 4 | 1960 |
| 016-07 | 2/12/2007 | NE | 26 | 1N | 7E | 515 S 107TH STREET | 24 | MAIN REPLACEMENT | | | | X | | | | | | | 5 | CA | 4 | 1961 |
| 017-07 | 2/14/2007 | NW | 20 | 1N | 8E | 925 W SUPERSTITION BOULEVARD | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 018-07 | 2/20/2007 | NE | 23 | 1N | 7E | 105TH PLACE & BOISE STREET | 60 | MAIN REPLACEMENT | X | | | | | | | | | | 800 | GS | 2 | 1968 |
| 019-07 | 2/27/2007 | NE | 30 | 1N | 8E | 1981 W 10TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1971 |
| 020-07 | 3/6/2007 | NE | 23 | 1N | 7E | 10443 E BOISE STREET | 15 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1969 |
| 021-07 | 3/13/2007 | NW | 9 | 1S | 9E | 5557 S ALAMEDA ROAD | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1982 |
| 022-07 | 3/14/2007 | SE | 25 | 1N | 8E | 18TH AVENUE & PROSPECTOR ROAD | 30 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1983 |
| 023-07 | 3/14/2007 | NW | 24 | 1N | 7E | MOUNTAIN ROAD & APACHE TRAIL | 16 | MAIN REPAIR | | X | | | | | | | | | | CA | 4 | 1975 |
| 024-07 | 3/21/2007 | NE | 25 | 1N | 8E | 5698 E 14TH AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1973 |
| 025-07 | 4/4/2007 | SE | 29 | 1N | 8E | 1875 S BUENA VISTA DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1969 |
| 026-07 | 4/10/2007 | SE | 24 | 1N | 8E | 5824 E EL CAMINO QUINTO | 12 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1983 |
| 027-07 | 4/10/2007 | SE | 27 | 1N | 8E | 1557 S STARR ROAD | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 028-07 | 4/10/2007 | NE | 27 | 1N | 8E | 1363 S STARR ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1974 |
| 029-07 | 4/10/2007 | NE | 27 | 1N | 8E | 1316 S STARR ROAD | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1974 |
| 030-07 | 5/2/2007 | NW | 30 | 1N | 8E | 2845 W 15TH AVENUE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 3/4 | | | | 1977 |
| 031-07 | 5/4/2007 | NW | 20 | 1N | 8E | 524 N RENNICK DRIVE | 18 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 032-07 | 5/10/2007 | NE | 23 | 1N | 7E | BONNELL STREET & VALLE VERDE | 35 | MAIN REPAIR | | X | | X | | | | | | | | DIP | 8 | 2000 |
| 033-07 | 5/11/2007 | SW | 17 | 1N | 8E | 1498 W GREASEWOOD STREET | 15 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1973 |
| 034-07 | 5/15/2007 | SE | 24 | 1N | 7E | 322 S MALCOLM DRIVE | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1963 |
| 035-07 | 5/24/2007 | NW | 20 | 1N | 8E | 366 N GOLD DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1963 |
| 036-07 | 5/25/2007 | NW | 19 | 1N | 8E | 2523 W SUPERSTITION BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1959 |
| 037-07 | 5/29/2007 | SE | 9 | 1S | 9E | 6439 E HIDEAWAY LANE | 36 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1981 |
| 038-07 | 5/30/2007 | NW | 24 | 1N | 8E | 5420 E PAINTED ROCK STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 039-07 | 5/31/2007 | NW | 22 | 1N | 8E | 275 N CHAPARRAL ROAD | 21 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1972 |
| 040-07 | 6/3/2007 | SW | 1 | 1N | 8E | 5231 E KANIKSU STREET | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 041-07 | 6/4/2007 | NE | 22 | 1N | 8E | 86 N HILTON ROAD | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1985 |
| 042-07 | 6/12/2007 | SW | 19 | 1N | 8E | 2420 W 5TH AVENUE | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 2 | | | | 1977 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 043-07 | 6/13/2007 | NE | 12 | 1N | 8E | 5990 E SINGLETREE STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1983 |
| 044-07 | 6/14/2007 | SE | 13 | 1N | 8E | 6132 E SIESTA STREET | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 2000 |
| 045-07 | 6/14/2007 | NW | 17 | 1N | 8E | 1810 N THUNDERBIRD DRIVE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | CU | 3/4 | | | | 2006 |
| 046-07 | 6/15/2007 | NE | 8 | 1S | 9E | 8881 E SALIX CIRCLE | 18 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1993 |
| 047-07 | 6/19/2007 | NE | 27 | 1N | 8E | 2909 E 12TH AVENUE | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 048-07 | 6/20/2007 | NE | 22 | 1N | 8E | 86 N HILTON ROAD | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1985 |
| 049-07 | 6/21/2007 | SE | 15 | 1N | 8E | 851 N CORTEZ ROAD | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1977 |
| 050-07 | 6/25/2007 | NE | 23 | 1N | 7E | 10535 E BOULDER DRIVE | 12 | MAIN REPLACEMENT | X | | | | | | | | | | 7 | PVC | 2 | 1968 |
| 051-07 | 6/29/2007 | NW | 20 | 1N | 8E | 489 N GOLD DRIVE | 18 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1963 |
| 052-07 | 6/29/2007 | SE | 9 | 1S | 9E | 10761 E HUMMINGBIRD LANE | 21 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1980 |
| 053-07 | 7/3/2007 | SW | 8 | 1S | 9E | 6321 S NIBLICK COURT | 16 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1996 |
| 054-07 | 7/8/2007 | NW | 17 | 1N | 8E | 1630 N VALLEY DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 055-07 | 7/9/2007 | NW | 22 | 1N | 8E | 185 N CONESTOGA ROAD | 4 | OTHER | | | X | | X | | | | POLY | 3/4 | | | | 1978 |
| 056-07 | 7/10/2007 | SW | 22 | 1N | 8E | 1860 E BROADWAY AVENUE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 057-07 | 7/11/2007 | NE | 27 | 1N | 8E | 3130 E 15TH AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 058-07 | 7/17/2007 | NE | 9 | 1S | 9E | 11014 E PALM WAY | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1979 |
| 059-07 | 7/18/2007 | SE | 12 | 1N | 8E | 2975 N HOLMES ROAD | 21 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1965 |
| 060-07 | 7/20/2007 | NW | 14 | 1N | 7E | 10055 FENIMORE ROAD | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1984 |
| 061-07 | 7/20/2007 | NE | 13 | 1N | 8E | 5850 E CONCHO STREET | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1960 |
| 062-07 | 7/25/2007 | NE | 27 | 1N | 8E | 1451 S ACACIA ROAD | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 063-07 | 7/30/2007 | NW | 9 | 1S | 9E | 6300 S EAGLE PASS COURT | 16 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 064-07 | 8/2/2007 | NW | 15 | 1N | 8E | 1728 N WICKIUP ROAD | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1983 |
| 065-07 | 8/8/2007 | NE | 27 | 1N | 8E | 2636 E 10TH AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1974 |
| 066-07 | 8/8/2007 | NW | 22 | 1N | 8E | 1815 E SCENIC STREET | 15 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 067-07 | 8/16/2007 | SE | 29 | 1N | 8E | 661 W 22ND AVENUE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 068-07 | 8/16/2007 | NE | 21 | 1N | 8E | 390 N TOMAHAWK ROAD | 12 | MAIN REPAIR | X | | | | | | | | | | | DIP | 16 | 1994 |
| 069-07 | 8/20/2007 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #36 & #37 | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1980 |
| 070-07 | 8/22/2007 | NE | 27 | 1N | 8E | 1237 S STARR ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1979 |
| 071-07 | 8/22/2007 | SW | 17 | 1N | 8E | 1102 N GOLD DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 3/4 | | | | 1970 |
| 072-07 | 8/27/2007 | NW | 20 | 1N | 8E | RENNICK DRIVE & SAN MARCOS DRIVE | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 073-07 | 8/27/2007 | NE | 27 | 1N | 8E | 1316 S STARR ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 3 | POLY | 1 | | | | 1974 |
| 074-07 | 8/28/2007 | NE | 27 | 1N | 8E | 2636 E 10TH AVENUE | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 075-07 | 9/7/2007 | SE | 25 | 1N | 8E | 5775 E 20TH AVENUE | 15 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1988 |
| 076-07 | 9/11/2007 | NW | 27 | 1N | 8E | 1491 S CONESTOGA ROAD | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 077-07 | 9/12/2007 | NE | 24 | 1N | 7E | 52 N 114TH STREET | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 3 | POLY | 1 | | | | 1970 |
| 078-07 | 9/17/2007 | SE | 24 | 1N | 7E | 137 S MOUNTAIN ROAD | 9 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1963 |
| 079-07 | 9/24/2007 | SE | 24 | 1N | 7E | 232 S MALCOLM DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 080-07 | 9/28/2007 | NE | 9 | 1S | 9E | 10881 E CORDOVA AVENUE | 20 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1979 |
| 081-07 | 10/2/2007 | NE | 14 | 1N | 7E | 857 N 108TH STREET | 28 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 082-07 | 10/3/2007 | SW | 19 | 1N | 8E | 711 S MERIDIAN ROAD | 6 | SERVICE REPAIR | | | X | | X | | | | POLY | 3/4 | | | | 1984 |
| 083-07 | 10/4/2007 | NE | 17 | 1N | 8E | 2337 N APACHE DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1982 |
| 084-07 | 10/10/2007 | NE | 14 | 1N | 7E | 10402 E FENIMORE ROAD | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1982 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 085-07 | 10/17/2007 | SE | 8 | 1S | 9E | 6725 S SALADO | 28 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1986 |
| 086-07 | 10/17/2007 | NE | 12 | 1N | 8E | PROSPECTOR ROAD & BELL STREET | 24 | MAIN REPLACEMENT | | X | | X | | | | | | | 3 | GS | 2 | 1961 |
| 087-07 | 10/18/2007 | SE | 18 | 1N | 8E | 2226 W SHIPROCK STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 088-07 | 10/29/2007 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #46 | 4 | SERVICE REPAIR | | | X | X | X | | | | POLY | 1 | | | | 1982 |
| 089-07 | 10/30/2007 | SW | 4 | 1S | 9E | GOLD CANYON DRIVE & DESERT DAWN DRIVE | 25 | MAIN REPLACEMENT | | | | X | | | | | | | 4 | DIP | 8 | 1995 |
| 090-07 | 11/6/2007 | SW | 31 | 1N | 8E | 2739 W JASPER AVENUE | 18 | SERVICE REPLACEMENT | | | | | | | | | CU | 3/4 | | | | 1998 |
| 091-07 | 11/9/2007 | NW | 14 | 1N | 7E | 932 N 103RD STREET | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 092-07 | 11/13/2007 | NW | 22 | 1N | 8E | 2135 E CODY STREET | 6 | SERVICE REPAIR | | | | | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 093-07 | 11/13/2007 | SW | 19 | 1N | 8E | 746 S WARNER DRIVE | 4 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1976 |
| 094-07 | 11/14/2007 | SE | 22 | 1N | 8E | 344 S STARR ROAD | 20 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 095-07 | 11/15/2007 | SE | 12 | 1N | 8E | 5775 E LOST DUTCHMAN BOULEVARD | 18 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1987 |
| 096-07 | 11/17/2007 | NE | 22 | 1N | 8E | 2570 E SCENIC STREET | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 097-07 | 11/26/2007 | SE | 12 | 1N | 8E | 5851 E SINGLETREE STREET | 18 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 098-07 | 11/26/2007 | NW | 30 | 1N | 8E | 1464 S WARNER DRIVE | 8 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1977 |
| 099-07 | 11/28/2007 | SW | 9 | 1S | 9E | 10452 E SLEEPY HOLLOW TRAIL | 15 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 100-07 | 12/6/2007 | NW | 21 | 1N | 8E | 247 E JUNCTION STREET | 16 | MAIN REPAIR | | X | | | | | | | | | | CA | 4 | 1966 |
| 101-07 | 12/10/2007 | NE | 20 | 1N | 8E | 300 W APACHE TRAIL | 32 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1960 |
| 102-07 | 12/10/2007 | NE | 23 | 1N | 7E | 10536 E BOISE STREET | 20 | MAIN REPLACEMENT | | X | | | | | | | | | 3 | PVC | 2 | 1966 |
| 103-07 | 12/11/2007 | NE | 30 | 1N | 8E | 1366 S PALO VERDE DRIVE | 8 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1973 |
| 104-07 | 12/13/2007 | NW | 22 | 1N | 8E | 2135 E CODY STREET | 18 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1973 |
| 105-07 | 12/13/2007 | NW | 18 | 1N | 8E | 2626 W FOOTHILL STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1982 |
| 106-07 | 12/14/2007 | NE | 19 | 1N | 8E | 2016 W GREGORY STREET | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1967 |
| 107-07 | 12/20/2007 | NE | 30 | 1N | 8E | 1196 S OCOTILLO DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 108-07 | 12/26/2007 | SW | 18 | 1N | 8E | 979 N WARNER DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1967 |
| 109-07 | 12/26/2007 | SE | 24 | 1N | 7E | 11234 E BROADWAY AVENUE | 9 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1963 |
| 110-07 | 12/28/2007 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #31 | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1973 |
| 111-07 | 12/28/2007 | NW | 20 | 1N | 8E | 1408 W APACHE TRAIL | 21 | MAIN REPLACEMENT | | | | X | | | | | | | 4 | DIP | 8 | 1987 |
| 001-08 | 1/4/2008 | NW | 23 | 1N | 7E | 10338 E ALBANY STREET | 9 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1955 |
| 002-08 | 1/9/2008 | NE | 21 | 1N | 8E | 535 N CACTUS ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1969 |
| 003-08 | 1/18/2008 | NW | 20 | 1N | 8E | 526 N GOLD DRIVE | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1963 |
| 004-08 | 1/28/2008 | NW | 14 | 1N | 7E | 821 N 103RD STREET | 20 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 005-08 | 2/20/2008 | NW | 22 | 1N | 8E | 523 N RAINDANCE ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1979 |
| 006-08 | 2/28/2008 | NE | 21 | 1N | 8E | 410 N CACTUS ROAD | 16 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1973 |
| 007-08 | 3/5/2008 | SW | 24 | 1N | 8E | 31 S MOUNTAIN VIEW ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1979 |
| 008-08 | 3/19/2008 | SW | 17 | 1N | 8E | 1367 W TEPEE STREET | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 009-08 | 3/26/2008 | SW | 23 | 1N | 8E | 3701 E BROADWAY AVENUE | 24 | MAIN REPAIR | | X | | X | | | | | | | | CA | 6 | 1972 |
| 010-08 | 3/27/2008 | NE | 20 | 1N | 8E | 800 W APACHE TRAIL | 35 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | GS | 2 | | | | 1960 |
| 011-08 | 3/27/2008 | NE | 20 | 1N | 8E | 800 W APACHE TRAIL | 35 | MAIN REPLACEMENT | | X | | X | | | | | | | 10 | CA | 4 | 1960 |
| 012-08 | 4/9/2008 | NE | 25 | 1N | 8E | 1277 S PROSPECTORS ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1980 |
| 013-08 | 4/14/2008 | NW | 20 | 1N | 8E | 1398 W APACHE TRAIL | 10 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1987 |
| 014-08 | 4/15/2008 | NE | 24 | 1N | 8E | CODY STREET & GERONIMO ROAD | 14 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1998 |
| 015-08 | 5/5/2008 | NW | 12 | 1N | 8E | 5375 E MCKELLIPS STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 016-08 | 5/6/2008 | NW | 14 | 1N | 7E | 10310 E FENIMORE ROAD | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1973 |
| 017-08 | 5/8/2008 | NW | 25 | 1N | 8E | 5120 E 12TH AVENUE | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1983 |
| 018-08 | 5/14/2008 | NW | 14 | 1N | 7E | 10310 E FENIMORE ROAD | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 019-08 | 5/22/2008 | NW | 19 | 1N | 8E | CODY STREET & DELAWARE DRIVE | 20 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1959 |
| 020-08 | 5/23/2008 | NE | 21 | 1N | 8E | 1511 E SCENIC STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 021-08 | 5/23/2008 | NE | 20 | 1N | 8E | 300 W APACHE TRAIL | 35 | MAIN REPAIR | | | | X | | | | | | | | CA | 4 | 1960 |
| 022-08 | 6/12/2008 | NW | 20 | 1N | 8E | 414 N THUNDERBIRD DRIVE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1985 |
| 023-08 | 6/12/2008 | NW | 22 | 1N | 8E | 315 N VISTA ROAD | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1996 |
| 024-08 | 6/19/2008 | NE | 6 | 1S | 9E | 7327 E PALO CHINO COURT | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | CU | 1 | | | | 2000 |
| 025-08 | 6/19/2008 | NW | 20 | 1N | 8E | 527 N RENNICK DRIVE | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 026-08 | 6/23/2008 | NW | 19 | 1N | 8E | 2540 W APACHE TRAIL | 38 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1961 |
| 027-08 | 6/25/2008 | NE | 27 | 1N | 8E | 2706 E 10TH AVENUE | 25 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 028-08 | 6/30/2008 | SE | 14 | 1N | 8E | 4501 E ROUNDUP STREET | 28 | SERVICE REPLACEMENT | | X | X | X | X | | | 4 | POLY | 1 | | | | 1982 |
| 029-08 | 7/25/2008 | NW | 32 | 1N | 8E | 2525 S IRONWOOD DRIVE | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1983 |
| 030-08 | 8/4/2008 | SE | 9 | 1S | 9E | 6644 S ALHAMBRA WAY | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1981 |
| 031-08 | 8/6/2008 | NE | 20 | 1N | 8E | 586 W APACHE TRAIL | 9 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1978 |
| 032-08 | 8/6/2008 | SE | 20 | 1N | 8E | 431 W APACHE TRAIL | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1962 |
| 033-08 | 8/7/2008 | NE | 9 | 1S | 9E | HUMMINGBIRD LANE #44 | 15 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1980 |
| 034-08 | 8/8/2008 | SE | 22 | 1N | 8E | BROADWAY AVENUE & GOLDFIELD ROAD | 20 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1972 |
| 035-08 | 8/12/2008 | NE | 30 | 1N | 8E | 1941 W 10TH AVENUE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1971 |
| 036-08 | 8/14/2008 | SE | 20 | 1N | 8E | 597 W 5TH AVENUE | 2 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1976 |
| 037-08 | 8/18/2008 | NE | 12 | 1N | 8E | 5720 E MINING CAMP STREET | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 038-08 | 8/19/2008 | NW | 22 | 1N | 8E | 254 N WICKIUP ROAD | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1975 |
| 039-08 | 8/20/2008 | NE | 17 | 1N | 8E | 186 W FOOTHILL STREET | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 040-08 | 8/20/2008 | NE | 22 | 1N | 8E | 2653 E SCENIC STREET | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 041-08 | 8/27/2008 | NE | 27 | 1N | 8E | 2680 E 12TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1985 |
| 042-08 | 8/29/2008 | NW | 23 | 1N | 7E | 10348 E ALBANY STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 043-08 | 9/5/2008 | NW | 30 | 1N | 8E | 2829 W 14TH PLACE | 8 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1971 |
| 044-08 | 9/19/2008 | SE | 25 | 1N | 7E | 950 S MERIDIAN ROAD | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | STEEL | 2 | | | | 1985 |
| 045-08 | 9/23/2008 | SE | 9 | 1S | 9E | 10687 E HUMMINGBIRD LANE | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1981 |
| 046-08 | 9/24/2008 | NW | 22 | 1N | 8E | 2235 E CODY STREET | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 047-08 | 9/26/2008 | NW | 27 | 1N | 8E | 2081 E 14TH AVENUE | 28 | MAIN REPAIR | | | | X | | | | | | | | CA | 6 | 1986 |
| 048-08 | 9/29/2008 | SE | 15 | 1N | 8E | 931 N HILTON ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1968 |
| 049-08 | 9/29/2008 | NW | 14 | 1N | 7E | 10309 E FENIMORE ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 050-08 | 9/30/2008 | NE | 13 | 1N | 8E | 5850 E CONCHO STREET | 4 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1960 |
| 051-08 | 10/4/2008 | NE | 21 | 1N | 8E | TOMAHAWK ROAD & SCENIC STREET | 24 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1994 |
| 052-08 | 10/7/2008 | SE | 15 | 1N | 8E | 931 N HILTON ROAD | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1968 |
| 053-08 | 10/8/2008 | NE | 27 | 1N | 8E | 1470 S GOLDFIELD ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 054-08 | 10/8/2008 | SE | 18 | 1N | 8E | 2048 W GREASEWOOD STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1961 |
| 055-08 | 10/15/2008 | NW | 30 | 1N | 8E | MERIDIAN ROAD & PUEBLO AVENUE | 24 | MAIN REPLACEMENT | | | | X | | | | | | | 28 | CA | 6 | 1970 |
| 056-08 | 10/16/2008 | SE | 25 | 1N | 8E | 6078 E SOUTHERN AVENUE | 9 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 057-08 | 10/16/2008 | SE | 17 | 1N | 8E | 1440 N IDAHO ROAD | 32 | SERVICE REPLACEMENT | | | | | | X | | 2 | STEEL | 6 | | | | 1986 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 058-08 | 10/21/2008 | NW | 24 | 1N | 7E | 326 N KEITH STREET | 9 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 1 | | | | 1972 |
| 059-08 | 10/25/2008 | SW | 13 | 1N | 8E | GREASEWOOD STREET & SIXSHOOTER ROAD | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 060-08 | 10/29/2008 | SE | 25 | 1N | 8E | 1637 S GERONIMO ROAD | 18 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1973 |
| 061-08 | 11/6/2008 | NE | 21 | 1N | 8E | 615 N ROYAL PALM DRIVE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 062-08 | 11/6/2008 | SE | 8 | 1S | 9E | AVENIDA LA MANAMA & TRADE | 28 | MAIN REPAIR | | | | X | | | | | | | | CA | 6 | 1983 |
| 063-08 | 11/13/2008 | SW | 20 | 1N | 8E | 637 S SILVER DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 064-08 | 11/18/2008 | SW | 13 | 1N | 8E | 5160 E SHIPROCK STREET | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1966 |
| 065-08 | 11/25/2008 | SW | 17 | 1N | 8E | 1535 N GOLD DRIVE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 066-08 | 11/28/2008 | NW | 14 | 1N | 7E | 911 N 103RD STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1973 |
| 067-08 | 12/2/2008 | NE | 12 | 1N | 9E | 5680 E BELL STREET | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1961 |
| 068-08 | 12/8/2008 | NE | 19 | 1N | 8E | 150 N OCOTILLO DRIVE | 16 | MAIN REPAIR | | X | | X | | | | | | | | CA | 4 | 1960 |
| 069-08 | 12/10/2008 | SW | 9 | 1S | 9E | 9936 E LA CALLECITA AVENUE | 18 | SERVICE REPLACEMENT | | | | | | | | 2 | POLY | 3/4 | | | | 1980 |
| 070-08 | 12/30/2008 | SE | 8 | 1S | 9E | 9290 E MOGOLLON TRAIL | 6 | SERVICE REPAIR | | | X | X | X | | | | POLY | 3/4 | | | | 1986 |
| 001-09 | 1/2/2009 | NE | 21 | 1N | 8E | 1365 E SUPERSTITION BOULEVARD | 12 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1972 |
| 002-09 | 1/2/2009 | NW | 30 | 1N | 9E | 6630 E GRAND VIEW LANE | 21 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 3/4 | | | | 1998 |
| 003-09 | 1/8/2009 | SW | 21 | 1N | 8E | 75 S COLT ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 004-09 | 1/13/2009 | SW | 21 | 1N | 8E | 200 OLD WEST HIGHWAY | 28 | OTHER | | | | | | | | | POLY | 3/4 | | | | 1961 |
| 005-09 | 1/13/2009 | NW | 25 | 1N | 8E | 4970 E 12TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 006-09 | 1/14/2009 | SE | 18 | 1N | 8E | 929 N DELAWARE DRIVE | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | GS | 2 | | | | 1959 |
| 007-09 | 1/15/2009 | NE | 23 | 1N | 7E | 10606 E MERCURY DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | CU | 1 | | | | 1996 |
| 008-09 | 2/17/2009 | NW | 25 | 1N | 8E | 5070 E 10TH AVENUE | 18 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1972 |
| 009-09 | 2/18/2009 | NW | 27 | 1N | 8E | 1491 S CONESTOGA ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 010-09 | 2/24/2009 | NW | 30 | 1N | 8E | 2945 W 9TH PLACE | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 4 | POLY | 1 | | | | 1961 |
| 011-09 | 2/27/2009 | SW | 14 | 1N | 8E | 643 N 101ST PLACE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 012-09 | 3/2/2009 | NW | 30 | 1N | 8E | 1331 S CEDAR DRIVE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1972 |
| 013-09 | 3/2/2009 | NW | 25 | 1N | 8E | 5298 E 10TH AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1959 |
| 014-09 | 3/9/2009 | NW | 30 | 1N | 8E | 1331 S CEDAR DRIVE | 4 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1972 |
| 015-09 | 3/12/2009 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #35 | 15 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 016-09 | 3/19/2009 | SE | 15 | 1N | 8E | 851 N CORTEZ ROAD | 9 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1974 |
| 017-09 | 3/24/2009 | SE | 27 | 1N | 8E | 2122 S GOLDFIELD ROAD | 6 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 018-09 | 4/7/2009 | SE | 17 | 1N | 8E | 926 N MONTEREY DRIVE | 20 | MAIN REPAIR | | X | | X | | | | | | | | CA | 4 | 1974 |
| 019-09 | 4/8/2009 | NW | 9 | 1S | 9E | 5564 S KINGS RANCH ROAD | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 3 | POLY | 1 | | | | 1982 |
| 020-09 | 4/10/2009 | NW | 19 | 1N | 8E | MERIDIAN ROAD & APACHE TRAIL | 35 | MAIN REPLACEMENT | | | | X | | | | | | | 7 | CA | 6 | 1961 |
| 021-09 | 4/13/2009 | SE | 24 | 1N | 7E | 301 S MOUNTAIN ROAD | 12 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1987 |
| 022-09 | 4/23/2009 | NE | 17 | 1N | 8E | 318 W TEPEE STREET | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 023-09 | 4/28/2009 | NE | 14 | 1N | 7E | 10609 E FENIMORE ROAD | 4 | SERVICE REPLACEMENT | | | X | | X | | | 1 | POLY | 3/4 | | | | 1982 |
| 024-09 | 5/8/2009 | SW | 21 | 1N | 8E | COLT ROAD & OLD WEST HIGHWAY | 24 | MAIN REPAIR | | X | | X | | | | | | | | CA | 6 | 1961 |
| 025-09 | 5/11/2009 | SE | 23 | 1N | 8E | 655 S MULESHOE ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 026-09 | 5/18/2009 | SW | 6 | 1S | 9E | 6993 E SAN CRISTOBAL WAY | 32 | SERVICE REPAIR | | | X | X | X | | | | CU | 1 | | | | 1998 |
| 027-09 | 5/20/2009 | NW | 30 | 1N | 8E | WARNER DRIVE & 15TH AVENUE | 35 | MAIN REPLACEMENT | | X | | X | | | | | | | 40 | BLK POLY | 2 | 1977 |
| 028-09 | 5/25/2009 | NW | 9 | 1S | 9E | 6098 N LA BARGE ROAD | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1985 |
| 029-09 | 5/27/2009 | NW | 22 | 1N | 8E | 2165 E CODY STREET | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 030-09 | 6/1/2009 | SE | 23 | 1N | 8E | 62 S MOUNTAIN VIEW ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 031-09 | 6/8/2009 | SE | 27 | 1N | 8E | 2044 S GOLDFIELD ROAD | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1981 |
| 032-09 | 6/19/2009 | NE | 22 | 1N | 8E | 2409 E SCENIC STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 033-09 | 6/22/2009 | SW | 22 | 1N | 8E | 1685 E JUNCTION STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 034-09 | 7/10/2009 | NW | 6 | 1N | 8E | 5409 N MERIDIAN ROAD | 12 | OTHER | | | X | | X | | | | POLY | 1 | | | | 1978 |
| 035-09 | 7/16/2009 | NE | 31 | 1N | 8E | SOUTHERN AVENUE & DELAWARE DRIVE | 8 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1980 |
| 036-09 | 7/17/2009 | NE | 17 | 1N | 8E | 272 W TEPEE STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 037-09 | 7/22/2009 | NE | 17 | 1N | 8E | 1958 N MONTEREY DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 038-09 | 7/22/2009 | NW | 9 | 1S | 9E | 5950 S ALAMEDA ROAD | 21 | SERVICE REPLACEMENT | | | | | | X | | 1 | STEEL | 3 | | | | 1984 |
| 039-09 | 7/24/2009 | NW | 25 | 1N | 8E | 5093 E 10TH AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1959 |
| 040-09 | 7/27/2009 | SE | 12 | 1N | 8E | 2620 N PROSPECTORS ROAD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 041-09 | 8/3/2009 | SE | 15 | 1N | 8E | 951 N HILTON ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 042-09 | 8/11/2009 | NE | 21 | 1N | 8E | 635 N ROYAL PALM ROAD | 15 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1991 |
| 043-09 | 8/14/2009 | SW | 14 | 1N | 7E | 420 N 100TH PLACE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 044-09 | 8/14/2009 | NE | 31 | 1N | 8E | SOUTHERN AVENUE & DELAWARE DRIVE | 12 | MAIN REPAIR | X | | | | | | | | | | | CA | 12 | 1980 |
| 045-09 | 8/17/2009 | NE | 12 | 1N | 8E | 6161 E MINING CAMP STREET | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 046-09 | 8/17/2009 | NE | 21 | 1N | 8E | 971 E RANCH ROAD | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 5 | POLY | 3/4 | | | | 1991 |
| 047-09 | 8/17/2009 | NE | 21 | 1N | 8E | 971 E RANCH ROAD | 8 | OTHER | | X | X | X | X | | | | POLY | 1 | | | | 1991 |
| 048-09 | 8/21/2009 | SW | 22 | 1N | 8E | 2215 E 4TH AVENUE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 049-09 | 8/24/2009 | NW | 22 | 1N | 8E | 385 N TOMAHAWK ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1964 |
| 050-09 | 8/27/2009 | SE | 14 | 1N | 8E | 831 N ARROYO ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 051-09 | 8/31/2009 | SE | 18 | 1N | 8E | 1261 N MAIN DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1983 |
| 052-09 | 9/8/2009 | SE | 18 | 1N | 8E | 1134 N MAIN DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 053-09 | 9/9/2009 | SE | 9 | 1S | 9E | 6412 S ALHAMBRA WAY | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1981 |
| 054-09 | 9/14/2009 | SE | 12 | 1N | 8E | 6080 E THUNDERBOLT COURT | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 055-09 | 9/16/2009 | NW | 19 | 1N | 8E | 2760 W OHIO STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 056-09 | 9/21/2009 | NW | 22 | 1N | 8E | 2220 E CODY STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 057-09 | 9/23/2009 | NW | 27 | 1N | 8E | 860 S VISTA ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 058-09 | 9/25/2009 | NE | 14 | 1N | 7E | 10440 E ADOBE ROAD | 9 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1983 |
| 059-09 | 9/28/2009 | SE | 22 | 1N | 8E | 126 S GOLDFIELD ROAD | 2 | SERVICE REPAIR | | | | | | X | X | | POLY | 1 | | | | 1968 |
| 060-09 | 10/7/2009 | SE | 24 | 1N | 7E | 119 S EMERALD DRIVE | 12 | MAIN REPLACEMENT | | | | X | | | | | | | 4 | GS | 2 | 1955 |
| 061-09 | 10/13/2009 | NW | 25 | 1N | 8E | 5093 E 10TH AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1959 |
| 062-09 | 10/13/2009 | SW | 18 | 1N | 8E | 1031 N WARNER DRIVE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1967 |
| 063-09 | 10/15/2009 | SE | 13 | 1N | 8E | 6280 E ROUNDUP STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 064-09 | 10/19/2009 | SE | 9 | 1S | 9E | 6574 S ALHAMBRA WAY | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1981 |
| 065-09 | 10/19/2009 | NW | 25 | 1N | 8E | 1650 S SIXSHOOTER ROAD | 24 | MAIN REPAIR | | | | X | | | | | | | | CA | 6 | 1986 |
| 066-09 | 10/28/2009 | SE | 22 | 1N | 8E | 577 S STARR ROAD | 9 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 067-09 | 10/29/2009 | NE | 24 | 1N | 7E | 11337 E AVALON STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 068-09 | 10/29/2009 | NW | 11 | 1N | 8E | HIGHWAY 88 & SAFARI PLACE | 6 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 2003 |
| 069-09 | 10/30/2009 | NE | 17 | 1N | 8E | 1958 N MONTEREY DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 070-09 | 11/5/2009 | NE | 17 | 1N | 8E | 1958 N MONTEREY DRIVE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1980 |
| 071-09 | 11/13/2009 | SW | 21 | 1N | 8E | COLT ROAD & OLD WEST HIGHWAY 60 | 15 | MAIN REPAIR | | X | | | | | | | | | | CA | 6 | 1961 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 072-09 | 11/16/2009 | NE | 23 | 1N | 7E | 10402 E ALBANY STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 073-09 | 11/20/2009 | NW | 24 | 1N | 8E | 4924 E ROOSEVELT STREET | 21 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1979 |
| 074-09 | 11/23/2009 | SW | 13 | 1N | 8E | 5465 E. GREASEWOOD STREET | 6 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1970 |
| 075-09 | 11/28/2009 | NE | 22 | 1N | 8E | 3161 E SCENIC STREET | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 076-09 | 12/2/2009 | NW | 17 | 1N | 8E | 2133 N VALLEY DRIVE | 9 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 077-09 | 12/4/2009 | NW | 9 | 1S | 9E | 9852 E LA PALMA AVENUE #2 | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1985 |
| 078-09 | 12/7/2009 | NE | 30 | 1N | 8E | 1395 S GRAND DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 079-09 | 12/9/2009 | SE | 14 | 1N | 8E | 1131 N BOYD ROAD | 20 | SERVICE REPLACEMENT | | | | | | | | | POLY | 3/4 | | | | 1981 |
| 080-09 | 12/15/2009 | SW | 22 | 1N | 8E | 1685 E JUNCTION STREET | 9 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 081-09 | 12/19/2009 | NW | 23 | 1N | 7E | 10348 E BOISE STREET | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1986 |
| 082-09 | 12/21/2009 | NW | 30 | 1N | 8E | 1265 S MERIDIAN ROAD | 12 | SERVICE REPLACEMENT | | | X | | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 083-09 | 12/30/2009 | NE | 30 | 1N | 8E | 2229 W BROADWAY AVENUE | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1983 |
| 001-10 | 1/6/2010 | NE | 5 | 1S | 9E | 4001 S CALLE MEDIO A CELESTE | 6 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 1998 |
| 002-10 | 2/1/2010 | SE | 29 | 1N | 8E | 589 W 22ND AVENUE | 15 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 003-10 | 2/2/2010 | SE | 24 | 1N | 7E | 11503 E 6TH AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1989 |
| 004-10 | 2/3/2010 | NW | 19 | 1N | 8E | 636 N PINAL DRIVE | 9 | SERVICE REPLACEMENT | | | X | X | | | | 2 | POLY | 1 | | | | 1972 |
| 005-10 | 2/11/2010 | NE | 24 | 1N | 7E | 11343 E AVALON STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 3 | POLY | 3/4 + 1 | | | | 1970 |
| 006-10 | 3/2/2010 | NE | 25 | 1N | 8E | 6138 E 10TH AVENUE | 28 | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1970 |
| 007-10 | 3/3/2010 | SW | 25 | 1N | 8E | 4880 E 20TH AVENUE | 25 | MAIN REPAIR | X | | | | | | | | | | | DIP | 6 | 1998 |
| 008-10 | 3/15/2010 | SE | 20 | 1N | 8E | 725 W APACHE TRAIL | 15 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1979 |
| 009-10 | 3/22/2010 | NE | 23 | 1N | 8E | 4532 E SUPERSTITION BOULEVARD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 010-10 | 3/22/2010 | NE | 25 | 1N | 8E | 5872 E 10TH AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1969 |
| 011-10 | 4/6/2010 | NW | 8 | 1S | 9E | 6100 S KINGS RANCH ROAD | 16 | MAIN REPAIR | X | | | | | | | | | | | DIP | 8 | 1994 |
| 012-10 | 4/12/2010 | NE | 29 | 1N | 8E | 197 W 15TH AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1973 |
| 013-10 | 4/12/2010 | SW | 20 | 1N | 8E | 690 S COPPER DRIVE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 014-10 | 4/12/2010 | NW | 30 | 1N | 8E | 1100 S WARNER DRIVE | 12 | SERVICE REPAIR | | X | | | X | X | | | GS | 2 | | | | 1976 |
| 015-10 | 4/14/2010 | SE | 12 | 1N | 8E | 5851 E SINGLETREE STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 016-10 | 4/27/2010 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #28 & 29 | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1980 |
| 017-10 | 5/3/2010 | NE | 24 | 1N | 7E | 11313 E BOISE STREET #49 | 21 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 018-10 | 5/3/2010 | NE | 19 | 1N | 8E | 441 N DELAWARE DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 3/4 | | | | 1962 |
| 019-10 | 5/5/2010 | NE | 19 | 1N | 8E | DELAWARE DRIVE & CHOLLA STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 3/4 | | | | 1959 |
| 020-10 | 5/10/2010 | NW | 22 | 1N | 8E | 85 N CONESTOGA ROAD | 8 | OTHER | | | | | | X | | | POLY | 3/4 | | | | 1988 |
| 021-10 | 5/17/2010 | NW | 36 | 1N | 8E | 4843 E 28TH AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 1 | | | | 1985 |
| 022-10 | 5/17/2010 | SW | 1 | 1N | 8E | 5501 E KANIKSU STREET | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 023-10 | 5/18/2010 | NW | 25 | 1N | 8E | 5136 E 10TH AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 1 | | | | 1972 |
| 024-10 | 6/1/2010 | NW | 30 | 1N | 8E | 1100 S WARNER DRIVE | 12 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1976 |
| 025-10 | 6/8/2010 | NW | 13 | 1N | 8E | 5615 E HIDALGO STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 026-10 | 6/9/2010 | NW | 19 | 1N | 8E | 2841 W OHIO STREET | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 027-10 | 6/10/2010 | NW | 23 | 1N | 7E | 10366 E BALTIMORE CIRCLE | 6 | SERVICE REPAIR | | | | | | X | | | CU | 1 | | | | 2000 |
| 028-10 | 6/14/2010 | SW | 19 | 1N | 8E | 450 S SMYTHE DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1995 |
| 029-10 | 6/14/2010 | NE | 21 | 1N | 8E | 555 N ROYAL PALM DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 030-10 | 6/14/2010 | NE | 18 | 1N | 8E | 2283 N GRAND DRIVE | 3 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 031-10 | 6/14/2010 | NE | 13 | 1N | 8E | WINDSONG STREET & PROSPECTOR ROAD | 4 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1960 |
| 032-10 | 6/15/2010 | SW | 19 | 1N | 8E | 450 S SMYTHE DRIVE | 18 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | CU | 3/4 | | | | 1995 |
| 033-10 | 6/16/2010 | NE | 25 | 1N | 7E | 11450 E CRESCENT AVENUE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1971 |
| 034-10 | 6/21/2010 | SE | 14 | 1N | 7E | 711 N 107TH STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1982 |
| 035-10 | 6/22/2010 | SE | 18 | 1N | 8E | 1134 N MAIN DRIVE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1974 |
| 036-10 | 6/22/2010 | NE | 24 | 1N | 7E | 11343 E AVALON STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 037-10 | 6/24/2010 | NE | 25 | 1N | 7E | 11365 E ELTON AVENUE | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1972 |
| 038-10 | 7/14/2010 | SE | 24 | 1N | 8E | 625 S CAMINO SAGUARO | 12 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1961 |
| 039-10 | 7/15/2010 | NE | 17 | 1N | 8E | 2050 N IDAHO ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1980 |
| 040-10 | 7/16/2010 | NW | 24 | 1N | 7E | 10866 E MERCURY DRIVE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 041-10 | 7/30/2010 | SW | 14 | 1N | 7E | 643 N 101ST PLACE | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 1 | | | | 1978 |
| 042-10 | 7/30/2010 | NE | 13 | 1N | 8E | 1717 N PROSPECTOR ROAD | 12 | MAIN REPLACEMENT | | X | | X | | | | | | | 17 | GS | 2 | 1966 |
| 043-10 | 8/2/2010 | NE | 30 | 1N | 8E | 921 S OCOTILLO DRIVE | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 044-10 | 8/4/2010 | NE | 22 | 1N | 8E | 279 N CORTEZ ROAD | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1979 |
| 045-10 | 8/5/2010 | SW | 13 | 1N | 8E | 5465 E GREASEWOOD STREET | 21 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 046-10 | 8/5/2010 | SE | 24 | 1N | 7E | 11439 E 5TH AVENUE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1963 |
| 047-10 | 8/6/2010 | SE | 24 | 1N | 7E | 4TH AVENUE & EMERALD DRIVE | 9 | MAIN REPLACEMENT | | | | X | | | | | | | 2 | GS | 2 | 1955 |
| 048-10 | 8/10/2010 | NE | 22 | 1N | 8E | 170 N HILTON ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 049-10 | 8/10/2010 | SE | 24 | 1N | 8E | 5926 E ARROYO LINDO | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 050-10 | 8/12/2010 | SW | 14 | 1N | 7E | 549 N CRISMON ROAD | 16 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 051-10 | 8/20/2010 | SW | 14 | 1N | 7E | 722 W 102ND PLACE | 15 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 052-10 | 8/23/2010 | NE | 21 | 1N | 8E | 1475 E SCENIC STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1964 |
| 053-10 | 8/24/2010 | NW | 30 | 1N | 8E | 2812 W 9TH PLACE | 6 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1976 |
| 054-10 | 8/24/2010 | SE | 15 | 1N | 8E | 1026 N GOLDFIELD ROAD | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 055-10 | 8/24/2010 | SE | 15 | 1N | 8E | 1020 N HILTON ROAD | 6 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 056-10 | 8/24/2010 | NE | 17 | 1N | 8E | 122 W FOOTHILL STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1981 |
| 057-10 | 8/25/2010 | SE | 27 | 1N | 8E | 1637 S STARR ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 058-10 | 8/26/2010 | SE | 15 | 1N | 8E | 955 N CORTEZ ROAD | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1977 |
| 059-10 | 8/26/2010 | NW | 30 | 1N | 8E | 1559 S DESERT VIEW PLACE | 6 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1970 |
| 060-10 | 9/10/2010 | NE | 13 | 1N | 8E | 6061 E FOOTHILL STREET | 6 | SERVICE REPAIR | | | | | | | | | CU | 3/4 | | | | 1988 |
| 061-10 | 9/10/2010 | SE | 20 | 1N | 8E | 431 W APACHE TRAIL | 16 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1962 |
| 062-10 | 9/14/2010 | NW | 21 | 1N | 8E | 269 S WINCHESTER ROAD | 32 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | GS | 2 | | | | 1982 |
| 063-10 | 9/15/2010 | SE | 24 | 1N | 7E | 4TH AVENUE & 5TH AVENUE ALLEY W OF MERIDIAN R | 28 | MAIN REPAIR | | X | | X | | | | | | | | CA | 6 | 1963 |
| 064-10 | 9/16/2010 | SE | 29 | 1N | 8E | 1944 S MONTEREY DRIVE #102 | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1978 |
| 065-10 | 9/20/2010 | NE | 21 | 1N | 8E | 1365 E SUPERSTITION BOULEVARD | 24 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 2 | | | | 1970 |
| 066-10 | 9/20/2010 | NW | 30 | 1N | 8E | 1331 S CEDAR DRIVE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1974 |
| 067-10 | 9/20/2010 | NE | 23 | 1N | 8E | SUPERSTITION BOULEVARD & MULESHOE ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1970 |
| 068-10 | 9/21/2010 | SE | 21 | 1N | 8E | 1130 E BROADWAY AVENUE | 28 | MAIN REPLACEMENT | | X | | X | | | | | | | 9 | CA | 6 | 1960 |
| 069-10 | 9/27/2010 | NW | 30 | 1N | 8E | 1331 S CEDAR DRIVE | 18 | SERVICE REPLACEMENT | | X | X | X | X | | | 2 | POLY | 1 | | | | 1974 |
| 070-10 | 9/29/2010 | NE | 21 | 1N | 8E | 881 E SCENIC STREET | 9 | OTHER | | | X | X | X | | | | POLY | 3/4 | | | | 1974 |
| 071-10 | 10/2/2010 | SW | 14 | 1N | 7E | 516 N 101ST PLACE | 8 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 072-10 | 10/4/2010 | NE | 18 | 1N | 8E | 1916 N IRONWOOD DRIVE | 8 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | CU | 3/4 | | | | 1995 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 073-10 | 10/5/2010 | SE | 22 | 1N | 8E | 125 S HILTON ROAD | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1968 |
| 074-10 | 10/5/2010 | SE | 18 | 1N | 8E | 1332 N MAIN DRIVE | 12 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 075-10 | 10/18/2010 | SW | 17 | 1N | 8E | 1524 W GREASEWOOD STREET | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 076-10 | 10/28/2010 | NE | 17 | 1N | 8E | 1641 N PLAZA DRIVE | 4 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 077-10 | 10/28/2010 | SW | 17 | 1N | 8E | 1524 W GREASEWOOD STREET | 6 | SERVICE REPLACEMENT | | X | X | X | X | | | 1 | POLY | 3/4 | | | | 1978 |
| 078-10 | 10/30/2010 | SE | 23 | 1N | 8E | 4666 E BROADWAY AVENUE | 15 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1972 |
| 079-10 | 11/2/2010 | NE | 20 | 1N | 8E | HIGHWAY 88 & IDAHO ROAD | 24 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1964 |
| 080-10 | 11/4/2010 | SW | 22 | 1N | 8E | 1685 E JUNCTION STREET | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 081-10 | 11/5/2010 | NE | 21 | 1N | 8E | 555 N ROYAL PALM DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 082-10 | 11/16/2010 | SW | 13 | 1N | 8E | 5180 E RAWHIDE STREET | 6 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1966 |
| 083-10 | 11/18/2010 | SE | 17 | 1N | 8E | 1475 N PLAZA DRIVE | 12 | SERVICE REPLACEMENT | | | X | X | X | | | 1 | POLY | 3/4 | | | | 1974 |
| 084-10 | 12/27/2010 | NE | 13 | 1N | 8E | 1625 N GERONIMO ROAD | 15 | MAIN REPLACEMENT | | | | X | | | | | | | 4 | GS | 2 | 1960 |
| 085-10 | 8/8/2066 | SW | 17 | 1N | 8E | 1521 W ROUNDUP STREET | 9 | SERVICE REPLACEMENT | | | X | X | X | | | 2 | POLY | 1 | | | | 1972 |
| 086-10 | 1/31/200 | SE | 20 | 1N | 8E | 380 S PHELPS DRIVE | 28 | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1976 |
| 087-10 | 3/27/200 | NE | 23 | 1N | 7E | MERRILL RANCH #45 | 12 | SERVICE REPAIR | | | | | | | | | CU | 1 | | | | 2000 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Miami | | | | | | | | | | | | | | | | | | | | | | |
| 01-04 | 1/14/2004 | SW | 30 | 1N | 15E | 522 W GIBSON STREET | 10 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 02-04 | 1/26/2004 | SW | 30 | 1N | 15E | 522 W GIBSON STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 03-04 | 2/26/2004 | SW | 21 | 1N | 15E | 4469 COPPER STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 04-04 | 3/4/2004 | SE | 30 | 1N | 15E | 300S LATHAM BOULEVARD | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1982 |
| 05-04 | 3/19/2004 | SE | 30 | 1N | 15E | 199 S LOOMIS AVENUE | 10 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 2 | 1980 |
| 06-04 | 3/25/2004 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #35 | 6 | MAIN REPAIR | | | | | X | | | | POLY | | | POLY | 1 | 1980 |
| 07-04 | 3/29/2004 | SW | 27 | 1N | 15E | 5460 LANCASTER STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 08-04 | 4/7/2004 | SW | 21 | 1N | 15E | 4469 COPPER STREET | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1980 |
| 09-04 | 4/7/2004 | NW | 29 | 1N | 15E | 5993 S CALLE DE LOMA | 8 | MAIN REPAIR | | | | | X | | | | GS | | | GS | 2 | 1946 |
| 10-04 | 4/14/2004 | NW | 28 | 1N | 15E | 4341 GLOBE AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1980 |
| 11-04 | 4/8/2004 | NW | 29 | 1N | 15E | 6031 MARION CANYON STREET | 6 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 2 | 1972 |
| 12-04 | 4/19/2004 | SE | 22 | 1N | 15E | 5717 S COBB AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1979 |
| 13-04 | 5/10/2004 | SW | 22 | 1N | 15E | 5608 S CENTRAL DRIVE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1979 |
| 14-04 | 5/19/2004 | SE | 22 | 1N | 15E | 5724 E BOYLES AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1980 |
| 15-04 | 5/26/2004 | SE | 22 | 1N | 15E | 5621 S CENTRAL DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1979 |
| 16-04 | 5/25/2004 | NW | 30 | 1N | 15E | 9 MIAMI AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1980 |
| 17-04 | 5/20/2004 | NW | 30 | 1N | 15E | 407 MCKENZIE STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1978 |
| 18-04 | 6/4/2004 | NE | 29 | 1N | 15E | 3936 GREER STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1979 |
| 19-04 | 6/3/2004 | SE | 20 | 1N | 15E | 4481 E COPPER STREET | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1977 |
| 20-04 | 6/18/2004 | SE | 22 | 1N | 15E | 5680 S CENTRAL DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1976 |
| 21-04 | 6/29/2004 | SE | 22 | 1N | 15E | 5543 S GLENDALE AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1976 |
| 22-04 | 7/6/2004 | SW | 30 | 1N | 15E | 915 SULLIVAN STREET (BACK OF CHURCH) | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 1 | | | | 1976 |
| 23-04 | 7/28/2004 | SW | 30 | 1N | 15E | 182 S GLASS CANYON ROAD | 6 | MAIN REPAIR | | | | | X | | | | GS | | | GS | 2 | 1956 |
| 24-04 | 7/20/2004 | SE | 30 | 1N | 15E | 3005 LATHAM BOULEVARD | 12 | SERVICE REPAIR | | | | | X | | | | PVC | 1 | | | | 1976 |
| 25-04 | 7/28/2004 | SE | 30 | 1N | 15E | 3046 GRANDVIEW AVENUE | 9 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 1 | 1976 |
| 26-04 | 7/26/2004 | SW | 21 | 1N | 15E | 4409 COPPER STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1976 |
| 27-04 | 7/14/2004 | SW | 20 | 1N | 15E | 5836 S NEW STREET | 12 | MAIN REPAIR | | | | | X | | | | OTHER | | | AC | 6 | 1953 |
| 28-04 | 7/23/2004 | NE | 22 | 1N | 15E | 4 JOHNSON LANE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1976 |
| 29-04 | 7/1/2004 | SW | 22 | 1N | 15E | 5611 E BLOCK AVENUE #28 | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1976 |
| 30-04 | 7/26/2004 | SW | 27 | 1N | 15E | 5497 PINAL CANYON DRIVE | 12 | MAIN REPAIR | | | | | X | | | | OTHER | | | AC | 4 | 1942 |
| 31-04 | 7/20/2004 | SE | 22 | 1N | 15E | 5699 E CROSS DRIVE | 9 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 2 | 1976 |
| 32-04 | 8/6/2004 | NW | 30 | 1N | 15E | 407 MCKENZIE STREET | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 33-04 | 8/2/2004 | NE | 30 | 1N | 15E | 4080 HIGHLAND AVENUE | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 34-04 | 8/6/2004 | SW | 30 | 1N | 15E | 258 N LIVE OAK CANYON ROAD | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 35-04 | 8/2/2004 | NW | 29 | 1N | 15E | 3451 MILL STREET | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 36-04 | 8/16/2004 | NE | 29 | 1N | 15E | 3900 GREER STREET | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 37-04 | 9/4/2004 | SE | 15 | 1N | 15E | 626 W OLD MOUNTAIN ROAD | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 38-04 | 9/24/2004 | SW | 30 | 1N | 15E | 1103 ARTHUR STREET | 8 | MAIN REPAIR | | | | | X | | | | POLY | | | POLY | 1 | 1984 |
| 39-04 | 9/27/2004 | SW | 22 | 1N | 15E | 5611 E BLOCK AVENUE #32 | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 40-04 | 9/1/2004 | SW | 30 | 1N | 15E | 525 W SULLIVAN STREET | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1982 |
| 41-04 | 9/15/2004 | SW | 22 | 1N | 15E | 5802 S RUSSELL ROAD | 8 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1986 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42-04 | 11/29/2004 | SW | 30 | 1N | 15E | REPPY AVENUE & FREDERICK STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 43-04 | 11/10/2004 | SW | 30 | 1N | 15E | 1009 W ARTHUR STREET | 8 | MAIN REPAIR | | | | | X | | | | POLY | | | POLY | 1 | 1984 |
| 44-04 | 11/17/2004 | SW | 30 | 1N | 15E | 1031 ADONIS AVENUE | 12 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 45-04 | 11/5/2004 | SW | 30 | 1N | 15E | 1023 ADONIS AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 46-04 | 11/1/2004 | NE | 30 | 1N | 15E | 3006 LAFAYETTE AVENUE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 47-04 | 11/17/2004 | NW | 29 | 1N | 15E | 5938 S CALLE DE LOMA | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 48-04 | 11/3/2004 | NW | 28 | 1N | 15E | 5973 PALMER LANE | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1988 |
| 49-04 | 11/3/2004 | SE | 22 | 1N | 15E | 5564 S GLENDALE AVENUE | 12 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 50-04 | 12/6/2004 | SW | 22 | 1N | 15E | 5549 ROBERTS DRIVE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 51-04 | 12/2/2004 | SE | 22 | 1N | 15E | 5699 CROSS DRIVE | 6 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 2 | 1980 |
| 52-04 | 12/6/2004 | SE | 15 | 1N | 15E | 38 CHAPARRAL LOOP | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1972 |
| 01-05 | 1/25/2005 | SW | 4 | 1N | 15E | 1954 N BIXBY ROAD | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1973 |
| 02-05 | 1/31/2005 | NW | 29 | 1N | 15E | 4062 MILL STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 03-05 | 1/3/2005 | NE | 21 | 1N | 15E | 2250 HIGHWAY 60 #B | 3 | SERVICE REPAIR | | X | | | | | | | PVC | 2 | | | | 1970 |
| 04-05 | 1/11/2005 | NE | 30 | 1N | 15E | 4083 HIGHLAND AVENUE | 10 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1975 |
| 05-05 | 1/10/2005 | SW | 30 | 1N | 15E | 1067 ADONIS AVENUE | 16 | MAIN REPAIR | | X | | | | | | | | | | CI | 3 | 1932 |
| 06-05 | 1/31/2005 | NE | 30 | 1N | 15E | 3211 LOOMIS AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1970 |
| 07-05 | 1/21/2005 | NW | 29 | 1N | 15E | 3615 RAILROAD AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 08-05 | 1/25/2005 | NE | 29 | 1N | 15E | 5955 MORROW AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 09-05 | 1/26/2005 | NE | 29 | 1N | 15E | 5945 MORROW AVENUE | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 10-05 | 1/12/2005 | SW | 30 | 1N | 15E | 67 CHISHOLM AVENUE | 9 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 11-05 | 1/13/2005 | SE | 20 | 1N | 15E | 3939 HIGHWAY 60 | 12 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1963 |
| 12-05 | 1/7/2005 | SW | 22 | 1N | 15E | 5557 ALBERTA DRIVE | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 13-05 | 1/15/2005 | SW | 30 | 1N | 15E | 526 GIBSON STREET | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 14-05 | 2/9/2005 | SW | 30 | 1N | 15E | 210 LIVE OAK STREET | 10 | MAIN REPAIR | | X | | | | | | | | | | AC | 4 | 1972 |
| 15-05 | 2/28/2005 | SW | 20 | 1N | 15E | 3756 HIGHWAY 60 (ACROSS THE HIGHWAY) | 8 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1963 |
| 16-05 | 2/8/2005 | SW | 22 | 1N | 15E | 5239 GOLDEN HILL ROAD | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1973 |
| 17-05 | 2/24/2005 | SE | 22 | 1N | 15E | 5728 CENTRAL DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 18-05 | 3/16/2005 | SE | 30 | 1N | 15E | 3323 LOOMIS AVENUE | 10 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 1982 |
| 19-05 | 3/17/2005 | NW | 29 | 1N | 15E | 3435 MILL STREET | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 20-05 | 3/29/2005 | SE | 22 | 1N | 15E | 5625 E GOLDEN HILL ROAD | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 21-05 | 3/28/2005 | SW | 27 | 1N | 15E | 6325 S THOMASINA LANE | 10 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1984 |
| 22-05 | 3/22/2005 | NE | 36 | 1N | 14E | 1401 LIVE OAK STREET | 8 | MAIN REPAIR | | X | | | | | | | | | | STEEL | 6 | 1968 |
| 23-05 | 4/12/2005 | SW | 30 | 1N | 15E | 722 LIVE OAK STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 24-05 | 5/25/2005 | NE | 36 | 1N | 15E | 1309 CANYON AVENUE | 5 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 25-05 | 4/27/2005 | NE | 29 | 1N | 15E | 5907 GROVER CANYON ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 26-05 | 4/27/2005 | SE | 30 | 1N | 15E | 3039 MIZONA AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1979 |
| 27-05 | 4/19/2005 | NW | 31 | 1N | 15E | 1201 TOWELS AVENUE | 8 | MAIN REPAIR | | X | | | | | | | | | | GAL | 3 | 1936 |
| 28-05 | 4/14/2005 | SW | 22 | 1N | 15E | 300 FT WEST OF INTERSECTION GOLDEN HILL ROAD & | 4 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1987 |
| 29-05 | 4/11/2005 | SW | 22 | 1N | 15E | 5786 RUSSELL ROAD | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 30-05 | 5/12/2005 | NW | 29 | 1N | 15E | 6026 PUERTO RICO AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | GS | 3/4 | | | | 1930 |
| 31-05 | 5/26/2005 | SE | 22 | 1N | 15E | 5699 CROSS DRIVE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1970 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32-05 | 5/11/2005 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #25 | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1973 |
| 33-05 | 5/31/2005 | SW | 30 | 1N | 15E | 218 WENTWORTH AVENUE | 10 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1970 |
| 34-05 | 5/10/2005 | SE | 22 | 1N | 15E | 5704 CENTRAL AVENUE | 8 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1973 |
| 35-05 | 5/20/2005 | SE | 22 | 1N | 15E | 5465 RANDALL ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1970 |
| 36-05 | 5/25/2005 | NE | 30 | 1N | 15E | 3323 LOOMIS AVENUE | 2 | MAIN REPAIR | | X | | | | | | | | | | GAL | 1 | 1930 |
| 37-05 | 6/22/2005 | SW | 22 | 1N | 15E | 5535 E APACHE HILLS LANE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1984 |
| 38-05 | 6/20/2005 | SW | 21 | 1N | 15E | 4469 COPPER STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 39-05 | 6/9/2005 | NW | 27 | 1N | 15E | 5415 WOODWARD STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 40-05 | 6/1/2005 | SW | 30 | 1N | 15E | 1103 ARTHUR STREET | 8 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1984 |
| 41-05 | 6/27/2005 | SW | 22 | 1N | 15E | 5419 ROBERTS DRIVE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 42-05 | 6/27/2005 | SW | 20 | 1N | 15E | 3756 HIGHWAY 60 (ACROSS THE HIGHWAY) | 12 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1976 |
| 43-05 | 6/16/2005 | SE | 22 | 1N | 15E | 5626 BLOCK AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 44-05 | 6/10/2005 | SE | 22 | 1N | 15E | 5613 S CENTRAL DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 45-05 | 7/7/2005 | NE | 22 | 1N | 15E | 5902 SHORT AVENUE | 6 | MAIN REPAIR | | X | | | | | | | | | | AC | 4 | 1967 |
| 46-05 | 7/12/2005 | NW | 28 | 1N | 15E | 5973 PALMER LANE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 47-05 | 7/1/2005 | SE | 22 | 1N | 15E | 5704 S CENTRAL DRIVE | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1979 |
| 48-05 | 7/18/2005 | SE | 30 | 1N | 15E | 301 MILTON AVENUE | 6 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1967 |
| 49-05 | 7/18/2005 | SW | 20 | 1N | 15E | 3756 HIGHWAY 60 (ACROSS THE HIGHWAY) | 12 | MAIN REPLACEMENT | | X | | | | | | | | | 6 | AC | 6 | 1953 |
| 50-05 | 7/19/2005 | SW | 30 | 1N | 15E | 218 WENTWORTH AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 51-05 | 7/25/2005 | SW | 27 | 1N | 15E | 5457 SNEDDEN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 52-05 | 7/26/2005 | NE | 29 | 1N | 15E | 4252 HAMMOND STREET | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1978 |
| 53-05 | 8/2/2005 | SW | 22 | 1N | 15E | 733 ELM WAY | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 54-05 | 8/29/2005 | SE | 22 | 1N | 15E | 5759 E GLOBE CANYON AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 55-05 | 8/25/2005 | SE | 22 | 1N | 15E | 5581 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 56-05 | 8/15/2005 | SW | 22 | 1N | 15E | 5351 WASHBURN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 57-05 | 8/16/2005 | SW | 30 | 1N | 15E | 55 CHISHOLM AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 58-05 | 8/12/2005 | SE | 30 | 1N | 15E | 301 MILTON AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 59-05 | 8/3/2005 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 12 | MAIN REPAIR | | X | | | | | | | | | | POLY | 6 | 1999 |
| 60-05 | 8/25/2005 | SE | 30 | 1N | 15E | 3335 LOOMIS AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 61-05 | 8/10/2005 | SW | 22 | 1N | 15E | 5537 E APACHE HILLS LANE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1984 |
| 62-05 | 8/26/2005 | NW | 29 | 1N | 15E | 6031 MARION CANYON STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | PVC | 2 | 1990 |
| 63-05 | 8/25/2005 | SE | 30 | 1N | 15E | 3329 LOOMIS AVENUE | 8 | MAIN REPAIR | | | | | X | | | | | | | PVC | 2 | 1990 |
| 64-05 | 9/6/2005 | NE | 21 | 1N | 15E | 2250 E US HIGHWAY 60 | 8 | SERVICE REPAIR | | X | | | | | | | PVC | 2 | | | | 1976 |
| 65-05 | 9/16/2005 | SE | 30 | 1N | 15E | 300 CHERRY FLATS ROAD #40 | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 66-05 | 9/30/2005 | NE | 31 | 1N | 15E | 300 CHERRY FLATS ROAD #10 | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 67-05 | 9/19/2005 | NW | 27 | 1N | 15E | 5453 E STORY STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 68-05 | 9/26/2005 | NW | 36 | 1N | 14E | 4 MACKEY CAMP ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1970 |
| 69-05 | 9/7/2005 | NW | 28 | 1N | 15E | OLD OAK STREET & GLOBE AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 70-05 | 9/9/2005 | SE | 22 | 1N | 15E | 5626 BLOCK AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1970 |
| 71-05 | 10/25/2005 | SW | 22 | 1N | 15E | 5802 S RUSSELL ROAD | 10 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1978 |
| 72-05 | 10/11/2005 | SE | 22 | 1N | 15E | 5611 E BLOCK AVENUE #15 | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | N/A | | 1984 |
| 73-05 | 10/24/2005 | SE | 22 | 1N | 15E | 5638 BLOCK AVENUE | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1990 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 74-05 | 10/27/2005 | NW | 27 | 1N | 15E | 5455 E HUIE STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 75-05 | 10/15/2005 | SE | 22 | 1N | 15E | 1627 N ARBOR AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 76-05 | 10/10/2005 | SW | 30 | 1N | 15E | 236 N NELLIE AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 77-05 | 10/14/2005 | SE | 30 | 1N | 15E | 1949 BIXBY ROAD | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 78-05 | 10/13/2005 | SE | 22 | 1N | 15E | 5920 SCOTT AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 79-05 | 10/6/2005 | NW | 29 | 1N | 15E | 6052 CLEVELAND AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 80-05 | 10/12/2005 | NW | 29 | 1N | 15E | 6052 CLEVELAND AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 81-05 | 10/21/2005 | NE | 30 | 1N | 15E | 4103 HIGHLAND AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 82-05 | 10/28/2005 | SW | 30 | 1N | 15E | 918 KEEGAN STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1972 |
| 83-05 | 10/19/2005 | SW | 30 | 1N | 15E | 941 LIVE OAK STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1980 |
| 84-05 | 10/14/2005 | NW | 30 | 1N | 15E | 40 MIAMI AVENUE | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1982 |
| 85-05 | 11/1/2005 | NW | 29 | 1N | 15E | 6052 CLEVELAND AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 86-05 | 11/14/2005 | SE | 22 | 1N | 15E | 5611 BLOCK AVENUE | 10 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1973 |
| 87-05 | 11/1/2005 | NW | 29 | 1N | 15E | 3599 E US HIGHWAY 60 | 8 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1963 |
| 88-05 | 11/29/2005 | NE | 29 | 1N | 15E | 3907 GREER STREET | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1970 |
| 89-05 | 11/30/2005 | NE | 29 | 1N | 15E | 5928 LONG STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1983 |
| 90-05 | 11/2/2005 | NW | 29 | 1N | 15E | 3817 W JEFFERSON STREET | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1978 |
| 91-05 | 11/21/2005 | NE | 30 | 1N | 15E | 3006 LAFAYETTE AVENUE | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1970 |
| 92-05 | 11/7/2005 | SW | 30 | 1N | 15E | 726 LIVE OAK STREET | 4 | SERVICE REPAIR | | X | | | | | | | CU | 3/4 | | | | 1980 |
| 93-05 | 12/6/2005 | SE | 22 | 1N | 15E | 5933 SCOTT AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 94-05 | 12/5/2005 | SE | 22 | 1N | 15E | 5546 APACHE AVENUE | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1984 |
| 95-05 | 12/16/2005 | SW | 30 | 1N | 15E | 927 MERRITT STREET | 6 | MAIN REPAIR | | X | | | | | | | | | | CI | 6 | 1955 |
| 96-05 | 12/1/2005 | NW | 29 | 1N | 15E | 6122 S MARION STREET | 4 | OTHER | | | | | X | | | 1 | GS | 2 | | | | 1936 |
| 97-05 | 12/5/2005 | SE | 22 | 1N | 15E | 6021 E SHORT AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 98-05 | 12/12/2005 | SE | 22 | 1N | 15E | 5786 CENTRAL AVENUE | 10 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1973 |
| 99-05 | 12/20/2005 | SW | 22 | 1N | 15E | 5377 E WASHBURN STREET | 10 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 1980 |
| 00-05 | 12/5/2005 | SW | 30 | 1N | 15E | 507 ORPHAN STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 01-05 | 12/31/2005 | SW | 30 | 1N | 15E | 77 CHISHOLM AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 02-05 | 12/21/2005 | SE | 22 | 1N | 15E | 5597 S MCKINNEY AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 01-06 | 1/12/2006 | NW | 29 | 1N | 15E | 447 E SMELTER STREET | 9 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 1956 |
| 02-06 | 1/26/2006 | SE | 34 | 1N | 15E | QUAIL RUN & RUSSELL ROAD | 9 | MAIN REPAIR | | | | | X | | | | | | | POLY | 2 | 1990 |
| 03-06 | 2/17/2006 | NW | 29 | 1N | 15E | 6027 MARION CANYON STREET | 12 | MAIN REPAIR | | X | | | | | | | | | | POLY | 2 | 1970 |
| 04-06 | 2/24/2006 | SW | 30 | 1N | 15E | 57 N KEYSTONE AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | CU | 3/4 | | | | 1972 |
| 05-06 | 2/24/2006 | SW | 30 | 1N | 15E | 708 W LIVE OAK STREET | 6 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1970 |
| 06-06 | 2/9/2006 | NE | 28 | 1N | 15E | 4498 BROADWAY STREET | 12 | SERVICE REPAIR | | X | | | | | | | GS | 3/4 | | | | 1940 |
| 07-06 | 3/15/2006 | NE | 30 | 1N | 15E | 195 LIVE OAK STREET | 12 | MAIN REPAIR | | X | | | | | | | | | | CI | 6 | 1935 |
| 08-06 | 3/24/2006 | NE | 30 | 1N | 15E | 158 W HARDY STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 09-06 | 3/27/2006 | SE | 22 | 1N | 15E | 5630 DOMINION STREET | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 10-06 | 4/4/2006 | NE | 21 | 1N | 15E | 2250 E US HIGHWAY 60 | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 2 | | | | 1976 |
| 11-06 | 4/26/2006 | SW | 27 | 1N | 15E | RUSSELL ROAD & SNEDDEN STREET | 8 | MAIN REPAIR | | X | | | | | | | | | | AC | 4 | 1959 |
| 12-06 | 4/13/2006 | NE | 29 | 1N | 15E | 4356 HAMMOND STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 13-06 | 4/11/2006 | SW | 22 | 1N | 15E | 5306 YOUNG STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1975 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | POR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-06 | 4/27/2006 | SE | 22 | 1N | 15E | INSPIRATION DRIVE & SCOTT AVENUE | 6 | OTHER | | X | | | | | | 1 | OTHER | 2 | | | | 1988 |
| 15-06 | 4/14/2006 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #22 | 4 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1970 |
| 16-06 | 4/20/2006 | NW | 29 | 1N | 15E | 3599 US HIGHWAY 60 | 16 | MAIN REPAIR | | | | | | X | | | | | 6 | AC | 6 | 1953 |
| 17-06 | 4/13/2006 | SE | 22 | 1N | 15E | 5875 SHORT AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 18-06 | 4/21/2006 | SW | 30 | 1N | 15E | 143 N MIAMI AVENUE | 1 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1978 |
| 19-06 | 4/20/2006 | SW | 30 | 1N | 15E | 143 N MIAMI AVENUE | 1 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1978 |
| 20-06 | 4/21/2006 | SE | 30 | 1N | 15E | 253 S SUNNYSLOPE AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1975 |
| 21-06 | 4/17/2006 | SW | 30 | 1N | 15E | 726 N NASH AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1972 |
| 22-06 | 4/19/2006 | SW | 4 | 1N | 15E | BIXBY ROAD | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1975 |
| 23-06 | 4/28/2006 | NE | 30 | 1N | 15E | 4070 KENT STREET | 6 | OTHER | | | | | | X | | 1 | GS | 2 | | | | 1930 |
| 24-06 | 5/5/2006 | SE | 30 | 1N | 15E | 3045 HARDY ROAD | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 25-06 | 5/15/2006 | NW | 31 | 1N | 15E | 1200 TOWELS AVENUE | 10 | MAIN REPAIR | | X | | | | | | | | | | GAL | 3 | 1936 |
| 26-06 | 5/22/2006 | NW | 28 | 1N | 15E | 4365 HAMMOND STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 27-06 | 5/19/2006 | SW | 30 | 1N | 15E | 1042 ADONIS AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 28-06 | 5/5/2006 | SW | 21 | 1N | 15E | 4469 COPPER STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 29-06 | 5/4/2006 | SE | 30 | 1N | 15E | 3072 ALTA REST AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1932 |
| 30-06 | 5/22/2006 | NE | 29 | 1N | 15E | 4283 EL CAMINO | 8 | MAIN REPAIR | | | | | | X | | | | | | GAL | 3 | 1935 |
| 31-06 | 5/22/2006 | SW | 30 | 1N | 15E | 6008 EL CAMINO | 12 | MAIN REPLACEMENT | | | | | | X | | | | | 10 | POLY | 1 | 1949 |
| 32-06 | 5/9/2006 | SE | 15 | 1N | 15E | 9 SOTOL LOOP | 10 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1972 |
| 33-06 | 6/12/2006 | NW | 29 | 1N | 15E | 6026 PORTO RICO AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | GS | 3/4 | | | | 1930 |
| 34-06 | 6/20/2006 | SW | 22 | 1N | 15E | 5306 YOUNG STREET | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1975 |
| 35-06 | 6/5/2006 | SE | 30 | 1N | 15E | 3038 SUNNYSLOPE STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 36-06 | 6/28/2006 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 37-06 | 6/23/2006 | SW | 21 | 1N | 15E | 4471 BROADWAY STREET | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1943 |
| 38-06 | 6/12/2006 | SE | 22 | 1N | 15E | 5743 S MCKINNEY AVENUE | 9 | MAIN REPAIR | | | | | | X | | | | | | AC | 6 | 1956 |
| 39-06 | 6/7/2006 | SW | 22 | 1N | 15E | 5558 ALBERTA DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 40-06 | 6/12/2006 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #10 | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 1972 |
| 41-06 | 6/26/2006 | NW | 29 | 1N | 15E | 6118 S CALLE DE LOMA | 2 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1946 |
| 42-06 | 7/27/2006 | SE | 22 | 1N | 15E | 5571 S MCKINNEY AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 43-06 | 7/21/2006 | SE | 22 | 1N | 15E | 5582 GLENDALE AVENUE | 5 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 44-06 | 7/7/2006 | SW | 30 | 1N | 15E | 1110 ARTHUR STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1978 |
| 45-06 | 7/10/2006 | SW | 30 | 1N | 15E | 1110 ARTHUR STREET | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1978 |
| 46-06 | 7/6/2006 | NE | 29 | 1N | 15E | 4331 GLOBE AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 47-06 | 7/6/2006 | SE | 22 | 1N | 15E | 5580 S MCKINNEY AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 48-06 | 7/3/2006 | NE | 16 | 1N | 15E | 14239 HIGHWAY 188 | 8 | SERVICE REPAIR | | | | | | X | | | GS | 2 | | | | 1972 |
| 49-06 | 7/10/2006 | SW | 30 | 1N | 15E | 186 S CEDAR AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 50-06 | 7/25/2006 | SE | 22 | 1N | 15E | 5871 HILL STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 51-06 | 8/4/2006 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #34 | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1986 |
| 52-06 | 8/15/2006 | SE | 22 | 1N | 15E | 5817 BRADLEY | 10 | MAIN REPAIR | | | | | X | | | | | | | AC | 6 | 1962 |
| 53-06 | 8/23/2006 | NE | 5 | 1N | 15E | 4773 HIGHWAY 188 | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 54-06 | 8/8/2006 | SE | 20 | 1N | 15E | 5823 S GROVER CANYON | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1980 |
| 55-06 | 8/24/2006 | NW | 28 | 1N | 15E | 5990 S BOARD DRIVE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56-06 | 8/26/2006 | SW | 27 | 1N | 15E | 5428 LANCASTER STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 57-06 | 8/28/2006 | NE | 21 | 1N | 15E | 1996 HIGHWAY 188 | 12 | MAIN REPAIR | | X | | | | | | | | | | AC | 8 | 1973 |
| 58-06 | 8/2/2006 | SW | 30 | 1N | 15E | 501 W SULLIVAN STREET | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 59-06 | 8/8/2006 | NW | 27 | 1N | 15E | 5514 STORY STREET | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 60-06 | 9/7/2006 | NE | 5 | 1N | 15E | 4773 HIGHWAY 188 | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 61-06 | 9/27/2006 | SE | 22 | 1N | 15E | 5643 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 62-06 | 9/1/2006 | SE | 30 | 1N | 15E | 3014 LATHAM BOULEVARD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1977 |
| 63-06 | 9/12/2006 | SE | 30 | 1N | 15E | 3011 LATHAM BOULEVARD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1977 |
| 64-06 | 9/26/2006 | SE | 22 | 1N | 15E | 5716 ARROYA AVENUE | 12 | MAIN REPAIR | | | | | X | | | | | | | GAL | 2 | 1948 |
| 65-06 | 9/29/2006 | NW | 22 | 1N | 15E | 1996 HIGHWAY 188 | 9 | SERVICE REPAIR | | | | | X | | | | PVC | 2 | | | | 1977 |
| 66-06 | 9/1/2006 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1977 |
| 67-06 | 9/27/2006 | SE | 30 | 1N | 15E | 3036 LOOMIS AVENUE | 9 | MAIN REPAIR | | | | | X | | | | | | | POLY | 2 | 1984 |
| 68-06 | 9/19/2006 | SW | 30 | 1N | 15E | 1103 ARTHUR STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1979 |
| 69-06 | 9/28/2006 | SE | 15 | 1N | 15E | 21 SUPERSTITION CIRCLE | 10 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1976 |
| 70-06 | 9/1/2006 | NW | 28 | 1N | 15E | 5990 BOARD DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 71-06 | 9/5/2006 | SE | 21 | 1N | 15E | 5634 S RUSSELL ROAD | 9 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1945 |
| 72-06 | 9/7/2006 | SE | 25 | 1N | 15E | 135 CANYON AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 73-06 | 9/29/2006 | SE | 22 | 1N | 15E | 5559 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 74-06 | 9/16/2006 | NW | 29 | 1N | 15E | 3682 US HIGHWAY 60 | 16 | MAIN REPAIR | | | | | | X | | | | | 8 | AC | 6 | 1963 |
| 75-06 | 10/26/2006 | SW | 21 | 1N | 15E | 5771 OLD OAK STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 76-06 | 10/30/2006 | SE | 29 | 1N | 15E | 5962 GROVER CANYON ROAD | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 77-06 | 10/27/2006 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 78-06 | 10/5/2006 | SE | 21 | 1N | 15E | 2370 E US HIGHWAY 60 | 10 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1961 |
| 79-06 | 10/7/2006 | NE | 21 | 1N | 15E | 1996 HIGHWAY 188 | 10 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1980 |
| 01-07 | 1/29/2007 | NW | 28 | 1N | 15E | 6005 BOARD DRIVE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | | | 1973 |
| 02-07 | 1/2/2007 | NE | 9 | 1N | 15E | 200 FT NORTH OF RAILROAD CROSSING | 9 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 8 | 1973 |
| 03-07 | 1/21/2007 | SW | 27 | 1N | 15E | 5509 PINAL CANYON DRIVE | 8 | SERVICE REPAIR | | | | | | X | | | PVC | 1 | | | | 1971 |
| 04-07 | 1/29/2009 | NW | 30 | 1N | 15E | 522 W PINTO STREET | 9 | SERVICE REPAIR | | | | | | X | | | GS | | | GS | 1 | 1937 |
| 05-07 | 1/29/2007 | SE | 20 | 1N | 15E | 5781 AVE DE ED PASTOR | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 06-07 | 1/15/2007 | SE | 22 | 1N | 15E | 5629 ENGLISH AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1978 |
| 07-07 | 1/9/2007 | NE | 29 | 1N | 15E | 4283 WILSON STREET | 12 | SERVICE REPAIR | | | | | | X | | | GS | 3 | | | | 1936 |
| 08-07 | 2/7/2007 | NW | 29 | 1N | 15E | 6196 CALL DE LOMA | 3 | MAIN REPAIR | | | | | | X | | | GS | 2 | | GS | 2 | 1946 |
| 09-07 | 2/14/2007 | NW | 30 | 1N | 15E | 522 W PINTO STREET | 9 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 1 | 1937 |
| 10-07 | 2/15/2007 | NE | 29 | 1N | 15E | 5955 MORROW AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | N/A | PVC | | | | N/A |
| 11-07 | 2/16/2007 | NE | 29 | 1N | 15E | 5945 MORROW AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1978 |
| 12-07 | 2/26/2007 | NE | 29 | 1N | 15E | 6048 MORROW AVENUE | 8 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1953 |
| 13-07 | 2/7/2007 | SW | 30 | 1N | 15E | 1103 ARTHUR STREET | 9 | MAIN REPAIR | | | | | | X | | | PVC | | | PVC | 1 | 1972 |
| 14-07 | 2/1/2007 | NE | 5 | 1N | 15E | BIXBY ROAD | 8 | MAIN REPLACEMENT | | | | X | | | | | PVC | | 8 | PVC | 3/4 | 1980 |
| 15-07 | 3/3/2007 | SE | 15 | 1N | 15E | #11 WELL | 9 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1970 |
| 16-07 | 3/7/2007 | SW | 30 | 1N | 15E | 143 N MIAMI AVENUE | 1 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1979 |
| 17-07 | 3/22/2007 | NE | 29 | 1N | 15E | 5955 MORROW AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1978 |
| 18-07 | 3/29/2007 | SW | 30 | 1N | 15E | 508 N SULLIVAN STREET | 12 | MAIN REPAIR | | | | | | X | | | OTHER | | | CICL | 6 | 1932 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19-07 | 3/29/2007 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 9 | MAIN REPAIR | | | | | | X | | | POLY | | | HDPE | 6 | 1997 |
| 20-07 | 4/15/2007 | NW | 4 | 1N | 15E | 2008 BIXBY ROAD | 9 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1977 |
| 21-07 | 4/27/2007 | SE | 22 | 1N | 15E | 5672 MAIN STREET | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GAL | 1 1/2 | 1945 |
| 22-07 | 4/27/2007 | SE | 30 | 1N | 15E | 342 S LOOMIS AVENUE | 8 | MAIN REPAIR | | | | | | X | | | PVC | | | PVC | 2 | 1935 |
| 23-07 | 4/2/2007 | SE | 25 | 1N | 15E | WATER STREET & WAREHOUSE | 2 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1992 |
| 24-07 | 6/25/2007 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 8 | MAIN REPAIR | | | | X | | | | | POLY | | 18" | POLY | 6 | 1997 |
| 25-07 | 9/24/2007 | SW | 30 | 1N | 15E | 922 MERRITT STREET | 6 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1936 |
| 26-07 | 9/29/2007 | SW | 30 | 1N | 15E | 731 CHURCH HILL #B | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 3 | 1935 |
| 27-07 | 9/25/2007 | NW | 28 | 1N | 15E | 5174 OLD OAK STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1967 |
| 28-07 | 9/24/2007 | SE | 22 | 1N | 15E | 5754 S MOUNTAIN VIEW | 6 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1940 |
| 29-07 | 9/13/2007 | NE | 30 | 1N | 15E | 3051 LATHAM BOULEVARD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 30-07 | 9/13/2007 | SW | 21 | 1N | 15E | 4490 BROADWAY STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 31-07 | 9/13/2007 | SW | 22 | 1N | 15E | 5258 GOLDEN HILL ROAD | 8 | MAIN REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 32-07 | 9/5/2007 | SW | 27 | 1N | 15E | 5549 SNEDDEN STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 33-07 | 9/8/2007 | NW | 29 | 1N | 15E | 3431 MILL STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1975 |
| 34-07 | 9/5/2007 | SW | 30 | 1N | 15E | 76 CHISHOLM AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 35-07 | 9/4/2007 | SW | 30 | 1N | 15E | 1110 ARTHUR STREET | 4 | MAIN REPAIR | | | | | | X | | | POLY | | | POLY | 1 | 1970 |
| 36-07 | 9/4/2007 | SW | 30 | 1N | 15E | 87 CHISHOLM AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 37-07 | 9/2/2007 | NW | 22 | 1N | 15E | 714 3RD AVENUE | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 38-07 | 9/17/2007 | NW | 4 | 1N | 15E | 1780 BIXBY ROAD | 6 | SERVICE REPAIR | | | | X | | | | 1 | CU | 3/4 | | | | 1973 |
| 39-07 | 9/13/2007 | NE | 29 | 1N | 15E | 5949 GLOBE AVENUE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1939 |
| 40-07 | 9/13/2007 | NW | 22 | 1N | 15E | 1996 N HIGHWAY 188 | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 2 | | | | 1977 |
| 41-07 | 1/13/2007 | SW | 21 | 1N | 15E | 4490 BROADWAY STREET | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1948 |
| 42-07 | 10/18/2007 | NE | 29 | 1N | 15E | 4235 HAMMOND STREET | 4 | MAIN REPAIR | | | | | | X | | | POLY | | | POLY | 1 | 1981 |
| 43-07 | 10/15/2007 | NW | 29 | 1N | 15E | 6031 MARION CANYON STREET | 8 | MAIN REPAIR | | | | | | X | | | PVC | | | PVC | 2 | 1976 |
| 44-07 | 10/30/2007 | SW | 30 | 1N | 15E | 198 N CHISHOLM AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |
| 45-07 | 10/31/2007 | SE | 22 | 1N | 15E | 6021 SHORT AVENUE | 4 | SERVICE REPLACEMENT | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 46-07 | 11/28/2007 | SE | 30 | 1N | 15E | 342 S LOOMIS AVENUE | 10 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 1 1/4 | UNKNOWN |
| 47-07 | 11/26/2007 | NE | 30 | 1N | 15E | 429 E SMELTER STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 48-07 | 11/27/2007 | SE | 22 | 1N | 15E | 5680 S CENTRAL DRIVE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |
| 49-07 | 11/16/2007 | SE | 22 | 1N | 15E | 6669 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 50-07 | 11/26/2007 | SW | 22 | 1N | 15E | 5258 GOLDEN HILL ROAD | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |
| 51-07 | 11/15/2007 | NW | 29 | 1N | 15E | 6153 E WASHINGTON AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 52-07 | 11/16/2007 | SE | 22 | 1N | 15E | 5559 S MCKINNEY AVENUE | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 53-07 | 12/28/2007 | SW | 21 | 1N | 15E | 5518 S WILSON PLACE | 8 | MAIN REPAIR | | | | | | X | | | POLY | | | POLY | 1 | 1980 |
| 54-07 | 12/5/2007 | SW | 27 | 1N | 15E | 6393 S RUSSELL ROAD | 12 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 4 | 1959 |
| 55-07 | 12/7/2007 | NW | 28 | 1N | 15E | 4235 HAMMOND STREET | 8 | MAIN REPAIR | | | | | | X | | | POLY | | | POLY | 1 | 1986 |
| 56-07 | 12/31/2007 | NW | 22 | 1N | 15E | 712 PAXTON AVENUE | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 57-07 | 12/18/2007 | NE | 29 | 1N | 15E | 5912 GROVER CANYON ROAD | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 58-07 | 12/27/2007 | SE | 22 | 1N | 15E | CENTRAL DRIVE & MONROE PLACE | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 1 | UNKNOWN |
| 59-07 | 12/28/2007 | SW | 27 | 1N | 15E | 5509 PINAL CANYON DRIVE | 8 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 60-07 | 12/31/2007 | SE | 22 | 1N | 15E | 5717 COBB AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61-07 | 6/7/2007 | SE | 15 | 1N | 15E | 57 AGASSIZ TERRACE | 8 | MAIN REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1984 |
| 62-07 | 6/29/2007 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 12 | MAIN REPAIR | | | | | | X | | | POLY | | | HDPE | 6 | 1997 |
| 63-07 | 6/4/2007 | SE | 22 | 1N | 15E | 5600 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1986 |
| 64-07 | 6/11/2007 | SE | 22 | 1N | 15E | 5663 BLACK WARRIOR STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 65-07 | 6/22/2007 | SW | 22 | 1N | 15E | 5557 ALBERTA DRIVE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |
| 66-07 | 6/8/2007 | SE | 22 | 1N | 15E | 5881 E HILL STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 01-08 | 2/2/2008 | SE | 20 | 1N | 15E | 4259 WILSON STREET | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 3 | 1956 |
| 02-08 | 2/6/2008 | NW | 28 | 1N | 15E | 5963 DAWDY DRIVE | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1943 |
| 03-08 | 2/16/2008 | SW | 22 | 1N | 15E | 5276 E GOLDEN HILL ROAD | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 04-08 | 2/26/2008 | NE | 29 | 1N | 15E | 5900 PINEWAY STREET | 9 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1938 |
| 05-08 | 2/28/2008 | SE | 22 | 1N | 15E | 5621 S CENTRAL DRIVE | 1 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 06-08 | 2/29/2008 | SE | 22 | 1N | 15E | 2291 BIXBY ROAD | 8 | MAIN REPAIR | | | | | | X | | | PVC | | | PVC | 12 | 2005 |
| 07-08 | 3/28/2008 | NW | 29 | 1N | 15E | 3585 HIGHWAY 60 | 8 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 6 | 1969 |
| 08-08 | 3/6/2008 | NW | 29 | 1N | 15E | 3599 HIGHWAY 60 | 6 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 6 | 1969 |
| 09-08 | 3/7/2008 | NW | 29 | 1N | 15E | 6155 CLEVELAND AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 10-08 | 3/27/2008 | NW | 29 | 1N | 15E | 3596 US HIGHWAY 60 | 4 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 3 | 1969 |
| 11-08 | 3/21/2008 | NW | 22 | 1N | 15E | 807 PAXTON AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 12-08 | 4/15/2008 | SW | 22 | 1N | 15E | 5201 S RUSSELL ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 13-08 | 4/23/2008 | NE | 29 | 1N | 15E | 3907 GREER STREET | 4 | SERVICE REPAIR | | | | X | | | | 1 | GS | 3/4 | | | | 1988 |
| 14-08 | 4/7/2008 | SW | 21 | 1N | 15E | 5824 MAPLE LEAF STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1988 |
| 15-08 | 4/8/2008 | SW | 22 | 1N | 15E | 5836 S RUSSELL ROAD | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 16-08 | 4/7/2008 | SE | 15 | 1N | 15E | 37 CHAPARRAL LOOP | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 17-08 | 4/8/2008 | SE | 22 | 1N | 15E | 5681 S CENTRAL DRIVE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 18-08 | 4/18/2008 | SE | 2 | 1N | 15E | 5553 GLENDALE AVENUE | 3 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 19-08 | 4/18/2008 | SW | 30 | 1N | 15E | 244 N CHISHOLM AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 20-08 | 4/28/2008 | SE | 21 | 1N | 15E | 4635 RAGUS ROAD | 4 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 6 | 1967 |
| 21-08 | 4/28/2008 | SE | 32 | 1N | 15E | 2291 BIXBY ROAD | 12 | MAIN REPAIR | | X | | | | | | | OTHER | | | AC | 8 | 1973 |
| 22-08 | 4/4/2008 | SW | 27 | 1N | 15E | 5509 PINAL CANYON ROAD | 4 | SERVICE REPAIR | | | | | | X | | | GS | 1 | | | | 1969 |
| 23-08 | 4/20/2008 | SE | 30 | 1N | 15E | 3323 LOOMIS AVENUE | 6 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 2 | UNKNOWN |
| 24-08 | 5/2/2008 | SW | 21 | 1N | 15E | 4301 BROADWAY STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 25-08 | 5/29/2008 | NE | 21 | 1N | 15E | 2250 HIGHWAY 60 | 9 | SERVICE REPAIR | | X | | | | | | | PVC | 2 | | | | 1980 |
| 26-08 | 5/5/2008 | SE | 22 | 1N | 15E | 5576 S GLENDALE AVENUE | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1986 |
| 27-08 | 5/12/2008 | NW | 29 | 1N | 15E | 5958 NEW STREET | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 28-08 | 5/21/2008 | SW | 22 | 1N | 15E | 5239 GOLDEN HILL ROAD | 9 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1982 |
| 29-08 | 5/27/2008 | NW | 29 | 1N | 15E | 3435 MILL STREET | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1984 |
| 30-08 | 5/19/2008 | NW | 29 | 1N | 15E | 3451 MILL STREET | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1988 |
| 31-08 | 5/19/2008 | SW | 22 | 1N | 15E | 5670 E YOUNG STREET | 6 | MAIN REPAIR | | X | | | | | | | POLY | | | POLY | 1 | 1969 |
| 32-08 | 5/8/2008 | SE | 22 | 1N | 15E | 5623 S DOMINION STREET | 4 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 1 | 1945 |
| 33-08 | 5/12/2008 | NW | 29 | 1N | 15E | 5859 NEW STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1979 |
| 34-08 | 5/17/2008 | SW | 15 | 1N | 15E | 5196 BORNITE LANE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1973 |
| 35-08 | 5/20/2008 | NW | 29 | 1N | 15E | 5903 CALLE DE LOMA | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1971 |
| 36-08 | 6/16/2008 | NE | 21 | 1N | 15E | 2250 E US HIGHWAY 60 SUITE N | 6 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1979 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37-08 | 6/3/2008 | SW | 20 | 1N | 15E | 5780 VERNON STREET | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 38-08 | 6/30/2008 | SW | 22 | 1N | 15E | 5589 RUSSELL ROAD | 9 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 39-08 | 6/23/2008 | NW | 29 | 1N | 15E | 6027 MARION CANYON STREET | 8 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1972 |
| 40-08 | 6/27/2008 | NW | 28 | 1N | 15E | 6048 BOARD STREET | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 41-08 | 6/26/2008 | SE | 22 | 1N | 15E | 5571 S GLENDALE AVENUE | 9 | MAIN REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1986 |
| 42-08 | 6/23/2008 | NW | 29 | 1N | 15E | 6122 MARION CANYON STREET | 6 | OTHER | | | | X | | | | | PVC | 2 | | | | UNKNOWN |
| 43-08 | 6/24/2008 | NW | 31 | 1N | 15E | 1011 FREDERIC STREET | 12 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 2 | 1969 |
| 44-08 | 6/23/2008 | NE | 29 | 1N | 15E | 4945 GLOBE STREET | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1982 |
| 45-08 | 6/14/2008 | SW | 15 | 1N | 15E | 4579 S TURQUOISE | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 46-08 | 6/2/2008 | SW | 22 | 1N | 15E | 5625 GOLDEN HILL ROAD | 6 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 2 | 1972 |
| 47-08 | 6/4/2008 | SW | 22 | 1N | 15E | 5382 GOLDEN HILL | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1986 |
| 48-08 | 6/24/2008 | NW | 29 | 1N | 15E | 3670 US HIGHWAY 60 | 20 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 6 | 1951 |
| 49-08 | 7/1/2008 | SE | 22 | 1N | 15E | 5553 S GLENDALE AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1986 |
| 50-08 | 7/21/2008 | NW | 28 | 1N | 15E | 4084 BOARD STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 51-08 | 7/2/2008 | SW | 27 | 1N | 15E | 5589 RUSSELL ROAD | 12 | MAIN REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1984 |
| 52-08 | 7/3/2008 | SW | 22 | 1N | 15E | 5468 SNEDDEN STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 53-08 | 7/8/2008 | SW | 30 | 1N | 15E | MIAMI WASH | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 54-08 | 7/23/2008 | SW | 30 | 1N | 15E | MIAMI WASH | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 55-08 | 7/2/2008 | SE | 22 | 1N | 15E | 5877 HILL LANE | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1982 |
| 56-08 | 7/17/2008 | NW | 28 | 1N | 15E | 6041 BOARD DRIVE | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1977 |
| 57-08 | 7/28/2008 | SE | 30 | 1N | 15E | 201 S LATHAM BOULEVARD | 9 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1978 |
| 58-08 | 7/15/2008 | NE | 29 | 1N | 15E | 5941 GLOBE AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 59-08 | 7/15/2008 | NW | 29 | 1N | 15E | - | 6 | SERVICE REPAIR | | X | | | | | | | GS | 2 | | | | 1962 |
| 60-09 | 1/7/2008 | SW | 27 | 1N | 15E | 5480 SNEDDEN STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 61-08 | 1/17/2008 | SE | 22 | 1N | 15E | 5568 CENTRAL DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 62-08 | 7/14/2008 | SW | 21 | 1N | 15E | LOCO MOTIVE/EL CAMINO | 16 | SERVICE REPAIR | | X | | | | | | | PVC | 1 | | | | 1976 |
| 63-08 | 8/6/2008 | SW | 27 | 1N | 15E | 5531 SNEDDEN STREET | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1970 |
| 64-08 | 8/26/2008 | NW | 28 | 1N | 15E | 6048 BOARD STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 65-08 | 8/22/2008 | NW | 29 | 1N | 15E | 3587 US HIGHWAY 60 & CALLE DE LOMA | 12 | MAIN REPLACEMENT | | X | | | | | | | OTHER | | 6 | AC | 6 | 1963 |
| 66-08 | 8/22/2008 | SE | 22 | 1N | 15E | 5687 GLOBE CANYON AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 67-08 | 8/6/2008 | NE | 30 | 1N | 15E | 4115 E SMELTER STREET | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1969 |
| 68-08 | 8/7/2008 | SE | 22 | 1N | 15E | 5572 S MCKINNEY AVENUE | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 69-08 | 8/11/2008 | SW | 30 | 1N | 15E | 1046 S ADONIS AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1977 |
| 70-08 | 8/25/2008 | SE | 22 | 1N | 15E | 5646 S HUNT AVENUE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 71-08 | 8/21/2008 | SW | 30 | 1N | 15E | 726 NASH AVENUE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1977 |
| 72-08 | 8/19/2008 | NW | 29 | 1N | 15E | 14 MARION CANYON STREET | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1983 |
| 73-08 | 8/20/2008 | NW | 27 | 1N | 15E | 5514 STORY STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 74-08 | 8/19/2008 | NW | 29 | 1N | 15E | 14 MARION CANYON STREET & MONROE | 9 | MAIN REPAIR | | | | | | X | | | PVC | | 2' | PVC | | 1983 |
| 75-08 | 8/19/2008 | SE | 22 | 1N | 15E | 5456 S RANDALL STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 76-08 | 8/11/2008 | SE | 34 | 1N | 15E | 5784 E QUAIL RUN | 6 | SERVICE REPLACEMENT | | | | | | X | | | CU | 3/4 | | | | 1990 |
| 77-08 | 8/4/2008 | SW | 30 | 1N | 15E | 409 S REPPY AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1976 |
| 78-08 | 8/12/2008 | SW | 15 | 1N | 15E | 5238 MALACHITE LANE | 12 | MAIN REPAIR | | X | | | | | | | OTHER | | 6" | | | 1984 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79-08 | 8/11/2008 | SE | 34 | 1N | 15E | 5784 E QUAIL RUN | 6 | MAIN REPAIR | | X | | | | | | | PVC | | 2" | | | 1990 |
| 80-08 | 10/14/2008 | NE | 21 | 1N | 15E | RUSSELL ROAD | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 2 | | | | 1976 |
| 81-08 | 10/10/2008 | SE | 15 | 1N | 15E | 152 KITT PEAK | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 82-08 | 10/10/2008 | SE | 15 | 1N | 15E | 33 CHAPARRAL LOOP | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 83-08 | 10/26/2008 | NE | 30 | 1N | 15E | 4105 HIGHLAND AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 84-08 | 10/20/2008 | SE | 32 | 2N | 15E | 2291 BIXBY ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 2 | | | | 2000 |
| 85-08 | 10/15/2008 | NW | 28 | 1N | 15E | 4375 GLOBE AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 86-08 | 10/9/2008 | SE | 22 | 1N | 15E | 5922 E SCOTT AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 87-08 | 10/11/2008 | SW | 27 | 1N | 15E | 5531 SNEDDEN STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1970 |
| 88-08 | 10/8/2008 | SW | 15 | 2N | 15E | 5196 E BORNITE LANE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 89-08 | 10/9/2008 | SE | 22 | 1N | 15E | 5932 RUTH ANN DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 90-08 | 10/8/2008 | NW | 29 | 1N | 15E | 5938 CALLE DE LOMA (HILL) | 4 | SERVICE REPAIR | | X | | | | | | | GS | 3/4 | | | | 1946 |
| 91-08 | 10/12/2008 | SE | 21 | 1N | 15E | 5634 RUSSELL ROAD | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1946 |
| 92-08 | 10/28/2008 | SW | 30 | 1N | 15E | 1008 MIAMI WASH/LIVE OAK | 6 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1985 |
| 93-08 | 10/6/2008 | NE | 29 | 1N | 15E | 5928 LONG STREET | 12 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1976 |
| 94-08 | 10/27/2008 | SW | 27 | 1N | 15E | 5507 PINAL CANYON DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1976 |
| 95-08 | 10/17/2008 | NW | 22 | 1N | 15E | 950 CYPRESS DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 96-08 | 10/21/2008 | SE | 32 | 1N | 15E | 2675 BIXBY ROAD | 8 | SERVICE REPAIR | | X | | | | | | | PVC | 1 | | | | 1975 |
| 97-08 | 11/21/2008 | SE | 15 | 1N | 15E | 5196 E BORNITE LANE | 8 | SERVICE REPAIR | | | | X | | | | | PVC | 1 | | | | 1973 |
| 98-08 | 11/6/2008 | SE | 22 | 1N | 15E | 5625 GOLDEN HILL ROAD | 8 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 2 | 1955 |
| 99-08 | 11/18/2008 | SW | 15 | 1N | 15E | 5196 E BORNITE LANE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1973 |
| 00-08 | 11/19/2008 | NW | 29 | 1N | 15E | 6107 MARION STREET | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1979 |
| 01-08 | 11/24/2008 | SE | 22 | 1N | 15E | 5620 S DOMINION STREET | 6 | MAIN REPAIR | | | | | X | | | | GS | | | GS | 1 | 1945 |
| 02-08 | 11/5/2008 | NE | 21 | 1N | 15E | COBRE VALLEY PLAZA | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1976 |
| 03-08 | 11/5/2008 | SW | 30 | 1N | 15E | 409 REPPY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 04-08 | 11/1/2008 | NE | 30 | 1N | 15E | 4081 HIGHLAND AVENUE #B | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 05-08 | 11/17/2008 | SW | 30 | 1N | 15E | 402 HICKS CANYON ROAD | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1980 |
| 06-08 | 12/11/2008 | SW | 27 | 1N | 15E | 5509 PINAL CANYON ROAD | 6 | SERVICE REPAIR | | X | | | | | | | GS | 3/4 | | | | 1942 |
| 07-08 | 12/11/2008 | SE | 30 | 1N | 15E | 3013 LATHAM BOULEVARD | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1979 |
| 08-08 | 12/23/2008 | SW | 30 | 1N | 15E | 300 LIVE OAK STREET | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1980 |
| 09-08 | 12/23/2008 | NW | 30 | 1N | 15E | 246 N SKYLINE TRAIL | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1932 |
| 10-08 | 12/1/2008 | SE | 22 | 1N | 15E | 5623 S DOMINION STREET | 6 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 3/4 | 1945 |
| 11-08 | 12/1/2008 | NW | 28 | 1N | 15E | 4449 E CALLE PEQUENA | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 12-08 | 12/2/2008 | NW | 29 | 1N | 15E | 6052 CALLE DE LOMA | 4 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 13-08 | 12/10/2008 | SE | 22 | 1N | 15E | 5623 S DOMINION STREET | 6 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1945 |
| 14-08 | 12/15/2008 | NW | 29 | 1N | 15E | 5903 CALLE DE LOMA | 6 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1950 |
| 15-08 | 12/29/2008 | SE | 34 | 1N | 15E | 5830 E QUAIL RUN | 6 | MAIN REPAIR | | | | | | X | | | PVC | | | PVC | 2 | 1991 |
| 16-08 | 12/22/2008 | SW | 27 | 1N | 15E | 5489 SNEDDEN STREET | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |
| 17-08 | 9/9/2008 | SW | 22 | 1N | 15E | 5398 RUSSELL ROAD | 8 | OTHER | | | | | X | | | | UNKNOWN | | | | 4 | N/A |
| 18-08 | 9/3/2008 | SE | 32 | 1N | 15E | 1980 BIXBY ROAD | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 19-08 | 9/17/2008 | NE | 30 | 1N | 15E | 4117 SMELTER STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 20-08 | 9/4/2008 | NW | 29 | 1N | 15E | 6027 MARION CANYON STREET | 12 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | UNKNOWN |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21-08 | 9/22/2008 | SE | 22 | 1N | 15E | 5687 GLOBE CANYON AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 22-08 | 9/25/2008 | SW | 22 | 1N | 15E | 5813 HOSPITAL DRIVE | 8 | SERVICE REPAIR | | | | X | | | | | POLY | 3/4 | | | | 1986 |
| 23-08 | 9/9/2008 | NW | 4 | 1N | 15E | 1742 BIXBY ROAD | 8 | SERVICE REPAIR | | | | X | | | | | POLY | 3/4 | | | | 1984 |
| 24-08 | 9/26/2008 | NE | 21 | 1N | 15E | 2250 US RT 60 (BACK BEVERAGE HOUSE) | 12 | MAIN REPAIR | | X | | | | | | | OTHER | | | AC | 6 | 1969 |
| 25-08 | 9/17/2008 | SE | 22 | 1N | 15E | 5673 CENTRAL TRAIL | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1986 |
| 26-08 | 9/3/2008 | SE | 22 | 1N | 15E | 5631 S MCKINNEY AVENUE | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1986 |
| 27-08 | 9/9/2008 | SW | 30 | 1N | 15E | 108 CHISHOLM AVENUE | 9 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1976 |
| 28-08 | 9/8/2008 | SE | 22 | 1N | 15E | 5681 CENTRAL DRIVE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1977 |
| 29-08 | 9/8/2008 | SE | 15 | 1N | 15E | 118 TURNBULL TURN | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1976 |
| 30-08 | 9/15/2008 | SE | 30 | 1N | 15E | 3335 LOOMIS AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1986 |
| 31-08 | 9/25/2008 | SE | 22 | 1N | 15E | 5705 E GLOBE CANYON | 10 | SERVICE REPAIR | | | | X | | | | 1 | PVC | 3/4 | | | | 1980 |
| 32-08 | 9/12/2008 | NW | 4 | 1N | 15E | 1954 BIXBY ROAD | 8 | SERVICE REPAIR | | | | X | | | | 1 | PVC | 3/4 | | | | 1973 |
| 01-09 | 1/2/2009 | SE | 34 | 1N | 15E | 5825 E QUAIL RUN | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1996 |
| 02-09 | 1/15/2009 | NW | 29 | 1N | 15E | 6100 CLEVELAND AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 03-09 | 1/15/2009 | SW | 27 | 1N | 15E | 5594 LANCASTER STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 1 | | | | 1970 |
| 04-09 | 1/21/2009 | SW | 15 | 1N | 15E | 5196 BORNITE LANE | 6 | MAIN REPLACEMENT | | X | | | | | | 1 | PVC | 3/4 | | | | 1973 |
| 05-09 | 1/30/2009 | NW | 30 | 1N | 15E | 376 MIAMI AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1978 |
| 06-09 | 1/28/2009 | SW | 30 | 1N | 15E | 143 MIAMI AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 1 | | | | 1975 |
| 07-09 | 1/5/2009 | NE | 30 | 1N | 14E | 710 1/2 SULLIVAN/SYKES ALLEY | 15 | MAIN REPAIR | | X | | | | | | | OTHER | | 4 | CI | 6 | 1975 |
| 08-09 | 1/21/2009 | NW | 29 | 1N | 15E | 6187 S MARION STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1983 |
| 09-09 | 1/20/2009 | SE | 32 | 2N | 15E | 2291 BIXBY ROAD | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 2 | | | | 1990 |
| 10-09 | 2/23/2009 | SE | 22 | 1N | 15E | 5672 MAIN STREET | 6 | MAIN REPAIR | | | | | X | | | | OTHER | | | GS | 1 1/2 | 1956 |
| 11-09 | 2/18/2009 | NW | 29 | 1N | 15E | 6196 CALLE DE LOMA | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 12-09 | 2/11/2009 | NW | 27 | 1N | 15E | 5865 RUSSELL ROAD | 12 | MAIN REPAIR | | | | | X | | | | OTHER | | | AC | 4 | 1970 |
| 13-09 | 2/17/2009 | SW | 22 | 1N | 15E | 727 ELM STREET | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1980 |
| 14-09 | 2/27/2009 | SW | 30 | 1N | 15E | 920 LIVE OAK STREET | 4 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1988 |
| 15-09 | 3/12/2009 | SW | 22 | 1N | 15E | 5460 APACHE HILLS | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 1 | | | | 1976 |
| 16-09 | 3/7/2009 | SE | 22 | 1N | 15E | 5675 MAIN STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 1 | | | | 1975 |
| 17-09 | 3/13/2009 | SW | 30 | 1N | 15E | 143 N MIAMI AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | CU | 1 | | | | 1980 |
| 18-09 | 3/15/2009 | SW | 27 | 1N | 15E | 5540 LANCASTER STREET | 4 | SERVICE REPLACEMENT | | | | | X | | | | POLY | 3/4 | | | | 1970 |
| 19-09 | 3/4/2009 | NW | 29 | 1N | 15E | 6052 CLEVELAND | 4 | SERVICE REPAIR | | | | X | | | | | POLY | 3/4 | | | | 1972 |
| 20-09 | 3/19/2009 | SW | 30 | 1N | 15E | 143 N MIAMI AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1988 |
| 21-09 | 3/2/2009 | NE | 29 | 1N | 15E | MORROW AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 22-09 | 4/23/2009 | SE | 30 | 1N | 15E | 926 ROSE ROAD | 4 | SERVICE REPAIR | | X | | | | | | | GS | 1 | | | | 1950 |
| 23-09 | 4/27/2009 | SW | 30 | 1N | 15E | 205 S ADONIS AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 24-09 | 4/13/2009 | SE | 30 | 1N | 15E | 323 LOOMIS AVENUE | 4 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1969 |
| 25-09 | 4/20/2009 | NW | 29 | 1N | 15E | 5976 ADAMS STREET | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1972 |
| 26-09 | 4/30/2009 | NW | 30 | 1N | 15E | 512 W PINTO STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 1 | | | | 1973 |
| 27-09 | 4/28/2009 | SE | 21 | 1N | 15E | 2370 E US HIGHWAY 60 | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1961 |
| 28-09 | 4/30/2009 | NW | 30 | 1N | 15E | 310 N BURCH AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1978 |
| 29-09 | 4/20/2009 | NW | 29 | 1N | 15E | 3619 E HAMILTON LANE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1980 |
| 30-09 | 4/28/2009 | SE | 21 | 1N | 15E | 4247 BROADWAY STREET | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1979 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31-09 | 4/8/2009 | SW | 27 | 1N | 15E | 6342 THOMASINA STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1980 |
| 32-09 | 4/20/2009 | SW | 21 | 1N | 15E | 4335 BROADWAY STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1980 |
| 33-09 | 4/14/2009 | NW | 27 | 1N | 15E | 5483 STORY STREET | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1978 |
| 34-09 | 4/21/2009 | SE | 21 | 1N | 15E | 5683 BROADWAY STREET | 9 | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 3/4 | | | | 1940 |
| 35-09 | 4/27/2009 | SW | 21 | 1N | 15E | 4462 BROADWAY STREET | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1940 |
| 36-09 | 5/19/2009 | NW | 22 | 1N | 15E | 842 1ST AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 37-09 | 5/5/2009 | NW | 30 | 1N | 15E | 512 W PINTO STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 38-09 | 5/2/2009 | SW | 30 | 1N | 15E | 412 LIVE OAK STREET | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 39-09 | 5/4/2009 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 40-09 | 5/13/2009 | SE | 22 | 1N | 15E | 5638 CENTRAL AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 41-09 | 5/12/2009 | NW | 23 | 1N | 15E | 1945 E US HIGHWAY 60 | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 42-09 | 5/13/2009 | SE | 22 | 1N | 15E | 5687 GLOBE CANYON ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1970 |
| 43-09 | 5/27/2009 | SE | 22 | 1N | 15E | 5593 S GLENDALE AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 44-09 | 5/31/2009 | NW | 29 | 1N | 15E | 5938 S CALLE DE LOMA | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1970 |
| 45-09 | 5/16/2009 | SW | 30 | 1N | 15E | 726 NASH AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 46-09 | 5/27/2009 | SW | 30 | 1N | 15E | 415 MIAMI AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | OTHER | 3/4 | | | | 1980 |
| 47-09 | 5/1/2009 | NW | 30 | 1N | 15E | 512 W PINTO STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1974 |
| 48-09 | 5/6/2009 | SW | 21 | 1N | 15E | 4458 BROADWAY STREET | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 49-09 | 5/26/2009 | SE | 22 | 1N | 15E | 5544 GLENDALE AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 50-09 | 6/22/2009 | SW | 22 | 1N | 15E | 5359 YUMA TRAIL | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 51-09 | 6/22/2009 | NE | 29 | 1N | 15E | 6016 BERRY WAY | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1978 |
| 52-09 | 6/15/2009 | SE | 22 | 1N | 15E | 5588 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 53-09 | 6/13/2009 | SE | 22 | 1N | 15E | 5580 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 54-09 | 6/25/2009 | SE | 21 | 1N | 15E | 4635 E RAGUS ROAD | 4 | SERVICE REPAIR | | | | | | X | | | GS | 6 | | | | 1969 |
| 55-09 | 6/17/2009 | SE | 22 | 1N | 15E | 5559 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 56-09 | 6/30/2009 | SW | 22 | 1N | 15E | 5558 ALBERTA DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1975 |
| 57-09 | 6/22/2009 | SE | 22 | 1N | 15E | 5608 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 58-09 | 6/23/2009 | NW | 27 | 1N | 15E | 5515 STORY STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 59-09 | 6/2/2009 | SW | 27 | 1N | 15E | 6441 S RUSSELL ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 60-09 | 6/1/2009 | SW | 15 | 1N | 15E | 5197 BORNITE LANE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 61-09 | 6/10/2009 | NW | 27 | 1N | 15E | 5614 STORY STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1970 |
| 62-09 | 6/12/2009 | SE | 22 | 1N | 15E | 5582 GLENDALE AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 63-09 | 7/7/2009 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 12 | MAIN REPAIR | | X | | | | | | | POLY | | | POLY | 6 | 1999 |
| 64-09 | 7/10/2009 | SW | 20 | 1N | 15E | US HWY 60/ NEW STREET | 12 | MAIN REPAIR | | X | | | | | | | OTHER | | | AC | 6 | 1953 |
| 65-09 | 7/14/2009 | SW | 27 | 1N | 15E | 5549 SNEDDEN STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 66-09 | 7/8/2009 | NW | 29 | 1N | 15E | 6167 WASHINGTON AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1983 |
| 67-09 | 7/1/2009 | SE | 15 | 1N | 15E | 1018 ESTATE DRIVE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 68-09 | 7/20/2009 | SW | 30 | 1N | 15E | 205 S ADONIS AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 69-09 | 7/2/2009 | SW | 30 | 1N | 15E | 1009 ARTHUR STREET | 6 | MAIN REPAIR | | X | | | | | | | POLY | 1 | | POLY | | 1981 |
| 70-09 | 7/6/2009 | NW | 29 | 1N | 15E | 6062 CALLE DE LOMA | 8 | MAIN REPAIR | | X | | | | | | | GS | 2 | | GS | | 1956 |
| 71-09 | 7/8/2009 | SW | 30 | 1N | 15E | 326 N CHISHOLM AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1987 |
| 72-09 | 7/6/2009 | SE | 30 | 1N | 15E | 318 LOOMIS AVENUE | 8 | MAIN REPAIR | | X | | | | | | 1 | PVC | | | PVC | | 1967 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 73-09 | 7/9/2009 | SW | 30 | 1N | 15E | 342 N CHISHOLM AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 74-09 | 7/14/2009 | SW | 22 | 1N | 15E | 5611 BLOCK AVENUE SPACE 2 SUNRISE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1988 |
| 75-09 | 7/29/2009 | SW | 15 | 1N | 15E | 4580 TURQUOISE DRIVE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 76-09 | 7/16/2009 | NW | 22 | 1N | 15E | 1620 PALM LANE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1975 |
| 77-09 | 8/25/2009 | SE | 22 | 1N | 15E | 6030 SHORT AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1973 |
| 78-09 | 8/10/2009 | NW | 30 | 1N | 15E | 246 N SKYLINE TRAIL | 6 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1984 |
| 79-09 | 8/5/2009 | SE | 32 | 1N | 15E | 2291 BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | 1 | POLY | | | POLY | 2 | 1970 |
| 80-09 | 8/6/2009 | SE | 22 | 1N | 15E | 5702 UPPER GLENDALE | 8 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1973 |
| 81-09 | 8/10/2009 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #17 | 8 | MAIN REPAIR | | X | | | | | | | PVC | 2 | | PVC | 2 | 1973 |
| 82-09 | 8/3/2009 | NW | 29 | 1N | 15E | 6090 MACKEY'S HILL | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1969 |
| 83-09 | 8/7/2009 | SE | 21 | 1N | 15E | MIAMI GARDENS/HOSPITAL DRIVE | 8 | MAIN REPLACEMENT | | | | | X | | | | POLY | | 6 | POLY | 6 | 1999 |
| 84-09 | 8/13/2009 | SE | 22 | 1N | 15E | 5732 INSPIRATION DRIVE | 8 | SERVICE REPLACEMENT | | | | | X | | | 1 | GS | 3/4 | | | | 1955 |
| 85-09 | 8/20/2009 | SE | 22 | 1N | 15E | 6030 E SHORT AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1980 |
| 86-09 | 8/18/2009 | NW | 27 | 1N | 15E | 5408 STORY STREET | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1975 |
| 87-09 | 8/20/2009 | NE | 5 | 1N | 15E | 4773 US HIGHWAY 188 | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1982 |
| 88-09 | 8/4/2009 | SW | 30 | 1N | 15E | 61 CHISHOLM AVENUE | 6 | SERVICE REPLACEMENT | | X | | | | | | | PVC | 1 | | | | 1975 |
| 89-09 | 8/27/2009 | SE | 22 | 1N | 15E | 5767 GLOBE CANYON ROAD | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | PVC | 3/4 | | | | 1978 |
| 90-09 | 8/11/2009 | SW | 22 | 1N | 15E | 5238 GOLDEN HILL ROAD | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1978 |
| 91-09 | 8/6/2009 | NW | 30 | 1N | 15E | 376 MIAMI AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1975 |
| 92-09 | 8/31/2009 | SE | 30 | 1N | 15E | 353 LOOMIS AVENUE | 9 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1969 |
| 93-09 | 8/20/2009 | SE | 22 | 1N | 15E | 5594 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1978 |
| 94-09 | 9/10/2009 | SW | 30 | 1N | 15E | 205 S ADONIS AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 95-09 | 9/15/2009 | SW | 30 | 1N | 15E | 805 SULLIVAN STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1977 |
| 96-09 | 9/2/2009 | NW | 29 | 1N | 15E | 6090 MACKEY'S HILL | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1978 |
| 97-09 | 9/8/2009 | NW | 28 | 1N | 15E | 5973 PALMER LAND | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1977 |
| 98-09 | 9/14/2009 | SE | 30 | 1N | 15E | MOUNTAIN VIEW DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1977 |
| 99-09 | 9/25/2009 | SE | 22 | 1N | 15E | 5651 ENGLISH AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 00-09 | 9/24/2009 | NW | 29 | 1N | 15E | 3670 US HIGHWAY 60 | 12 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 3 | 1955 |
| 01-09 | 9/21/2009 | SW | 27 | 1N | 15E | 5587 LANCASTER STREET | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1949 |
| 02-09 | 9/29/2009 | SE | 22 | 1N | 15E | 5922 SCOTT AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 03-09 | 9/28/2009 | NE | 6 | 1N | 15E | HWY 188 APACHE TRAIL | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1982 |
| 04-09 | 9/22/2009 | SW | 27 | 1N | 15E | 5549 SNEDDEN STREET | 10 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1949 |
| 05-09 | 9/16/2009 | SW | 27 | 1N | 15E | 5549 SNEDDEN STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1949 |
| 06-09 | 9/25/2009 | SW | 22 | 1N | 15E | 5304 E NIELSON STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1971 |
| 07-09 | 9/25/2009 | SE | 30 | 1N | 15E | 3333 LOOMIS AVENUE | 6 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1935 |
| 08-09 | 9/21/2009 | SE | 30 | 1N | 15E | 342 LOOMIS AVENUE | | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 2 | 1935 |
| 09-09 | 9/29/2009 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #27 | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 10-09 | 9/21/2009 | NW | 22 | 1N | 15E | 949 CYPRESS DRIVE | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1949 |
| 11-09 | 9/17/2009 | NW | 22 | 1N | 15E | 718 PAXTON AVENUE | 9 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1952 |
| 12-09 | 9/9/2009 | NW | 28 | 1N | 15E | 5973 GLOBE STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1968 |
| 13-09 | 9/15/2009 | NW | 29 | 1N | 15E | 3778 E JEFFERSON STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1936 |
| 14-09 | 9/15/2009 | NW | 27 | 1N | 15E | 5488 E STORY STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1956 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15-09 | 10/6/2009 | NW | 29 | 1N | 15E | 5928 S LONG STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 16-09 | 10/15/2009 | SW | 30 | 1N | 15E | 604 SULLIVAN STREET | 4 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1932 |
| 17-09 | 10/6/2009 | SE | 22 | 1N | 15E | 5629 E ENGLISH AVENUE | 8 | SERVICE REPAIR | | | | | | X | | | GS | 1 | | | | 1975 |
| 18-09 | 10/21/2009 | NE | 30 | 1N | 15E | 323 LOOMIS AVENUE | 4 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1953 |
| 19-09 | 10/29/2009 | SW | 30 | 1N | 15E | 920 LIVE OAK STREET | 6 | SERVICE REPAIR | | | | | X | | | | CU | 3/4 | | | 3/4 | 1987 |
| 20-09 | 10/28/2009 | NW | 29 | 1N | 15E | 6031 MARION CANYON STREET | 6 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1970 |
| 21-09 | 10/20/2009 | SE | 22 | 1N | 15E | 5681 S CENTRAL AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 22-09 | 10/14/2009 | SE | 22 | 1N | 15E | 5621 S CENTRAL AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 23-09 | 10/1/2009 | SW | 22 | 1N | 15E | 5218 YOUNG STREET & ALBERTA | 2 | MAIN REPAIR | | X | | | | | | | POLY | | | | 2 | 1973 |
| 24-09 | 10/14/2009 | SE | 22 | 1N | 15E | 5717 COBB AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 25-09 | 10/6/2009 | NW | 28 | 1N | 15E | 4341 GLOBE AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 26-09 | 11/6/2009 | NW | 29 | 1N | 15E | 5950 S CALLE DE LOMA | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 27-09 | 11/5/2009 | SW | 30 | 1N | 15E | 1041 LIVE OAK STREET | 2 | SERVICE REPAIR | | | | | X | | | | CU | 3/4 | | | | 1988 |
| 28-09 | 11/19/2009 | SW | 22 | 1N | 15E | 5482 ALBERTA DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 29-09 | 11/10/2009 | SE | 20 | 1N | 15E | 4247 BROADWAY STREET | 4 | MAIN REPAIR | | X | | | | | | | OTHER | | | AC | 6 | 1965 |
| 30-09 | 11/24/2009 | NE | 22 | 1N | 15E | 783 W PICAHO DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 31-09 | 11/23/2009 | SE | 15 | 1N | 15E | 61 AGASSIZ TERRACE | 8 | MAIN REPAIR | | | | | | X | | | OTHER | | | AC | 6 | 1975 |
| 32-09 | 11/30/2009 | SW | 22 | 1N | 15E | 5558 ALBERTA DRIVE | 6 | MAIN REPLACEMENT | | | | | | X | | | PVC | | 6 | PVC | 1 | 1979 |
| 33-09 | 11/10/2009 | NE | 22 | 1N | 15E | 1464 KOTOR DRIVE | 6 | MAIN REPLACEMENT | | | | | | X | | | OTHER | | 10" | AC | 6 | 1985 |
| 34-09 | 11/6/2009 | NE | 29 | 1N | 15E | 5973 N GLOBE AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1984 |
| 35-09 | 11/12/2009 | NE | 29 | 1N | 15E | 4350 GLOBE STREET | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1980 |
| 36-09 | 11/9/2009 | SW | 30 | 1N | 15E | 835 SMITH STREET | 6 | SERVICE REPAIR | | | | | X | | | | CU | 3/4 | | | | 1978 |
| 37-09 | 11/18/2009 | SE | 22 | 1N | 15E | 5464 LORI LANE | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1972 |
| 38-09 | 11/18/2009 | SE | 22 | 1N | 15E | 5759 MOUNTAIN VIEW | 6 | MAIN REPAIR | | X | | | | | | | GS | 3 | | GS | | |
| 39-09 | 11/19/2009 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #34 | 4 | MAIN REPAIR | | | | | X | | | | PVC | | | PVC | 1 | 1973 |
| 40-09 | 11/19/2009 | SE | 22 | 1N | 15E | 5577 CENTRAL AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1979 |
| 41-09 | 11/30/2009 | SE | 22 | 1N | 15E | 5672 MAIN STREET | 6 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 1 1/2 | 1945 |
| 42-09 | 11/24/2009 | NW | 29 | 1N | 15E | MARION CANYON STREET & RAILROAD AVE | 6 | MAIN REPAIR | | X | | | | | | | PVC | | | PVC | 2 | 1980 |
| 43-09 | 11/20/2009 | SW | 30 | 1N | 15E | 220 S PROSPECT AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1979 |
| 44-09 | 11/30/2009 | SE | 22 | 1N | 15E | 5581 S MCKINNEY AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1979 |
| 45-09 | 11/30/2009 | SE | 30 | 1N | 15E | LATHAM BOULEVARD/ HIGHWAY 60 | 4 | MAIN REPAIR | | | | | X | | | | GS | | | GS | 4 | 1930 |
| 46-09 | 11/12/2009 | SE | 32 | 2N | 15E | 1742 BIXBY ROAD | 4 | MAIN REPAIR | | | | | X | | | | OTHER | | | POLY | 2 | 2004 |
| 47-09 | 12/21/2009 | NW | 30 | 1N | 15E | 310 N BURCH STREET | 6 | MAIN REPAIR | | X | | | | | | | GS | | | GS | 2 | 1932 |
| 48-09 | 12/18/2009 | NE | 30 | 1N | 15E | 218 E HARDY STREET | 9 | MAIN REPAIR | | X | | | | | | | CU | | | CU | 6 | 1979 |
| 49-09 | 12/9/2009 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1969 |
| 50-09 | 12/7/2009 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #34 | 4 | MAIN REPAIR | | X | | | | | | | GS | | | PVC | 1 | 1973 |
| 51-09 | 12/9/2009 | NW | 29 | 1N | 15E | 6026 PORTO RICO CANYON | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1972 |
| 52-09 | 12/8/2009 | NW | 29 | 1N | 15E | 6026 PORTO RICO CANYON | 4 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1972 |
| 53-09 | 12/1/2009 | SW | 22 | 1N | 15E | 5211 E YOUNG STREET | 6 | MAIN REPAIR | | | | | | X | | | POLY | | | PVC | 1 | 1977 |
| 54-09 | 12/22/2009 | SE | 22 | 1N | 15E | CENTRAL DRIVE/MONROE | 12 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1933 |
| 55-09 | 12/15/2009 | SE | 22 | 1N | 15E | ROBERTS DRIVE/MAIN | 3 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1945 |
| 56-09 | 12/27/2009 | SW | 15 | 1N | 15E | 4564 TURQUOISE LANE | 9 | SERVICE REPAIR | | | | | | X | | | PVC | 3/4 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 57-09 | 12/26/2009 | SW | 30 | 1N | 15E | 510 SULLIVAN STREET | 2 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1932 |
| 58-09 | 12/31/2009 | SE | 22 | 1N | 15E | 5638 ROBERTS DRIVE | 9 | SERVICE REPAIR | | | | | | X | | | GS | 3/4 | | | | 1952 |
| 59-09 | 12/20/2009 | NW | 29 | 1N | 15E | CALLE DE LOMA/JEFFERSON | 9 | MAIN REPAIR | | | | | | X | | | GS | | | GS | 2 | 1950 |
| 60-09 | 12/14/2009 | NW | 22 | 1N | 15E | HOPE LANE/RUSSELL ROAD | 6 | MAIN REPAIR | | X | | | | | | | OTHER | | | AC | 2 | 1967 |
| 61-09 | 12/21/2009 | NE | 30 | 1N | 15E | 218 E HARDY STREET | 7 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 62-09 | 12/23/2009 | NW | 31 | 1N | 15E | 249 S TOWELS AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1932 |
| 63-09 | 12/17/2009 | SE | 22 | 1N | 15E | 4805 E US HIGHWAY 60 | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1961 |
| 64-09 | 12/31/2009 | SW | 30 | 1N | 15E | 198 N CHISHOLM AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | PVC | 3/4 | | | | 1977 |
| 65-09 | 12/31/2009 | SW | 27 | 1N | 15E | 5480 SNEDDEN STREET | 6 | SERVICE REPAIR | | | | | X | | | | PVC | 3/4 | | | | 1977 |
| 66-09 | 12/31/2009 | SW | 20 | 1N | 15E | NEW STREET | 6 | SERVICE REPAIR | | | | | X | | | | GS | 3/4 | | | | 1955 |
| 01-10 | 1/6/2010 | SE | 22 | 1N | 15E | 5598 CENTRAL DRIVE | 9 | MAIN REPAIR | | X | | | | | | | | | | AC | 6 | 1955 |
| 02-10 | 1/15/2010 | NW | 31 | 1N | 15E | 249 S TOWELS AVENUE | 6 | MAIN REPAIR | | | | | | X | | | | | | GAL | 3 | 1936 |
| 03-10 | 1/21/2010 | NW | 36 | 1N | 14E | 400' NE OF MACKEY CAMP ROAD | 8 | MAIN REPAIR | | | | | | X | | | | | | ST | 6 | 1960 |
| 04-10 | 1/7/2010 | NW | 30 | 1N | 15E | 310 N BURCH STREET | 4 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1932 |
| 05-10 | 1/12/2010 | SE | 15 | 1N | 15E | 33 CHAPARRAL LOOP | 6 | MAIN REPAIR | | | | | | X | | | | | | AC | 4 | 1972 |
| 06-10 | 1/4/2010 | SW | 27 | 1N | 15E | 5549 SNEDDEN STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 07-10 | 1/4/2010 | SE | 22 | 1N | 15E | 244 ROBERTS DRIVE | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1979 |
| 08-10 | 1/4/2010 | SW | 30 | 1N | 15E | 244 N CHISHOLM AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 09-10 | 1/8/2010 | SW | 30 | 1N | 15E | 726 NASH AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1971 |
| 10-10 | 1/8/2010 | SE | 25 | 1N | 14E | E-53 DAVIS CANYON | 6 | SERVICE REPAIR | | | | | X | | | | GS | 3/4 | | | | 1949 |
| 11-10 | 1/30/2010 | NE | 30 | 1N | 15E | 251 S LINDEN AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 12-10 | 2/1/2010 | NW | 29 | 1N | 15E | 6085 S EUCLID DRIVE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 13-10 | 2/9/2010 | SE | 22 | 1N | 15E | 5559 S MCKINNEY AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 14-10 | 2/25/2010 | NW | 31 | 1N | 15E | 1182 FREDERICK STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 15-10 | 2/10/2010 | SW | 30 | 1N | 15E | 283 N DAVIS CANYON LOOP | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 16-10 | 2/11/2010 | SE | 34 | 1N | 15E | 5830 QUAIL RUN | 4 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 1998 |
| 17-10 | 2/11/2010 | SE | 22 | 1N | 15E | 5735 E BOYLES AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 18-10 | 2/12/2010 | SW | 30 | 1N | 15E | 722 W LIVE OAK STREET | 1 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1988 |
| 19-10 | 2/12/2010 | SW | 30 | 1N | 15E | 722 W LIVE OAK STREET | 1 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1988 |
| 20-10 | 2/16/2010 | NW | 36 | 1N | 15E | 60' SW OF MACKEY CAMP ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | ST | 6 | 1970 |
| 21-10 | 2/17/2010 | NW | 31 | 1N | 15E | 262 S TOWELS AVENUE | 9 | MAIN REPAIR | | | | | | X | | | | | | ST | 3 | 1932 |
| 22-10 | 2/3/2010 | SW | 30 | 1N | 15E | 768 W PERSHING CIRCLE | 2 | MAIN REPAIR | | | | | | X | | | | | | ST | 8 | 1932 |
| 23-10 | 2/22/2010 | SE | 22 | 1N | 15E | 6030 SHORT AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1976 |
| 24-10 | 2/4/2010 | SE | 21 | 1N | 15E | 5634 RUSSEL ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1970 |
| 25-10 | 2/8/2010 | SW | 30 | 1N | 15E | 700 W LIVE OAK STREET | 2 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1988 |
| 26-10 | 2/3/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #34 | 4 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1990 |
| 27-10 | 2/5/2010 | NW | 29 | 1N | 15E | 6052 S CLEVELAND AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1982 |
| 28-10 | 2/1/2010 | NW | 29 | 1N | 15E | 6118 S CALLE DE LOMA | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 29-10 | 3/4/2010 | SW | 15 | 1N | 15E | 5196 BORNITE LANE | 2 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 30-10 | 3/26/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 31-10 | 3/25/2010 | SW | 4 | 1N | 15E | .5 MILES WEST OF HOOPES ROAD & BIXBY ROAD | 6 | SERVICE REPAIR | | | | | X | | | | OTHER | 3 | | | | 1980 |
| 32-10 | 3/18/2010 | NW | 31 | 1N | 15E | 1182 W FREDERICK STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33-10 | 3/29/2010 | SW | 30 | 1N | 15E | 700 W LIVE OAK STREET | 1 | SERVICE REPAIR | | | | | X | | | | CU | 3/4 | | | | 1980 |
| 34-10 | 3/5/2010 | SW | 15 | 1N | 15E | 4564 TURQUOISE LANE | 3 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 35-10 | 3/24/2010 | SE | 22 | 1N | 15E | 6035 SHORT AVENUE | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 36-10 | 3/2/2010 | SE | 34 | 1N | 15E | 5830 QUAIL RUN | 6 | OTHER | | X | | | | | | | PVC | 3/4 | | | | 1980 |
| 37-10 | 3/3/2010 | SW | 30 | 1N | 15E | 209 S FOREST AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 38-10 | 3/30/2010 | SE | 22 | 1N | 15E | 6021 SHORT AVENUE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 39-10 | 3/26/2010 | SE | 22 | 1N | 15E | 5737 MOUNTAIN VIEW DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 40-10 | 4/13/2010 | SW | 21 | 1N | 15E | 5688 S OLD OAK STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 41-10 | 4/28/2010 | SW | 30 | 1N | 15E | 708 W LIVE OAK STREET | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1988 |
| 42-10 | 4/18/2010 | SW | 22 | 1N | 15E | 5211 YOUNG STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1990 |
| 43-10 | 4/9/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 2 | 1980 |
| 44-10 | 4/15/2010 | SW | 22 | 1N | 15E | 5359 YUMA TRAIL | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 45-10 | 4/7/2010 | SW | 15 | 1N | 15E | 5197 BORNITE LANE | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 46-10 | 4/6/2010 | SW | 30 | 1N | 15E | 234 CHISHOLM AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1972 |
| 47-10 | 4/9/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 2 | 1980 |
| 48-10 | 4/30/2010 | SW | 30 | 1N | 15E | 726 N NASH AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1977 |
| 49-10 | 4/2/2010 | SW | 30 | 1N | 15E | 305 W LIVE OAK STREET | 2 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1982 |
| 50-10 | 4/2/2010 | NE | 29 | 1N | 15E | 5973 GLOBE AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 51-10 | 4/21/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 1996 |
| 52-10 | 4/18/2010 | SW | 22 | 1N | 15E | 5558 ALBERTA DRIVE | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1990 |
| 53-10 | 4/16/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 1998 |
| 54-10 | 4/8/2010 | SW | 27 | 1N | 15E | 5443 SNEDDEN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1976 |
| 55-10 | 4/29/2010 | SW | 30 | 1N | 15E | 1034 CEDAR AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 56-10 | 4/9/2010 | SW | 30 | 1N | 15E | 708 W LIVE OAK STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 57-10 | 4/1/2010 | SE | 25 | 1N | 14E | 1300 LIVE OAK STREET | 6 | SERVICE REPAIR | | X | | | | | | | CU | 3/4 | | | | 1991 |
| 58-10 | 5/7/2010 | SW | 30 | 1N | 15E | 821 W LIVE OAK STREET | 4 | OTHER | | | | | X | | | | POLY | 3/4 | | | | 1990 |
| 59-10 | 5/14/2010 | SE | 30 | 1N | 15E | 201 SUNSET AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1988 |
| 60-10 | 5/1/2010 | SW | 30 | 1N | 15E | 198 N CHISHOLM AVENUE | 4 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1977 |
| 61-10 | 5/1/2010 | NW | 29 | 1N | 15E | 6240 DAIRY CANYON | 2 | MAIN REPAIR | | | | | X | | | | | | | POLY | 2 | 1969 |
| 62-10 | 5/28/2010 | SW | 22 | 1N | 15E | 5201 YOUNG STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1979 |
| 63-10 | 5/12/2010 | SW | 21 | 1N | 15E | 100 S RAGUS ROAD | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | OTHER | 6 | | | | 1991 |
| 64-10 | 5/26/2010 | NW | 30 | 1N | 15E | 262 MAKENZIE STREET | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1966 |
| 65-10 | 5/5/2010 | NW | 22 | 1N | 15E | 5985 ELECTRIC DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1977 |
| 66-10 | 5/20/2010 | SE | 22 | 1N | 15E | 5571 S MCKINNEY AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 67-10 | 5/21/2010 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 6 | 1997 |
| 68-10 | 5/25/2010 | SW | 15 | 1N | 15E | 4564 TURQUOISE DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 69-10 | 5/28/2010 | NW | 31 | 1N | 15E | 249 TOWELS AVENUE | 9 | MAIN REPAIR | | X | | | | | | | | | | GAL | 3 | 1936 |
| 70-10 | 5/28/2010 | SW | 30 | 1N | 15E | 256 ADONIS AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1977 |
| 71-10 | 5/25/2010 | SW | 27 | 1N | 15E | 5531 SNEDDEN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1977 |
| 72-10 | 5/5/2010 | SW | 22 | 1N | 15E | 5408 RUSSELL ROAD | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1970 |
| 73-10 | 5/5/2010 | SW | 27 | 1N | 15E | 5469 PINAL CANYON DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | GS | 1 | | | | 1942 |
| 74-10 | 5/27/2010 | NE | 29 | 1N | 15E | 5928 LONG STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1983 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75-10 | 5/27/2010 | SE | 22 | 1N | 15E | 5691 GLENDALE AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1971 |
| 76-10 | 5/18/2010 | SE | 22 | 1N | 15E | 5626 COBB AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 77-10 | 5/18/2010 | SE | 22 | 1N | 15E | 5694 S MCKINNEY AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 78-10 | 5/26/2010 | NW | 27 | 1N | 15E | 5514 STORY STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1978 |
| 79-10 | 5/20/2010 | SE | 22 | 1N | 15E | 5889 E MONROE PLACE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 80-10 | 5/7/2010 | SW | 30 | 1N | 15E | 927 LIVE OAK STREET | 6 | OTHER | | X | | | | | | | POLY | 3/4 | | | | 1974 |
| 81-10 | 5/17/2010 | NE | 29 | 1N | 15E | 5928 S LONG STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1988 |
| 82-10 | 6/10/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 3 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 83-10 | 6/26/2010 | NE | 30 | 1N | 15E | 198 LOOMIS AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1984 |
| 84-10 | 6/21/2010 | SW | 30 | 1N | 15E | 5662 CENTRAL AVENUE | 6 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 1990 |
| 85-10 | 6/8/2010 | SE | 22 | 1N | 15E | 5608 CENTRAL AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 86-10 | 6/18/2010 | SE | 32 | 1N | 15E | 2008 BIXBY ROAD | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1988 |
| 87-10 | 6/22/2010 | NE | 5 | 1N | 15E | 42 APACHE TRAIL | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 88-10 | 6/8/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1982 |
| 89-10 | 6/2/2010 | SE | 20 | 1N | 15E | 4089 RAILROAD AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 90-10 | 6/21/2010 | SW | 30 | 1N | 15E | 198 N CHISHOLM AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 91-10 | 6/29/2010 | NW | 31 | 1N | 15E | 1206 TOWELS AVENUE | 9 | MAIN REPAIR | | X | | | | | | | | | | ST | 3 | 1936 |
| 92-10 | 6/29/2010 | SE | 15 | 1N | 15E | 626 OLD MOUNTAIN ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1986 |
| 93-10 | 6/9/2010 | SW | 21 | 1N | 15E | 5850 MAPLE LEAF STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 94-10 | 6/30/2010 | SW | 21 | 1N | 15E | 5800 COPPER STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1988 |
| 95-10 | 6/12/2010 | SW | 27 | 1N | 15E | 5480 SNEDDEN STREET | 3 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1984 |
| 96-10 | 6/25/2010 | NW | 29 | 1N | 15E | 6019 MARION CANYON STREET | 6 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 1990 |
| 97-10 | 6/22/2010 | NW | 30 | 1N | 15E | 262 N MCKENZIE AVENUE | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1990 |
| 98-10 | 6/29/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #40 | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 99-10 | 6/23/2010 | SW | 27 | 1N | 15E | 6342 THOMASINA STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 00-10 | 6/30/2010 | SE | 22 | 1N | 15E | 5884 SCOTT AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1988 |
| 01-10 | 6/10/2010 | SE | 32 | 1N | 15E | 1851 BIXBY ROAD | 6 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 2000 |
| 02-10 | 6/7/2010 | SW | 30 | 1N | 15E | 505 GIBSON (ORPHAN) STREET | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 03-10 | 6/2/2010 | SE | 22 | 1N | 15E | 5564 GLENDALE AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 04-10 | 6/16/2010 | NW | 27 | 1N | 15E | 5462 HUIE STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1978 |
| 05-10 | 6/3/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2000 |
| 06-10 | 6/17/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY RANCH | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2000 |
| 07-10 | 6/18/2010 | SE | 32 | 1N | 15E | 14755 S HIGHWAY 188 | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1988 |
| 08-10 | 6/7/2010 | NW | 31 | 1N | 15E | 249 S TOWELS AVENUE | 9 | MAIN REPAIR | | | | | | X | | | | | | ST | 3 | 1936 |
| 09-10 | 6/8/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 2000 |
| 10-10 | 6/7/2010 | SE | 22 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 2000 |
| 11-10 | 6/14/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |
| 12-10 | 6/18/2010 | NW | 29 | 1N | 15E | 6027 MARION CANYON STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1990 |
| 13-10 | 6/9/2010 | NW | 27 | 1N | 15E | 5514 STORY STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1988 |
| 14-10 | 7/19/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 15-10 | 7/9/2010 | SW | 30 | 1N | 15E | 202 CHISHOLM AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 16-10 | 7/14/2010 | SE | 30 | 1N | 15E | 3040 HILLCREST AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1986 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17-10 | 7/20/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 18-10 | 7/7/2010 | NW | 29 | 1N | 15E | 4120 DAIRY CANYON ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1969 |
| 19-10 | 7/26/2010 | NW | 27 | 1N | 15E | 5514 STORY STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1980 |
| 20-10 | 7/6/2010 | SW | 22 | 1N | 15E | 5211 E YOUNG STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1990 |
| 21-10 | 7/22/2010 | NE | 29 | 1N | 15E | 5928 LONG STREET | 9 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1990 |
| 22-10 | 7/21/2010 | NE | 36 | 1N | 14E | 1367 W LIVE OAK STREET | 6 | MAIN REPAIR | | | | | X | | | | | | | ST | 6 | 1987 |
| 23-10 | 7/27/2010 | NW | 29 | 1N | 15E | 3435 RAILROAD AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 24-10 | 7/19/2010 | SE | 30 | 1N | 15E | 175 E GRANDVIEW STREET | 9 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1988 |
| 25-10 | 7/27/2010 | SW | 30 | 1N | 15E | 505 ORPHAN STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 26-10 | 7/27/2010 | SW | 30 | 1N | 15E | 198 N CHISHOLM AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 27-10 | 7/9/2010 | SE | 21 | 1N | 15E | 5555 S HOSPITAL DRIVE | 12 | MAIN REPAIR | | X | | | | | | | | | | POLY | 6 | 1997 |
| 28-10 | 7/16/2010 | SE | 30 | 1N | 15E | 287 S SUNNYSLOPE AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1990 |
| 29-10 | 7/2/2010 | SE | 20 | 1N | 15E | 4198 LOCOMOTIVE DRIVE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 30-10 | 7/7/2010 | NW | 29 | 1N | 15E | 3451 MILL STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 31-10 | 7/7/2010 | NE | 29 | 1N | 15E | 5962 GROVER CANYON | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 32-10 | 7/16/2010 | NE | 30 | 1N | 15E | 239 S. HIGHLAND AVENUE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 33-10 | 7/30/2010 | NW | 29 | 1N | 15E | 6027 MARION CANYON STREET | 8 | MAIN REPAIR | | X | | | | | | | | | | PVC | 2 | 1970 |
| 34-10 | 7/16/2010 | SW | 27 | 1N | 15E | 5480 SNEDDEN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 35-10 | 7/1/2010 | SE | 22 | 1N | 15E | 5884 SCOTT AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1984 |
| 36-10 | 7/5/2010 | SE | 20 | 1N | 15E | 4180 LOCOMOTIVE DRIVE | 9 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 37-10 | 7/8/2010 | NW | 29 | 1N | 15E | 6076 MACKEY HILL | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1969 |
| 38-10 | 7/28/2010 | SE | 32 | 1N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2000 |
| 39-10 | 7/30/2010 | SE | 22 | 1N | 15E | 6030 SHORT AVENUE | 2 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 40-10 | 7/30/2010 | SE | 32 | 2N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2000 |
| 41-10 | 7/20/2010 | NW | 36 | 1N | 14E | 400' NE OF MACKEY'S CAMP ROAD | 5 | MAIN REPAIR | | | | | X | | | | | | | ST | 6 | 1955 |
| 42-10 | 8/16/2010 | SE | 22 | 1N | 15E | 5464 LORI LANE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 43-10 | 8/13/2010 | SE | 22 | 1N | 15E | 5847 MONROE PLACE | 3 | MAIN REPAIR | | | | | X | | | | | | | GAL | 1 1/2 | 1940 |
| 44-10 | 8/16/2010 | SE | 22 | 1N | 15E | 5721 S. CENTRAL DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 45-10 | 8/23/2010 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 46-10 | 8/9/2010 | NW | 28 | 1N | 15E | 5928 LONG STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 47-10 | 8/23/2010 | NW | 29 | 1N | 15E | 3451 MILL STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 48-10 | 8/23/2010 | NE | 30 | 1N | 15E | 160 KENT STREET | 5 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 49-10 | 8/14/2010 | SW | 27 | 1N | 15E | 5444 SNEDDEN STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 50-10 | 8/9/2010 | SW | 22 | 1N | 15E | 5558 ALBERTA DRIVE | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1980 |
| 51-10 | 8/13/2010 | NW | 22 | 1N | 15E | 702 PAXTON AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 52-10 | 8/19/2010 | SW | 27 | 1N | 15E | LANCASTER STREET & RUSSELL ROAD | 27 | MAIN REPLACEMENT | | X | | | | | | | | | 4 | AC | 4 | 1949 |
| 53-10 | 8/18/2010 | SW | 22 | 1N | 15E | ROBERTS DRIVE & RUSSELL ROAD | 105 | MAIN REPLACEMENT | | X | | | | | | | | | 3 | AC | 6 | 1956 |
| 54-10 | 8/6/2010 | SW | 27 | 1N | 15E | 5480 SNEDDEN STREET | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 55-10 | 8/4/2010 | SE | 22 | 1N | 15E | 6021 SHORT AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 56-10 | 8/10/2010 | SW | 30 | 1N | 15E | 137 S MIAMI AVENUE | 6 | SERVICE REPAIR | | | | | | X | | | CU | 3/4 | | | | 1980 |
| 57-10 | 8/10/2010 | SE | 22 | 1N | 15E | 5464 LORI LANE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1980 |
| 58-10 | 8/24/2010 | NW | 27 | 1N | 15E | HOPE LANE & RUSSELL ROAD | 12 | MAIN REPLACEMENT | | | | | | X | | | | | 4 | AC | 4 | 1956 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59-10 | 8/31/2010 | SW | 22 | 1N | 15E | 5454 S ALCOTT DRIVE | 6 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1970 |
| 60-10 | 9/12/2010 | SE | 22 | 1N | 15E | CENTRAL AVE & MONROE | 5 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1980 |
| 61-10 | 9/14/2010 | NE | 29 | 1N | 15E | 5928 LONG STREET | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1980 |
| 62-10 | 9/20/2010 | SW | 27 | 1N | 15E | 5514 STORY STREET | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1978 |
| 63-10 | 9/17/2010 | SE | 22 | 1N | 15E | 5600 S MCKINNEY AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 64-10 | 9/16/2010 | SW | 15 | 1N | 15E | 5197 BORNITE LANE | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 65-10 | 9/15/2010 | SW | 30 | 1N | 15E | 172 S FOREST AVENUE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 66-10 | 9/30/2010 | SW | 15 | 1N | 15E | 5197 BORNITE LANE | 5 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 67-10 | 9/29/2010 | NW | 29 | 1N | 15E | 6049 MARION CANYON STREET | 10 | MAIN REPLACEMENT | | X | | | | | | | | | 4 | PVC | 2 | 1979 |
| 68-10 | 9/30/2010 | SW | 30 | 1N | 15E | 209 S REPPY AVENUE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1979 |
| 69-10 | 9/16/2010 | SW | 30 | 1N | 15E | 201 RAYMOND STREET | 10 | MAIN REPLACEMENT | | X | | | | | | | | | 3 | GAL | 2 | 1936 |
| 70-10 | 9/20/2010 | NW | 30 | 1N | 15E | 512 PINTO STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 71-10 | 9/20/2010 | SE | 15 | 1N | 15E | 626 OLD MOUNTAIN ROAD | 9 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1975 |
| 72-10 | 9/15/2010 | NW | 29 | 1N | 15E | 194 S MILL STREET | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 73-10 | 9/30/2010 | NE | 29 | 1N | 15E | 5936 PINEWAY STREET | 9 | MAIN REPAIR | | | | | | X | | | | | | GAV | 2 | 1956 |
| 74-10 | 9/14/2010 | NW | 28 | 1N | 15E | 5973 GLOBE AVENUE | 5 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1979 |
| 75-10 | 9/3/2010 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1969 |
| 76-10 | 9/19/2010 | SW | 22 | 1N | 15E | 5463 ROBERTS DRIVE | 8 | MAIN REPAIR | | | | | | X | | | | | | POLY | 3 | 1996 |
| 77-10 | 9/30/2010 | SW | 15 | 1N | 15E | 5186 MALACHITE LANE | 8 | MAIN REPAIR | | | | | | X | | | | | | AC | 6 | 1973 |
| 78-10 | 9/30/2010 | SW | 22 | 1N | 15E | 5221 E YOUNG STREET | 8 | MAIN REPAIR | | | | | | X | | | | | | POLY | 1 | 1979 |
| 79-10 | 9/28/2010 | SW | 20 | 1N | 15E | 3757 GORDON STREET | 5 | MAIN REPAIR | | X | | | | | | | | | | GAL | 2 | 1955 |
| 80-10 | 9/8/2010 | SE | 30 | 1N | 15E | 187 GRANDVIEW AVENUE | 8 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1970 |
| 81-10 | 9/5/2010 | SE | 22 | 1N | 15E | CENTRAL AVENUE & MONROE | 6 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1984 |
| 82-10 | 10/10/2010 | SW | 22 | 1N | 15E | 5207 YOUNG STREET | 4 | MAIN REPAIR | | X | | | | | | | | | | POLY | 1 | 1975 |
| 83-10 | 10/15/2010 | SE | 32 | 2N | 15E | 2291 N BIXBY ROAD | 4 | MAIN REPAIR | | | | | X | | | | | | | PVC | 2 | 2005 |
| 84-10 | 10/2/2010 | SW | 22 | 1N | 15E | 5211 E YOUNG STREET | 2 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1982 |
| 85-10 | 10/26/2010 | SW | 30 | 1N | 15E | 317 LIVE OAK STREET | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 86-10 | 10/28/2010 | NE | 22 | 1N | 15E | 5235 DRAGONFLY LANE | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1984 |
| 87-10 | 10/12/2010 | SW | 30 | 1N | 15E | 198 CHISHOLM AVENUE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1982 |
| 88-10 | 10/12/2010 | SW | 30 | 1N | 15E | 1218 BIRD STREET | 6 | MAIN REPLACEMENT | | X | | | | | | | | | 4 | GAL | 2 | 1930 |
| 89-10 | 10/8/2010 | SE | 22 | 1N | 15E | 5599 CENTRAL AVENUE | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | N/A | | 1980 |
| 90-10 | 10/7/2010 | NW | 36 | 1N | 14E | 400' NE OF MACKEY CAMP ROAD | 4 | MAIN REPAIR | | X | | | | | | | | | | ST | 6 | 1970 |
| 91-10 | 10/20/2010 | SE | 32 | 2N | 15E | 2291 N BIXBY RD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2005 |
| 92-10 | 10/14/2010 | SE | 20 | 1N | 15E | 4169 E HIGHWAY 60 | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 93-10 | 10/25/2010 | NE | 29 | 1N | 15E | 6053 BOARD DRIVE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1980 |
| 94-10 | 10/25/2010 | NW | 29 | 1N | 15E | 6090 MACKEY HILL | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 95-10 | 10/5/2010 | NW | 29 | 1N | 15E | 5774 OLD OAK STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1978 |
| 96-10 | 11/15/2010 | NW | 36 | 1N | 14E | 60' SW OF MACKEY CAMP ROAD | 15 | MAIN REPLACEMENT | | X | | | | | | | | | 3 | ST | 6 | 1970 |
| 97-10 | 11/29/2010 | SW | 34 | 1N | 15E | 150' N OF QUAIL RUN | 2 | SERVICE REPLACEMENT | | | | | X | | | 1 | OTHER | 3/4 | | | | 1990 |
| 98-10 | 11/14/2010 | NW | 36 | 1N | 14E | 400' NE OF MACKEY CAMP ROAD | 18 | MAIN REPAIR | | | | | X | | | | | | | ST | 6 | 1970 |
| 99-10 | 11/29/2010 | SW | 22 | 1N | 15E | 5304 E NIELSON STREET | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1979 |
| 00-10 | 11/9/2010 | NW | 27 | 1N | 15E | 5514 E STORY STREET. | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01-10 | 11/12/2010 | SW | 30 | 1N | 15E | 334 N CHISHOLM AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1977 |
| 02-10 | 11/5/2010 | SW | 22 | 1N | 15E | 5589 RUSSELL ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 03-10 | 11/24/2010 | SE | 30 | 1N | 15E | 175 E GRANDVIEW STREET | 6 | MAIN REPAIR | | | | | | X | | | | | | POLY | 1 | 1980 |
| 04-10 | 11/19/2010 | SE | 32 | 2N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | POLY | 2 | 2005 |
| 05-10 | 11/30/2010 | SW | 30 | 1N | 15E | 236 N NELLIE AVENUE | 6 | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 1/2 | | | | 1940 |
| 06-10 | 11/19/2010 | SW | 15 | 1N | 15E | 5196 BORNITE LANE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 07-10 | 11/16/2010 | SE | 22 | 1N | 15E | 5561 CENTRAL AVENUE | 4 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1982 |
| 08-10 | 11/17/2010 | SE | 20 | 1N | 15E | 5936 PINEWAY STREET | 6 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1954 |
| 09-10 | 11/1/2010 | NE | 22 | 1N | 15E | 5235 DRAGONFLY LANE | 6 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1980 |
| 10-10 | 11/4/2010 | SE | 32 | 2N | 15E | 2291 N BIXBY ROAD | 6 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 2005 |
| 11-10 | 11/29/2010 | NE | 29 | 1N | 15E | 5978 S EL CAMINO | 4 | MAIN REPAIR | | | | | X | | | | | | | ST | 4 | 1967 |
| 12-10 | 11/9/2010 | SW | 21 | 1N | 15E | 4335 BROADWAY STREET | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1980 |
| 13-10 | 11/10/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #10 | 5 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 14-10 | 12/31/2010 | SE | 22 | 1N | 15E | 5614 S GLENDALE AVENUE | 2 | OTHER | | | | | X | | | 1 | OTHER | 2 | | | | 1995 |
| 15-10 | 12/5/2010 | SW | 22 | 1N | 15E | 5634 RUSSEL ROAD | 4 | MAIN REPAIR | | | | | X | | | | | | | GAL | 2 | 1945 |
| 16-10 | 12/4/2010 | NW | 36 | 1N | 15E | 60' SW OF MACKEY CAMP ROAD | 6 | MAIN REPAIR | | | | | X | | | | | | | ST | 6 | 1970 |
| 17-10 | 12/8/2010 | SE | 22 | 1N | 15E | 5675 MOUNTAIN VIEW | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 18-10 | 12/27/2010 | SW | 22 | 1N | 15E | 5304 NEILSON STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1969 |
| 19-10 | 12/7/2010 | SW | 30 | 1N | 15E | 232 INDIAN CIRCLE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1971 |
| 20-10 | 12/16/2010 | SW | 22 | 1N | 15E | 5616 RUSSELL ROAD | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1972 |
| 21-10 | 12/14/2010 | SE | 22 | 1N | 15E | 5561 CENTRAL AVENUE | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1982 |
| 22-10 | 12/3/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #4 | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1973 |
| 23-10 | 12/7/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD #32 | 4 | MAIN REPAIR | | | | | X | | | | | | | POLY | 1 | 1973 |
| 24-10 | 12/17/2010 | SE | 30 | 1N | 15E | 300 S CHERRY FLATS ROAD | 8 | MAIN REPAIR | | | | | | X | | | | | | AC | 4 | 1973 |
| 25-10 | 12/28/2010 | SW | 22 | 1N | 15E | 5611 BLOCK AVENUE #5 | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1973 |
| 26-10 | 12/16/2010 | SW | 30 | 1N | 15E | 252 S ELLWOOD AVENUE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | CU | 1/2 | | | | 1959 |
| 27-10 | 12/3/2010 | SW | 30 | 1N | 15E | 154 FORREST AVENUE | 12 | SERVICE REPAIR | | X | | | | | | | GS | 1 | | | | 1961 |
| 28-10 | 12/28/2010 | SE | 21 | 1N | 15E | 5555 HOSPITAL DRIVE | 9 | MAIN REPAIR | | X | | | | | | | | | | POLY | 6 | 1997 |
| 29-10 | 12/9/2010 | NW | 28 | 1N | 15E | 5973 S. PALMER LANE | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1968 |
| 30-10 | 12/5/2010 | SE | 21 | 1N | 15E | 5634 RUSSEL ROAD | 4 | MAIN REPAIR | | | | | | X | | | | | | GAL | 2 | 1945 |
| 31-10 | 12/20/2010 | SE | 30 | 1N | 15E | 161 MILTON AVENUE | 4 | MAIN REPAIR | | | | | | X | | | | | | AC | 4 | 1973 |
| 32-10 | 12/6/2010 | NE | 29 | 1N | 15E | 5936 PINEWAY STREET | 4 | OTHER | | | | | | X | | 1 | GS | 2 | | | | 1956 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Superior | | | | | | | | | | | | | | | | | | | | | | |
| 001-79 | 12/6/1979 | SW | 35 | 1S | 12E | SAN JUAN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 228 | GS | 1 | 1932 |
| 001-80 | 9/11/1980 | SE | 35 | 1S | 12E | MAGMA COPPER MILL | | MAIN REPLACEMENT | | | | | | X | | | | | 385 | GS | 10 | 1961 |
| 001-81 | 1/28/1981 | NE | 3 | 2S | 12E | STONE AVENUE & TERRANCE DRIVE | | MAIN REPLACEMENT | | | | | | X | | | | | 138 | GS | 1 | 1937 |
| 002-81 | 5/1/1981 | SE | 35 | 1S | 12E | STANSBERRY STREET & NEWMONT STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 40 | GS | 1 | 1977 |
| 003-81 | 9/14/1981 | SE | 35 | 1S | 12E | NO ADDRESS | | OTHER | | | | | | X | | | | | 2" | Gate Valve | 2 | 1934 |
| 004-81 | 10/28/1981 | NE | 3 | 2S | 12E | NO ADDRESS | | OTHER | | | | | | X | | | | | 2" | Gate Valve | 2 | 1930 & 1936 |
| 005-81 | 12/7/1981 | SE | 35 | 1S | 12E | MAIN STREET & STANSBERRY STREET | | OTHER | | | | | | X | | | | | 2" | Hand valve | 2 | 1936 |
| 006-81 | 12/15/1981 | SW | 35 | 1S | 12E | WEST ALLEY & SAN JUAN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 220 | GS | 1 | 1932 |
| 001-82 | 2/8/1982 | SE | 35 | 1S | 12E | NEARY AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 76 | GS | 3/4 | 1918 |
| 002-82 | 2/25/1982 | SE | 3 | 2S | 12E | MARTIN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 157 | GS | 1 | 1928 |
| 003-82 | 3/18/1982 | SE | 35 | 1S | 12E | 212 N GARROT STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 8 | GS | 3/4 | 1956 |
| 004-82 | 3/18/1982 | NE | 3 | 2S | 12E | 312 W CROW STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 8 | GS | 3/4 | 1942 |
| 005-82 | 4/16/1982 | NE | 3 | 2S | 12E | CROW STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1942 |
| 006-82 | 4/16/1982 | NE | 3 | 2S | 12E | 635 & 649 HIGHWAY 60 | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1942 |
| 007-82 | 5/6/1982 | NW | 3 | 2S | 12E | OLD PHOENIX ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | 98 | POLY | 1 | 1941 |
| 008-82 | 9/22/1982 | | | | | NO ADDRESS OR MAP | | MAIN REPLACEMENT | | | | | | X | | | | | 150 | GS | 3/4 | |
| 009-82 | 9/22/1982 | NW | 3 | 2S | 12E | OLD PHOENIX ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | 100 | POLY | 3/4 | 1975 |
| 010-82 | 12/10/1982 | SE | 3 | 2S | 12E | NORTH OF SONORA STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 170 | GS | 1 | 1963 |
| 001-83 | 12/9/1983 | NW | 3 | 2S | 12E | SANTA RITA | | MAIN REPLACEMENT | | | | | | X | | | | | 750 | GS | 2 | 1930 |
| 001-84 | 1/9/1984 | SW | 35 | 1S | 12E | 655 W PORPHYRY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 001-88 | 11/29/1988 | SW | 35 | 1S | 12E | 225 N PINAL AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 12 | GS | 3/4 | 1954 |
| 002-88 | 11/29/1988 | NE | 3 | 2S | 12E | 750 S BELMONT AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 1 | | | | 1942 |
| 001-89 | 1/11/1989 | SW | 3 | 2S | 12E | 201 & 203 O'DONNELL DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 002-89 | 1/16/1989 | SE | 35 | 1S | 12E | 426 SILVER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1939 |
| 003-89 | 1/30/1989 | SE | 35 | 1S | 12E | ALLEY BETWEEN KELLNER & NEARY | | MAIN REPLACEMENT | | | | | | X | | | | | 62 | GS | 3/4 | 1936 |
| 004-89 | 2/2/1989 | SW | 35 | 1S | 12E | #3 PIZANO STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 005-89 | 2/3/1989 | NE | 3 | 2S | 12E | 910 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 006-89 | 2/21/1989 | SE | 35 | 1S | 12E | 300 & 300A NEARY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1954 |
| 007-89 | 2/22/1989 | NW | 3 | 2S | 12E | 741 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 008-89 | 3/2/1989 | NE | 3 | 2S | 12E | 782 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 009-89 | 3/2/1989 | NE | 3 | 2S | 12E | 828 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 010-89 | 3/6/1989 | NE | 3 | 2S | 12E | 873 & 873A STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1937 |
| 011-89 | 3/6/1989 | NE | 3 | 2S | 12E | 854 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 012-89 | 3/7/1989 | NE | 3 | 2S | 12E | 891 & 895 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1937 |
| 013-89 | 3/9/1989 | NE | 3 | 2S | 12E | 499 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 014-89 | 3/13/1989 | NE | 3 | 2S | 12E | 620 GIBBS STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1942 |
| 015-89 | 3/15/1989 | NE | 3 | 2S | 12E | 549 KISER #1 & #2 | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1937 |
| 016-89 | 3/20/1989 | NE | 3 | 2S | 12E | 666 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1937 |
| 017-89 | 3/27/1989 | NE | 3 | 2S | 12E | 772 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1980 |
| 018-89 | 4/3/1989 | NE | 3 | 2S | 12E | 916 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 019-89 | 4/3/1989 | NE | 2 | 2S | 12E | STONE AVENUE NORTH OF VALENTINE | | MAIN REPLACEMENT | | | | | | X | | | | | 180 | CI pipe | 4 | 1937 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 020-89 | 4/17/1989 | NE | 3 | 2S | 12E | 936 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 021-89 | 4/26/1989 | NE | 3 | 2S | 12E | KISER & STONE AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | | Gate Valve | 2 | 1942 |
| 022-89 | 5/15/1989 | SE | 35 | 1S | 12E | WEARY AVENUE NORTH OF COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1918 |
| 023-89 | 5/31/1989 | SE | 3 | 2S | 12E | 1051 & 1065 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1940 |
| 024-89 | 6/5/1989 | SW | 3 | 2S | 12E | 311 PALO VERDE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 025-89 | 6/27/1989 | SE | 35 | 1S | 12E | 79 NEARY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1917 |
| 026-89 | 7/19/1989 | SW | 3 | 2S | 12E | 206 & 208 PALO FIERRO DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1956 |
| 027-89 | 8/1/1989 | SE | 35 | 1S | 12E | 79 LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1939 |
| 028-89 | 8/3/1989 | SE | 35 | 1S | 12E | 36 NEARY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 029-89 | 8/15/1989 | SE | 35 | 1S | 12E | 48 NEARY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 030-89 | 8/16/1989 | SE | 35 | 1S | 12E | 60-78 NEARY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 3 | POLY | 3/4 | | | | 1980 |
| 031-89 | 8/21/1989 | NE | 3 | 2S | 12E | 260 A STONE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 032-89 | 8/25/1989 | NW | 3 | 2S | 12E | BRIDGE STREET & SONORA STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 377 | GS | 6 | 1941 |
| 033-89 | 8/28/1989 | NW | 35 | 2S | 12E | 103 & 106 BRIDGE STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1941 |
| 034-89 | 8/29/1989 | SE | 35 | 1S | 12E | 300 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1917 |
| 035-89 | 8/30/1989 | SE | 35 | 1S | 12E | 291 MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1967 |
| 036-89 | 9/15/1989 | SE | 35 | 1S | 12E | 236 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 037-89 | 10/2/1989 | SE | 35 | 1S | 12E | 73 MAIN STREET & LA MIDA BAR | | SERVICE REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 038-89 | 10/6/1989 | SE | 35 | 1S | 12E | MAGMA ALLEY & MAIN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 478 | POLY | 1 | 1935 & 1974 |
| 039-89 | 10/17/1989 | SE | 35 | 1S | 12E | 37 KELLNER DRIVE | | SERVICE REPAIR | | | | | | X | | 1 | POLY | 3/4 | | | | 1967 |
| 040-89 | 10/26/1989 | SW | 3 | 2S | 12E | 205 & 207 W GARY DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 041-89 | 11/1/1989 | SE | 35 | 1S | 12E | 308 N MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 042-89 | 11/1/1989 | SE | 35 | 1S | 12E | 211 N PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 043-89 | 11/1/1989 | SW | 3 | 2S | 12E | 102 S CHRISTOPHER STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1978 |
| 044-89 | 11/3/1989 | SE | 35 | 1S | 12E | 501 W PORPHORY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 001-90 | 1/4/1990 | SE | 3 | 2S | 12E | 701 BROWN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 002-90 | 1/5/1990 | NE | 3 | 2S | 12E | 473 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 003-90 | 1/9/1990 | NE | 3 | 2S | 12E | 519 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 004-90 | 1/10/1990 | SW | 35 | 1S | 12E | 93 PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 005-90 | 1/29/1990 | NE | 3 | 2S | 12E | 232 A & B TERRACE DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1978 |
| 006-90 | 1/29/1990 | SE | 3 | 2S | 12E | 800 MARTIN STREET SPACE A & B | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 007-90 | 2/26/1990 | NE | 3 | 2S | 12E | CHURCH STREET BETWEEN GIBBS & CROW AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 282 | GS | 1 | 1929 |
| 008-90 | 2/26/1990 | NE | 3 | 2S | 12E | 830 & 831 CHURCH STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1929 |
| 009-90 | 3/8/1990 | NE | 3 | 2S | 12E | 1011 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 010-90 | 3/30/1990 | SE | 35 | 1S | 12E | 296 & 298 MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1978 |
| 011-90 | 4/2/1990 | SE | 35 | 1S | 12E | 299 LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 012-90 | 4/9/1990 | SE | 3 | 2S | 12E | 410 RAY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1976 |
| 013-90 | 4/20/1990 | NE | 3 | 2S | 12E | 474 TERRACE DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 014-90 | 5/9/1990 | NE | 3 | 2S | 12E | 498 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 015-90 | 5/9/1990 | NE | 3 | 2S | 12E | 475 & 479 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |
| 016-90 | 5/9/1990 | NE | 3 | 2S | 12E | 469 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 017-90 | 5/9/1990 | NE | 3 | 2S | 12E | 467 & 467 B MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 018-90 | 5/9/1990 | NE | 3 | 2S | 12E | 455 & 459 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |
| 019-90 | 5/9/1990 | NE | 3 | 2S | 12E | 601 & 603 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |
| 020-90 | 5/9/1990 | NE | 3 | 2S | 12E | 505 & 507 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 1 | | | | 1936 |
| 021-90 | 6/8/1990 | NE | 3 | 2S | 12E | 690 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1942 |
| 022-90 | 6/11/1990 | SE | 35 | 1S | 12E | 102 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 023-90 | 6/25/1990 | NE | 3 | 2S | 12E | 222 & 242 WRIGHT STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1942 |
| 024-90 | 7/2/1990 | NW | 3 | 2S | 12E | 5 OLD PHOENIX ROAD | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 025-90 | 7/6/1990 | NE | 3 | 2S | 12E | 322 & 332 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1942 |
| 026-90 | 7/7/1990 | NE | 3 | 2S | 12E | 580 SONORA STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 027-90 | 7/27/1990 | SE | 35 | 1S | 12E | 70 COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 028-90 | 7/31/1990 | SE | 35 | 1S | 12E | 139 COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1967 |
| 029-90 | 8/31/1990 | NE | 3 | 2S | 12E | 680 A SONORA STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1949 |
| 030-90 | 9/5/1990 | NE | 3 | 2S | 12E | 804 HIGHWAY 60 | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 031-90 | 9/10/1990 | SE | 35 | 1S | 12E | 187 COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1976 |
| 032-90 | 9/13/1990 | SW | 35 | 1S | 12E | PINAL STREET SOUTH OF CHURCH AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1954 |
| 033-90 | 9/27/1990 | SE | 35 | 1S | 12E | 299 MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 034-90 | 10/31/1990 | SE | 3 | 2S | 12E | 599 RAY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 035-90 | 11/14/1990 | SE | 3 | 2S | 12E | 1139 EDNA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 036-90 | 11/19/1990 | NE | 3 | 2S | 12E | 467 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 037-90 | 11/29/1990 | SE | 3 | 2S | 12E | 107 & 109 ARNETT DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1965 |
| 038-90 | 11/30/1990 | SW | 3 | 2S | 12E | 329 MARION STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1966 |
| 039-90 | 12/3/1990 | NW | 3 | 2S | 12E | #1 & #3 SMELTER TOWN | | SERVICE REPLACEMENT | | | | | | X | | 2 | CU | 1 | | | | 1973 |
| 040-90 | 12/5/1990 | NE | 3 | 2S | 12E | 550 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1942 |
| 041-90 | 12/28/1990 | SE | 35 | 1S | 12E | 230 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 001-91 | 1/3/1991 | NE | 3 | 2S | 12E | 249 & 451 B HEINER DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1937 |
| 002-91 | 4/9/1991 | SE | 35 | 1S | 12E | 448, 467, & 469 NEWMONT STREET | | SERVICE REPLACEMENT | | | | | | X | | 3 | GS | 3/4 | | | | 1936 |
| 003-91 | 4/9/1991 | SE | 35 | 1S | 12E | 476 NEWMONT STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 004-91 | 4/10/1991 | SE | 35 | 1S | 12E | NEWMONT STREET WEST OF STANSBERRY | | MAIN REPLACEMENT | | | | | | X | | | | | 103 | GS | 1 | 1936 |
| 005-91 | 4/10/1991 | SE | 35 | 1S | 12E | 477 NEWMONT STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 006-91 | 4/17/1991 | NE | 3 | 2S | 12E | 241 & 243 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1970 |
| 007-91 | 4/18/1991 | NE | 3 | 2S | 12E | 242 & 244 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1970 |
| 008-91 | 5/1/1991 | SE | 35 | 1S | 12E | 268 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 009-91 | 5/16/1991 | NE | 3 | 2S | 12E | 240 STONE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 010-91 | 5/24/1991 | NE | 3 | 2S | 12E | 658 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1942 |
| 011-91 | 7/19/1991 | SW | 3 | 2S | 12E | 854 SPRAY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 012-91 | 9/20/1991 | NE | 3 | 2S | 12E | 809 BELMONT AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 013-91 | 9/24/1991 | SE | 35 | 1S | 12E | 519 LIME STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 014-91 | 10/8/1991 | NE | 3 | 2S | 12E | WRIGHT & CHURCH STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 82 | GS | 3/4 | 1928 |
| 015-91 | 10/8/1991 | NE | 3 | 2S | 12E | 402 VALENTINE STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 016-91 | 10/10/1991 | SE | 35 | 1S | 12E | 284 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 017-91 | 10/15/1991 | NE | 3 | 2S | 12E | 625 CROW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1972 |
| 018-91 | 11/1/1991 | SE | 35 | 1S | 12E | 212 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 019-91 | 11/6/1991 | SE | 3 | 2S | 12E | 1042 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 020-91 | 11/14/1991 | SW | 35 | 1S | 12E | 38 RAINBOW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 021-91 | 11/26/1991 | SE | 4 | 2S | 12E | 101 & 103 CARNEY STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1925 |
| 022-91 | 11/27/1991 | SW | 3 | 2S | 12E | EDNA AVENUE & SPRAY STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 128 | GS | 1 | 1956 |
| 023-91 | 11/27/1991 | SW | 3 | 2S | 12E | SPRAY STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 024-91 | 12/3/1991 | SE | 3 | 2S | 12E | 1203 & 1255 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1928 |
| 025-91 | 12/4/1991 | NE | 3 | 2S | 12E | 440 GIBBS STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 001-92 | 1/3/1992 | NE | 3 | 2S | 12E | LOBB AVENUE & HEINER DRIVE | | MAIN REPLACEMENT | | | | | | X | | | | | 490 | GS | 2 | 1937 |
| 002-92 | 1/28/1992 | NE | 3 | 2S | 12E | 621 CROW STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 250 | GS | 2 | |
| 003-92 | 1/28/1992 | NE | 3 | 2S | 12E | 621 CROW STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | | | | | |
| 004-92 | 1/31/1992 | SW | 3 | 2S | 12E | 339 MARION STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1987 |
| 005-92 | 2/4/1992 | SW | 3 | 2S | 12E | 333 & 335 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 006-92 | 2/4/1992 | SW | 3 | 2S | 12E | 337 MARION STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1980 |
| 007-92 | 2/4/1992 | SW | 3 | 2S | 12E | 329 MARION STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1985 |
| 008-92 | 2/4/1992 | SW | 3 | 2S | 12E | 332 & 334 MARION STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 009-92 | 2/5/1992 | SW | 3 | 2S | 12E | 114 & 116 RICHARD AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1980 |
| 010-92 | 2/5/1992 | SE | 35 | 1S | 12E | 431 SILVER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 011-92 | 2/6/1992 | SW | 3 | 2S | 12E | 122 RICHARD AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 012-92 | 2/27/1992 | SW | 35 | 1S | 12E | 602 LIME STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 013-92 | 3/10/1992 | NE | 3 | 2S | 12E | 940 CONTRERAS | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1957 |
| 014-92 | 3/24/1992 | NE | 4 | 2S | 12E | OLD MAGMA BALLPARK | | MAIN REPLACEMENT | | | | | | X | | | | | 380 | GS | 2 | 1942 |
| 015-92 | 3/24/1992 | NE | 4 | 2S | 12E | BASEBALL FIELD | | SERVICE REPLACEMENT | | | | | | X | | 6 | GS | 1 | | | | 1942 |
| 016-92 | 4/2/1992 | SE | 35 | 1S | 12E | 324 MINE AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 017-92 | 4/10/1992 | NE | 3 | 2S | 12E | CHURCH AVENUE & CROW STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 250 | GS | 1 | 1929 |
| 018-92 | 4/10/1992 | NE | 3 | 2S | 12E | CROW STREET & CHURCH | | SERVICE REPLACEMENT | | | | | | X | | 3 | GS | 3/4 | | | | 1929 |
| 019-92 | 4/20/1992 | SE | 35 | 1S | 12E | 108 A STANSBERRY AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 020-92 | 6/17/1992 | NE | 3 | 2S | 12E | 849 A WILLHOYT STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1957 |
| 021-92 | 7/20/1992 | SE | 35 | 1S | 12E | 439 SILVER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 022-92 | 7/28/1992 | SE | 4 | 2S | 12E | CARNEY STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 250 | GS | 2 | 1925 |
| 023-92 | 7/28/1992 | SE | 4 | 2S | 12E | CARNEY STREET | | SERVICE REPLACEMENT | | | | | | X | | 8 | POLY | 3/4 | | | | 1925 |
| 024-92 | 7/28/1992 | SE | 4 | 2S | 12E | CARNEY STREET | | SERVICE REPLACEMENT | | | | | | X | | 10 | GS | 3/4 | | | | 1925 & 1970 |
| 025-92 | 7/28/1992 | SW | 3 | 2S | 12E | 206 & 208 HARRINGTON STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 026-92 | 7/29/1992 | SE | 3 | 2S | 12E | 95 & 97 ARNETT DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1965 |
| 027-92 | 7/29/1992 | SE | 3 | 2S | 12E | 111 & 113 ARNETT DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1965 |
| 028-92 | 8/3/1992 | SW | 35 | 1S | 12E | 90 PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 029-92 | 8/11/1992 | SE | 35 | 1S | 12E | 299 KELLNER AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1929 |
| 030-92 | 8/18/1992 | SE | 35 | 1S | 12E | 215 GARROTT STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1939 |
| 031-92 | 8/25/1992 | SW | 35 | 1S | 12E | 64 RAINBOW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 032-92 | 8/25/1992 | SE | 35 | 1S | 12E | 225 LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 033-92 | 8/26/1992 | SW | 35 | 1S | 12E | 110 PINAL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 034-92 | 9/16/1992 | NW | 3 | 2S | 12E | 903 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 035-92 | 9/28/1992 | SE | 3 | 2S | 12E | 89 & 91 ARNETT STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1965 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 036-92 | 10/21/1992 | NE | 3 | 2S | 12E | 500 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 037-92 | 10/27/1992 | NE | 3 | 2S | 12E | 473 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 038-92 | 10/28/1992 | NE | 3 | 2S | 12E | 998 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 039-92 | 11/1/1992 | SE | 3 | 2S | 12E | 103 & 105 ARNETT DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1965 |
| 040-92 | 11/4/1992 | SE | 35 | 1S | 12E | 68 KUMPKE COURT | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1974 |
| 041-92 | 11/10/1992 | SE | 35 | 1S | 12E | HIGH SCHOOL AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 180 | GS | 1 | 1963 |
| 042-92 | 11/10/1992 | SE | 35 | 1S | 12E | 32, 38, 50 & 60 KUMPKE COURT | | SERVICE REPLACEMENT | | | | | | X | | 4 | GS | 3/4 | | | | 1963 |
| 043-92 | 11/12/1992 | NE | 3 | 2S | 12E | 450 BRIDGE STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 044-92 | 11/16/1992 | SE | 35 | 1S | 12E | 206, 208, 210 A & B GARROTT STREET | | SERVICE REPLACEMENT | | | | | | X | | 4 | GS | 3/4 | | | | 1956 |
| 045-92 | 11/17/1992 | SE | 35 | 1S | 12E | 209 A LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1956 |
| 046-92 | 12/3/1992 | SE | 3 | 2S | 12E | 1227 BELMONT AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1964 |
| 047-92 | 12/15/1992 | SE | 35 | 1S | 12E | 395 LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1979 |
| 001-93 | 1/3/1993 | NE | 3 | 2S | 12E | 318 BRIDGE STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 002-93 | 1/3/1993 | SE | 35 | 1S | 12E | 459 NEWMONT | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 003-93 | 2/5/1993 | SE | 35 | 1S | 12E | 53 MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1967 |
| 004-93 | 2/17/1993 | SE | 35 | 1S | 12E | COPPER STREET WEST OF MAGMA | | MAIN REPLACEMENT | | | | | | X | | | | | 150 | CI | 4 | 1964 |
| 005-93 | 2/18/1993 | NW | 3 | 2S | 12E | EDNA AVENUE & WILLHOYT STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 100 | GS | 3/4 | 1957 |
| 006-93 | 2/18/1993 | NW | 3 | 2S | 12E | 1101, 1012, 1013, & 1014 EDNA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 4 | GS | 3/4 | | | | 1957 |
| 007-93 | 3/18/1993 | SW | 35 | 1S | 12E | 492 SANTA RITA STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 1 | | | | 1939 |
| 008-93 | 3/18/1993 | NE | 3 | 2S | 12E | 528 SONORA DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1941 |
| 009-93 | 3/31/1993 | NE | 3 | 2S | 12E | 701 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1942 |
| 010-93 | 5/13/1993 | NW | 3 | 2S | 12E | 835 C HIGHWAY 60 | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1957 |
| 011-93 | 6/3/1993 | NW | 3 | 2S | 12E | 6, 7,8,11 & 15 SMELTER TOWN ROAD | | SERVICE REPLACEMENT | | | | | | X | | 5 | POLY | 1 | | | | 1973 |
| 012-93 | 6/28/1993 | SW | 35 | 2S | 12E | 96 PINAL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1970 |
| 013-93 | 7/16/1993 | NE | 3 | 2S | 12E | 649 SONORAN STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1963 |
| 014-93 | 8/2/1993 | SE | 35 | 1S | 12E | 245 PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1977 |
| 015-93 | 8/4/1993 | NE | 3 | 2S | 12E | 506 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 016-93 | 8/18/1993 | NE | 3 | 2S | 12e | 466 TERRACE DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 017-93 | 8/27/1993 | SE | 35 | 1S | 12E | GAYS ALLEY & MAIN STREET | | OTHER | | | | | | X | | | | | 2" | Gate Valve | 2 | 1936 |
| 018-93 | 9/3/1993 | NE | 3 | 2S | 12E | 640 CHURCH STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1975 |
| 019-93 | 9/9/1993 | SE | 3 | 2S | 12E | 653 BROWN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1928 |
| 020-93 | 9/23/1993 | SE | 35 | 1S | 12E | 516 LIME STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1918 |
| 021-93 | 9/24/1993 | NE | 3 | 2S | 12E | 1006 & 1008 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1937 |
| 022-93 | 10/20/1993 | SW | 35 | 1S | 12E | 98 A PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 023-93 | 10/21/1993 | SE | 35 | 1S | 12E | 102 HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 024-93 | 10/21/1993 | NE | 3 | 2S | 12E | 508 & 516 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1974 |
| 025-93 | 10/21/1993 | SE | 3 | 2S | 12E | MEDLOCK DRIVE NORTH OF SUNSET DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1965 |
| 026-93 | 10/21/1993 | NE | 3 | 2S | 12E | 426 EAST STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1978 |
| 027-93 | 10/26/1993 | SW | 35 | 1S | 12E | SAN PEDRO STREET & EAST ALLEY | | MAIN REPLACEMENT | | | | | | X | | | | | 115 | GS | 3/4 | 1936 |
| 028-93 | 10/26/1993 | SW | 35 | 1S | 12E | 56 & 61 SAN PEDRO STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |
| 029-93 | 11/10/1993 | NE | 3 | 2S | 12E | SIMPSON ROAD BETWEEN WESTERN AVENUE & BELMONT STR | | MAIN REPLACEMENT | | | | | | X | | | | | 100 | GS | 1 | 1926 |
| 030-93 | 11/10/1993 | NE | 3 | 2S | 12E | SIMPSON ROAD BETWEEN WESTERN AVENUE & BELMONT STR | | SERVICE REPLACEMENT | | | | | | X | | 3 | GS | 3/4 | | | | 1926 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 031-93 | 11/18/1993 | SE | 35 | 1S | 12E | 39 MAGMA & 50 KELLNER AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1967 |
| 032-93 | 12/1/1993 | SE | 35 | 1S | 12E | 370 KELLNER AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1929 |
| 033-93 | 12/8/1993 | SW | 35 | 1S | 12E | 123 PINAL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 034-93 | 12/9/1993 | SE | 35 | 1S | 12E | 249 & 259 MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1969 |
| 035-93 | 12/13/1993 | NE | 4 | 2S | 12E | US HWY 60 WINGHOUSE | | MAIN REPLACEMENT | | | | | | X | | | | | 160 | CU | 3/4 | 1975 |
| 036-93 | 12/16/1993 | SE | 35 | 1S | 12E | ALLEY BETWEEN MAGMA & KELLNER #23 | | MAIN REPLACEMENT | | | | | | X | | | | | | Gate valve | 2 | 1936 |
| 037-93 | 12/30/1993 | SW | 3 | 2S | 12E | 204 & 206 SUNSET DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 001-94 | 1/11/1994 | NE | 3 | 2S | 12E | 322 CROW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 3/4 | | | | 1942 |
| 002-94 | 1/14/1994 | SE | 3 | 2S | 12E | VALENTINE STREET & STONE AVENUE | | OTHER | | | | | | X | | | | | 4" | Hand valve | 4 | 1939 |
| 003-94 | 1/18/1994 | NE | 3 | 2S | 12E | CHURCH AVENUE & MAIN STREET | | OTHER | | | | | | X | | | | | 2" | Gate Valve | 2 | 1936 |
| 004-94 | 1/19/1994 | NE | 3 | 2S | 12E | ON CHURCH AVENUE BETWEEN US 60 & GIBBS STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 236 | GS | 1 | 1936 |
| 005-94 | 1/20/1994 | NE | 3 | 2S | 12E | 745 CHURCH STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 006-94 | 1/20/1994 | NE | 3 | 2S | 12E | 584 GIBBS STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 007-94 | 1/24/1994 | NE | 3 | 2S | 12E | 752 CHURCH STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 008-94 | 2/3/1994 | NE | 3 | 2S | 12E | 558 KISER STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | CU | 2 | | | | 1942 |
| 009-94 | 2/28/1994 | SE | 35 | 1S | 12E | COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 150 | CI | 4 | |
| 010-94 | 2/28/1994 | SE | 35 | 1S | 12E | COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | PVC | 3/4 | | | | |
| 011-94 | 3/14/1994 | SW | 35 | 1S | 12E | PINAL & LIME STREET | | SERVICE REPLACEMENT | | | | | | X | | 10 | POLY | 3/4 | | | | 1940 |
| 012-94 | 4/4/1994 | SE | 35 | 1S | 12E | VALVE 302 & 303 | | MAIN REPLACEMENT | | | | | | X | | | | | 150 | CI | 4 | 1936 |
| 013-94 | 4/4/1994 | SE | 35 | 1S | 12E | COPPER STREET & MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1936 |
| 014-94 | 4/26/1994 | NE | 3 | 2S | 12E | 700 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 015-94 | 5/4/1994 | SW | 35 | 1S | 12E | 25 RAINBOW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 016-94 | 5/6/1994 | SW | 3 | 2S | 12E | 217 O'DONNELL DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1965 |
| 017-94 | 5/11/1994 | SW | 35 | 1S | 12E | MAGMA ALLEY & HIGH SCHOOL AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 930 | GS | 2 | 1934 |
| 018-94 | 5/11/1994 | SE | 35 | 1S | 12E | MAGMA ALLEY & HIGH SCHOOL AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 13 | GS | 3/4 | | | | 1936 |
| 019-94 | 5/12/1994 | SW | 35 | 1S | 12E | 56 RAINBOW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1941 |
| 020-94 | 6/2/1994 | SW | 35 | 1S | 12E | 60 RAINBOW STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1980 |
| 021-94 | 6/27/1994 | SE | 35 | 1S | 12E | 252 LIME STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1917 |
| 022-94 | 7/20/1994 | NW | 3 | 2S | 12E | 61 MECKEVILLE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 023-94 | 7/21/1994 | NW | 3 | 2S | 12E | SMELTER TOWN ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | 80 | CA | 4 | 1973 |
| 024-94 | 7/24/1994 | NE | 3 | 2S | 12E | 629 & 629 A CROW STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1972 |
| 025-94 | 8/25/1994 | NE | 3 | 2S | 12E | 400 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1980 |
| 026-94 | 9/8/1994 | NW | 3 | 2S | 12E | 73 OLD PHOENIX ROAD | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 027-94 | 10/12/1994 | SE | 35 | 1S | 12E | 298 LOBB AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 028-94 | 11/8/1994 | NE | 3 | 2S | 12E | 521 HILL STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1974 |
| 029-94 | 11/16/1994 | SE | 35 | 1S | 12E | SUPERIOR HIGH SCHOOL | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 2 | | | | 1980 |
| 030-94 | 12/2/1994 | SW | 3 | 2S | 12E | 202 & 204 O'DONELL DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 1 | | | | 1970 |
| 031-94 | 12/8/1994 | NE | 3 | 2S | 12E | NO ADDRESS OR STREET NAME | | MAIN REPLACEMENT | | | | | | X | | | | | 110 | PVC | 1 | 1973 |
| 032-94 | 12/28/1994 | SE | 3 | 2S | 12E | 1045 WESTERN AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |
| 001-95 | 1/23/1995 | SE | 3 | 2S | 12E | 105 & 107 SOUTH AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1960 |
| 002-95 | 2/2/1995 | NE | 3 | 2S | 12E | WRIGHT & CHURCH STREET | | SERVICE REPLACEMENT | | | | | | X | | 2 | GS | 3/4 | | | | 1928 |
| 003-95 | 2/7/1995 | SE | 35 | 1S | 12E | ALLEY NORTH OF GARROTT AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | CU | 3/4 | | | | 1939 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 004-95 | 2/9/1995 | NW | 3 | 2S | 12E | MAIN STREET & US HIGHWAY 60 | | MAIN REPLACEMENT | | | | | | X | | | | | | Cla valve | 6 | 1946 |
| 005-95 | 2/21/1995 | SE | 35 | 1S | 12E | 207 GARROTT AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1939 |
| 006-95 | 3/2/1995 | SE | 3 | 2S | 12E | 580 VALENTINE STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1939 |
| 007-95 | 8/15/1995 | SE | 35 | 1S | 12E | PORPHYRY STREET & KELLNER AVENUE | | SERVICE REPLACEMENT | | | | | | X | | | | | 388 | GS | 2 | 1929 |
| 008-95 | 10/25/1995 | SE | 35 | 1S | 12E | LOBB AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 100 | GS | 1 | 1942-1979 |
| 009-95 | 10/25/1995 | SE | 35 | 1S | 12E | LOBB AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 166 | PVC | 1 | 1942-1979 |
| 010-95 | 10/25/1995 | SE | 35 | 1S | 12E | LOBB AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 75 | GS | 3/4 | 1942-1979 |
| 011-95 | 10/25/1995 | SE | 35 | 1S | 12E | LOBB AVENUE & COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 5 | PVC | 3/4 | | | | 1942-1979 |
| 001-96 | 1/4/1996 | NE | 3 | 2S | 12E | WRIGHT STREET & LOBB AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 300 | CA | 3 | 1942 |
| 002-96 | 1/22/1996 | NE | 3 | 2S | 12E | 676 & 680 A SONORA STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 300 | POLY | 1 | 1963 |
| 003-96 | 1/22/1996 | NE | 3 | 2S | 12E | 676 & 680 A SONORA STREET | | SERVICE REPLACEMENT | | | | | | X | | 3 | POLY | 3/4 | | | | 1963 |
| 004-96 | 9/12/1996 | NE | 3 | 2S | 12E | HEINER DRIVE & HIGHWAY 177 | | OTHER | | | | | | X | | | | | 8" | Gate Valve | 8 | |
| 005-96 | 9/18/1996 | NE | 3 | 2S | 12E | TERRANCE DRIVE & HIGHWAY 177 | | OTHER | | | | | | X | | | | | 6" | Gate Valve | 6 | |
| 001-98 | 6/25/1998 | SE | 3 | 2S | 12E | MARTIN STREET & EDNA AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 170 | PVC | 1 | 1985 |
| 002-98 | 6/25/1998 | SE | 3 | 2S | 12E | MARTIN STREET & EDNA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | PVC | 1 | | | | 1985 |
| 003-98 | 11/24/1998 | | | | | BHP PROPERTY | | MAIN REPLACEMENT | | | | | | X | | | | | 283 | GS | 6 | 1961 |
| 001-99 | 8/18/1999 | | | | | BHP PROPERTY | | MAIN REPLACEMENT | | | | | | X | | | | | 565 | GS | 6 | 1961 |
| 002-99 | 10/13/1999 | SW | 3 | 2S | 12E | NUNEZ PLACE | | MAIN REPLACEMENT | | | | | | X | | | | | 200 | PVC | 2 | 1970 |
| 003-99 | 11/30/1999 | NW | 3 | 2S | 12E | 58 W MCKELVEYVILLE STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 80 | GS | 2 | 1946 |
| 001-00 | 6/7/2000 | SE | 35 | 1S | 12E | COPPER STREET & LOBB AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 30 | GS | 2 | 1954 |
| 001-01 | 1/29/2001 | SE | 35 | 1S | 12E | STANSBERRY STREET FROM NEWMONT TO LIME STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 200 | GS | 1 | 1936 |
| 002-01 | 2/7/2001 | SE | 3 | 2S | 12E | WESTERN AVENUE FROM RAY STREET TO S END OF WESTERN | | MAIN REPLACEMENT | | | | | | X | | | | | 200 | GS | 1 | 1940 |
| 003-01 | 3/30/2001 | SE | 35 | 1S | 12E | NEARY AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 200 | GS | 1 | 1918-1920 |
| 004-01 | 3/30/2001 | SE | 35 | 1S | 12E | NEARY AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 200 | GS | 2 | 1918-1920 |
| 005-01 | 3/30/2001 | SE | 35 | 1S | 12E | NEARY AVENUE & COPPER STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 40 | POLY | 3/4 | 1918-1920 |
| 006-01 | 3/30/2001 | SE | 35 | 1S | 12E | NEARY AVENUE & COPPER STREET | | SERVICE REPLACEMENT | | | | | | X | | 5 | GS | 3/4 | | | | 1918-1920 |
| 007-01 | 5/4/2001 | SE | 35 | 1S | 12E | KELLNER ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | 130 | GS | 2 | 1929 |
| 008-01 | 11/7/2001 | SW | 35 | 1S | 12E | SAN JUAN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | | POLY | 1 | 1979 |
| 001-02 | 1/9/2002 | NE | 3 | 2S | 12E | RAY ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | | GS | 8 | 1959 |
| 001-03 | 1/28/2003 | SE | 35 | 1S | 12E | QUEEN CREEK BRIDGE | | MAIN REPLACEMENT | | | | | | X | | | | | 170 | GS | 8 | 1959 |
| 002-03 | 3/24/2003 | NE | 3 | 2S | 12E | HILL STREET & TERRACE DRIVE | | MAIN REPLACEMENT | | | | | | X | | | | | 110 | CA | 4 | 1980 |
| 003-03 | 5/6/2003 | SE | 35 | 1S | 12E | QUEEN CREEK BRIDGE CROSSING ON MAGMA AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 170 | GS | 8 | 1959 |
| 001-04 | 2/26/2004 | NW | 3 | 2S | 12E | 708 MAIN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1936 |
| 002-04 | 2/26/2004 | NW | 3 | 2S | 12E | 734 MAIN STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 270 | GS | 2 | 1936 |
| 001-05 | 2/14/2005 | SE | 3 | 1S | 12E | ALLEY BETWEEN LOBB AVENUE & STANBERRY AVENUE | | MAIN REPLACEMENT | | | | | | X | | | | | 300 | GS | 1 | 1939 |
| 001-07 | 6/13/2007 | NE | 3 | 2S | 12E | 427 W MOFFATT STREET | | MAIN REPLACEMENT | | | | | | X | | | | | 188 | GS | 1 | 1934 |
| 001-08 | 3/7/2008 | | | | | TRANSMISSION LINE RESOLUTION COPPER | | MAIN REPLACEMENT | | | | | | X | | | | | 2465 | GS | 12 | 1959 |
| 001-09 | 1/30/2009 | SW | 17 | 2S | 11E | HEWITT STATION ROAD | | MAIN REPLACEMENT | | | | | | X | | | | | | GS | 12 | 1960 |
| 002-09 | 5/9/2009 | NE | 4 | 2S | 12E | MAGMA PLATS/US 60 HIGHWAY | | MAIN REPLACEMENT | | | | | | X | | | | | 20 | GS | 2 | 1942 |
| 003-09 | 8/18/2009 | NE | 3 | 2S | 12E | STONE AVENUE & GIBBS STREET V#127 | | MAIN REPLACEMENT | | | | | | X | | | | | | GS | 2 | 1940 |
| 004-09 | 10/8/2009 | SE | 3 | 2S | 12E | 651 BROWN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 005-09 | 10/8/2009 | SW | 35 | 1S | 12E | 83 N PINAL DRIVE | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1940 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 006-09 | 11/20/2009 | SE | 35 | 1S | 12E | 265 & 365 A MAGMA AVENUE | | SERVICE REPLACEMENT | | | | | | X | | 2 | OTHER | 3/4 | | | | 1967 |
| 001-10 | 11/22/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 8 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 002-10 | 11/22/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 8 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 003-10 | 11/22/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 1 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 004-10 | 11/22/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 1 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 005-10 | 11/22/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 1 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 006-10 | 12/8/2010 | SE | 35 | 1S | 12E | LOBB STREET | 10 | MAIN REPAIR | | | | | | X | | | | | | PVC | 2 | 1980 |
| 007-10 | 12/9/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 008-10 | 12/9/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 009-10 | 12/9/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 010-10 | 12/9/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 011-10 | 12/13/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 012-10 | 12/13/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 013-10 | 12/13/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 1.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 014-10 | 12/14/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 1.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 015-10 | 12/14/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 1.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 016-10 | 12/14/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 1.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 017-10 | 12/14/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 1.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 018-10 | 12/16/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 019-10 | 12/16/2010 | NW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 020-10 | 12/16/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 021-10 | 12/16/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 022-10 | 12/16/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 023-10 | 12/16/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE | 3.5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 024-10 | 12/27/2010 | SW | 3 | 2S | 12E | 827 W BROWN STREET | 8 | MAIN REPAIR | | | | | | X | | | | | | GS | 1 1/4 | 1956 |
| 025-10 | 12/21/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @3600' | 5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 026-10 | 12/21/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @3800' | 5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 027-10 | 12/21/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @4000' | 5 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 028-10 | 12/28/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @1436' | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 029-10 | 12/28/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @1454' | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 030-10 | 12/28/2010 | SW | 36 | 1S | 12E | QUEEN CREEK LINE @1620' | 2 | MAIN REPAIR | | | | | | X | | | | | | CI | 8 | 1974 |
| 031-10 | 12/17/2010 | SE | 35 | 1S | 12E | 189 W COPPER STREET | 12 | MAIN REPAIR | | | | | | X | | | | | | CA | 4 | 1974 |
| 032-10 | 12/25/2010 | SW | 3 | 2S | 12E | 847 W SPRAY STREET | 12 | MAIN REPAIR | | | | | | X | | | | | | CA | 3 | 1956 |
| 033-10 | 6/10/2010 | NE | 3 | 2S | 12E | WRIGHT STREET & WESTERN AVENUE | | MAIN REPLACEMENT | | | | | | X | | 1 | | | 30 | GS | 2 | 1940 |
| 034-10 | 6/10/2010 | NE | 3 | 2S | 12E | 495 WRIGHT STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | OTHER | 3/4 | | | | 1940 |
| 035-10 | 10/25/2010 | SE | 3 | 2S | 12E | 538 BROWN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 036-10 | 11/10/2010 | NE | 3 | 2S | 12E | 939 E CONTESSA | | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1957 |
| 037-10 | 11/12/2010 | SE | 3 | 2S | 12E | 533 BROWN STREET | | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 3/4 | | | | 1937 |
| 038-10 | 12/8/2010 | SE | 35 | 1S | 12E | 199 N LOBB AVENUE | | SERVICE REPAIR | | | | | | X | | 1 | PVC | 2 | | | | 1980 |

# APPENDIX

# 9.1.2

# Leak and Break Repair History

# Oracle water system

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oracle | | | | | | | | | | | | | | | | | | | | | | |
| 01-71 | 8/10/1971 | NE | 36 | 9S | 15E | 860 AMERICAN AVENUE | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 02-71 | 1/25/1971 | NE | 36 | 9S | 15E | 1010 E LOGAN STREET | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1991 |
| 01-73 | 9/18/1973 | NE | 36 | 9S | 15E | LOGAN STREET & JOHN ADAMS STREET | | MAIN REPLACEMENT | | | | X | | | | | | | 20 | CA | 4 | 1962 |
| 01-77 | 11/18/1977 | SE | 35 | 9S | 15E | LOS ROBLES ROAD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 1 | | | | |
| 01-78 | 4/25/1978 | NE | 35 | 9S | 15E | LOS ROBLES ROAD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | |
| 02-78 | 2/27/1978 | NW | 36 | 9S | 15E | AMERICAN AVENUE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 2 | | | | |
| 03-78 | 10/17/1978 | NW | 36 | 9S | 15E | COLLEGE AVENUE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | |
| 01-88 | 9/8/1988 | NE | 34 | 9S | 15E | 1865 PASEO REDONDO | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 02-88 | 11/25/1988 | NE | 36 | 9S | 15E | | 6 | MAIN REPLACEMENT | | | | X | | | | | | | | | | |
| 01-89 | 2/6/1989 | NW | 36 | 9S | 15E | CHERRY & MAPLE STREET | 24 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 01-91 | 12/10/1991 | NE | 36 | 9S | 15E | | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | |
| 01-92 | 6/9/1992 | NW | 26 | 9S | 15E | ORACLE RANCH ROAD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | |
| 02-92 | 4/7/1992 | NW | 36 | 9S | 15E | MOUNTAIN VIEW PLACE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1982 |
| 01-95 | 10/16/1995 | SW | 31 | 9S | 15E | TIMBERLINE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | | | 1962 |
| 02-95 | 8/9/1995 | NW | 36 | 9S | 15E | OLD HIGHWAY 77 & AMERICAN AVENUE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1976 |
| 03-95 | 10/16/1995 | SW | 31 | 9S | 15E | TIMBERLINE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1962 |
| 04-95 | 8/26/1995 | SE | 36 | 9S | 15E | CODY LOOP | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | |
| 01-96 | 11/8/1996 | NE | 34 | 9S | 15E | 2320 & 2340 PASEO REDONDO | 18 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1966 |
| 02-96 | 11/14/1996 | SE | 27 | 9S | 15E | 2335 CALLE VALENCIA | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1966 |
| 03-96 | 3/14/1996 | SE | 36 | 9S | 15E | 670 CEDAR RIDGE | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1972 |
| 01-97 | 3/28/1997 | SW | 28 | 9S | 15E | HIGHWAY 77 | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | | | 3/28/1997 |
| 02-97 | 5/12/1997 | SE | 36 | 9S | 15E | 1491 EMILLIE CIRCLE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 3/4 | | | | 5/12/1997 |
| 03-97 | 10/17/1997 | SE | 35 | 9S | 15E | LAS FLORES | 4 | MAIN REPLACEMENT | | | | X | | | | | | | 145 | GS | 2 | 10/17/1997 |
| 01-98 | 9/8/1998 | NE | 34 | 9S | 15E | 1865 PASEO REDONDO | 4 | OTHER | | | X | | | | | | POLY | 3/4 | | | | 1962 |
| 02-98 | 11/2/1998 | SE | 26 | 9S | 15E | 185 ROCK RIDGE | 4 | OTHER | | | X | | | | | | CU | 3/4 | | | | 1962 |
| 03-98 | 9/9/1998 | NE | 27 | 9S | 15E | HIGHWAY 77 | 4 | SERVICE REPAIR | | | | | X | | | 1 | | | | | | 1973 |
| 04-98 | 11/3/1998 | SW | 26 | 9S | 15E | 930 GATEWAY | 1 | SERVICE REPLACEMENT | | | | | X | | | 1 | | | | | | 1962 |
| 01-99 | 10/29/1999 | SW | 35 | 9S | 15E | TWO O'CLOCK HILL | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1967 |
| 02-99 | 9/13/199 | SE | 35 | 9S | 15E | 575 ROBLES ROAD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1959 |
| 01-00 | 7/13/2000 | NE | 27 | 9S | 15E | 2565 SONBERG | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 02-00 | 7/7/2000 | SE | 36 | 9S | 15E | 99 ALTA LOMA | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1977 |
| 01-01 | 6/27/2001 | NE | 27 | 9S | 15E | 2160 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 02-01 | 6/27/2001 | NW | 27 | 9S | 15E | 2280 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 03-01 | 6/27/2001 | SE | 22 | 9S | 15E | 3310 DONALD DRIVE | 4 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 01-02 | 1/13/2002 | NE | 27 | 9S | 15E | 2205 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 02-02 | 10/16/2002 | SW | 36 | 9S | 15E | 680 EVERGREEN STREET | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 03-02 | 10/16/2002 | NW | 27 | 9S | 15E | 2685 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 04-02 | 8/27/2002 | SE | 27 | 9S | 15E | 2370 & 2400 EL PASEO | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 05-02 | 9/4/2002 | SW | 31 | 9S | 15E | 720 TIMBERLINE ROAD | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 01-03 | 12/30/2003 | SE | 35 | 9S | 15E | 242 BIG ROCK DRIVE | 1 | OTHER | | | | | | X | | | | 5/8 | | | | 2003 |
| 02-03 | 6/26/2003 | SE | 28 | 9S | 15E | HIGHWAY 77 | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1975 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03-03 | 1/8/2003 | NW | 27 | 9S | 15E | 2205 BEVERLY CIRCLE | 2 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 04-03 | 7/8/2003 | SW | 28 | 9S | 15E | 4465 HIGHWAY 77 | 3 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 1 | | | | 1975 |
| 05-03 | 8/12/2003 | NW | 36 | 9S | 15E | 539 MOUNTAIN VIEW | 6 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1982 |
| 06-03 | 8/28/2003 | NW | 27 | 9S | 15E | 2075 BEVERLY CIRCLE | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1973 |
| 07-03 | 9/8/2003 | NW | 36 | 9S | 15E | 1005 EVERGREEN | 7 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1979 |
| 08-03 | 9/15/2003 | NE | 35 | 9S | 15E | 670 LINDA VISTA | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1978 |
| 09-03 | 9/23/2003 | NE | 27 | 9S | 15E | 3125 BEVERLY CIRCLE | 7 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 10-03 | 8/22/2003 | SW | 36 | 9S | 15E | 710 ESTILL DRIVE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1974 |
| 11-03 | 6/19/2003 | NE | 27 | 9S | 15E | 2865 SONBERG | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 12-03 | 6/25/2003 | NE | 35 | 9S | 15E | 590 CAMINO YUCCA | 7 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1970 |
| 13-03 | 2/18/2003 | NW | 26 | 9S | 15E | 1070 BARBARA PLACE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1980 |
| 14-03 | 5/27/2003 | NW | 35 | 9S | 15E | 850 & 880 SUNSET AVENUE | 5 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1974 |
| 15-03 | 1/16/2003 | SE | 35 | 9S | 15E | 625 ROBLES ROAD | 7 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1974 |
| 16-03 | 1/27/2003 | NE | 36 | 9S | 15E | 980 E. MT LEMMON ROAD | 5 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1970 |
| 01-04 | 11/12/2004 | NW | 27 | 9S | 15E | 2040 BEVERLY CIRCLE | 10 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 02-04 | 10/9/2004 | NW | 27 | 9S | 15E | 2025 BEVERLY CIRCLE | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 03-04 | 8/4/2004 | NW | 27 | 9S | 15E | 2460 BEVERLY CIRCLE | 12 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 04-04 | 11/15/2004 | NE | 27 | 9S | 15E | 2010 BEVERLY CIRCLE | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 05-04 | 10/25/2004 | NW | 27 | 9S | 15E | 2220 BEVERLY CIRCLE | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 06-04 | 7/20/2004 | NW | 27 | 9S | 15E | 2665 BEVERLY CIRCLE | 9 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1975 |
| 07-04 | 7/15/2004 | NW | 27 | 9S | 15E | 2245 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1976 |
| 08-04 | 6/30/2004 | NW | 27 | 9S | 15E | 2640 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1976 |
| 09-04 | 6/30/2004 | NW | 27 | 9S | 15E | 2595 BEVERLY CIRCLE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1976 |
| 10-04 | 12/3/2004 | NE | 27 | 9S | 15E | 2225 HAROLD DRIVE | 20 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 11-04 | 10/4/2004 | NE | 27 | 9S | 15E | 2740 SONBERG | 24 | SERVICE REPLACEMENT | | | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 12-04 | 12/15/2004 | SW | 23 | 9S | 15E | 3537 APACHE JOE | 1 | SERVICE REPLACEMENT | | | | | X | | | 1 | CU | 3/4 | | | | 1980 |
| 13-04 | 9/15/2004 | NE | 36 | 9S | 15E | 1005 AMERICAN AVENUE | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 14-04 | 9/16/2004 | SW | 26 | 9S | 15E | 1535 AMERICAN AVENUE | 12 | SERVICE REPLACEMENT | | | X | | | | | 1 | CU | 3/4 | | | | 1960 |
| 15-04 | 12/3/2004 | SE | 26 | 9S | 15E | 1720 SUNSET POINT | 1 | OTHER | | | | | X | | | | POLY | 3/4 | | | | 1966 |
| 16-04 | 5/24/2004 | NE | 27 | 9S | 15E | 2680 & 2740 SONBERG | 12 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 17-04 | 7/9/2004 | NW | 35 | 9S | 15E | 1256 NEAL STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1991 |
| 18-04 | 7/26/2004 | SW | 26 | 9S | 15E | 910 RITO CIRCLE | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 19-04 | 10/22/2004 | SW | 35 | 9S | 15E | 800 CALLE FUTURA | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1960 |
| 20-04 | 5/26/2004 | SW | 36 | 9S | 15E | 155 VIENTO | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 01-05 | 1/27/2005 | SW | 26 | 9S | 15E | 340 AMERICAN AVENUE | 1 | OTHER | | | | | | X | | | UNKNOWN | 3/4 | | | | |
| 02-05 | 1/18/2005 | SW | 36 | 9S | 15E | 755 N CHURCH DRIVE | 1 | OTHER | | | | | X | | | | UNKNOWN | 3/4 | | | | 1972 |
| 03-05 | 1/14/2005 | SE | 33 | 9S | 15E | 3921 W LOMA LINDA | 1 | OTHER | | | | | | X | | | UNKNOWN | 3/4 | | | | 1979 |
| 04-05 | 3/7/2005 | SE | 26 | 9S | 15E | 1720 SUNSET POINT DRIVE | 1 | OTHER | | | | | | X | | | UNKNOWN | 3/4 | | | | 1966 |
| 05-05 | 5/23/2005 | NE | 35 | 9S | 15E | 295 AMERICAN AVENUE | 1 | OTHER | | | | | X | | | | UNKNOWN | 3/4 | | | | 1992 |
| 06-05 | 8/12/2005 | NW | 3 | 10S | 14E | HWY 77-ORACLE JUNCTION | 8 | MAIN REPAIR | | X | | | | | | | OTHER | | | | | 1959 |
| 07-05 | 8/24/2005 | NW | 27 | 9S | 15E | 2555 BEVERLY CIRCLE | 5 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 08-05 | 6/2/2005 | NE | 27 | 9S | 15E | 2745 ROCKCLIFF BOULEVARD | 8 | SERVICE REPLACEMENT | | | | X | | | | 3 | POLY | 1 | | | | 1973 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09-05 | 9/29/2005 | SW | 26 | 9S | 15E | 1475 AMERICAN AVENUE | 1 | OTHER | | | | | X | | | | POLY | | | | | 1960 |
| 10-05 | 5/2/2005 | NE | 27 | 9S | 15E | 2860 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 11-05 | 6/23/2005 | SE | 36 | 9S | 15E | 940 NUESTRO | 1 | OTHER | | | | | X | | | | UNKNOWN | | | | | 1962 |
| 12-05 | 12/3/2005 | NW | 26 | 9S | 15E | 1620 ORACLE RANCH ROAD | 4 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 1 | | | | 1980 |
| 13-05 | 12/8/2005 | NE | 27 | 9S | 15E | 2860 SONBERG | 8 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 14-05 | 5/26/2005 | NE | 27 | 9S | 15E | 2790 ROCKCLIFF BOULEVARD | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 15-05 | 7/28/2005 | NE | 36 | 9S | 15E | JEFFERSON DRIVE | 8 | MAIN REPLACEMENT | | X | | | | | | 1 | | 4 | | | | 1974 |
| 16-05 | 6/29/2005 | NW | 26 | 9S | 15E | 1665 ORACLE RANCH ROAD | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1980 |
| 17-05 | 5/28/2005 | NE | 27 | 9S | 15E | 2285 BEVERLY CIRCLE | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 18-05 | 12/1/2005 | SW | 31 | 9S | 16E | 1860 TIMBERLINE | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1971 |
| 19-05 | 8/9/2005 | SW | 26 | 9S | 15E | 840 RITO CIRCLE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1972 |
| 20-05 | 10/29/2005 | NE | 27 | 9S | 15E | 2545 SONBERG | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 21-05 | 7/14/2005 | SE | 36 | 9S | 15E | 560 CEDAR RIDGE DRIVE | 24 | SERVICE REPLACEMENT | | | X | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 22-05 | 4/21/2005 | NW | 6 | 10S | 16E | 525 CODY LOOP | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 23-05 | 5/24/2005 | NE | 35 | 9S | 15E | 845 ROBLES STREET | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1970 |
| 24-05 | 9/2/2005 | SE | 36 | 9S | 15E | 710 JOHN ADAMS | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1970 |
| 25-05 | 12/8/2005 | NE | 36 | 9S | 15E | 1560 JOHN ADAMS | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1972 |
| 26-05 | 10/8/2005 | SW | 36 | 9S | 15E | 405 ESTLL | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1978 |
| 01-06 | 1/30/2006 | NW | 17 | 10S | 14E | BOOSTER# 2/HIGHWAY 77 | 6 | MAIN REPAIR | | X | | | | | | | OTHER | 6 | | CA | 6 | 1959 |
| 02-06 | 6/5/2006 | NE | 35 | 9S | 15E | 670 LINDA VISTA ROAD | 9 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1978 |
| 03-06 | 6/17/2006 | NE | 27 | 9S | 15E | 2225 HAROLD DRIVE | 6 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 04-06 | 6/27/2006 | NW | 36 | 9S | 15E | 1065 EVERGREEN | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | | | | 1962 |
| 05-06 | 7/12/2006 | NE | 36 | 9S | 15E | 1105 JOHN ADAMS | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1962 |
| 06-06 | 7/17/2006 | SW | 35 | 9S | 15E | 765 TWO O' CLOCK HILL | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1967 |
| 07-06 | 7/21/2006 | SW | 35 | 9S | 15E | 670 TWO O' CLOCK HILL | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1967 |
| 08-06 | 7/21/2006 | SW | 35 | 9S | 15E | 790 TWO O' CLOCK HILL | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1967 |
| 09-06 | 7/25/2006 | NE | 36 | 9S | 15E | 1010 MT. LEMMON HIGHWAY | 9 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1993 |
| 10-06 | 8/3/2006 | NE | 32 | 9S | 15E | HWY 77 & MP 98.5 | 4 | SERVICE REPLACEMENT | | X | | | | | | 1 | CU | 3/4 | | | | 1996 |
| 11-06 | 9/15/2006 | NE | 34 | 9S | 15E | 2405 CALLE VALENCIA | 2 | SERVICE REPAIR | | X | | | | | | | POLY | 1 | | | | 1962 |
| 12-06 | 8/15/2006 | SE | 27 | 9S | 15E | 2405 CAMINO AMIGO | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1970 |
| 13-06 | 10/8/2006 | NE | 27 | 9S | 15E | 2165 HAROLD DRIVE | 3 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 14-06 | 10/11/2006 | SW | 35 | 9S | 15E | 435 & 455 CHAPARRAL DRIVE | 3 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1961 |
| 15-06 | 10/19/2006 | SE | 36 | 9S | 15E | 65 CODY LOOP | 7 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1981 |
| 16-06 | 11/1/2006 | SW | 35 | 9S | 15E | 435 CHAPARRAL DRIVE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | GS | 1 | | | | 1961 |
| 17-06 | 11/5/2006 | NW | 36 | 9S | 15E | 20 GRANT STREET | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 18-06 | 11/30/2006 | NW | 17 | 10S | 14E | BOOSTER# 2/HIGHWAY 77 | 16 | MAIN REPAIR | | X | | | | | | 0 | OTHER | 6 | | CA | | 1959 |
| 19-06 | 3/21/2006 | NE | 34 | 9S | 15E | CALLE VALENCIA & CALLE ZAMORA | 12 | SERVICE REPLACEMENT | | | | X | | | | 1 | OTHER | 4 | | | | 1973 |
| 01-07 | 8/1/2007 | SE | 27 | 9S | 15E | AMIGO STREET | 10 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | | | | | 1996 |
| 02-07 | 6/22/2007 | NE | 27 | 9S | 15E | BEVERLY CIRCLE | 12 | SERVICE REPAIR | | | | | | X | | | POLY | 3/4 | | | | 1973 |
| 03-07 | 6/22/2007 | SE | 27 | 9S | 15E | 1767 CALLE FUTURA | | SERVICE REPAIR | | | | | | X | | | | | | | | |
| 04-07 | 8/22/2007 | SE | 27 | 9S | 15E | 1725 CALLE VALENCIA | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | |
| 05-07 | 1/31/2007 | SE | 27 | 9S | 15E | 1705 CALLE VALENCIA | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | 49 | | | 1972 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06-07 | 1/12/2007 | SW | 35 | 9S | 15E | 435 CHAPARRAL | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 1 | 24 | | | 1961 |
| 07-07 | 5/7/2007 | SW | 36 | 9S | 15E | 145 CALLE SIN NOMBRE | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | 40 | | | 1972 |
| 08-07 | 5/2/2007 | NE | 36 | 9S | 15E | MT. LEMMON HIGHWAY | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | 60 | | | 1970 |
| 09-07 | 1/31/2007 | SE | 27 | 9S | 15E | 2365 VALENCIA REDONDO | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | 9 | | | 1972 |
| 10-07 | 8/17/2007 | NW | 36 | 9S | 15E | 867 MOUNTAIN VIEW DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | | | | | 1982 |
| 11-07 | 8/30/2007 | NE | 27 | 9S | 15E | 2545 SONBERG | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1973 |
| 12-07 | 8/28/2007 | SE | 27 | 9S | 15E | 1759 CALLE FUTURA | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1962 |
| 13-07 | 1/23/2007 | SE | 27 | 9S | 15E | 1700 CALLE VALENCIA | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1962 |
| 14-07 | 7/27/2007 | NE | 36 | 9S | 15E | 1330 JOHN ADAMS STREET | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1962 |
| 15-07 | 7/27/2007 | NE | 27 | 9S | 15E | 2150 HAROLD DRIVE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1973 |
| 16-07 | 7/14/2007 | NW | 26 | 9S | 15E | 1540 ORACLE RANCH ROAD | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1980 |
| 17-07 | 10/25/2007 | SE | 36 | 9S | 15E | 410 CEDAR RIDGE DRIVE | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1974 |
| 18-07 | 10/10/2007 | NE | 27 | 9S | 15E | 2190 BEVERLY CIRCLE | 8 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | | | | | 1973 |
| 19-07 | 8/13/2007 | SE | 27 | 9S | 15E | 1759 CALLE FUTURA | 4 | SERVICE REPAIR | | X | | | | | | | POLY | | | | | 1962 |
| 20-07 | 1/24/2007 | NE | 34 | 9S | 15E | VALENCIA STREET | 8 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1962 |
| 21-07 | 6/22/2007 | NE | 27 | 9S | 15E | ROCKCLIFF BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 2 | POLY | 3/4 | | | | 1973 |
| 22-07 | 1/1/2007 | NW | 17 | 10S | 14E | BOOSTER #2/ORACLE HIGHWAY | 35 | SERVICE REPLACEMENT | | | | | | X | | 1 | OTHER | 12 | | | | 1959 |
| 23-07 | 8/1/2007 | | | | | ESTILL STREET | 11 | SERVICE REPAIR | | | | | | X | | | POLY | | | | | |
| 24-07 | 6/27/2007 | | | | | BEVERLY CIRCLE | 9 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | | | | | |
| 01-08 | 10/23/2008 | SW | 35 | 9S | 15E | 13 BACHMAN WASH ROAD | 1 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1988 |
| 02-08 | 6/10/2008 | NW | 6 | 10S | 16E | CODY LOOP & DURANT | 24 | SERVICE REPAIR | | | | | | X | | | POLY | 1 | | | | 1981 |
| 03-08 | 8/26/2008 | NW | 6 | 10S | 16E | 85 HOBE ROAD | 12 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1985 |
| 04-08 | 7/18/2008 | NE | 35 | 9S | 15E | 335 AMERICAN AVENUE | 12 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1967 |
| 05-08 | 8/6/2008 | SE | 27 | 9S | 15E | 1759 CALLE FUTURA | 14 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1962 |
| 06-08 | 12/8/2008 | SE | 36 | 9S | 15E | 1005 NUESTRO DRIVE | 14 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1962 |
| 07-08 | 4/22/2008 | SE | 36 | 9S | 15E | 850 PASEO ENCINO | 18 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 08-08 | 8/4/2008 | SE | 26 | 9S | 15E | 1715 SUNSET POINT DRIVE | 18 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1966 |
| 09-08 | 11/19/2008 | NW | 6 | 10S | 16E | 155 DURANT ROAD | 12 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1981 |
| 10-08 | 11/13/2008 | SW | 31 | 9S | 16E | 720 TIMBERLINE ROAD | 1 | SERVICE REPAIR | | | | | X | | | 1 | CU | 3/4 | | | | 1962 |
| 11-08 | 8/29/2008 | NW | 27 | 9S | 15E | 2520 BEVERLY CIRCLE | 16 | SERVICE REPLACEMENT | | X | | | | | | | POLY | 1 | | | | 1973 |
| 12-08 | 2/27/2008 | NE | 27 | 9S | 15E | 2760 BEVERLY CIRCLE | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1973 |
| 13-08 | 5/16/2008 | NW | 27 | 9S | 15E | 2555 BEVERLY CIRCLE | 12 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1973 |
| 14-08 | 6/4/2008 | NE | 27 | 9S | 15E | 2285 BEVERLY CIRCLE | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1973 |
| 15-08 | 4/21/2008 | NE | 27 | 9S | 15E | SONBERG LANE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1973 |
| 16-08 | 7/2/2008 | NE | 27 | 9S | 15E | ROCKCLIFF BOULEVARD | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1973 |
| 17-08 | 7/21/2008 | NE | 27 | 9S | 15E | SONBERG LANE | 24 | SERVICE REPAIR | | | | | | X | | | OTHER | | | | | 1973 |
| 18-08 | 2/19/2008 | NE | 27 | 9S | 15E | SONBERG LANE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 1 | | | | 1973 |
| 19-08 | 1/31/2008 | NE | 27 | 9S | 15E | SONBERG | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 3/4 | | | | 1973 |
| 20-08 | 7/3/2008 | NE | 27 | 9S | 15E | 2725 ROCKCLIFF BOULEVARD | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1973 |
| 21-08 | 4/21/2008 | NE | 27 | 9S | 15E | 2785 SONBERG LANE | 16 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | | | | 1973 |
| 22-08 | 7/2/2008 | NE | 27 | 9S | 15E | 1875 HAROLD DRIVE | 16 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 23-08 | 4/25/2008 | NW | 17 | 9S | 15E | HIGHWAY 77 | 20 | SERVICE REPLACEMENT | | | | | | X | | 1 | OTHER | 12 | | | | 1990 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24-08 | 4/22/2008 | SW | 36 | 9S | 15E | ESTILL DRIVE | 12 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1982 |
| 25-08 | 2/20/2008 | | | | 15E | SADDLEBROOKE RANCH | 12 | MAIN REPAIR | | | | | | X | | 1 | OTHER | 12 | | | | 2008 |
| 26-08 | 8/12/2008 | NW | 6 | 10S | 16E | 35 HOBE ROAD | 16 | SERVICE REPLACEMENT | | | | | | X | | 1 | POLY | 3/4 | | | | 1981 |
| 27-08 | 12/17/2008 | SW | 31 | 9S | 15E | 4240 MT. LEMMON ROAD | 2 | SERVICE REPAIR | | | | | | | | | POLY | 3/4 | | | | 1963 |
| 28-08 | 6/17/2008 | SW | 35 | 9S | 15E | 525 CHAPARRAL | 1 | SERVICE REPLACEMENT | | | | | X | | | 1 | CU | 3/4 | | | | 1961 |
| 29-08 | 10/24/2008 | SE | 34 | 9S | 15E | 2050 LINDA VISTA | 2 | SERVICE REPLACEMENT | | | | | X | | | 1 | CU | 3/4 | | | | 1996 |
| 30-08 | 7/11/2008 | SW | 36 | 9S | 15E | 480 ALTA LOMA | 24 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1980 |
| 31-08 | 7/16/2008 | NE | 36 | 9S | 15E | 1285 JUSTICE DRIVE | 18 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1975 |
| 01-09 | 11/2/2009 | NE | 35 | 9S | 15E | 375 GRANT STREET | 12 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1961 |
| 02-09 | 9/18/2009 | NE | 35 | 9S | 15E | 375 GRANT STREET | 4 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1961 |
| 03-09 | 7/17/2009 | NW | 27 | 9S | 15E | 2280 BEVERLY CIRCLE | 12 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1973 |
| 04-09 | 7/14/2009 | NW | 26 | 9S | 15E | 1045 BARBARA PLACE | 12 | SERVICE REPAIR | | | | X | | | | | POLY | 3/4 | | | | 1980 |
| 05-09 | 5/12/2009 | NE | 27 | 9S | 15E | 2765 BEVERLY CIRCLE | 8 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1973 |
| 06-09 | 5/11/2009 | NE | 36 | 9S | 15E | 860 AMERICAN AVENUE | 23 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1962 |
| 07-09 | 6/25/2009 | NE | 36 | 9S | 15E | 1120 JUSTICE DRIVE | 8 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1962 |
| 08-09 | 4/15/2009 | NE | 36 | 9S | 15E | 1180 MT LEMMON HIGHWAY | 6 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | 100 | | | 1962 |
| 09-09 | 9/15/2009 | NE | 35 | 9S | 15E | 1013 ROBLES ROAD | 6 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1959 |
| 10-09 | 7/31/2009 | SW | 31 | 9S | 15E | 350 TIMBERLILNE ROAD | 5 | SERVICE REPAIR | | X | | | | | | | POLY | 3/4 | | | | 1962 |
| 11-09 | 7/16/2009 | NW | 26 | 9S | 15E | 1620 ORACLE RANCH ROAD | 18 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 1 | 24 | | | 1980 |
| 12-09 | 9/16/2009 | NW | 26 | 9S | 15E | 1045 BARBARA PLACE | 18 | SERVICE REPLACEMENT | | X | | | | | | 1 | POLY | 1 | 32 | | | 1980 |
| 13-09 | 6/24/2009 | SE | 36 | 9S | 15E | 770 N. CODY LOOP | 4 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 14-09 | 9/5/2009 | SE | 36 | 9S | 15E | 560 CEDAR RIDGE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1974 |
| 15-09 | 7/11/2009 | SW | 31 | 9S | 16E | 905 BLAZING STAR | 3 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1972 |
| 16-09 | 11/12/2009 | NW | 27 | 9S | 15E | 2546 BEVERLY CIRCLE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1974 |
| 17-09 | 11/13/2009 | SE | 27 | 9S | 15E | AMERICAN AVENUE & CALLE FUTURA | 2 | MAIN REPAIR | | | | | X | | | | | | | CU | 3/8 | 1997 |
| 01-10 | 12/15/2010 | NE | 36 | 9S | 15E | 1010 E. LOGAN | 2 | SERVICE REPAIR | | | | | | X | | 0 | OTHER | 3/4" | N/A | N/A | N/A | 1991 |
| 02-10 | 12/27/2010 | SE | 36 | 9S | 15E | 560 CEDAR RIDGE | 20 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4' | N/A | N/A | N/A | 1974 |
| 03-10 | 7/23/2010 | SE | 36 | 9S | 15E | 560 CEDAR RIDGE | 2 | SERVICE REPAIR | | | | | X | | | 0 | POLY | 3/4" | N/A | N/A | N/A | 1974 |
| 04-10 | 8/29/2010 | SW | 35 | 9S | 15E | 1440 LINDA VISTA | 8 | SERVICE REPLACEMENT | | | | | X | | | 2 | POLY | 1 | N/A | N/A | N/A | 1992 |
| 05-10 | 9/30/2010 | SE | 27 | 9S | 15E | 2200 CAMINO AMIGO | 5 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | N/A | N/A | N/A | 1966 |
| 06-10 | 5/17/2010 | SE | 27 | 9S | 15E | 340 AMERICAN AVENUE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | N/A | N/A | N/A | 1960 |
| 07-10 | 6/9/2010 | SW | 26 | 9S | 15E | 1598 N. SUNSET POINT DRIVE | 1 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | N/A | N/A | N/A | 1598 |
| 08-10 | 9/13/2010 | NW | 27 | 9S | 15E | 2795 OLSEN DRIVE | 5 | SERVICE REPLACEMENT | | | | | X | | | 1 | POLY | 3/4 | | | | 1973 |
| 09-10 | 1/27/2010 | NE | 27 | 9S | 15E | 2355 BEVERLY CIRCLE | 2 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1973 |
| 10-10 | 7/26/2010 | NW | 26 | 9S | 15E | 1710 ORACLE RANCH ROAD | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 1 | | | | 1890 |
| 11-10 | 7/19/2010 | NW | 27 | 9S | 15E | 2795 OLSEN DRIVE | 6 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1973 |
| 12-10 | 7/7/2010 | SE | 27 | 9S | 15E | 1995 AMERICAN AVENUE | 1 | MAIN REPAIR | | | | | X | | | | OTHER | | | | 6 | 1962 |
| 13-10 | 5/20/2010 | SW | 26 | 9S | 15E | 950 GATEWAY STREET | 2 | SERVICE REPAIR | | | | | X | | | | PVC | 2 | | | | 1972 |
| 14-10 | 10/25/2010 | SE | 27 | 9S | 15E | 2040 CAMINO AMIGO | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1966 |
| 15-10 | 9/15/2010 | SE | 27 | 9S | 15E | 1660 CALLE VALENCIA | 5 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1962 |
| 16-10 | 7/26/2010 | SW | 36 | 9S | 15E | 375 ALTA LOMA | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1977 |
| 17-10 | 9/16/2010 | SW | 26 | 9S | 15E | 1640 SUNSET POINT DRIVE | 3 | MAIN REPLACEMENT | | | | X | | | | | OTHER | | 10.5 | CA | 4 | 1962 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18-10 | 9/7/2010 | NW | 35 | 9S | 15E | 835 SUNSET AVENUE | 4 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1962 |
| 19-10 | 5/20/2010 | NE | 27 | 9S | 15E | 2580 ROCKCLIFF BOULEVARD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 20-10 | 11/23/2010 | SE | 36 | 9S | 15E | 405 CEDAR RIDGE DRIVE | 1 | SERVICE REPAIR | | | | | X | | | | POLY | 3/4 | | | | 1974 |
| 21-10 | 9/23/2010 | NW | 27 | 9S | 15E | 2795 OLSEN DRIVE | 8 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1973 |
| 22-10 | 9/22/2010 | NE | 27 | 9S | 15E | 2520 ROCKCLIFF BOULEVARD | 4 | SERVICE REPLACEMENT | | | | X | | | | 1 | POLY | 3/4 | | | | 1980 |
| 23-10 | 6/24/2010 | NE | 34 | 9S | 15E | 2025 PASEO REDONDO | 8 | SERVICE REPLACEMENT | | | | X | | | | 2 | POLY | 3/4 | | | | 1970 |

# APPENDIX

# 9.1.3

# Leak and Break Repair History

# Bisbee water system

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bisbee | | | | | | | | | | | | | | | | | | | | | | |
| 001-82 | 11/17/1982 | NW | 23 | 23S | 24E | 87 COCHISE ROW | | MAIN REPLACEMENT | | | | X | | | | | | | 13 | CA | 6 | |
| 001-83 | 1/5/1983 | SW | 9 | 23S | 24E | 473 N DART ROAD | | MAIN REPAIR | | | 3185 | X | | | | | | | | STEEL | 4 | 1908 |
| 002-83 | 6/2/1983 | SE | 8 | 23S | 24E | OHARA AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 78 | STEEL | 2 | 1908 |
| 001-86 | 1/14/1986 | SW | 9 | 23S | 24E | 112 WALSH AVENUE #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 200 | STEEL | 2 | 1912 |
| 002-86 | 1/23/1986 | NE | 22 | 23S | 24E | 1 COCHISE ROW BEHIND PD WAREHOUSE | | MAIN REPLACEMENT | | | | X | | | | | | | 244 | STEEL | 6 | 1917 |
| 001-87 | 11/4/1987 | NE | 22 | 23S | 24E | 113 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 200 | STEEL | 3/4 | 1917 |
| 001-88 | 8/3/1988 | NW | 9 | 23S | 24E | 250 BREWERY AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 60 | STEEL | 2 | 1912 |
| 001-89 | 1/3/1989 | SW | 9 | 23S | 24E | 47 OK STREET #B | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | GS | 2 | 1959 |
| 001-93 | 6/10/1993 | SE | 15 | 23S | 24E | 107 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 42 | STEEL | 2 | 1922 |
| 001-94 | 1/10/1994 | NW | 23 | 23S | 24E | COLE AVENUE & BISBEE ROAD | | MAIN REPLACEMENT | | | 11304 | X | | | | | | | 41 | CA | 6 | 1960 |
| 002-94 | 1/14/1994 | NW | 9 | 23S | 24E | 150 BREWERY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 003-94 | 2/2/1994 | NW | 28 | 23S | 24E | N WASHINGTON AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | | | | GS | 1 | 1912 |
| 004-94 | 2/25/1994 | SE | 23 | 23S | 24E | 60 BLACK KNOB VIEW | | MAIN REPLACEMENT | X | | 11309 | | | | | | | | 15 | GS | 1 | 1908 |
| 005-94 | 3/9/1994 | SW | 23 | 23S | 24E | 208 CENTER AVENUE | | MAIN REPLACEMENT | X | | 11309 | | | | | | | | 60 | GS | 3/4 | 1916 |
| 006-94 | 4/4/1994 | SW | 9 | 23S | 24E | 151 OK STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 105 | GS | 1 1/2 | 1924 |
| 007-94 | 4/4/1994 | NW | 9 | 23S | 24E | 213 YOUNGBLOOD HILL | | MAIN REPLACEMENT | | | X | X | | | | | | | 42 | STEEL | 1 1/4 | 1924 |
| 008-94 | 6/1/1994 | SE | 23 | 23S | 24E | 211 HAZZARD STREET | | SERVICE REPAIR | | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 009-94 | 6/6/1994 | SW | 9 | 23S | 24E | 207 YOUNG BLOOD HILL #B | | SERVICE REPAIR | X | | | | | | | | | | | STEEL | 3/4 | 1921 |
| 010-94 | 6/6/1994 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | | | | PVC | 1 | 1976 |
| 011-94 | 6/6/1994 | SW | 9 | 23S | 24E | 15 TEMBY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1976 |
| 012-94 | 6/8/1994 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 013-94 | 6/14/1994 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 014-94 | 6/17/1994 | NE | 8 | 23S | 24E | 39 LAUNDRY HILL #D | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1908 |
| 015-94 | 6/17/1994 | NE | 8 | 23S | 24E | 39 LAUNDRY HILL #D | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | |
| 016-94 | 6/17/1994 | NE | 8 | 23S | 24E | 39 LAUNDRY HILL #D | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | |
| 017-94 | 6/17/1994 | NE | 8 | 23S | 24E | 39 LAUNDRY HILL #D | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | |
| 018-94 | 6/27/1994 | NW | 9 | 23S | 24E | 147 BREWERY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 019-94 | 6/29/1994 | SE | 15 | 23S | 24E | 103 PARK AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 020-94 | 7/14/1994 | SE | 23 | 23S | 24E | 513 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 021-94 | 7/29/1994 | SW | 14 | 23S | 24E | 104 A STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 022-94 | 8/5/1994 | NE | 5 | 24S | 24E | 2336 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 023-94 | 8/5/1994 | SW | 23 | 23S | 24E | 608 HOVLAND STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 024-94 | 8/10/1994 | NE | 5 | 24S | 24E | 2260 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 025-94 | 8/18/1994 | NW | 33 | 23S | 24E | 130 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1968 |
| 026-94 | 9/26/1994 | SE | 8 | 23S | 24E | 139 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1908 |
| 027-94 | 10/6/1994 | NE | 5 | 24S | 24E | 2058 S KENTUCKY LANE | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | CU | | |
| 028-94 | 10/7/1994 | NE | 5 | 24S | 24E | 2330 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 029-94 | 10/7/1994 | NE | 5 | 24S | 24E | 2314 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 030-94 | 10/7/1994 | SE | 8 | 23S | 24E | 172 QUALITY HILL | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1978 |
| 031-94 | 10/21/1994 | SE | 8 | 23S | 24E | 9 ART AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1912 |
| 032-94 | 11/1/1994 | SE | 23 | 23S | 24E | 607 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 033-94 | 11/22/1994 | SW | 23 | 23S | 24E | 304 HOVLAND STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 034-94 | 11/28/1994 | NW | 28 | 23S | 24E | N WASHINGTON AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | | | | CU | 1 | 1993 |
| 035-94 | 12/8/1994 | NW | 28 | 23S | 24E | 507 N HARRISON AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 036-94 | 12/9/1994 | SW | 9 | 23S | 24E | 116 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 3 | 1942 |
| 037-94 | 12/12/1994 | NW | 28 | 23S | 24E | 507 N HARRISON AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 038-94 | 12/28/1994 | SE | 15 | 23S | 24E | 125 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | 1 | STEEL | 1/2 | 1952 |
| 001-95 | 1/13/1995 | NW | 28 | 23S | 24E | 507 N HARRISON AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 002-95 | 1/18/1995 | SE | 8 | 23S | 24E | 424 MASON HILL STREET #C | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1941 |
| 003-95 | 1/18/1995 | SE | 8 | 23S | 24E | 424 MASON HILL STREET #D | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1941 |
| 004-95 | 1/23/1995 | SE | 15 | 23S | 24E | 107 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1920 |
| 005-95 | 3/21/1995 | SW | 9 | 23S | 24E | 52 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1950 |
| 006-95 | 3/22/1995 | NW | 28 | 23S | 24E | | | MAIN REPAIR | | | 11330 | X | | | | | | | | GS | 1 | 1995 |
| 007-95 | 4/11/1995 | NE | 8 | 23S | 24E | 437 MAYER AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1922 |
| 008-95 | 4/13/1995 | SE | 23 | 23S | 24E | 19 COCHISE TRAIL | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1908 |
| 009-95 | 4/13/1995 | SE | 14 | 23S | 24E | 506 M STREET | | SERVICE REPAIR | X | | | | | | | | CU | 3/4 | | | | 1952 |
| 010-95 | 4/17/1995 | NE | 5 | 24S | 24E | 1951 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 011-95 | 7/6/1995 | NW | 23 | 23S | 24E | 605 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | |
| 012-95 | 7/17/1995 | NE | 5 | 24S | 24E | 1983 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 001-99 | 1/19/1999 | SW | 9 | 23S | 24E | 20 SOWELS AVENUE | | MAIN REPAIR | X | | | | | | | | | | STEEL | 2 | | 1968 |
| 002-99 | 1/25/1999 | NW | 15 | 23S | 24E | 305 W HIGHWAY 80 | | SERVICE REPLACEMENT | X | | 13482 | | | | | 1 | CU | 1 | | | | 2000 |
| 003-99 | 1/25/1999 | SE | 8 | 23S | 24E | 161 QUALITY HILL | | SERVICE REPLACEMENT | | | | | | | | 1 | GS | 3/4 | | | | 1947 |
| 004-99 | 2/2/1999 | NW | 9 | 23S | 24E | 218 OK STREET #B | | MAIN REPLACEMENT | X | | | | | | | | | | 10 | GS | 2 | 1941 |
| 005-99 | 2/5/1999 | SE | 15 | 23S | 24E | 205 PITTSBURGH AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 006-99 | 2/10/1999 | SW | 23 | 23S | 24E | 412 DOUGLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1976 |
| 007-99 | 2/17/1999 | SE | 15 | 23S | 24E | 819 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | 22 | GS | 2 | 1917 |
| 008-99 | 2/26/1999 | SW | 9 | 23S | 24E | 95 MAIN STREET #A | | SERVICE REPLACEMENT | X | | | | | | | 3 | GS | 1/2 | | | | 1940 |
| 008-99 | 2/26/1999 | NW | 9 | 23S | 24E | 11 ZACATECAS CANYON #A | | MAIN REPLACEMENT | X | | | | | | | | | | 100 | STEEL | 1 | 1965 |
| 010-99 | 3/24/1999 | SW | 9 | 23S | 24E | 27 SHEARER AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | PVC | 1 | | 1980 |
| 011-99 | 5/3/1999 | SE | 8 | 23S | 24E | 815 TOMBSTONE CANYON | | MAIN REPAIR | X | | | | | | | | | | 4 | GS | 2 | 1942 |
| 012-99 | 5/17/1999 | SW | 23 | 23S | 24E | 508 HOATSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1980 |
| 013-99 | 5/17/1999 | SW | 23 | 23S | 24E | 508 HOATSON AVENUE | | MAIN REPAIR | | | | | | | | | | | | PVC | 3/4 | 1980 |
| 014-99 | 5/17/1999 | SW | 23 | 23S | 24E | 508 HOATSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1980 |
| 015-99 | 5/19/1999 | NW | 15 | 23S | 24E | HIGHWAY 80 WEST OF LOWELL PLAZA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1975 |
| 016-99 | 7/12/1999 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 017-99 | 7/20/1999 | NE | 5 | 24S | 24E | 2230 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 018-99 | 7/26/1999 | NE | 22 | 23S | 24E | 224 PARK AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1922 |
| 019-99 | 8/4/1999 | SE | 8 | 23S | 24E | 111 HIGGINS HILL | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1942 |
| 020-99 | 8/10/1999 | NW | 8 | 23S | 24E | 8 SPRING CANYON | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | | 1912 |
| 021-99 | 8/11/1999 | NE | 21 | 23S | 24E | 456 S BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 022-99 | 9/15/1999 | NE | 8 | 23S | 24E | 511 MAYER AVENUE #A | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1922 |
| 023-99 | 9/20/1999 | NE | 22 | 23S | 24E | 318 + 320 PARK AVENUE | | SERVICE REPLACEMENT | | | | | | | | 2 | PVC | 1 | | | | 1922 |
| 024-99 | 9/22/1999 | SW | 23 | 23S | 24E | 311 16TH TERRACE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 025-99 | 10/4/1999 | NE | 22 | 23S | 24E | 14 STRONG ROW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1922 |
| 026-99 | 10/4/1999 | SE | 8 | 23S | 24E | 129-C HIGH ROAD | | MAIN REPLACEMENT | X | | | | | | | | | | 10 | GS | 3 | 1921 |
| 027-99 | 10/5/1999 | SW | 23 | 23S | 24E | 311 16TH TERRACE | | SERVICE REPLACEMENT | | | | | | | | 1 | PVC | 3/4 | | | | 1917 |
| 028-99 | 10/18/1999 | SE | 23 | 23S | 24E | 107 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 029-99 | 10/18/1999 | SE | 23 | 23S | 24E | 107 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 030-99 | 10/22/1999 | SW | 23 | 23S | 24E | 56 BLACK KNOB VIEW | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1908 |
| 031-99 | 11/22/1999 | NE | 22 | 23S | 24E | 34 HILLSIDE STREET | | SERVICE REPLACEMENT | X | | | | | | | | S | | | | | 1951 |
| 032-99 | 11/25/1999 | SE | 8 | 23S | 24E | 403 OAK AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 033-99 | 12/8/1999 | SW | 23 | 23S | 24E | 405 BISBEE ROAD | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | | | |
| 001-00 | 1/4/2000 | SE | 15 | 23S | 24E | 7 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 002-00 | 1/5/2000 | SW | 9 | 23S | 24E | 101 OK STREET #D | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/4 | 1941 |
| 003-00 | 1/7/2000 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 004-00 | 1/7/2000 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 005-00 | 1/10/2000 | SE | 8 | 23S | 24E | 302 OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1956 |
| 006-00 | 1/12/2000 | NW | 9 | 23S | 24E | 211 OK STREET | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | | | 1944 |
| 007-00 | 1/13/2000 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 008-00 | 1/20/2000 | SE | 8 | 23S | 24E | 302 OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 009-00 | 1/24/2000 | SE | 15 | 23S | 24E | 16, 17A, 18 OLD DOUGLAS ROAD | | SERVICE REPLACEMENT | X | | | | | | | 3 | GS | 1/2 | | | | |
| 010-00 | 1/29/2000 | NE | 21 | 23S | 24E | 446 W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 011-00 | 2/7/2000 | SE | 23 | 23S | 24E | 213 13TH TERRACE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1963 |
| 012-00 | 2/23/2000 | SW | 23 | 23S | 24E | 323 16TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1918 |
| 013-00 | 2/23/2000 | SW | 9 | 23S | 24E | 43 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 014-00 | 3/2/2000 | NW | 9 | 23S | 24E | 1 ZACATECAS CANYON | | MAIN REPLACEMENT | X | | | | | | | | | | 3 | | | 1965 |
| 015-00 | 3/13/2000 | SE | 22 | 23S | 24E | 505 30TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1973 |
| 016-00 | 3/15/2000 | SE | 8 | 23S | 24E | 420 MASON HILL STREET #B | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1963 |
| 017-00 | 3/16/2000 | SE | 29 | 23S | 24E | 306 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL BW | 4 | 1963 |
| 018-00 | 3/24/2000 | SW | 23 | 23S | 24E | 307 ARIZONA STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | |
| 019-00 | 4/4/2000 | SW | 5 | 23S | 24E | 107 LOCKLIN AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | STEEL | 1 | | | | 1956 |
| 020-00 | 4/6/2000 | NE | 5 | 24S | 24E | 2216 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 021-00 | 4/6/2000 | NE | 32 | 23S | 24E | 16 MANZANITA STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1/2 | | | | 1980 |
| 022-00 | 4/6/2000 | SE | 8 | 23S | 24E | 113 & 115 HIGGINS HILL | | SERVICE REPLACEMENT | X | | | | | | | 2 | STEEL | 3/4 | | | | 1942 |
| 023-00 | 4/10/2000 | SW | 9 | 23S | 24E | 23 TEMBY AVENUE #C | | MAIN REPLACEMENT | X | | | | | | | | | | 10 | GS | 1 | 1921 |
| 024-00 | 4/14/2000 | SW | 23 | 23S | 24E | 601 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 025-00 | 4/14/2000 | SW | 23 | 23S | 24E | 311 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 026-00 | 4/19/2000 | NW | 22 | 23S | 24E | 54 CZAR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1954 |
| 027-00 | 4/28/2000 | SE | 15 | 23S | 24E | 55 W. HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1954 |
| 028-00 | 5/16/2000 | NE | 32 | 23S | 24E | 5 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1925 |
| 029-00 | 5/23/2000 | SE | 8 | 23S | 24E | 510 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 030-00 | 6/8/2000 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1970 |
| 031-00 | 6/8/2000 | SW | 14 | 23S | 24E | 422 F STREET | | SERVICE REPAIR | | | | | | | | | STEEL | 1 | | | | 1952 |
| 032-00 | 6/8/2000 | NW | 8 | 23S | 24E | 47 SPRING CANYON #D | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 033-00 | 6/8/2000 | SW | 9 | 23S | 24E | COPPER QUEEN PLAZA #2 | | SERVICE REPAIR | X | | | | | | | | STEEL | 1 1/2 | | | | 1955 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 034-00 | 6/8/2000 | SW | 9 | 23S | 24E | 61-B CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 035-00 | 6/8/2000 | SE | 8 | 23S | 24E | 61-A HIGH ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1975 |
| 036-00 | 6/8/2000 | NE | 8 | 23S | 24E | 515 MAYER AVENUE #A | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1975 |
| 037-00 | 6/13/2000 | SW | 9 | 23S | 24E | 59 SUBWAY STREET #B | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | 3/4 | 1942 |
| 038-00 | 6/16/2000 | SE | 23 | 23S | 24E | 8 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 039-00 | 6/16/2000 | NW | 9 | 23S | 24E | 234 OPERA DRIVE #C | | MAIN REPAIR | | | X | | | | | | | | | PVC | 1 | 1980 |
| 040-00 | 6/22/2000 | NW | 33 | 23S | 24E | 130 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1968 |
| 041-00 | 6/27/2000 | NW | 33 | 23S | 24E | 130 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1968 |
| 042-00 | 6/27/2000 | NW | 29 | 23S | 24E | 56-B MOUNTAIN RANCH ESTATES | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 043-00 | 6/27/2000 | SE | 23 | 23S | 24E | 600 HOATSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 044-00 | 6/27/2000 | SW | 23 | 23S | 24E | 207 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 045-00 | 6/27/2000 | SE | 23 | 23S | 24E | 8 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 046-00 | 6/27/2000 | NE | 15 | 23S | 24E | HIGHWAY 80 & WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1975 |
| 047-00 | 6/27/2000 | SW | 23 | 23S | 24E | 509 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 048-00 | 6/27/2000 | NW | 8 | 23S | 24E | 711 STAR AVENUE #D | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | 1 | 1978 |
| 049-00 | 6/27/2000 | SE | 8 | 23S | 24E | 15 ART AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1912 |
| 050-00 | 6/27/2000 | SE | 8 | 23S | 24E | 9 ART AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1912 |
| 051-00 | 6/27/2000 | NW | 9 | 23S | 24E | 234 OPERA DRIVE #C | | MAIN REPAIR | | | X | | | | | | | | | PVC | 1 | 1980 |
| 052-00 | 6/28/2000 | SE | 23 | 23S | 24E | 303 13TH TERRACE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1963 |
| 053-00 | 6/28/2000 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1976 |
| 054-00 | 7/6/2000 | NW | 23 | 23S | 24E | 609 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 055-00 | 7/6/2000 | NW | 23 | 23S | 24E | 609 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 056-00 | 7/10/2000 | SW | 22 | 23S | 24E | HIGH SCHOOL HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1901 |
| 057-00 | 7/13/2000 | SE | 15 | 23S | 24E | 2 OLD DOUGLAS ROAD | | MAIN REPLACEMENT | | | | X | | | | | | | 20 | STEEL | 2 | 1952 |
| 058-00 | 7/21/2000 | NW | 33 | 23S | 24E | 130 NACO HIGHWAY | | MAIN REPLACEMENT | | | | X | | | | | | | 65 | CU | 3/4 | 1968 |
| 059-00 | 7/25/2000 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 060-00 | 7/25/2000 | SW | 23 | 23S | 24E | 107 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 061-00 | 7/26/2000 | SE | 8 | 23S | 24E | QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 062-00 | 7/28/2000 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 063-00 | 7/28/2000 | NW | 29 | 23S | 24E | 991 S COY STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 064-00 | 7/28/2000 | NE | 8 | 23S | 24E | 17 LAUNDRY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1908 |
| 065-00 | 8/1/2000 | SW | 9 | 23S | 24E | 1 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1950 |
| 066-00 | 8/1/2000 | SE | 8 | 23S | 24E | 151 QUARRY CANYON | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | 6 | 1941 |
| 067-00 | 8/9/2000 | SW | 23 | 23S | 24E | 307 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 068-00 | 8/28/2000 | NW | 8 | 23S | 24E | 827 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1942 |
| 069-00 | 8/29/2000 | NE | 5 | 24S | 24E | 973 W MARIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1958 |
| 070-00 | 8/29/2000 | NW | 8 | 23S | 24E | 711 STAR AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | 1 | | PVC | 6 | 1985 |
| 071-00 | 8/29/2000 | SW | 9 | 23S | 24E | 37 OK STREET | | SERVICE REPLACEMENT | | | X | X | | | | 2 | GS | 3/4 | | | | 1956 |
| 072-00 | 9/5/2000 | NE | 5 | 24S | 24E | 2086 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 073-00 | 9/5/2000 | NE | 22 | 23S | 24E | 229 PARK AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | | | | | 1922 |
| 074-00 | 9/5/2000 | SW | 14 | 23S | 24E | 101 D STREET | | SERVICE REPAIR | | | | | | | | | STEEL | 3/4 | | | | 1952 |
| 075-00 | 9/5/2000 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1976 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 076-00 | 9/6/2000 | SE | 32 | 23S | 24E | 114 MOUNTAIN VIEW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1958 |
| 077-00 | 9/12/2000 | NW | 9 | 23S | 24E | 257 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 078-00 | 9/19/2000 | NE | 22 | 23S | 24E | #45 COCHISE ROW | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 079-00 | 9/21/2000 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 080-00 | 9/26/2000 | NW | 23 | 23S | 24E | 512 DOUGLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 081-00 | 9/28/2000 | NW | 9 | 23S | 24E | 224 MILLER HILL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1921 |
| 082-00 | 10/4/2000 | SE | 23 | 23S | 24E | 107 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 083-00 | 10/4/2000 | SW | 9 | 23S | 24E | 11 OK STREET #B | | MAIN REPLACEMENT | | | X | X | | | | | | | 60 | PVC | 1 | 1980 |
| 084-00 | 10/10/2000 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1970 |
| 085-00 | 10/10/2000 | SE | 8 | 23S | 24E | 137 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | STEEL | 1 | | 1908 |
| 086-00 | 10/11/2000 | SW | 9 | 23S | 24E | 11 OK STREET #B | | MAIN REPLACEMENT | X | | | | | | | | | | 60 | PVC | 1 | 1980 |
| 087-00 | 10/15/2000 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 088-00 | 10/19/2000 | SE | 32 | 23S | 24E | 118 MOUNTAIN VIEW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | CA | 4 | 1958 |
| 089-00 | 10/27/2000 | SE | 8 | 23S | 24E | 137 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | STEEL | 1 | | 1908 |
| 090-00 | 11/6/2000 | SW | 23 | 23S | 24E | 301 14TH TERRACE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1917 |
| 091-00 | 11/13/2000 | SE | 8 | 23S | 24E | 139 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1908 |
| 092-00 | 11/20/2000 | SW | 14 | 23S | 24E | LOWELL TRAFFIC CIRCLE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1952 |
| 093-00 | 11/28/2000 | SW | 29 | 23S | 24E | 51 PINAL DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 094-00 | 11/28/2000 | NE | 23 | 23S | 24E | 628 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 095-00 | 11/28/2000 | NW | 23 | 23S | 24E | 616 HOVLAND STREET | | MAIN REPAIR | | | 13437 | X | | | | | | | 40 | STEEL | 3/4 | 1908 |
| 096-00 | 11/29/2000 | SE | 8 | 23S | 24E | 42 ART AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | 2 | | 3/4 | 1912 |
| 097-00 | 12/1/2000 | NE | 21 | 23S | 24E | S CATSCLAW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 098-00 | 12/2/2000 | NE | 5 | 24S | 24E | 2240 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 099-00 | 12/4/2000 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 100-00 | 12/5/2000 | NE | 5 | 24S | 24E | 1111 W MCDONALD STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 101-00 | 12/7/2000 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 102-00 | 12/13/2000 | SW | 23 | 23S | 24E | 610 EAST VISTA | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | |
| 103-00 | 12/15/2000 | SW | 14 | 23S | 24E | 215 A STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1952 |
| 104-00 | 12/19/2000 | SE | 8 | 23S | 24E | 407 ROBERTS AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 31 | GS | 1 1/2 | 1941 |
| 105-00 | 12/28/2000 | SE | 23 | 23S | 24E | 205 BLACK KNOB VIEW | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1980 |
| 001-01 | 1/3/2001 | SW | 9 | 23S | 24E | 35 TEMBY AVENUE #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 002-01 | 1/8/2001 | SW | 23 | 23S | 24E | 502 POWELL STREET | | SERVICE REPAIR | X | | | | | | | | GS | 1 | | | | 1908 |
| 003-01 | 1/11/2001 | NE | 21 | 23S | 24E | 456 S BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 004-01 | 1/12/2001 | SW | 5 | 23S | 24E | 16 WOOD CANYON | | MAIN REPAIR | X | | | | | | | | | | STEEL | 1 | | 1942 |
| 005-01 | 1/16/2001 | SW | 23 | 23S | 24E | 321 16TH TERRACE | | SERVICE REPAIR | X | | | | | | | | | | | STEEL | 2 | 1917 |
| 006-01 | 1/16/2001 | NW | 23 | 23S | 24E | 614 HOVLAND STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1963 |
| 007-01 | 1/19/2001 | NW | 8 | 23S | 24E | 603 & 605 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | 2 | CU | 1 | | | | 1982 |
| 008-01 | 1/22/2001 | NE | 21 | 23S | 24E | S ACACIA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 009-01 | 1/22/2001 | NE | 23 | 23S | 24E | 613 ARIZONA STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 010-01 | 1/25/2001 | SE | 22 | 23S | 24E | 500 30TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1963 |
| 011-01 | 1/25/2001 | NE | 22 | 23S | 24E | 202 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1920 |
| 012-01 | 1/25/2001 | SE | 8 | 23S | 24E | 318 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1975 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 013-01 | 2/1/2001 | NE | 23 | 23S | 24E | 613 ARIZONA STREET | | SERVICE REPLACEMENT | X | | | | | | | 2 | STEEL | 1 & 3/4 | | | | 1908 |
| 014-01 | 2/9/2001 | SW | 23 | 23S | 24E | 123 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 015-01 | 2/12/2001 | NE | 21 | 23S | 24E | W TOPAZ STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 016-01 | 2/14/2001 | SE | 22 | 23S | 24E | 405 30TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1963 |
| 017-01 | 2/14/2001 | SW | 14 | 23S | 24E | 205 A STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 35 | GS | 2 | 1952 |
| 018-01 | 2/16/2001 | SE | 22 | 23S | 24E | 30TH TERRACE TOWARDS WARREN TANK | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 019-01 | 2/16/2001 | SE | 8 | 23S | 24E | 826 SIMMS ROAD #B | | MAIN REPAIR | X | | | | | | | | | | GS | 1/2 | | 1916 |
| 020-01 | 2/21/2001 | SW | 28 | 23S | 24E | 104 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | 1 | GS | 2 | |
| 021-01 | 2/26/2001 | SW | 23 | 23S | 24E | 321 16TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1917 |
| 022-01 | 2/26/2001 | NE | 22 | 23S | 24E | 4 STRONG ROW | | MAIN REPLACEMENT | X | | | X | | | | | | | 70 | STEEL | 4 | 1922 |
| 023-01 | 3/2/2001 | SW | 23 | 23S | 24E | 405 HOVLAND STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1908 |
| 024-01 | 3/6/2001 | SE | 8 | 23S | 24E | 407 ROBERTS AVENUE | | MAIN REPLACEMENT | | | | X | | | | | | | 20 | GS | 1 1/2 | 1941 |
| 025-01 | 3/8/2001 | SW | 23 | 23S | 24E | 321 16TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1917 |
| 026-01 | 3/13/2001 | SW | 9 | 23S | 24E | 37 TEMBY AVENUE #A | | MAIN REPLACEMENT | | | | X | | | | | | | 140 | GS | 2 | 1921 |
| 027-01 | 3/13/2001 | SW | 9 | 23S | 24E | 37A, 35A, 35 TEMBY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 3 | GS | 3/4 | | | | 1921 |
| 028-01 | 3/16/2001 | NE | 32 | 23S | 24E | 5 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1925 |
| 029-01 | 3/18/2001 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 030-01 | 3/19/2001 | SE | 8 | 23S | 24E | 412 GARDEN AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1956 |
| 031-01 | 3/22/2001 | SW | 23 | 23S | 24E | 321 16TH TERRACE | | MAIN REPLACEMENT | | | 15655 | X | | | | | | | 27 | GS | 2 | 1917 |
| 032-01 | 3/26/2001 | SE | 8 | 23S | 24E | 501 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1978 |
| 033-01 | 3/28/2001 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 034-01 | 3/28/2001 | SE | 23 | 23S | 24E | 510 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 035-01 | 4/2/2001 | NW | 8 | 23S | 24E | 733 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 036-01 | 4/3/2001 | SE | 22 | 23S | 24E | 30TH TERRACE BEHIND HIGH SCHOOL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 037-01 | 4/4/2001 | SE | 8 | 23S | 24E | 437 ROBERTS AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | | | 1941 |
| 038-01 | 4/6/2001 | SE | 23 | 23S | 24E | 204 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 039-01 | 4/9/2001 | SW | 15 | 23S | 24E | 87 CZAR AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1949 |
| 040-01 | 4/9/2001 | SE | 8 | 23S | 24E | 10 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 041-01 | 4/13/2001 | NE | 32 | 23S | 24E | 5 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1925 |
| 042-01 | 4/17/2001 | NW | 22 | 23S | 24E | 54 CZAR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1954 |
| 043-01 | 4/17/2001 | SW | 9 | 23S | 24E | 53 OK STREET #C | | MAIN REPLACEMENT | X | | | | | | | | | | 6 | GS | 2 | 1945 |
| 044-01 | 4/17/2001 | SW | 9 | 23S | 24E | 53 OK STREET #C | | MAIN REPLACEMENT | | | X | X | | | | | | | 40 | STEEL | 2 | 1945 |
| 045-01 | 4/20/2001 | SE | 8 | 23S | 24E | 229 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1942 |
| 046-01 | 4/26/2001 | SE | 15 | 23S | 24E | 112 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1920 |
| 047-01 | 5/10/2001 | NE | 32 | 23S | 24E | 54 MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 048-01 | 5/11/2001 | NE | 5 | 24S | 24E | 2278 S BARNETT ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 4 | 1961 |
| 049-01 | 5/14/2001 | NW | 9 | 23S | 24E | 226 BREWERY AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 166 | PVC/STEEL | 1 | 1959 |
| 050-01 | 5/14/2001 | NW | 9 | 23S | 24E | 226 BREWERY AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | PVC | 3/4 | | | | 1980 |
| 051-01 | 5/14/2001 | NW | 9 | 23S | 24E | 222 BREWERY AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | PVC | 3/4 | | | | 1980 |
| 052-01 | 5/21/2001 | NE | 8 | 23S | 24E | INTERSECTION OF ADAMS AND LAUNDRY HILL | | MAIN REPLACEMENT | X | | | | | | | | | | 1 | GS | 3/4 | 1908 |
| 053-01 | 5/29/2001 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1975 |
| 054-01 | 6/4/2001 | SE | 23 | 23S | 24E | 318 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 055-01 | 6/5/2001 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 056-01 | 6/6/2001 | SW | 9 | 23S | 24E | 82 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1980 |
| 057-01 | 6/8/2001 | NE | 23 | 23S | 24E | 603 POWELL STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 058-01 | 6/11/2001 | NE | 32 | 23S | 24E | 16 MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 059-01 | 6/11/2001 | SE | 8 | 23S | 24E | 511 BROPHY AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1912 |
| 060-01 | 6/22/2001 | NW | 8 | 23S | 24E | 827 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1975 |
| 061-01 | 6/26/2001 | SW | 9 | 23S | 24E | 43 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1930 |
| 062-01 | 6/28/2001 | SW | 9 | 23S | 24E | 41 TEMBY AVENUE | | MAIN REPLACEMENT | | | | X | | | | | | | 75 | PVC | 1 | 1975 |
| 063-01 | 6/28/2001 | SW | 9 | 23S | 24E | 41 & 43 TEMBY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 2 | PVC | 3/4 | | | | 1975 |
| 064-01 | 7/3/2001 | SE | 23 | 23S | 24E | 300 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 065-01 | 7/3/2001 | SW | 15 | 23S | 24E | 407 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 066-01 | 7/5/2001 | SE | 8 | 23S | 24E | 515 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | | | 1 | | | | 1978 |
| 067-01 | 7/9/2001 | SE | 8 | 23S | 24E | 317 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 068-01 | 7/10/2001 | NW | 28 | 23S | 24E | BETWEEN COLLINS ROAD & HIGHWAY 92 | | SERVICE REPLACEMENT | X | | | | | | | | | | | STEEL | 2 | 1950 |
| 069-01 | 7/13/2001 | SE | 8 | 23S | 24E | 11 LEDGE AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 070-01 | 7/13/2001 | SE | 8 | 23S | 24E | 120 QUALITY HILL #A | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1932 |
| 071-01 | 7/16/2001 | SE | 23 | 23S | 24E | 510 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 072-01 | 7/18/2001 | SE | 23 | 23S | 24E | 613 CAMPBELL STREET | | SERVICE REPAIR | | | | | | | | | GS | 3/4 | | | | 1908 |
| 073-01 | 7/20/2001 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL #E | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 074-01 | 7/20/2001 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL #E | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 075-01 | 7/24/2001 | SW | 9 | 23S | 24E | COPPER QUEEN PLAZA | | SERVICE REPAIR | X | | | | | | | | GS | 1 1/4 | | | | 1955 |
| 076-01 | 7/27/2001 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1970 |
| 077-01 | 7/30/2001 | SW | 9 | 23S | 24E | 52 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 078-01 | 8/6/2001 | NW | 28 | 23S | 24E | 400 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 1 | | | | 1980 |
| 079-01 | 8/6/2001 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 080-01 | 8/10/2001 | SW | 22 | 23S | 24E | 42-G TIN TOWN | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 081-01 | 8/13/2001 | SW | 9 | 23S | 24E | 52 COMMERCE STREET #B | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1957 |
| 082-01 | 8/22/2001 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 083-01 | 8/24/2001 | SW | 9 | 23S | 24E | 55 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1950 |
| 084-01 | 9/6/2001 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | 21 | GS | 2 | |
| 085-01 | 9/11/2001 | SE | 15 | 23S | 24E | 100 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 086-01 | 9/11/2001 | SW | 23 | 23S | 24E | 400 POWELL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 087-01 | 9/12/2001 | SE | 23 | 23S | 24E | 505 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | STEEL | 1 | | STEEL | 8 | 1908 |
| 088-01 | 9/18/2001 | NE | 22 | 23S | 24E | 202 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1920 |
| 089-01 | 9/25/2001 | SE | 23 | 23S | 24E | 220 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1908 |
| 090-01 | 9/27/2001 | NW | 8 | 23S | 24E | 5 MOON CANYON AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 13 | PVC | 2 | 1966 |
| 091-01 | 10/6/2001 | NW | 9 | 23S | 24E | 50 ZACATECAS CANYON | | MAIN REPLACEMENT | X | | | | | | | | | | 21 | STEEL | 1 | 1965 |
| 092-01 | 10/9/2001 | SW | 9 | 23S | 24E | 18 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 093-01 | 10/12/2001 | SW | 9 | 23S | 24E | 52 MAIN STREET | | MAIN REPLACEMENT | | | | | | | | | | | 60 | STEEL | 6 | 1957 |
| 094-01 | 10/15/2001 | SE | 8 | 23S | 24E | 314 OHARA AVENUE | | MAIN REPAIR | X | | X | | | | | | | | | STEEL | 6 | 1956 |
| 095-01 | 10/16/2001 | SW | 9 | 23S | 24E | 52 MAIN STREET | | MAIN REPLACEMENT | X | | 15684 | | | | | | | | 75 | STEEL | 6 | 1957 |
| 096-01 | 10/18/2001 | SE | 23 | 23S | 24E | 305 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | POR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 097-01 | 10/18/2001 | SE | 8 | 23S | 24E | 45 SPRING CANYON #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 098-01 | 10/18/2001 | SE | 8 | 23S | 24E | 139 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | GS | 1 1/2 | | 1942 |
| 099-01 | 10/23/2001 | NE | 23 | 23S | 24E | 601 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 100-01 | 10/25/2001 | SE | 32 | 23S | 24E | 107 COPPER STREET | | MAIN REPAIR | X | | | | | | | | | | 4 | CA | 4 | 1958 |
| 101-01 | 10/25/2001 | NW | 8 | 23S | 24E | 635 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | |
| 102-01 | 10/30/2001 | SE | 8 | 23S | 24E | 435 GARDEN AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1975 |
| 103-01 | 11/1/2001 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 104-01 | 11/2/2001 | NE | 5 | 24S | 24E | 2080 S KENTUCKY LANE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1961 |
| 105-01 | 11/2/2001 | NW | 8 | 23S | 24E | 45 SPRING CANYON #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 106-01 | 11/9/2001 | NE | 8 | 23S | 24E | 437 MAYER AVENUE #C | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | | 1922 |
| 107-01 | 11/13/2001 | NE | 5 | 24S | 24E | 2207 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 108-01 | 11/13/2001 | NE | 5 | 24S | 24E | 2215 BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 109-01 | 11/13/2001 | NE | 5 | 24S | 24E | 2215 BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 110-01 | 11/13/2001 | NE | 5 | 24S | 24E | 2255 BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 111-01 | 11/19/2001 | NE | 23 | 23S | 24E | 632 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 112-01 | 11/20/2001 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPLACEMENT | | | | X | | | | | | | 100 | CU | 1 | 1980 |
| 113-01 | 11/21/2001 | SE | 15 | 23S | 24E | 125 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1922 |
| 114-01 | 11/26/2001 | NW | 9 | 23S | 24E | 216 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 115-01 | 11/27/2001 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 116-01 | 11/27/2001 | NE | 22 | 23S | 24E | 72 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1917 |
| 117-01 | 11/30/2001 | NE | 22 | 23S | 24E | 35 HILLSIDE STREET | | SERVICE REPLACEMENT | X | | | | | | | | S | 3/4 | | | | 1951 |
| 118-01 | 12/3/2001 | NE | 32 | 23S | 24E | 9 RAND PLACE | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 119-01 | 12/10/2001 | SW | 15 | 23S | 24E | 55 W. HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | STEEL | 2 | | | | 1974 |
| 120-01 | 12/10/2001 | SW | 22 | 23S | 24E | 4 TIN TOWN | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 121-01 | 12/13/2001 | NE | 22 | 23S | 24E | 29 HILLSIDE STREET | | SERVICE REPLACEMENT | X | | | | | | | | S | 3/4 | | | | 1951 |
| 122-01 | 12/14/2001 | SE | 15 | 23S | 24E | 125 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1920 |
| 123-01 | 12/14/2001 | SW | 9 | 23S | 24E | 48 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 124-01 | 12/18/2001 | SE | 23 | 23S | 24E | 213 BLACK KNOB VIEW | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 125-01 | 12/19/2001 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/4 | 1955 |
| 126-01 | 12/19/2001 | NE | 15 | 23S | 24E | 480 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 127-01 | 12/20/2001 | NE | 5 | 24S | 24E | 944 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 128-01 | 12/20/2001 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 129-01 | 12/20/2001 | NW | 9 | 23S | 24E | 225 YOUNGBLOOD HILL #E | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1941 |
| 130-01 | 12/20/2001 | SE | 8 | 23S | 24E | 201 MAIN STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 2 | STEEL | 1 | |
| 131-01 | 12/27/2001 | NW | 15 | 23S | 24E | HIGHWAY 80 & ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1975 |
| 001-02 | 1/9/2002 | NE | 5 | 24S | 24E | 2240 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 002-02 | 1/9/2002 | NW | 8 | 23S | 24E | 605 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | GS | 1 | | | | |
| 003-02 | 1/22/2002 | SE | 15 | 23S | 24E | 201 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | | STEEL | 2 | 1922 |
| 004-02 | 1/24/2002 | NW | 23 | 23S | 24E | 74 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1920 |
| 005-02 | 1/24/2002 | NW | 23 | 23S | 24E | 74 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1920 |
| 006-02 | 1/24/2002 | NW | 23 | 23S | 24E | 74 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1920 |
| 007-02 | 2/4/2002 | NW | 23 | 23S | 24E | #74 PITTSBURGH AVENUE | | MAIN REPLACEMENT | | | 15688 | | | | | | | | | GS | 1 1/4 | 1920 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 008-02 | 2/11/2002 | NW | 22 | 22S | 24E | GALENA HILL | | MAIN REPAIR | X | | | | | | | | | | | CA | 10 | 1955 |
| 009-02 | 2/14/2002 | SW | 9 | 23S | 24E | 1 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1950 |
| 010-02 | 2/25/2002 | NE | 5 | 24S | 24E | 2216 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1958 |
| 011-02 | 2/25/2002 | SE | 8 | 23S | 24E | 164 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 012-02 | 2/25/2002 | SE | 8 | 23S | 24E | 164 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 013-02 | 2/25/2002 | SE | 8 | 23S | 24E | 164 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 014-02 | 2/25/2002 | SE | 8 | 23S | 24E | 164 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 015-02 | 2/26/2002 | SE | 23 | 23S | 24E | 509 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1908 |
| 016-02 | 2/27/2002 | SE | 8 | 23S | 24E | 142 QUALITY HILL | | MAIN REPLACEMENT | | | X | X | | | | | | | 41 | GS | 2 | 1947 |
| 017-02 | 3/1/2002 | NW | 9 | 23S | 24E | 218 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 018-02 | 3/1/2002 | NE | 8 | 23S | 24E | 543 MAIN STREET #A | | SERVICE REPLACEMENT | X | | | | | | | | STEEL | 3/4 | | | | 1941 |
| 019-02 | 3/1/2002 | NW | 9 | 23S | 24E | 218 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 020-02 | 3/1/2002 | NW | 9 | 23S | 24E | 218 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 021-02 | 3/4/2002 | SE | 8 | 23S | 24E | 160 QUALITY HILL | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | GS | 2 | 1947 |
| 022-02 | 3/7/2002 | NE | 15 | 23S | 24E | DENN MINE ROAD & WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1974 |
| 023-02 | 3/12/2002 | NW | 8 | 23S | 24E | 51 SPRING CANYON | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 024-02 | 3/26/2002 | NW | 8 | 23S | 24E | 543 MAIN STREET #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 50 | STEEL | 1 | |
| 025-02 | 3/26/2002 | NW | 8 | 23S | 24E | 543 MAIN STREET #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 026-02 | 3/30/2002 | NW | 8 | 23S | 24E | 822 PACE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 027-02 | 4/2/2002 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL #E | | MAIN REPLACEMENT | X | | | | | | | | | | 3 | GS | 2 | 1918 |
| 028-02 | 4/9/2002 | SW | 29 | 23S | 24E | 51 PINAL DRIVE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 029-02 | 4/9/2002 | SE | 23 | 23S | 24E | 220 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1908 |
| 030-02 | 4/15/2002 | SW | 29 | 23S | 24E | 960 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 031-02 | 4/15/2002 | NW | 28 | 23S | 24E | 304 N WASHINGTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 032-02 | 4/17/2002 | NW | 9 | 23S | 24E | 210 MILLER HILL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1921 |
| 033-02 | 4/18/2002 | SW | 23 | 23S | 24E | 422 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 034-02 | 4/24/2002 | NE | 21 | 23S | 24E | 490 S CATSCLAW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 035-02 | 4/28/2002 | NW | 9 | 23S | 24E | 226 BREWERY AVENUE #D | | MAIN REPLACEMENT | X | | | | | | | | | | 4 | STEEL | 2 | 1912 |
| 036-02 | 4/29/2002 | NE | 8 | 23S | 24E | 509 BAILEY HILL #F | | MAIN REPLACEMENT | X | | | | | | | | | | 60 | STEEL | 1 | 1908 |
| 037-02 | 5/2/2002 | SW | 9 | 23S | 24E | 81 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 038-02 | 5/3/2002 | SE | 23 | 23S | 24E | BLACK KNOB VIEW & RUPPE AVENUE (STREET?) | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 039-02 | 5/7/2002 | SE | 15 | 23S | 24E | 221 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1922 |
| 040-02 | 5/10/2002 | NW | 9 | 23S | 24E | 208 YOUNGBLOOD HILL #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | STEEL | 1 | 1941 |
| 041-02 | 5/13/2002 | NE | 23 | 23S | 24E | 608 POWELL STREET | | SERVICE REPAIR | X | | | | | | | | CU | 1 | | | | 1960 |
| 042-02 | 5/13/2002 | NE | 23 | 23S | 24E | 401 COLE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 043-02 | 5/16/2002 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 044-02 | 5/17/2002 | SE | 23 | 23S | 24E | 8 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 045-02 | 5/22/2002 | SE | 23 | 23S | 24E | 400 CONGDON AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | CU | 1 | | | | 1908 |
| 046-02 | 5/24/2002 | NW | 9 | 23S | 24E | 142 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1912 |
| 047-02 | 5/29/2002 | SW | 9 | 23S | 24E | 25 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 048-02 | 5/30/2002 | NE | 5 | 24S | 24E | 2223 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 049-02 | 5/30/2002 | NW | 9 | 23S | 24E | 216 BREWERY AVENUE #C | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1912 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 050-02 | 6/4/2002 | NW | 9 | 23S | 24E | 216 BREWERY AVENUE #C | | MAIN REPLACEMENT | X | | | | | | | | | | 12 | GS | 2 | 1959 |
| 051-02 | 6/5/2002 | SW | 9 | 23S | 24E | 153 OK STREET #C | | MAIN REPLACEMENT | | | X | X | | | | | | | 32 | STEEL | 1 1/2 | 1921 |
| 052-02 | 6/10/2002 | NW | 28 | 23S | 24E | 106 S TAYLOR AVENUE | | MAIN REPAIR | X | | | | | | | | | | 8 | PVC | 1 | 1980 |
| 053-02 | 6/10/2002 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1970 |
| 054-02 | 6/10/2002 | NW | 9 | 23S | 24E | 153 OK STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 35 | STEEL | 1 1/2 | 1954 |
| 055-02 | 6/10/2002 | NW | 9 | 23S | 24E | 216 BREWERY AVENUE #C | | MAIN REPLACEMENT | X | | | | | | | | | | 15 | STEEL | 2 | 1912 |
| 056-02 | 6/10/2002 | NE | 8 | 23S | 24E | 501 MAYER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1975 |
| 057-02 | 6/25/2002 | SW | 29 | 23S | 24E | 69 MOHAVE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1954 |
| 058-02 | 7/1/2002 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 059-02 | 7/1/2002 | NW | 9 | 23S | 24E | 201 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 3 | 1941 |
| 060-02 | 7/9/2002 | SE | 29 | 23S | 24E | 342 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL BW | 4 | 1963 |
| 061-02 | 7/16/2002 | SE | 23 | 23S | 24E | 212 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 062-02 | 8/5/2002 | SW | 9 | 23S | 24E | 69 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1945 |
| 063-02 | 8/6/2002 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 064-02 | 8/9/2002 | SW | 9 | 23S | 24E | 1 TEMBY AVENUE #A | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 065-02 | 8/13/2002 | NW | 28 | 23S | 24E | 400 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 1 | | | | 1980 |
| 066-02 | 8/13/2002 | NE | 5 | 24S | 24E | 2189 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 067-02 | 10/9/2002 | NE | 5 | 24S | 24E | 1111 W MCDONALD STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 068-02 | 10/11/2002 | SE | 22 | 23S | 24E | 507 27TH TERRACE | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 069-02 | 10/15/2002 | NW | 8 | 23S | 24E | 5 1/2 MOON CANYON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 2 | 1966 |
| 070-02 | 10/17/2002 | SW | 23 | 23S | 24E | 216 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 071-02 | 10/23/2002 | NE | 5 | 24S | 24E | 2365 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 072-02 | 10/24/2002 | SE | 8 | 23S | 24E | 408 MASON HILL STREET #C | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 073-02 | 10/30/2002 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 074-02 | 10/30/2002 | NW | 23 | 23S | 24E | POWELL STREET & BRIGGS AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 075-02 | 11/1/2002 | NE | 32 | 23S | 24E | 106 LA CHOLLA ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 076-02 | 11/1/2002 | NW | 23 | 23S | 24E | 315 PITTSBURGH AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 077-02 | 11/4/2002 | NW | 28 | 23S | 24E | 106 S TAYLOR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 078-02 | 12/4/2002 | SE | 23 | 23S | 24E | 103 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 079-02 | 12/5/2002 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 080-02 | 12/6/2002 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1955 |
| 081-02 | 12/11/2002 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 082-02 | 12/18/2002 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 001-03 | 1/8/2003 | NW | 29 | 23S | 24E | 1 S COY STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL SWC | 6 | 1964 |
| 002-03 | 1/8/2003 | SE | 23 | 23S | 24E | 212 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 003-03 | 1/10/2003 | NW | 23 | 23S | 24E | 201 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 004-03 | 1/10/2003 | NE | 22 | 23S | 24E | 23 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | |
| 005-03 | 1/17/2003 | SW | 29 | 23S | 24E | 58 GILA DRIVE | | MAIN REPAIR | X | | | | | | | | | | | GS | 3 | 1954 |
| 006-03 | 1/23/2003 | SE | 8 | 23S | 24E | 406 MASON HILL STREET #B | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 007-03 | 1/27/2003 | SW | 9 | 23S | 24E | 69 OK STREET #D | | MAIN REPLACEMENT | X | | | | | | | | | | 21 | STEEL | 2 | 1954 |
| 008-03 | 1/31/2003 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 009-03 | 2/3/2003 | SE | 23 | 23S | 24E | 415 HAZZARD STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3/4 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 010-03 | 2/3/2003 | NE | 8 | 23S | 24E | 39 LAUNDRY HILL #D | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | 1908 |
| 011-03 | 2/10/2003 | NW | 8 | 23S | 24E | 804 MAIN STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 20 | GS | 1 | 1921 |
| 012-03 | 2/18/2003 | SE | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 013-03 | 2/18/2003 | SE | 8 | 23S | 24E | QUARRY CANYON & OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 014-03 | 2/19/2003 | NE | 32 | 23S | 24E | 5 MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 015-03 | 2/20/2003 | SW | 23 | 23S | 24E | 215 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 016-03 | 2/21/2003 | SW | 22 | 23S | 24E | TIN TOWN HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 017-03 | 2/24/2003 | SE | 8 | 23S | 24E | 505 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1975 |
| 018-03 | 2/25/2003 | NW | 29 | 23S | 24E | 1 S COY STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL SWC | 6 | 1964 |
| 019-03 | 2/28/2003 | NE | 8 | 23S | 24E | 17 LAUNDRY HILL #G | | MAIN REPAIR | X | | | | | | | | | | 4 | GS | 1 1/2 | 1908 |
| 020-03 | 2/28/2003 | NW | 9 | 23S | 24E | 200 OPERA DRIVE #C | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1921 |
| 021-03 | 2/28/2003 | NW | 9 | 23S | 24E | 200 OPERA DRIVE #C | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1921 |
| 022-03 | 2/28/2003 | NW | 9 | 23S | 24E | 200 OPERA DRIVE #C | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1921 |
| 023-03 | 3/6/2003 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 024-03 | 3/7/2003 | SE | 8 | 23S | 24E | 183 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 025-03 | 3/14/2003 | NW | 15 | 23S | 24E | HIGHWAY 80 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1975 |
| 026-03 | 3/26/2003 | SE | 8 | 23S | 24E | CURVE STREET & QUARRY CANYON | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 027-03 | 4/1/2003 | SE | 23 | 23S | 24E | 719 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 028-03 | 4/2/2003 | SE | 8 | 23S | 24E | 10 ART AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1912 |
| 029-03 | 4/3/2003 | NW | 22 | 23S | 24E | W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1959 |
| 030-03 | 4/10/2003 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 031-03 | 4/11/2003 | NE | 5 | 24S | 24E | 2226 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 032-03 | 4/11/2003 | SW | 23 | 23S | 24E | 314 MILL ROAD | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1908 |
| 033-03 | 4/26/2003 | SE | 23 | 23S | 24E | 305 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 034-03 | 5/13/2003 | SW | 9 | 23S | 24E | 3 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 035-03 | 5/16/2003 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 036-03 | 5/16/2003 | SE | 8 | 23S | 24E | 406 MASON HILL STREET #B | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 037-03 | 5/19/2003 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 038-03 | 5/20/2003 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 039-03 | 5/20/2003 | NW | 9 | 23S | 24E | 410 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 040-03 | 5/21/2003 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 041-03 | 6/5/2003 | SE | 8 | 23S | 24E | 513 MAIN STREET | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1978 |
| 042-03 | 6/15/2003 | NW | 8 | 23S | 24E | 47 SPRING CANYON #D | | MAIN REPLACEMENT | X | | 16661 | | | | | | | | 60 | PVC | 1 | 1980 |
| 043-03 | 6/16/2003 | SE | 8 | 23S | 24E | 406 MASON HILL STREET #C | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 044-03 | 6/18/2003 | SW | 9 | 23S | 24E | 69 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1945 |
| 045-03 | 6/24/2003 | NE | 23 | 23S | 24E | 613 PAUL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 046-03 | 6/25/2003 | SE | 23 | 23S | 24E | 604 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 047-03 | 6/26/2003 | SW | 23 | 23S | 24E | 14 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 048-03 | 7/17/2003 | SE | 8 | 23S | 24E | 168 QUALITY HILL | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 049-03 | 7/18/2003 | NE | 5 | 24S | 24E | 977 W MCDONALD STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 050-03 | 7/19/2003 | SE | 23 | 23S | 24E | 305 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 051-03 | 8/6/2003 | NW | 23 | 23S | 24E | 629 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 052-03 | 8/7/2003 | SE | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 053-03 | 8/12/2003 | SE | 23 | 23S | 24E | 8 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 054-03 | 8/15/2003 | SE | 23 | 23S | 24E | 203 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 055-03 | 8/18/2003 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 056-03 | 9/5/2003 | NE | 22 | 23S | 24E | 65 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | |
| 057-03 | 9/15/2003 | SW | 9 | 23S | 24E | 1 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 058-03 | 9/17/2003 | SE | 8 | 23S | 24E | 168 QUALITY HILL | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1978 |
| 059-03 | 9/18/2003 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 060-03 | 9/29/2003 | NE | 32 | 23S | 24E | 7 LA CHOLLA ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 061-03 | 9/29/2003 | SW | 23 | 23S | 24E | 215 14TH TERRACE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1917 |
| 062-03 | 9/29/2003 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL #E | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 063-03 | 10/5/2003 | SW | 9 | 23S | 24E | 69 OK STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 74 | CU | 3/4 | 1956 |
| 064-03 | 10/5/2003 | SW | 9 | 23S | 24E | 69 OK STREET #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 065-03 | 10/5/2003 | SW | 9 | 23S | 24E | 75 OK STREET | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 066-03 | 10/6/2003 | NW | 8 | 23S | 24E | 42 SPRING CANYON #C | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 067-03 | 10/8/2003 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 068-03 | 10/8/2003 | SE | 32 | 23S | 24E | BY DELLA STREET REGULATOR | | SERVICE REPAIR | X | | | | | | | | CU | 1 | | | | 1984 |
| 069-03 | 10/8/2003 | SW | 14 | 23S | 24E | 33 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 070-03 | 10/16/2003 | SE | 23 | 23S | 24E | 303 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 071-03 | 10/20/2003 | SE | 23 | 23S | 24E | 719 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 072-03 | 10/21/2003 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 073-03 | 10/27/2003 | SW | 14 | 23S | 24E | 102 B STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1952 |
| 074-03 | 10/27/2003 | SW | 9 | 23S | 24E | 100 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 075-03 | 10/28/2003 | SE | 23 | 23S | 24E | 106 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 076-03 | 10/28/2003 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 077-03 | 10/28/2003 | SE | 23 | 23S | 24E | 409 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 078-03 | 10/29/2003 | NW | 29 | 23S | 24E | 1388 W FRANKLIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 079-03 | 11/3/2003 | SE | 8 | 23S | 24E | 168 QUALITY HILL | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1978 |
| 080-03 | 11/7/2003 | SE | 8 | 23S | 24E | 501 MAYER AVENUE #A | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1978 |
| 081-03 | 11/10/2003 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 082-03 | 11/12/2003 | SW | 5 | 23S | 24E | 54 WOOD CANYON | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1942 |
| 083-03 | 11/16/2003 | SW | 9 | 23S | 24E | MAIN STREET #1 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 084-03 | 11/17/2003 | SE | 23 | 23S | 24E | 500 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 085-03 | 11/18/2003 | SW | 23 | 23S | 24E | 11 PAUL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 086-03 | 11/18/2003 | SE | 15 | 23S | 24E | 125 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1922 |
| 087-03 | 11/18/2003 | SW | 9 | 23S | 24E | 44 HIGH ROAD | | SERVICE REPLACEMENT | X | | | | | | | 1 | CU | 3/4 | | | | 1980 |
| 088-03 | 11/18/2003 | SE | 8 | 23S | 24E | 16 ART AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 26 | STEEL | 1 | 1912 |
| 089-03 | 11/24/2003 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 090-03 | 12/1/2003 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 091-03 | 12/2/2003 | NW | 28 | 23S | 24E | BETWEEN COLLINS ROAD & HIGHWAY 92 | | SERVICE REPLACEMENT | X | | | | | | | | | | | STEEL | 2 | 1950 |
| 092-03 | 12/2/2003 | SE | 8 | 23S | 24E | LAUNDRY HILL STEPS | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 093-03 | 12/2/2003 | NW | 9 | 23S | 24E | 210 YOUNGBLOOD HILL | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1994 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 094-03 | 12/4/2003 | SW | 23 | 23S | 24E | 304 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 095-03 | 12/5/2003 | NW | 8 | 23S | 24E | 5 MOON CANYON AVENUE | | MAIN REPLACEMENT | | | | X | | | | | | | 20 | PVC | 2 | 1966 |
| 096-03 | 12/11/2003 | SE | 8 | 23S | 24E | 109 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | GS | 1 1/2 | | 1942 |
| 097-03 | 12/13/2003 | SE | 15 | 23S | 24E | 22 W. HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 098-03 | 12/20/2003 | SE | 8 | 23S | 24E | 183 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 099-03 | 12/22/2003 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 100-03 | 12/26/2003 | SW | 23 | 23S | 24E | WARREN TANK | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1962 |
| 101-03 | 12/26/2003 | SE | 23 | 23S | 24E | 400 CAMPBELL STREET | | MAIN REPLACEMENT | | | | X | | | | | | | 24/6" DIP | CI | 6 | 1908 |
| 001-04 | 1/9/2004 | SW | 22 | 23S | 24E | 4-G TIN TOWN | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 002-04 | 1/21/2004 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 98 | STEEL | 2 | 1922 |
| 003-04 | 1/22/2004 | SE | 23 | 23S | 24E | 307 PAUL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 004-04 | 1/22/2004 | NE | 22 | 23S | 24E | 20 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 005-04 | 1/27/2004 | SE | 23 | 23S | 24E | 209 VAN DYKE STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1917 |
| 006-04 | 1/27/2004 | SW | 9 | 23S | 24E | 84 SHEARER AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | | STEEL | 2 | 1921 |
| 007-04 | 1/30/2004 | NE | 5 | 24S | 24E | 2168 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1958 |
| 008-04 | 2/2/2004 | NE | 32 | 23S | 24E | 5-A MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 009-04 | 2/2/2004 | NW | 28 | 23S | 24E | 303 N WASHINGTON AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 010-04 | 2/6/2004 | SW | 14 | 23S | 24E | 37 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 011-04 | 2/9/2004 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 012-04 | 2/9/2004 | SE | 23 | 23S | 24E | 100 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 013-04 | 2/9/2004 | NE | 8 | 23S | 24E | 29 LAUNDRY HILL #E | | MAIN REPLACEMENT | X | | | | | | | | | | 10 | GS | 3/4 | 1908 |
| 014-04 | 2/10/2004 | NW | 28 | 23S | 24E | 401 N MCKINLEY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 015-04 | 2/10/2004 | NW | 9 | 23S | 24E | 67 BREWERY AVENUE #A | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1941 |
| 016-04 | 2/11/2004 | SW | 29 | 23S | 24E | 58 GILA DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1954 |
| 017-04 | 2/12/2004 | NE | 5 | 24S | 24E | 2216 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1958 |
| 018-04 | 2/26/2004 | SW | 9 | 23S | 24E | 33 SUBWAY STREET | | SERVICE REPLACEMENT | X | | | | | | | 2 | STEEL | 1 | | | 1 | 1950 |
| 019-04 | 3/1/2004 | SE | 23 | 23S | 24E | 122 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 020-04 | 3/12/2004 | SE | 29 | 23S | 24E | 130 COCHISE DRIVE | | SERVICE REPLACEMENT | | | | | | | | 2 | STEEL | 3/4 | | CU | | 1953 |
| 021-04 | 3/15/2004 | NE | 21 | 23S | 24E | S ACACIA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 022-04 | 3/15/2004 | NE | 21 | 23S | 24E | S ACACIA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 023-04 | 3/24/2004 | SW | 22 | 23S | 24E | TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1976 |
| 024-04 | 3/26/2004 | SE | 23 | 23S | 24E | CONGDON AVENUE & SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 025-04 | 3/29/2004 | NW | 9 | 23S | 24E | 220 OPERA AVENUE #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 20 | STEEL | 1 | 1921 |
| 026-04 | 3/30/2004 | SW | 9 | 23S | 24E | 23 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 027-04 | 4/5/2004 | NE | 28 | 23S | 24E | WEST SIDE TOUREVILLE POUND | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 028-04 | 4/5/2004 | NE | 28 | 23S | 24E | WEST SIDE TOUREVILLE POUND | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 029-04 | 4/5/2004 | SW | 23 | 23S | 24E | 501 CENTER AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 7 | GS | 3/4 | 1908 |
| 030-04 | 4/6/2004 | NE | 23 | 23S | 24E | 611 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 031-04 | 4/7/2004 | SE | 15 | 23S | 24E | 65 ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1935 |
| 032-04 | 4/12/2004 | NW | 23 | 23S | 24E | 633 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 033-04 | 4/12/2004 | SE | 23 | 23S | 24E | 207 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 034-04 | 4/13/2004 | NW | 9 | 23S | 24E | 56 ZACATECAS CANYON | | MAIN REPLACEMENT | | | X | X | | | | | | | 42 | STEEL | 1 | 1965 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035-04 | 4/16/2004 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 036-04 | 4/27/2004 | SW | 9 | 23S | 24E | 37-E HIGH ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 037-04 | 5/3/2004 | NW | 28 | 23S | 24E | 106 S TAYLOR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 038-04 | 5/4/2004 | SE | 23 | 23S | 24E | 214 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 039-04 | 5/11/2004 | SE | 23 | 23S | 24E | 600 HOATSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 040-04 | 5/17/2004 | SW | 9 | 23S | 24E | 29 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1908 |
| 041-04 | 5/18/2004 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 042-04 | 5/27/2004 | NW | 8 | 23S | 24E | 818 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | STEEL | 2 | 1921 |
| 043-04 | 6/7/2004 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 044-04 | 6/16/2004 | SW | 9 | 23S | 24E | 41 OK STREET #A | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 045-04 | 6/23/2004 | NW | 9 | 23S | 24E | 473 N DART ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 046-04 | 6/24/2004 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 047-04 | 6/24/2004 | SE | 8 | 23S | 24E | 168 QUALITY HILL | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1975 |
| 048-04 | 6/25/2004 | SE | 22 | 23S | 24E | 405 30TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1973 |
| 049-04 | 6/28/2004 | SW | 28 | 23S | 24E | 125 CAMINO REAL | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | CU | | 1908 |
| 050-04 | 7/6/2004 | SE | 8 | 23S | 24E | 224 MAIN STREET #A | | SERVICE REPAIR | X | | | | | | | | | | 2 | GS | 1/2 | |
| 051-04 | 7/7/2004 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 052-04 | 7/14/2004 | SE | 14 | 23S | 24E | 406 M STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 053-04 | 7/15/2004 | SE | 8 | 23S | 24E | 201 MAIN STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 44 | GS | 1 | 1939 |
| 054-04 | 7/16/2004 | NE | 5 | 24S | 24E | 2254 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 055-04 | 7/18/2004 | SW | 9 | 23S | 24E | 15 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 056-04 | 7/19/2004 | NW | 8 | 23S | 24E | 639 MAIN STREET #A | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1921 |
| 057-04 | 7/26/2004 | NE | 5 | 24S | 24E | 2254 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 058-04 | 7/26/2004 | NE | 32 | 23S | 24E | 111 NIGHTHAWK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1954 |
| 059-04 | 7/28/2004 | NE | 15 | 23S | 24E | 12 N SYDNEY STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 060-04 | 7/28/2004 | NW | 8 | 23S | 24E | 51 SPRING CANYON | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 061-04 | 7/28/2004 | SE | 8 | 23S | 24E | 117 HIGGINS HILL | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | | | |
| 062-04 | 7/28/2004 | SW | 9 | 23S | 24E | 101 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1912 |
| 063-04 | 7/28/2004 | SE | 8 | 23S | 24E | 414 MASON HILL STREET #B | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1908 |
| 064-04 | 8/2/2004 | NE | 32 | 23S | 24E | 123 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1925 |
| 065-04 | 8/2/2004 | NE | 23 | 23S | 24E | 628 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 066-04 | 8/3/2004 | NW | 8 | 23S | 24E | 108 STAR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | 1918 |
| 067-04 | 8/4/2004 | SW | 29 | 23S | 24E | 102 GREENLEE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 068-04 | 8/10/2004 | NE | 32 | 23S | 24E | 111 NIGHTHAWK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1954 |
| 069-04 | 8/19/2004 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 070-04 | 8/26/2004 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 071-04 | 8/30/2004 | NE | 21 | 23S | 24E | 460 S BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 072-04 | 8/30/2004 | NE | 8 | 23S | 24E | 509 BAILEY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 073-04 | 8/31/2004 | SW | 5 | 23S | 24E | 16 WOOD CANYON | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1942 |
| 074-04 | 9/1/2004 | NE | 5 | 24S | 24E | MARIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1956 |
| 075-04 | 9/1/2004 | SE | 8 | 23S | 24E | 224 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 076-04 | 9/3/2004 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 077-04 | 9/7/2004 | NW | 22 | 23S | 24E | 16 AZURITE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1952 |
| 078-04 | 9/7/2004 | SE | 29 | 23S | 24E | 412 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL BW | 4 | 1963 |
| 079-04 | 9/8/2004 | NE | 22 | 23S | 24E | 14 STRONG ROW | | SERVICE REPLACEMENT | X | | | | | | | 1 | GS | 3/4 | | | | |
| 080-04 | 9/8/2004 | NW | 8 | 23S | 24E | 51 SPRING CANYON #A | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 081-04 | 9/15/2004 | SW | 9 | 23S | 24E | 11 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 082-04 | 9/20/2004 | SW | 9 | 23S | 24E | 1 TEMBY AVENUE #A | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 083-04 | 9/21/2004 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 084-04 | 9/22/2004 | NE | 8 | 23S | 24E | 11 LAUNDRY HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1908 |
| 085-04 | 9/24/2004 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 086-04 | 9/28/2004 | NW | 9 | 23S | 24E | 203 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 087-04 | 9/30/2004 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1980 |
| 088-04 | 10/2/2004 | NE | 7 | 23S | 24E | 1642 W BOULEVARD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 089-04 | 10/4/2004 | NW | 23 | 23S | 24E | 315 PITTSBURGH AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 090-04 | 10/6/2004 | SE | 8 | 23S | 24E | 224 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 091-04 | 10/8/2004 | NE | 21 | 23S | 24E | 446 W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 092-04 | 10/15/2004 | NE | 5 | 24S | 24E | 2175 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 093-04 | 10/15/2004 | SW | 23 | 23S | 24E | 118 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 094-04 | 10/18/2004 | SE | 23 | 23S | 24E | 204 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 095-04 | 10/21/2004 | SE | 23 | 23S | 24E | 212 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 096-04 | 10/26/2004 | NW | 28 | 23S | 24E | EADS DON LUIS | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1966 |
| 097-04 | 10/27/2004 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 098-04 | 10/27/2004 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 099-04 | 10/27/2004 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 100-04 | 10/27/2004 | SW | 23 | 23S | 24E | 219 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 101-04 | 11/1/2004 | SE | 8 | 23S | 24E | 224 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 104 | PVC | 1 | 1975 |
| 102-04 | 11/9/2004 | NE | 21 | 23S | 24E | 446 W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 103-04 | 11/9/2004 | NE | 8 | 23S | 24E | 513 BAILEY HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 104-04 | 11/10/2004 | SW | 23 | 23S | 24E | 307 W VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 105-04 | 11/12/2004 | SW | 9 | 23S | 24E | 25 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 106-04 | 11/16/2004 | NE | 21 | 23S | 24E | 5 BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 107-04 | 11/16/2004 | NE | 5 | 24S | 24E | 1168 W GRANADA LANE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1970 |
| 108-04 | 11/16/2004 | SE | 23 | 23S | 24E | 204 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 109-04 | 11/17/2004 | SE | 23 | 23S | 24E | 105 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 110-04 | 11/17/2004 | SE | 14 | 23S | 24E | 416 N STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 111-04 | 11/18/2004 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 112-04 | 11/19/2004 | NE | 32 | 23S | 24E | 5-A MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 113-04 | 11/22/2004 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 114-04 | 11/22/2004 | SW | 22 | 23S | 24E | 400 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1976 |
| 115-04 | 11/22/2004 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 116-04 | 11/29/2004 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 117-04 | 11/29/2004 | SE | 8 | 23S | 24E | 408 MASON HILL STREET #C | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 118-04 | 11/30/2004 | SW | 22 | 23S | 24E | TIN TOWN HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1906 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 119-04 | 12/1/2004 | SW | 23 | 23S | 24E | 302 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 120-04 | 12/2/2004 | NE | 7 | 23S | 24E | 944 SIMMS ROAD | | MAIN REPAIR | X | | | | | | | | | | GS | 1 | | 1942 |
| 121-04 | 12/2/2004 | NW | 22 | 23S | 24E | 112 AZURITE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1952 |
| 122-04 | 12/8/2004 | NW | 9 | 23S | 24E | 324 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 123-04 | 12/10/2004 | NE | 8 | 23S | 24E | 517 BAILEY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 124-04 | 12/12/2004 | SW | 23 | 23S | 24E | 307 ARIZONA STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1908 |
| 125-04 | 12/13/2004 | NE | 8 | 23S | 24E | 17 LAUNDRY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 126-04 | 12/13/2004 | SE | 8 | 23S | 24E | 151 QUARRY CANYON | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1956 |
| 127-04 | 12/13/2004 | NE | 8 | 23S | 24E | 517 BAILEY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 128-04 | 12/15/2004 | NE | 29 | 23S | 24E | 2010 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | PVC | 2 | 1998 |
| 129-04 | 12/17/2004 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 130-04 | 12/17/2004 | SE | 29 | 23S | 24E | 104 NAVAJO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 131-04 | 12/20/2004 | NW | 8 | 23S | 24E | 836 SIMMS ROAD | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1942 |
| 001-05 | 1/3/2005 | NW | 9 | 23S | 24E | 200 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 002-05 | 1/4/2005 | SE | 23 | 23S | 24E | 319 HAZZARD STREET | | MAIN REPAIR | | | | | | | | | | | | STEEL | 3/4 | 1908 |
| 003-05 | 1/5/2005 | SE | 23 | 23S | 24E | 409 HAZZARD STREET | | SERVICE REPAIR | | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 004-05 | 1/6/2005 | NE | 29 | 23S | 24E | 851 W HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1912 |
| 005-05 | 1/11/2005 | SE | 23 | 23S | 24E | 12 MOHAVE TRAIL | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 1/2 | | | | 1908 |
| 006-05 | 1/12/2005 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 007-05 | 1/14/2005 | SE | 15 | 23S | 24E | 22 W HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 008-05 | 1/17/2005 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 009-05 | 1/19/2005 | NW | 9 | 23S | 24E | 250 BREWERY AVENUE #C | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | STEEL | 2 | 1912 |
| 010-05 | 1/20/2005 | SE | 23 | 23S | 24E | 203 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 011-05 | 1/20/2005 | NW | 9 | 23S | 24E | 250 BREWERY AVENUE #C | | MAIN REPLACEMENT | X | | | | | | | | | | 20 | STEEL | 2 | 1912 |
| 012-05 | 1/21/2005 | NW | 8 | 23S | 24E | 735 MAIN STREET #B | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1921 |
| 013-05 | 1/24/2005 | SW | 9 | 23S | 24E | 3 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 014-05 | 1/25/2005 | SE | 15 | 23S | 24E | 22 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1953 |
| 015-05 | 1/28/2005 | NW | 8 | 23S | 24E | 732 GENTRY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1921 |
| 016-05 | 1/28/2005 | NW | 8 | 23S | 24E | 740 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 2 | STEEL | 1 1/4 | 1921 |
| 017-05 | 1/31/2005 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 018-05 | 1/31/2005 | SE | 23 | 23S | 24E | 202 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 019-05 | 1/31/2005 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 020-05 | 1/31/2005 | SE | 23 | 23S | 24E | 510 POWELL STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 021-05 | 2/1/2005 | SW | 23 | 23S | 24E | 323 16TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1954 |
| 022-05 | 2/1/2005 | SE | 23 | 23S | 24E | 114 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 023-05 | 2/2/2005 | SE | 23 | 23S | 24E | 308 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 024-05 | 2/2/2005 | SE | 23 | 23S | 24E | 408 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 025-05 | 2/5/2005 | SE | 23 | 23S | 24E | 703 SHATTUCK STREET | | SERVICE REPAIR | | | | | | | | | GS | 1 | | | | 1908 |
| 026-05 | 2/8/2005 | SW | 23 | 23S | 24E | 209 MILL ROAD | | MAIN REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 027-05 | 2/10/2005 | NW | 28 | 23S | 24E | 413 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | S | 3/4 | | | | 1980 |
| 028-05 | 2/22/2005 | SW | 14 | 23S | 24E | 33 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 029-05 | 2/22/2005 | SW | 23 | 23S | 24E | 89 COCHISE ROW | | SERVICE REPLACEMENT | X | | | | | | | | CU | 3/4 | | | | |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 030-05 | 2/23/2005 | SE | 8 | 23S | 24E | 435 MAYOR AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 22 | STEEL | 2 | 1922 |
| 031-05 | 2/23/2005 | SE | 8 | 23S | 24E | 435 MAYOR AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | | 1922 |
| 032-05 | 2/23/2005 | SE | 8 | 23S | 24E | 433 GARDEN AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 24 | STEEL | 2 | 1956 |
| 033-05 | 2/24/2005 | SE | 8 | 23S | 24E | 201 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | |
| 034-05 | 2/25/2005 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 035-05 | 3/1/2005 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 036-05 | 3/4/2005 | SE | 29 | 23S | 24E | 104 NAVAJO DRIVE | | MAIN REPAIR | | | | | | | | | | | | STEEL | 4 | 1957 |
| 037-05 | 3/7/2005 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 038-05 | 3/8/2005 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 039-05 | 3/8/2005 | SE | 23 | 23S | 24E | 18 YUMA TRAIL | | SERVICE REPAIR | X | | | | | | | | STEEL | 1 | | | | 1908 |
| 040-05 | 3/9/2005 | SW | 29 | 23S | 24E | 108 GREENLEE DRIVE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 041-05 | 3/16/2005 | NE | 15 | 23S | 24E | 12 N SYDNEY STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 042-05 | 3/18/2005 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 043-05 | 3/24/2005 | NW | 8 | 23S | 24E | 825 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | |
| 044-05 | 3/25/2005 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 045-05 | 3/28/2005 | SE | 23 | 23S | 24E | 20 YUMA TRAIL | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1908 |
| 046-05 | 4/8/2005 | SE | 23 | 23S | 24E | 20 YUMA TRAIL | | SERVICE REPAIR | X | | | | | | | | CU | 1 | | | | |
| 047-05 | 4/11/2005 | SE | 23 | 23S | 24E | 206 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 048-05 | 4/12/2005 | SE | 15 | 23S | 24E | 16 ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1935 |
| 049-05 | 4/13/2005 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1980 |
| 050-05 | 4/15/2005 | NE | 23 | 23S | 24E | 608 POWELL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 051-05 | 4/21/2005 | SW | 23 | 23S | 24E | 211 W VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 052-05 | 4/21/2005 | SE | 8 | 23S | 24E | 142 MAIN STREET | | SERVICE REPLACEMENT | | | | | | | | | PVC | 3/4 | | | | 1978 |
| 053-05 | 4/29/2005 | SE | 8 | 23S | 24E | 240 OHARA AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 28 | STEEL | 2 | 1941 |
| 054-05 | 5/5/2005 | SW | 23 | 23S | 24E | 317 16TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1917 |
| 055-05 | 5/5/2005 | SW | 23 | 23S | 24E | 11 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | 1908 |
| 056-05 | 5/10/2005 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 057-05 | 5/10/2005 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 058-05 | 5/11/2005 | NW | 9 | 23S | 24E | 218 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1941 |
| 059-05 | 5/14/2005 | SE | 23 | 23S | 24E | 207 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 060-05 | 5/15/2005 | SE | 23 | 23S | 24E | 312 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 061-05 | 5/17/2005 | SW | 9 | 23S | 24E | 25 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | CU | 3/4 | 1908 |
| 062-05 | 5/17/2005 | SE | 8 | 23S | 24E | 401 GARDEN AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 18 | STEEL | 2 | 1912 |
| 063-05 | 5/18/2005 | NW | 28 | 23S | 24E | 410 N MCKINLEY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 064-05 | 5/18/2005 | SE | 23 | 23S | 24E | 400 SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 065-05 | 5/23/2005 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 066-05 | 5/24/2005 | SW | 9 | 23S | 24E | 42 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1912 |
| 067-05 | 5/24/2005 | NW | 9 | 23S | 24E | 42 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1912 |
| 068-05 | 5/25/2005 | SW | 23 | 23S | 24E | 408 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 069-05 | 5/26/2005 | SW | 22 | 23S | 24E | 607 CARBAJAL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 070-05 | 5/26/2005 | SE | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 071-05 | 5/26/2005 | SE | 8 | 23S | 24E | 98 QUALITY HILL #B | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1958 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 072-05 | 5/26/2005 | SE | 8 | 23S | 24E | 98 QUALITY HILL #B | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1958 |
| 073-05 | 5/27/2005 | SW | 23 | 23S | 24E | 317 MILL ROAD | | MAIN REPLACEMENT | | | 16730 | X | | | | | | | 33 | DIP | 4 | 1908 |
| 074-05 | 6/1/2005 | NW | 8 | 23S | 24E | 819 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 075-05 | 6/3/2005 | SW | 9 | 23S | 24E | 109 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 40 | CA | 6 | 1980 |
| 076-05 | 6/15/2005 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 077-05 | 6/15/2005 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 078-05 | 6/20/2005 | SW | 23 | 23S | 24E | 207 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | 1908 |
| 079-05 | 6/21/2005 | NE | 21 | 23S | 24E | 446 W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 080-05 | 6/21/2005 | NW | 8 | 23S | 24E | 51 SPRING CANYON | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 081-05 | 6/22/2005 | SE | 8 | 23S | 24E | 13 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1939 |
| 082-05 | 6/24/2005 | SE | 23 | 23S | 24E | 324 BLACK KNOB VIEW | | MAIN REPLACEMENT | X | | 16729 | | | | | | | | 30 | PVC | 1 | 1908 |
| 083-05 | 6/29/2005 | NE | 5 | 24S | 24E | 2218 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 084-05 | 7/19/2005 | SE | 23 | 23S | 24E | 416 HAZZARD STREET | | MAIN REPAIR | | | 16729 | X | | | | | | | 80 | STEEL | 3/4 | 1908 |
| 085-05 | 8/8/2005 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 086-05 | 8/16/2005 | SE | 23 | 23S | 24E | 210 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 087-05 | 8/22/2005 | NE | 5 | 24S | 24E | 2312 ED STREET | | SERVICE REPAIR | X | | | | | | | | CU | 1 | | | | 1905 |
| 088-05 | 8/22/2005 | SE | 23 | 23S | 24E | 308 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 089-05 | 8/23/2005 | SW | 9 | 23S | 24E | HIGHWAY 80 (LAVENDER PIT) | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1968 |
| 090-05 | 8/29/2005 | SE | 23 | 23S | 24E | 705 SHATTUCK STREET | | SERVICE REPAIR | | | | | | | | | GS | 1 | | | | 1908 |
| 091-05 | 8/29/2005 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 092-05 | 9/22/2005 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL | | MAIN REPAIR | X | | | | | | | | | | 4 | STEEL | 2 | 1908 |
| 093-05 | 9/26/2005 | NW | 9 | 23S | 24E | 203 YOUNGBLOOD HILL #C | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1978 |
| 094-05 | 9/29/2005 | SW | 14 | 23S | 24E | 33 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 095-05 | 10/2/2005 | SW | 29 | 23S | 24E | 108 GREENLEE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 096-05 | 10/6/2005 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 097-05 | 10/6/2005 | NW | 8 | 23S | 24E | 51 SPRING CANYON #A | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 098-05 | 10/6/2005 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 099-05 | 10/6/2005 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 100-05 | 10/6/2005 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 101-05 | 10/11/2005 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 102-05 | 10/31/2005 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 103-05 | 11/4/2005 | NE | 8 | 23S | 24E | 17 LAUNDRY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 104-05 | 11/29/2005 | NW | 8 | 23S | 24E | 707 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 53 | STEEL | 1 1/2 | 1918 |
| 105-05 | 12/6/2005 | SW | 14 | 23S | 24E | 422 M STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 125 | GS | 3 | 1952 |
| 106-05 | 12/7/2005 | SW | 14 | 23S | 24E | 216 A STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 49 | GS | 1 1/2 | 1952 |
| 107-05 | 12/9/2005 | SE | 23 | 23S | 24E | 220 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1908 |
| 108-05 | 12/14/2005 | SE | 8 | 23S | 24E | 110 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | GS | 2 | | 1942 |
| 109-05 | 12/20/2005 | SE | 23 | 23S | 24E | 204 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 110-05 | 12/20/2005 | SE | 23 | 23S | 24E | 114 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 111-05 | 12/20/2005 | SW | 23 | 23S | 24E | 302 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 112-05 | 12/20/2005 | SE | 23 | 23S | 24E | 312 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 113-05 | 12/24/2005 | SE | 29 | 23S | 24E | 103 COCONINO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001-06 | 1/6/2006 | SW | 22 | 23S | 24E | 305 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1936 |
| 002-06 | 1/8/2006 | SW | 9 | 23S | 24E | 15 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 003-06 | 1/23/2006 | NW | 8 | 23S | 24E | 45 SPRING CANYON #A | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 004-06 | 1/30/2006 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 005-06 | 2/22/2006 | NE | 22 | 23S | 24E | 40 DALLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 006-06 | 2/22/2006 | SW | 9 | 23S | 24E | 6 MAXFIELD AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1942 |
| 007-06 | 2/23/2006 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 008-06 | 3/1/2006 | NE | 21 | 23S | 24E | 446 W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 009-06 | 3/9/2006 | NE | 22 | 23S | 24E | 201 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1922 |
| 010-06 | 3/13/2006 | SE | 23 | 23S | 24E | 203 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 011-06 | 3/14/2006 | NW | 8 | 23S | 24E | 724 MAIN STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 12 | GS | 3/4 | 1912 |
| 012-06 | 4/3/2006 | SW | 9 | 23S | 24E | 112 WALSH AVENUE #B | | MAIN REPLACEMENT | X | | X | X | | | | | | | 63 | PVC | 3/4 | 1980 |
| 013-06 | 4/4/2006 | NW | 8 | 23S | 24E | 51 SPRING CANYON #A | | MAIN REPLACEMENT | X | | 19104 | | | | | | | | 133 | PVC | 1 | 1980 |
| 014-06 | 4/7/2006 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 015-06 | 4/10/2006 | NW | 28 | 23S | 24E | 410 N MCKINLEY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 016-06 | 4/23/2006 | SE | 23 | 23S | 24E | 208 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 017-06 | 4/24/2006 | NE | 8 | 23S | 24E | 501 MAYER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1908 |
| 018-06 | 4/25/2006 | SW | 14 | 23S | 24E | 104 C STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1952 |
| 019-06 | 5/3/2006 | NW | 9 | 23S | 24E | 210-C MILLER HILL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/4 | 1921 |
| 020-06 | 5/5/2006 | NE | 21 | 23S | 24E | 430 S BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 021-06 | 5/5/2006 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 022-06 | 5/10/2006 | SE | 23 | 23S | 24E | 101 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 023-06 | 5/11/2006 | SW | 23 | 23S | 24E | 409 HOVLAND STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1908 |
| 024-06 | 5/12/2006 | NE | 5 | 24S | 24E | 2320 S BOWERS STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | STEEL | | 1980 |
| 025-06 | 5/12/2006 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 026-06 | 5/19/2006 | NW | 28 | 23S | 24E | 411 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 027-06 | 5/23/2006 | NW | 29 | 23S | 24E | 1 S COY STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL SWC | 6 | 1964 |
| 028-06 | 5/24/2006 | SE | 23 | 23S | 24E | 102 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 029-06 | 5/24/2006 | SE | 23 | 23S | 24E | 102 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 030-06 | 5/24/2006 | SE | 23 | 23S | 24E | 102 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 031-06 | 5/30/2006 | NE | 5 | 24S | 24E | 980 W MCDONALD STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 032-06 | 5/30/2006 | SE | 23 | 23S | 24E | 309 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 033-06 | 6/4/2006 | NE | 5 | 24S | 24E | 2226 S BOWERS STREET | | MAIN REPAIR | | | | | X | | | | | | | STEEL | 4 | 1958 |
| 034-06 | 6/8/2006 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | | | | | X | | | | | | | GS | 2 | 1958 |
| 035-06 | 6/16/2006 | SW | 9 | 23S | 24E | 1 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 3/4 | 1975 |
| 036-06 | 6/18/2006 | NE | 5 | 24S | 24E | 2074 S BOWERS STREET | | MAIN REPAIR | | | | | X | | | | | | | STEEL | 4 | 1958 |
| 037-06 | 7/6/2006 | NW | 9 | 23S | 24E | 234 OPERA AVENUE #C | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1921 |
| 038-06 | 7/10/2006 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 039-06 | 7/11/2006 | SE | 23 | 23S | 24E | 711 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 040-06 | 7/12/2006 | SE | 29 | 23S | 24E | 101 NAVAJO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 041-06 | 7/13/2006 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 042-06 | 7/17/2006 | SW | 23 | 23S | 24E | BLACK KNOB VIEW & ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 043-06 | 7/28/2006 | SE | 23 | 23S | 24E | 421 BLACK KNOB VIEW | | MAIN REPLACEMENT | X | | 19118 | | | | | | | | 8 | GS | 1 | 1908 |
| 044-06 | 8/1/2006 | NE | 23 | 23S | 24E | 711 COLE AVENUE | | MAIN REPLACEMENT | | | 19119 | X | | | | | | | 32 | STEEL | 8 | 1908 |
| 045-06 | 8/4/2006 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 046-06 | 8/6/2006 | SW | 9 | 23S | 24E | 19 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 047-06 | 8/9/2006 | SE | 23 | 23S | 24E | 409 BLACK KNOB VIEW | | MAIN REPLACEMENT | X | | 19122 | | | | | | | | 5 | STEEL | 6 | 1908 |
| 048-06 | 8/13/2006 | SW | 9 | 23S | 24E | 48 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 049-06 | 8/17/2006 | SW | 23 | 23S | 24E | 208 CENTER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | CU | 1 | |
| 050-06 | 8/23/2006 | NW | 28 | 23S | 24E | 103 N TAYLOR AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | CU | 3/4 | | CU | | |
| 051-06 | 8/23/2006 | SE | 23 | 23S | 24E | 204 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 052-06 | 9/14/2006 | SW | 9 | 23S | 24E | 53 OK STREET #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 053-06 | 9/14/2006 | SW | 9 | 23S | 24E | 53 OK STREET #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 054-06 | 9/15/2006 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 055-06 | 9/15/2006 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 056-06 | 9/15/2006 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 057-06 | 9/15/2006 | NW | 23 | 23S | 24E | 608 HOVLAND STREET | | SERVICE REPLACEMENT | | | 19127 | X | | | | 1 | STEEL | 3/4 | | | | 1908 |
| 058-06 | 9/22/2006 | SE | 23 | 23S | 24E | 202 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 059-06 | 9/22/2006 | SE | 23 | 23S | 24E | 309 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 060-06 | 9/27/2006 | SE | 23 | 23S | 24E | 318 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 061-06 | 10/2/2006 | SE | 23 | 23S | 24E | 119 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 062-06 | 10/3/2006 | SE | 23 | 23S | 24E | 204 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 063-06 | 10/5/2006 | NE | 32 | 23S | 24E | 5 LA CHOLLA ROAD | | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | | | 1906 |
| 064-06 | 10/6/2006 | SW | 9 | 23S | 24E | 61 TEMBY AVENUE #B | | MAIN REPLACEMENT | | | | X | | | | | | | 40 | PVC | 1 | 1975 |
| 065-06 | 10/10/2006 | SW | 9 | 23S | 24E | 17 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1976 |
| 066-06 | 10/10/2006 | SW | 9 | 23S | 24E | 51 TEMBY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1921 |
| 067-06 | 10/12/2006 | SE | 23 | 23S | 24E | 204 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 068-06 | 10/13/2006 | SW | 9 | 23S | 24E | 118 WALSH AVENUE #D | | MAIN REPLACEMENT | X | | | | | | | | | | 16 | PVC | 1 | 1980 |
| 069-06 | 10/19/2006 | SW | 9 | 23S | 24E | 17 TEMBY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1921 |
| 070-06 | 10/26/2006 | SW | 9 | 23S | 24E | 473 N DART ROAD | | SERVICE REPLACEMENT | | | 19135 | X | | | | 1 | STEEL | 1 | | | | 1908 |
| 071-06 | 10/31/2006 | NW | 9 | 23S | 24E | 5 - 56 ZACATECAS CANYON | | MAIN REPLACEMENT | | | X | X | | | | | | | 60 | STEEL | 1 | 1991 |
| 072-06 | 11/16/2006 | NE | 28 | 23S | 24E | WEST SIDE TOUREVILLE POUND | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 073-06 | 11/28/2006 | NE | 5 | 24S | 24E | 2159 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 074-06 | 12/15/2006 | SW | 22 | 23S | 24E | 31-B CARBAJAL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 075-06 | 12/21/2006 | SE | 8 | 23S | 24E | 17 LAUNDRY HILL #E | | MAIN REPLACEMENT | X | | | | | | | | | | 3 | GS | 2 | 1908 |
| 076-06 | 12/27/2006 | SW | 9 | 23S | 24E | 25 CLAWSON AVENUE | | MAIN REPLACEMENT | | | | X | | | | | | | 20 | CU | 1 | 1980 |
| 077-06 | 12/28/2006 | NW | 9 | 23S | 24E | 200 OPERA DRIVE #F | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1921 |
| 001-07 | 1/5/2007 | NW | 8 | 23S | 24E | 600 WARREN HILL #B | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | |
| 002-07 | 1/8/2007 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 003-07 | 1/15/2007 | SW | 22 | 23S | 24E | ARVIZO STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1938 |
| 004-07 | 1/16/2007 | SW | 9 | 23S | 24E | 12 MAXFIELD AVENUE | | MAIN REPLACEMENT | | | 19158 | X | | | | | | | | STEEL | 2 | 1942 |
| 005-07 | 1/17/2007 | NW | 9 | 23S | 24E | 200 OPERA DRIVE #F | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1921 |
| 006-07 | 1/17/2007 | NW | 8 | 23S | 24E | 822 MAIN STREET #C | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 007-07 | 1/18/2007 | NW | 28 | 23S | 24E | 311 N WASHINGTON AVENUE | | MAIN REPAIR | | | 19175 | X | | | | | | | | CU | 3/4 | 1907 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 008-07 | 1/31/2007 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 009-07 | 2/1/2007 | NE | 23 | 23S | 24E | 400 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 010-07 | 2/5/2007 | SW | 23 | 23S | 24E | 307 W VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 011-07 | 2/21/2007 | SE | 23 | 23S | 24E | 103 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 012-07 | 2/27/2007 | SW | 9 | 23S | 24E | 13 MAXFIELD AVENUE | | SERVICE REPAIR | X | | | | | | | | | | | GS | 2 | 1942 |
| 013-07 | 2/27/2007 | NW | 9 | 23S | 24E | 253 BREWERY AVENUE #B | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1941 |
| 014-07 | 2/28/2007 | NW | 28 | 23S | 24E | 107 S TAYLOR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 015-07 | 3/4/2007 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 016-07 | 3/8/2007 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 017-07 | 3/9/2007 | SE | 23 | 23S | 24E | 112 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 018-07 | 3/12/2007 | NE | 28 | 23S | 24E | WEST SIDE TOUREVILLE POUND | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 019-07 | 3/12/2007 | NE | 23 | 23S | 24E | 603 POWELL STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1954 |
| 020-07 | 3/12/2007 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 021-07 | 3/13/2007 | NE | 32 | 23S | 24E | 6 MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 022-07 | 3/16/2007 | SE | 23 | 23S | 24E | 212 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 023-07 | 3/19/2007 | SE | 14 | 23S | 24E | 34 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 024-07 | 3/26/2007 | SW | 23 | 23S | 24E | 208 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 025-07 | 3/26/2007 | SW | 23 | 23S | 24E | 100 RUPPE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1908 |
| 026-07 | 3/28/2007 | SW | 9 | 23S | 24E | 13 MAXFIELD AVENUE | | SERVICE REPLACEMENT | X | | 19154 | X | | | | 1 | STEEL | 3/4 | | STEEL | 2 | 1942 |
| 027-07 | 4/4/2007 | SW | 9 | 23S | 24E | 1 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1976 |
| 028-07 | 4/13/2007 | SW | 9 | 23S | 24E | 108 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 40 | STEEL | 1/2 | 1942 |
| 029-07 | 4/16/2007 | NE | 32 | 23S | 24E | 103 OCOTILLO STREET | | SERVICE REPLACEMENT | X | | | | | | | 1 | CU | 3/4 | | | | 1907 |
| 030-07 | 4/24/2007 | NE | 22 | 23S | 24E | 33 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 031-07 | 4/25/2007 | SE | 23 | 23S | 24E | 8 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 032-07 | 4/25/2007 | NW | 23 | 23S | 24E | GREENWAY SCHOOL | | SERVICE REPAIR | X | | | | | | | | | | | STEEL | 4 | 1912 |
| 033-07 | 5/2/2007 | SE | 15 | 23S | 24E | 1 ERIE STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 42 | STEEL | 6 | 1955 |
| 034-07 | 5/11/2007 | SE | 23 | 23S | 24E | 117 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 035-07 | 5/11/2007 | SE | 23 | 23S | 24E | 117 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 036-07 | 5/15/2007 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 037-07 | 5/15/2007 | SE | 23 | 23S | 24E | 115 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 038-07 | 5/24/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 039-07 | 5/25/2007 | SW | 9 | 23S | 24E | 23 TEMBY AVENUE #C | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1962 |
| 040-07 | 5/25/2007 | SW | 9 | 23S | 24E | 23 TEMBY AVENUE #C | | MAIN REPLACEMENT | | | | X | | | | | | | 25 | GS | 1 | 1921 |
| 041-07 | 6/6/2007 | SE | 29 | 23S | 24E | 321 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL BW | 4 | 1963 |
| 042-07 | 6/6/2007 | SW | 9 | 23S | 24E | 1 TEMBY AVENUE | | MAIN REPLACEMENT | | | | X | | | | | | | 85 | PVC | 3/4 | 1975 |
| 043-07 | 6/8/2007 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 044-07 | 6/11/2007 | NW | 8 | 23S | 24E | 822 MAIN STREET #C | | MAIN REPLACEMENT | | | X | X | | | | | | | 14 | CU | 3/4 | 1990 |
| 045-07 | 6/12/2007 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 046-07 | 6/12/2007 | SE | 23 | 23S | 24E | 206 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 047-07 | 6/20/2007 | SE | 23 | 23S | 24E | 210 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 048-07 | 7/2/2007 | SW | 23 | 23S | 24E | 312 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 049-07 | 7/5/2007 | SE | 8 | 23S | 24E | 12 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1939 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 050-07 | 7/5/2007 | NW | 9 | 23S | 24E | 10 ZACATECAS CANYON | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 051-07 | 7/31/2007 | NW | 23 | 23S | 24E | 600 POWELL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 052-07 | 8/2/2007 | SE | 23 | 23S | 24E | 318 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 053-07 | 8/7/2007 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 054-07 | 8/13/2007 | SE | 23 | 23S | 24E | 205 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 055-07 | 8/14/2007 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 056-07 | 8/15/2007 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 057-07 | 8/16/2007 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 241 | PVC | 1 | 1980 |
| 058-07 | 8/20/2007 | SW | 9 | 23S | 24E | 15 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 059-07 | 8/21/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 060-07 | 8/28/2007 | NE | 5 | 24S | 24E | 2273 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | SW | 4 | 1958 |
| 061-07 | 8/28/2007 | NE | 22 | 23S | 24E | 17 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 062-07 | 9/4/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 063-07 | 9/6/2007 | NE | 8 | 23S | 24E | 507D BAILEY HILL | | MAIN REPLACEMENT | | X | | X | | | | 1 | | | 21 | STEEL | 2 | 1908 |
| 064-07 | 9/7/2007 | NW | 8 | 23S | 24E | 42 SPRING CANYON #D | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 065-07 | 9/7/2007 | NW | 9 | 23S | 24E | 141 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1941 |
| 066-07 | 9/13/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 067-07 | 9/16/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 068-07 | 9/24/2007 | SW | 9 | 23S | 24E | 11 OK STREET #B | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 1/2 | | | | 1969 |
| 069-07 | 9/26/2007 | NW | 8 | 23S | 24E | 42 SPRING CANYON #D | | MAIN REPLACEMENT | X | | 16783 | | | | | | | | 100 | PVC | 1 | 1980 |
| 070-07 | 9/27/2007 | NW | 29 | 23S | 24E | 1489 W FRANKLIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 071-07 | 9/28/2007 | NE | 23 | 23S | 24E | 628 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | | 1908 |
| 072-07 | 9/28/2007 | SE | 23 | 23S | 24E | 601 BRIGGS AVENUE | | SERVICE REPLACEMENT | X | | | X | | | | 1 | GS | 3/4 | 20/1" CU | GS | 3/4 | 1908 |
| 073-07 | 10/6/2007 | SE | 23 | 23S | 24E | 116 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 074-07 | 10/18/2007 | NW | 29 | 23S | 24E | 1388 W FRANKLIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 075-07 | 10/19/2007 | SE | 23 | 23S | 24E | 110 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 076-07 | 10/22/2007 | SE | 23 | 23S | 24E | 111 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 077-07 | 10/24/2007 | SE | 23 | 23S | 24E | 111 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 078-07 | 10/26/2007 | SE | 23 | 23S | 24E | 204 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 079-07 | 10/29/2007 | SE | 23 | 23S | 24E | 205 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 080-07 | 10/30/2007 | SW | 9 | 23S | 24E | 6 MAXFIELD AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1942 |
| 081-07 | 10/31/2007 | SE | 23 | 23S | 24E | 117 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 082-07 | 11/3/2007 | SE | 23 | 23S | 24E | 122 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 083-07 | 11/6/2007 | SW | 9 | 23S | 24E | 24 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | CU | 3/4 | | | | 1980 |
| 084-07 | 11/23/2007 | SE | 15 | 23S | 24E | 22 1/2 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 1/2 | 1952 |
| 085-07 | 11/29/2007 | SE | 29 | 23S | 24E | 1173 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 086-07 | 12/2/2007 | NW | 22 | 23S | 24E | W ASPEN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1959 |
| 087-07 | 12/7/2007 | NW | 9 | 23S | 24E | 150 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 088-07 | 12/12/2007 | SE | 23 | 23S | 24E | 214 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 8 | 1908 |
| 089-07 | 12/12/2007 | SW | 9 | 23S | 24E | 6 TEMBY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 090-07 | 12/14/2007 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 091-07 | 12/15/2007 | SE | 23 | 23S | 24E | 511 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 092-07 | 12/20/2007 | SE | 15 | 23S | 24E | 16 ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1935 |
| 093-07 | 12/26/2007 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 094-07 | 12/28/2007 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 4 | 1922 |
| 001-08 | 1/4/2008 | SE | 15 | 23S | 24E | 204 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 12 | STEEL | 2 | 1922 |
| 002-08 | 1/10/2008 | SW | 9 | 23S | 24E | 232 BREWERY AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 1/2 | | | | 1912 |
| 003-08 | 1/14/2008 | SW | 9 | 23S | 24E | 46 HOWELL AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1930 |
| 004-08 | 1/21/2008 | SW | 9 | 23S | 24E | 18 MAXFIELD AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 3 | STEEL | 3/4 | | | | 1942 |
| 005-08 | 1/22/2008 | NE | 23 | 23S | 24E | 632 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 006-08 | 1/29/2008 | SE | 8 | 23S | 24E | 410C MASON HILL STREET | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1908 |
| 007-08 | 2/11/2008 | SW | 9 | 23S | 24E | 201 OK STREET #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 1/2 | | | | 1956 |
| 008-08 | 2/14/2008 | SW | 9 | 23S | 24E | 11 OK STREET #B | | MAIN REPLACEMENT | | | X | X | | | | | | | 30 | PVC | 1 | 1973 |
| 009-08 | 2/27/2008 | SW | 23 | 23S | 24E | 307 W VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 010-08 | 3/4/2008 | NW | 23 | 23S | 24E | 301 COLE AVENUE | | SERVICE REPLACEMENT | X | | | | | | | 1 | CU | 1 | | | | |
| 011-08 | 3/10/2008 | NW | 8 | 23S | 24E | 818 MAIN STREET | | MAIN REPLACEMENT | X | | | | | | | | | | 8 | GS | 2 | 1921 |
| 012-08 | 3/23/2008 | SE | 15 | 23S | 24E | 21 ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1935 |
| 013-08 | 3/28/2008 | NW | 23 | 23S | 24E | 317 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 014-08 | 4/1/2008 | NE | 16 | 23S | 24E | HIGHWAY 80 @ MILE POST #342 | | MAIN REPLACEMENT | X | | 19198 | X | | | | | | | | STEEL | 6 | 1955 |
| 015-08 | 4/2/2008 | NE | 16 | 23S | 24E | 305 W HIGHWAY 80 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1985 |
| 016-08 | 4/8/2008 | SW | 9 | 23S | 24E | 51 OK STREET #C | | MAIN REPAIR | X | | | | | | | | | | 1 | PVC | 3/4 | 1980 |
| 017-08 | 4/9/2008 | NE | 23 | 23S | 24E | 628 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 018-08 | 4/22/2008 | SW | 29 | 23S | 24E | 1288 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 019-08 | 4/23/2008 | SE | 23 | 23S | 24E | 116 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 020-08 | 4/30/2008 | SW | 9 | 23S | 24E | 473 N DART ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 021-08 | 4/30/2008 | SE | 8 | 23S | 24E | 302 OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 022-08 | 5/5/2008 | SE | 23 | 23S | 24E | 413 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 023-08 | 5/7/2008 | SE | 8 | 23S | 24E | QUARRY CANYON & OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1941 |
| 024-08 | 5/7/2008 | SE | 8 | 23S | 24E | QUARRY CANYON & OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 025-08 | 5/7/2008 | SE | 8 | 23S | 24E | QUARRY CANYON & OHARA AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 026-08 | 5/9/2008 | SE | 15 | 23S | 24E | 920 AMERICAN AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1920 |
| 027-08 | 5/14/2008 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 028-08 | 5/19/2008 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 029-08 | 5/20/2008 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1917 |
| 030-08 | 5/28/2008 | SW | 9 | 23S | 24E | 473 N DART ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 031-08 | 5/28/2008 | NE | 22 | 23S | 24E | #322 PIRRUNG AVENUE | | MAIN REPLACEMENT | | | 22654 | X | | | | | | | 60 | STEEL | 2 | 1917 |
| 032-08 | 5/29/2008 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 16 | STEEL | 2 | 1922 |
| 033-08 | 6/2/2008 | NE | 22 | 23S | 24E | #71 PITTSBURGH AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1917 |
| 034-08 | 6/5/2008 | NE | 22 | 23S | 24E | #322 PIRRUNG AVENUE | | MAIN REPLACEMENT | | | 22654 | X | | | | | | | 2 | STEEL | 2 | 1917 |
| 035-08 | 6/5/2008 | NE | 22 | 23S | 24E | #322 PIRRUNG AVENUE | | MAIN REPLACEMENT | | | 22654 | X | | | | | | | 2 | STEEL | 2 | 1917 |
| 036-08 | 6/6/2008 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1917 |
| 037-08 | 6/17/2008 | SW | 9 | 23S | 24E | 112 WALSH AVENUE #B | | MAIN REPLACEMENT | | | X | X | | | | | | | 70 | PVC | 1 | 1980 |
| 038-08 | 6/18/2008 | NW | 23 | 23S | 24E | 602 HOVLAND STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/4 | 1908 |
| 039-08 | 6/19/2008 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | MAIN REPLACEMENT | | | | X | | | | | | | 40 | GS | 2 | 1917 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 040-08 | 6/23/2008 | NE | 32 | 23S | 24E | 11 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 041-08 | 6/24/2008 | SE | 23 | 23S | 24E | 209 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 042-08 | 7/9/2008 | NE | 8 | 23S | 24E | 17 LAUNDRY HILL #G | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1908 |
| 043-08 | 7/15/2008 | SE | 23 | 23S | 24E | 409 SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 044-08 | 7/28/2008 | NE | 32 | 23S | 24E | 11 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 045-08 | 7/31/2008 | SE | 8 | 23S | 24E | 511 BROPHY AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1912 |
| 046-08 | 8/1/2008 | SE | 23 | 23S | 24E | 404 SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 047-08 | 8/5/2008 | SE | 8 | 23S | 24E | 5 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 048-08 | 8/6/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 049-08 | 8/25/2008 | SE | 29 | 23S | 24E | 306 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 050-08 | 8/28/2008 | SE | 29 | 23S | 24E | 1236 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 051-08 | 8/28/2008 | SE | 29 | 23S | 24E | 1173 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 052-08 | 8/29/2008 | SW | 29 | 23S | 24E | 1173 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 053-08 | 9/3/2008 | SE | 29 | 23S | 24E | 306 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 054-08 | 9/8/2008 | NE | 23 | 23S | 24E | 632 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 055-08 | 9/15/2008 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 056-08 | 9/18/2008 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 057-08 | 9/19/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 058-08 | 9/22/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 059-08 | 9/22/2008 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 060-08 | 9/24/2008 | SW | 9 | 23S | 24E | 1 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1950 |
| 061-08 | 9/26/2008 | SW | 9 | 23S | 24E | 39 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 062-08 | 9/26/2008 | SW | 9 | 23S | 24E | 43 OK STREET #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 063-08 | 9/29/2008 | NE | 7 | 23S | 24E | 1000 COMPTON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 064-08 | 9/30/2008 | SE | 22 | 23S | 24E | 505 30TH TERRACE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1963 |
| 065-08 | 10/2/2008 | SE | 29 | 23S | 24E | 125 SAN JOSE DRIVE | | SERVICE REPLACEMENT | X | | | | | | | | STEEL | 3/4 | | | | 1954 |
| 066-08 | 10/3/2008 | SE | 23 | 23S | 24E | 713 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 067-08 | 10/6/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 068-08 | 10/8/2008 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 069-08 | 10/17/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 070-08 | 10/27/2008 | NE | 32 | 23S | 24E | 7 LA CHOLLA ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 071-08 | 10/29/2008 | SE | 23 | 23S | 24E | 409 SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 072-08 | 10/29/2008 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 073-08 | 11/3/2008 | SW | 23 | 23S | 24E | 301 MILL ROAD | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | | 1908 |
| 074-08 | 11/3/2008 | SW | 23 | 23S | 24E | 301 MILL ROAD | | SERVICE REPLACEMENT | | | 22671 | X | | | | 1 | | 3/4 | | | | 1908 |
| 075-08 | 11/5/2008 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 076-08 | 11/7/2008 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 077-08 | 11/13/2008 | SW | 23 | 23S | 24E | 501 DOUGLAS STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 3/4 | | | | |
| 078-08 | 11/17/2008 | SE | 23 | 23S | 24E | 20 MOHAVE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 079-08 | 11/17/2008 | SE | 23 | 23S | 24E | 16 MOHAVE TRAIL | | MAIN REPAIR | | | | | | | | | | | | STEEL | 6 | 1908 |
| 080-08 | 11/21/2008 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 081-08 | 11/22/2008 | SE | 15 | 23S | 24E | 24 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 1/2 | 1935 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 082-08 | 11/24/2008 | NW | 22 | 22S | 24E | 4 LOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1949 |
| 083-08 | 11/24/2008 | SE | 8 | 23S | 24E | 6 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 084-08 | 12/2/2008 | NW | 23 | 23S | 24E | 79 + 81 COCHISE ROW | | SERVICE REPLACEMENT | | | | X | | | | 2 | GS | 3/4 | | | | |
| 085-08 | 12/2/2008 | NW | 23 | 23S | 24E | 79 + 81 COCHISE ROW | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | |
| 086-08 | 12/3/2008 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 087-08 | 12/8/2008 | NW | 9 | 23S | 24E | 150 BREWERY GULCH | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1921 |
| 088-08 | 12/11/2008 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 089-08 | 12/11/2008 | SW | 9 | 23S | 24E | 13 MAXFIELD AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1942 |
| 090-08 | 12/12/2008 | SE | 23 | 23S | 24E | 305 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 091-08 | 12/12/2008 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 092-08 | 12/15/2008 | SE | 15 | 23S | 24E | 11 OLD DOUGLAS ROAD | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1935 |
| 093-08 | 12/16/2008 | SE | 8 | 23S | 24E | 410D MASON HILL STREET | | SERVICE REPLACEMENT | X | | | X | | | | 1 DBL | GS | 3/4 | | | | 1908 |
| 094-08 | 12/17/2008 | SE | 15 | 23S | 24E | 11 OLD DOUGLAS ROAD | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | |
| 095-08 | 12/19/2008 | NE | 15 | 23S | 24E | HIGHWAY 80 WEST OF LOWELL PLAZA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1975 |
| 096-08 | 12/22/2008 | NE | 15 | 23S | 24E | HIGHWAY 80 WEST OF LOWELL PLAZA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1975 |
| 097-08 | 12/23/2008 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 098-08 | 12/28/2008 | NE | 32 | 23S | 24E | 508 ALEGRE PLACE | | MAIN REPAIR | X | | | | | | | | | | 1 | CA | 4 | 1959 |
| 099-08 | 12/30/2008 | SE | 29 | 23S | 24E | 306 COCHISE LANE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 001-09 | 1/2/2009 | SE | 23 | 23S | 24E | 309 SHATTUCK STREET | | SERVICE REPAIR | | | | | | | | | PVC | 3/4 | | | | 1980 |
| 002-09 | 1/2/2009 | SE | 23 | 23S | 24E | 312 SHATTUCK STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 1/2 | | | | |
| 003-09 | 1/2/2009 | NW | 8 | 23S | 24E | 713 WARREN STREET | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 004-09 | 1/7/2009 | NE | 5 | 24S | 24E | 2261 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 005-09 | 1/7/2009 | NE | 8 | 23S | 24E | 501B BAILEY HILL | | SERVICE REPLACEMENT | | X | | X | | | | | STEEL | 1 | 4 | STEEL | 1 | 1908 |
| 006-09 | 1/9/2009 | SE | 29 | 23S | 24E | 1173 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 007-09 | 1/9/2009 | SE | 8 | 23S | 24E | 180 QUALITY HILL #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1939 |
| 008-09 | 1/12/2009 | NE | 15 | 23S | 24E | 420 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | CU | 3/4 | 1994 |
| 009-09 | 1/12/2009 | SE | 8 | 23S | 24E | 98 QUALITY HILL #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1958 |
| 010-09 | 1/14/2009 | NW | 9 | 23S | 24E | 132 OPERA DRIVE #D | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1921 |
| 011-09 | 1/14/2009 | SW | 9 | 23S | 24E | 37 TEMBY AVENUE #D | | MAIN REPLACEMENT | X | | | | | | | | | | 6 | GS | 2 | 1921 |
| 012-09 | 1/15/2009 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 013-09 | 1/19/2009 | SW | 22 | 23S | 24E | 300 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 014-09 | 1/19/2009 | SE | 23 | 23S | 24E | 704 CONGDON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 015-09 | 1/19/2009 | NW | 8 | 23S | 24E | 732-F GENTRY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 016-09 | 1/20/2009 | SE | 14 | 23S | 24E | M STREET | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1952 |
| 017-09 | 1/23/2009 | SE | 29 | 23S | 24E | 1173 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 018-09 | 1/27/2009 | SE | 29 | 23S | 24E | 1236 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 019-09 | 2/4/2009 | NW | 23 | 23S | 24E | 927 AMERICAN AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1917 |
| 020-09 | 2/4/2009 | NW | 23 | 23S | 24E | 922 AMERICAN AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 1 | STEEL | 1 1/2 | 1920 |
| 021-09 | 2/9/2009 | NE | 28 | 23S | 24E | NORTH OF TOUREVILLE POUND IN WASH | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 022-09 | 2/17/2009 | NE | 5 | 24S | 24E | 2254 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 023-09 | 2/17/2009 | SE | 29 | 23S | 24E | 103 COCONINO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 024-09 | 2/18/2009 | SE | 8 | 23S | 24E | 98 QUALITY HILL #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1958 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 025-09 | 2/18/2009 | SE | 8 | 23S | 24E | 98 QUALITY HILL #A | | MAIN REPLACEMENT | X | | | X | | | | | | | 65 | GS | | 1958 |
| 026-09 | 2/18/2009 | SE | 8 | 23S | 24E | 98 QUALITY HILL #A | | SERVICE REPLACEMENT | X | | | X | | | | 2 | STEEL | 3/4 | | | | 1958 |
| 027-09 | 2/19/2009 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 028-09 | 2/19/2009 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 029-09 | 2/27/2009 | NE | 5 | 24S | 24E | 2175 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 030-09 | 2/27/2009 | SE | 8 | 23S | 24E | 409 ROBERTS AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1941 |
| 031-09 | 3/3/2009 | NE | 23 | 23S | 24E | 615 COLE AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 032-09 | 3/4/2009 | NE | 28 | 23S | 24E | 1014 TOUREVILLE ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 033-09 | 3/5/2009 | NE | 22 | 23S | 24E | 21 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 034-09 | 3/6/2009 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 035-09 | 3/9/2009 | NE | 28 | 23S | 24E | WEST SIDE TOUREVILLE POUND | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 036-09 | 3/11/2009 | NE | 22 | 23S | 24E | 19 + 21 COCHISE ROW | | SERVICE REPLACEMENT | | | | X | | | | 2 | GS | 3/4 | | | | |
| 037-09 | 3/11/2009 | NE | 22 | 23S | 24E | 19 + 21 COCHISE ROW | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | |
| 038-09 | 3/12/2009 | SE | 23 | 23S | 24E | 608 CAMPBELL STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1908 |
| 039-09 | 3/16/2009 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 040-09 | 3/16/2009 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 041-09 | 3/17/2009 | SW | 23 | 23S | 24E | 108 ARIZONA STREET | | SERVICE REPLACEMENT | X | | | | | | | 1 | STEEL | 3/4 | | | | 1908 |
| 042-09 | 3/20/2009 | NE | 22 | 23S | 24E | 22 MASON ADDITION STREET | | SERVICE REPAIR | X | | | | | | | | | | | STEEL | 3/4 | 1974 |
| 043-09 | 3/23/2009 | NE | 22 | 23S | 24E | 94 BISBEE ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | |
| 044-09 | 3/24/2009 | NW | 23 | 23S | 24E | 601 POWELL STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 045-09 | 3/25/2009 | NW | 9 | 23S | 24E | 217 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 1/2 | 1941 |
| 046-09 | 3/26/2009 | NW | 8 | 23S | 24E | 813 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 047-09 | 3/31/2009 | SE | 29 | 23S | 24E | 55 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1954 |
| 048-09 | 4/1/2009 | SW | 22 | 23S | 24E | 305 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1936 |
| 049-09 | 4/1/2009 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 050-09 | 4/2/2009 | NW | 22 | 23S | 24E | 208 AZURITE AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1952 |
| 051-09 | 4/2/2009 | SW | 23 | 23S | 24E | 200 MILL ROAD | | MAIN REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 052-09 | 4/2/2009 | SE | 8 | 23S | 24E | 437 ROBERTS AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 1/2 | | | | 1941 |
| 053-09 | 4/3/2009 | SW | 29 | 23S | 24E | 1288 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 054-09 | 4/7/2009 | SW | 29 | 23S | 24E | 1288 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1951 |
| 055-09 | 4/9/2009 | NE | 23 | 23S | 24E | 615 COLE AVENUE | | MAIN REPLACEMENT | | | | X | | | | 1 | CU | 1 | | | | 1980 |
| 056-09 | 4/10/2009 | NE | 22 | 23S | 24E | 40 DALLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1956 |
| 057-09 | 4/16/2009 | NE | 21 | 23S | 24E | W ASPEN STREET HILL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1969 |
| 058-09 | 4/16/2009 | SE | 29 | 23S | 24E | 101 NAVAJO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 059-09 | 4/17/2009 | SE | 8 | 23S | 24E | 180 QUALITY HILL #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1947 |
| 060-09 | 4/17/2009 | SE | 8 | 23S | 24E | 180 QUALITY HILL #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 141 | STEEL | 1 | 1947 |
| 061-09 | 4/17/2009 | SE | 8 | 23S | 24E | 112 MAIN STREET | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | |
| 062-09 | 4/22/2009 | SW | 14 | 23S | 24E | 101 C STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 063-09 | 4/22/2009 | SE | 23 | 23S | 24E | 202 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 064-09 | 4/23/2009 | NW | 22 | 23S | 24E | 201 BORNITE AVENUE | | MAIN REPAIR | | | N/A | X | | | | | | | 2 | STEEL | 2 | 1952 |
| 065-09 | 4/23/2009 | NW | 22 | 23S | 24E | 205 BORNITE AVENUE & 208 AZURITE AVENUE | | MAIN REPAIR | | | 22693 | X | | | | | STEEL | 1 | | STEEL | 2 | 1952 |
| 066-09 | 4/23/2009 | SE | 23 | 23S | 24E | 202 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 067-09 | 5/4/2009 | SE | 23 | 23S | 24E | 116 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 068-09 | 5/4/2009 | SE | 23 | 23S | 24E | 116 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 069-09 | 5/7/2009 | NE | 32 | 23S | 24E | 123 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1925 |
| 070-09 | 5/7/2009 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 071-09 | 5/11/2009 | SE | 23 | 23S | 24E | 409 SHATTUCK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 072-09 | 5/11/2009 | SW | 9 | 23S | 24E | 44 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 073-09 | 5/12/2009 | NW | 9 | 23S | 24E | 223 YOUNGBLOOD HILL #C | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1941 |
| 074-09 | 5/13/2009 | NW | 8 | 23S | 24E | 120 STAR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1918 |
| 075-09 | 5/18/2009 | NW | 9 | 23S | 24E | 218 OK STREET #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 076-09 | 5/19/2009 | SE | 8 | 23S | 24E | 420 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1975 |
| 077-09 | 5/22/2009 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 078-09 | 5/22/2009 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 079-09 | 5/26/2009 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 080-09 | 5/26/2009 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 081-09 | 5/27/2009 | NW | 8 | 23S | 24E | 944 SIMMS ROAD | | MAIN REPAIR | X | | | | | | | | | | GS | 3 | | 1942 |
| 082-09 | 5/28/2009 | NE | 5 | 24S | 24E | 2254 S BARNETT ROAD | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 083-09 | 5/30/2009 | NE | 5 | 24S | 24E | 2240 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 084-09 | 5/30/2009 | SW | 23 | 23S | 24E | 1 BLACK KNOB VIEW | | MAIN REPLACEMENT | X | | | | | | | | | | 35 | GS | 2 | 1908 |
| 085-09 | 5/30/2009 | NE | 23 | 23S | 24E | 405 COLE AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 1 | | | | |
| 086-09 | 5/30/2009 | NE | 23 | 23S | 24E | 608 POWELL STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 1 | | | | 1960 |
| 087-09 | 6/1/2009 | SW | 23 | 23S | 24E | 302 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 088-09 | 6/1/2009 | SE | 23 | 23S | 24E | 305 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 089-09 | 6/1/2009 | SW | 23 | 23S | 24E | 302 E VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 090-09 | 6/3/2009 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 091-09 | 6/3/2009 | NE | 7 | 23S | 24E | 946 SIMMS ROAD | | MAIN REPAIR | X | | | | | | | | | | GS | 3 | | 1942 |
| 092-09 | 6/4/2009 | SW | 9 | 23S | 24E | 35 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1967 |
| 093-09 | 6/10/2009 | SE | 8 | 23S | 24E | 136B & 134C QUALITY HILL | | SERVICE REPLACEMENT | | | X | X | | | | 2 | STEEL | 1/2 | | | | 1947 |
| 094-09 | 6/11/2009 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 095-09 | 6/13/2009 | NW | 9 | 23S | 24E | 250 BREWERY AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 096-09 | 6/15/2009 | SE | 8 | 23S | 24E | QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 097-09 | 6/17/2009 | SE | 15 | 23S | 24E | 11 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 098-09 | 6/18/2009 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 099-09 | 6/24/2009 | NE | 5 | 24S | 24E | 2240 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 100-09 | 6/25/2009 | NE | 21 | 23S | 24E | 430 S BUFFALO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 3 | 1957 |
| 101-09 | 6/30/2009 | SE | 23 | 23S | 24E | 303 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 102-09 | 6/30/2009 | SW | 9 | 23S | 24E | 473 N DART ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 103-09 | 6/30/2009 | SW | 9 | 23S | 24E | 18 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | CU | 3/4 | | | | 1982 |
| 104-09 | 7/3/2009 | NE | 22 | 23S | 24E | 29 MASON ADDITION STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1956 |
| 105-09 | 7/5/2009 | SE | 32 | 23S | 24E | 108 MOUNTAIN VIEW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1958 |
| 106-09 | 7/6/2009 | SW | 29 | 23S | 24E | 102 GREENLEE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 107-09 | 7/9/2009 | SE | 29 | 23S | 24E | 506 CRESTVIEW DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1955 |
| 108-09 | 7/13/2009 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 109-09 | 7/14/2009 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 110-09 | 7/14/2009 | NE | 22 | 23S | 24E | 29 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 111-09 | 7/20/2009 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 112-09 | 7/22/2009 | NW | 29 | 23S | 24E | 1 S COY STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL SWC | 6 | 1964 |
| 113-09 | 7/22/2009 | SE | 15 | 23S | 24E | 201 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1922 |
| 114-09 | 7/22/2009 | SE | 8 | 23S | 24E | 9 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 115-09 | 7/23/2009 | NE | 22 | 23S | 24E | 21 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 116-09 | 7/24/2009 | SE | 15 | 23S | 24E | 23 OLD DOUGLAS ROAD | | SERVICE REPAIR | X | | | | | | | | GS | 1/2 | | | | 1935 |
| 117-09 | 7/31/2009 | NE | 22 | 23S | 24E | 21 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | |
| 118-09 | 7/31/2009 | NW | 8 | 23S | 24E | 15 SPRING CANYON | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1912 |
| 119-09 | 7/31/2009 | NW | 8 | 23S | 24E | 47 SPRING CANYON | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 120-09 | 8/2/2009 | SE | 8 | 23S | 24E | 8 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 121-09 | 8/3/2009 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 122-09 | 8/4/2009 | SE | 15 | 23S | 24E | 14 OLD DOUGLAS ROAD | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | |
| 123-09 | 8/7/2009 | NE | 5 | 24S | 24E | 2185 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 124-09 | 8/7/2009 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 125-09 | 8/16/2009 | NE | 5 | 24S | 24E | 2226 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 126-09 | 8/27/2009 | NE | 5 | 24S | 24E | 2066 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 127-09 | 8/31/2009 | SE | 15 | 23S | 24E | 11 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 128-09 | 9/1/2009 | SE | 15 | 23S | 24E | 22 1/2 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 1/2 | 1952 |
| 129-09 | 9/3/2009 | NE | 32 | 23S | 24E | 10 OCOTILLO STREET | | SERVICE REPLACEMENT | | | 22804 | X | | | | 2 | PVC | 1 | 115 | PVC | 1 | 1980 |
| 130-09 | 9/5/2009 | SE | 8 | 23S | 24E | 407 ROBERTS AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1941 |
| 131-09 | 9/7/2009 | SE | 23 | 23S | 24E | 304 HAZZARD STREET | | MAIN REPAIR | | | | | | | | | | | | STEEL | 1 1/2 | 1908 |
| 132-09 | 9/7/2009 | SE | 23 | 23S | 24E | 304 HAZZARD STREET | | MAIN REPAIR | | | | X | | | | | | | | STEEL | 1 1/2 | 1908 |
| 133-09 | 9/8/2009 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 134-09 | 9/8/2009 | NE | 15 | 23S | 24E | 400 N WINWOOD ROAD | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 135-09 | 9/9/2009 | SE | 8 | 23S | 24E | 407 ROBERTS AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1941 |
| 136-09 | 9/11/2009 | NW | 22 | 23S | 24E | 15 SACRAMENTO AVENUE | | MAIN REPAIR | X | | | | | | | | | | | CA | 10 | 1955 |
| 137-09 | 9/15/2009 | NW | 8 | 23S | 24E | 830 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1916 |
| 138-09 | 9/15/2009 | NW | 8 | 23S | 24E | 900 MAIN STREET | | SERVICE REPAIR | X | | | | | | | | CU | 3/4 | | | | 1985 |
| 139-09 | 9/15/2009 | NW | 8 | 23S | 24E | 830 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1916 |
| 140-09 | 9/16/2009 | NE | 5 | 24S | 24E | 2117 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 141-09 | 9/16/2009 | NE | 32 | 23S | 24E | 5-B MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 142-09 | 9/16/2009 | SE | 29 | 23S | 24E | 115 COCHISE DRIVE | | SERVICE REPLACEMENT | X | | | | | | | | | | | CA | 4 | 1953 |
| 143-09 | 9/17/2009 | SE | 8 | 23S | 24E | 7 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 144-09 | 9/17/2009 | SE | 8 | 23S | 24E | 511 BROPHY AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1912 |
| 145-09 | 9/17/2009 | SE | 8 | 23S | 24E | 511 BROPHY AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 1/2 | | | | 1912 |
| 146-09 | 9/18/2009 | SE | 23 | 23S | 24E | 26 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 147-09 | 9/21/2009 | SW | 29 | 23S | 24E | 108 GREENLEE DRIVE | | MAIN REPLACEMENT | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 148-09 | 9/22/2009 | SE | 23 | 23S | 24E | 609 TENER AVENUE | | MAIN REPAIR | X | | | | | | | | | | | | | |
| 149-09 | 9/22/2009 | SE | 23 | 23S | 24E | 501 SHATTUCK STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 150-09 | 9/24/2009 | NW | 8 | 23S | 24E | 826 MAIN STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 30 | STEEL | 2 | 1916 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 151-09 | 9/25/2009 | SW | 9 | 23S | 24E | 86 MAIN STREET | | SERVICE REPLACEMENT | X | | 22806 | | | | | 2 | PVC | 3/4 | | | | 1980 |
| 152-09 | 10/1/2009 | NW | 29 | 23S | 24E | 1489 W FRANKLIN STREET | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1980 |
| 153-09 | 10/1/2009 | NW | 8 | 23S | 24E | 621 MAIN STREET #F | | SERVICE REPLACEMENT | | | X | X | | | | 1 | GS | | | | | 1921 |
| 154-09 | 10/2/2009 | NE | 5 | 24S | 24E | 2127 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 155-09 | 10/5/2009 | NE | 5 | 24S | 24E | 937 W MARIE STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1958 |
| 156-09 | 10/8/2009 | NE | 5 | 24S | 24E | 937 W MARIE STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1958 |
| 157-09 | 10/9/2009 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1920 |
| 158-09 | 10/9/2009 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 159-09 | 10/9/2009 | SE | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 160-09 | 10/9/2009 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 138 | STEEL | 2 | 1920 |
| 161-09 | 10/14/2009 | SE | 15 | 23S | 24E | 202 PARK AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 108 | STEEL | 2 | 1922 |
| 162-09 | 10/15/2009 | SW | 23 | 23S | 24E | 208 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 163-09 | 10/23/2009 | SW | 29 | 23S | 24E | 108 GREENLEE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 164-09 | 10/23/2009 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 165-09 | 10/29/2009 | SE | 23 | 23S | 24E | 302 CAMPBELL STREET | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 166-09 | 10/31/2009 | SE | 23 | 23S | 24E | 318 NAVAJO DRIVE (TRAIL?) | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 167-09 | 11/3/2009 | SW | 9 | 23S | 24E | 77 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1956 |
| 168-09 | 11/8/2009 | NE | 32 | 23S | 24E | 1 MANZANITA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1960 |
| 169-09 | 11/16/2009 | NE | 22 | 23S | 24E | #46 COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1957 |
| 170-09 | 11/17/2009 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 171-09 | 11/17/2009 | NW | 4 | 24S | 24E | KATHERINE STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 172-09 | 11/17/2009 | SE | 29 | 23S | 24E | 104 NAVAJO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 173-09 | 11/17/2009 | SW | 9 | 23S | 24E | 19 CLAWSON AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 3/4 | | | | 1980 |
| 174-09 | 11/20/2009 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 175-09 | 11/23/2009 | SW | 9 | 23S | 24E | 29 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1956 |
| 176-09 | 11/23/2009 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 1 | | | | 1917 |
| 177-09 | 11/23/2009 | NE | 22 | 23S | 24E | #11 BISBEE ROAD | | MAIN REPLACEMENT | | | 22812 | X | | | | | | | 210 | STEEL | 2 | 1917 |
| 178-09 | 12/1/2009 | SW | 5 | 23S | 24E | 107 LOCKLIN AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 18 | STEEL | 1 | 1956 |
| 179-09 | 12/4/2009 | NW | 28 | 23S | 24E | 101 S TAYLOR AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1950 |
| 180-09 | 12/7/2009 | NE | 22 | 23S | 24E | 326 PARK AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | | CU | 1 | | | | 1922 |
| 181-09 | 12/10/2009 | NW | 15 | 23S | 24E | HIGHWAY 80 @ MILE POST #342 | | MAIN REPLACEMENT | X | | 22814 | X | | | | | | | 8 | STEEL | 6 | 1953 |
| 182-09 | 12/14/2009 | NE | 23 | 23S | 24E | 501 ARIZONA STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 183-09 | 12/15/2009 | NW | 8 | 23S | 24E | 822 PACE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 184-09 | 12/16/2009 | NE | 32 | 23S | 24E | 1556 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | | CA | 6 | 1968 |
| 185-09 | 12/16/2009 | NE | 15 | 23S | 24E | HIGHWAY 80 WEST OF LOWELL PLAZA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1975 |
| 186-09 | 12/17/2009 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 187-09 | 12/22/2009 | SW | 9 | 23S | 24E | 102 OPERA DRIVE | | SERVICE REPLACEMENT | | | | X | | | | 2 | GS | 3/4 | | | | 1921 |
| 188-09 | 12/23/2009 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 189-09 | 12/24/2009 | SW | 23 | 23S | 24E | 310 CENTER AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 12 | GS | 1 1/2 | 1908 |
| 190-09 | 12/29/2009 | SW | 22 | 23S | 24E | 31-B CARBAJAL STREET | | MAIN REPAIR | X | | | | | | | | | | 2 | GS | 2 | |
| 001-10 | 1/2/2010 | SW | 22 | 23S | 24E | 305 TERAN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1936 |
| 002-10 | 1/5/2010 | NW | 15 | 23S | 24E | 72 ERIE STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1964 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 003-10 | 1/5/2010 | SW | 9 | 23S | 24E | 17 OK STREET #A | | SERVICE REPLACEMENT | X | | | | | | | 1 | PVC | 3/4 | | | | 1980 |
| 004-10 | 1/5/2010 | SW | 9 | 23S | 24E | 17 OK STREET #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1945 |
| 005-10 | 1/6/2010 | SE | 29 | 23S | 24E | 1001 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 006-10 | 1/6/2010 | SW | 9 | 23S | 24E | 51 OK STREET #C | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 007-10 | 1/7/2010 | SE | 8 | 23S | 24E | 101 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 008-10 | 1/13/2010 | SW | 23 | 23S | 24E | 302 MILL ROAD | | SERVICE REPLACEMENT | | | 22824 | X | | | | 1 | | 1 | | | | 1908 |
| 009-10 | 1/14/2010 | SW | 9 | 23S | 24E | 18 TEMBY AVENUE #A | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1962 |
| 010-10 | 1/20/2010 | SE | 23 | 23S | 24E | 3 COCHISE TRAIL | | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 011-10 | 1/24/2010 | SW | 23 | 23S | 24E | 100 DOUGLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1908 |
| 012-10 | 1/26/2010 | NW | 9 | 23S | 24E | 200 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1921 |
| 013-10 | 1/30/2010 | SE | 5 | 24S | 24E | 1215 W GEORGE STREET | | SERVICE REPAIR | X | | | | | | | | CU | 1 | | | | 1982 |
| 014-10 | 1/31/2010 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 015-10 | 2/1/2010 | SE | 8 | 23S | 24E | 186 QUALITY HILL #A | | SERVICE REPLACEMENT | | | X | X | | | | 1 | STEEL | 3/4 | | | | 1947 |
| 016-10 | 2/2/2010 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 017-10 | 2/11/2010 | SW | 23 | 23S | 24E | 401 BISBEE ROAD | | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 3/4 | | | | 1980 |
| 018-10 | 2/12/2010 | SE | 23 | 23S | 24E | 311 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 019-10 | 2/13/2010 | NE | 23 | 23S | 24E | 609 OLIVER CIRCLE | | MAIN REPAIR | X | | | | | | | | | | | GS | 3/4 | 1908 |
| 020-10 | 2/19/2010 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 021-10 | 2/22/2010 | SE | 8 | 23S | 24E | 4 LEDGE AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 142 | GS | 2 | 1939 |
| 022-10 | 2/22/2010 | SW | 9 | 23S | 24E | 20 OK STREET | | MAIN REPLACEMENT | | | X | X | | | | | | | 40 | PVC | 1 | 1980 |
| 023-10 | 2/25/2010 | SE | 8 | 23S | 24E | 4 LEDGE AVENUE | | MAIN REPLACEMENT | | | X | X | | | | | | | 4 | GS | 2 | 1939 |
| 024-10 | 3/9/2010 | SE | 8 | 23S | 24E | 408 MASON HILL STREET #C | | MAIN REPLACEMENT | | | | X | | | | | | | 57.5 | GS | 1 1/2 | 1908 |
| 025-10 | 3/11/2010 | SE | 29 | 23S | 24E | 1004 W HIGHWAY 92 | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1957 |
| 026-10 | 3/11/2010 | SW | 9 | 23S | 24E | 93 TEMBY AVENUE | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1921 |
| 027-10 | 3/16/2010 | SE | 8 | 23S | 24E | QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1947 |
| 028-10 | 3/18/2010 | SW | 23 | 23S | 24E | 310 CENTER AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 4 | GS | 1 1/4 | 1908 |
| 029-10 | 3/19/2010 | SW | 23 | 23S | 24E | 310 CENTER AVENUE | | MAIN REPLACEMENT | X | | 22833 | | | | | | | | 60 | GS | 1 1/4 | 1908 |
| 030-10 | 3/19/2010 | SE | 8 | 23S | 24E | 411 ROBERTS AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1941 |
| 031-10 | 3/24/2010 | NE | 23 | 23S | 24E | 510 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 032-10 | 3/28/2010 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 033-10 | 3/28/2010 | SE | 23 | 23S | 24E | 120 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 034-10 | 4/2/2010 | SW | 9 | 23S | 24E | 47 OK STREET #D | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 035-10 | 4/5/2010 | SE | 8 | 23S | 24E | 123 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | GS | 1 1/2 | | 1942 |
| 036-10 | 4/7/2010 | NE | 5 | 24S | 24E | 2215 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 037-10 | 4/7/2010 | SW | 9 | 23S | 24E | 46 HOWELL AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1930 |
| 038-10 | 4/12/2010 | SE | 8 | 23S | 24E | 100 HIGGINS HILL | | MAIN REPAIR | X | | | | | | | | | | GS | 2 | | 1941 |
| 039-10 | 4/14/2010 | NE | 5 | 24S | 24E | 2255 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | SW | 4 | 1958 |
| 040-10 | 4/20/2010 | SW | 23 | 23S | 24E | 413 W VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1908 |
| 041-10 | 4/20/2010 | SE | 15 | 23S | 24E | 2 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1952 |
| 042-10 | 4/24/2010 | SE | 23 | 23S | 24E | 214 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 043-10 | 4/26/2010 | SE | 8 | 23S | 24E | 139 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1908 |
| 044-10 | 4/26/2010 | SW | 23 | 23S | 24E | 100 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 045-10 | 4/27/2010 | SE | 15 | 23S | 24E | 22 1/2 IONE STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1/2 | 1952 |
| 046-10 | 5/1/2010 | NE | 22 | 23S | 24E | #1-B COCHISE ROW | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1969 |
| 047-10 | 5/3/2010 | SE | 23 | 23S | 24E | 202 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 048-10 | 5/5/2010 | NE | 28 | 23S | 24E | 621 W HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1981 |
| 049-10 | 5/7/2010 | SE | 23 | 23S | 24E | 205 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 050-10 | 5/11/2010 | SW | 9 | 23S | 24E | 47 OK STREET #B | | SERVICE REPLACEMENT | | | X | X | | | | 1 | PVC | 1 | | | | 1980 |
| 051-10 | 5/12/2010 | NW | 9 | 23S | 24E | 218 OK STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1941 |
| 052-10 | 5/13/2010 | SE | 8 | 23S | 24E | 139 CLAWSON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1908 |
| 053-10 | 5/18/2010 | SW | 29 | 23S | 24E | 105 COCONINO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 054-10 | 5/20/2010 | NE | 32 | 23S | 24E | 5 LA CHOLLA ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1925 |
| 055-10 | 5/21/2010 | SW | 29 | 23S | 24E | 51 PINAL DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1962 |
| 056-10 | 5/25/2010 | SE | 23 | 23S | 24E | 305 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 057-10 | 5/27/2010 | SW | 29 | 23S | 24E | 111 COCONINO DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 058-10 | 5/28/2010 | NW | 29 | 23S | 24E | 991 S COY STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL SWC | 6 | 1964 |
| 059-10 | 5/28/2010 | NE | 23 | 23S | 24E | 501 COLE AVENUE | | SERVICE REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 060-10 | 6/1/2010 | SE | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 061-10 | 6/2/2010 | NE | 23 | 23S | 24E | 501 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 062-10 | 6/2/2010 | NE | 23 | 23S | 24E | 608 POWELL STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | CU | 3/4 | | | | 1960 |
| 063-10 | 6/4/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 064-10 | 6/14/2010 | NE | 5 | 24S | 24E | 2273 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 065-10 | 6/23/2010 | SE | 32 | 23S | 24E | 106 MOUNTAIN VIEW AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1958 |
| 066-10 | 6/23/2010 | NW | 9 | 23S | 24E | 218 YOUNGBLOOD HILL #A | | MAIN REPLACEMENT | | | X | X | | | | | | | 21 | STEEL | 2 | 1941 |
| 067-10 | 7/6/2010 | SE | 15 | 23S | 24E | 10 OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 068-10 | 7/6/2010 | NW | 9 | 23S | 24E | 221 BREWERY AVENUE | | SERVICE REPAIR | X | | | | | | | | PVC | 1 | | | | 1978 |
| 069-10 | 7/8/2010 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 070-10 | 7/8/2010 | NE | 5 | 24S | 24E | MARIE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1956 |
| 071-10 | 7/8/2010 | SW | 23 | 23S | 24E | 405 CONGDON AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 072-10 | 7/10/2010 | SW | 23 | 23S | 24E | 302 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 073-10 | 7/15/2010 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 074-10 | 7/15/2010 | SW | 23 | 23S | 24E | 101 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 075-10 | 7/20/2010 | NE | 5 | 24S | 24E | | | MAIN REPAIR | X | | | | | | | | | | | P | 1 | 1980 |
| 076-10 | 7/21/2010 | SW | 29 | 23S | 24E | 101 GREENLEE DRIVE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1961 |
| 077-10 | 7/27/2010 | NE | 5 | 24S | 24E | 2066 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1959 |
| 078-10 | 8/3/2010 | NW | 9 | 23S | 24E | 1 ZACATECAS CANYON | | SERVICE REPLACEMENT | | | X | X | | | | 1 | CU | 3/4 | | | | |
| 079-10 | 8/4/2010 | SW | 23 | 23S | 24E | 416 DOUGLAS STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1976 |
| 080-10 | 8/6/2010 | NE | 5 | 24S | 24E | 2320 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | P | 1 | 1980 |
| 081-10 | 8/8/2010 | NE | 8 | 23S | 24E | 513 BAILEY HILL #F | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1908 |
| 082-10 | 8/10/2010 | SE | 8 | 23S | 24E | 211 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1942 |
| 083-10 | 8/17/2010 | NW | 29 | 23S | 24E | LOT 46 MOUNTAIN RANCH ESTATES | | SERVICE REPAIR | | | 22842 | X | | | | 1 | PVC | 1 | | | | 1980 |
| 084-10 | 8/20/2010 | SE | 15 | 23S | 24E | 55 W HIGHWAY 92 | | SERVICE REPAIR | X | | | | | | | | STEEL | 2 | | | | 1974 |
| 085-10 | 8/20/2010 | SE | 23 | 23S | 24E | 309 SHATTUCK STREET | | SERVICE REPLACEMENT | X | | | X | | | | 1 | GS | 1/2 | | | | 1908 |
| 086-10 | 8/23/2010 | SE | 22 | 23S | 24E | 30TH TERRACE BEHIND HIGH SCHOOL | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | POR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 087-10 | 8/24/2010 | NW | 8 | 23S | 24E | 732 MAIN STREET | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1921 |
| 088-10 | 8/25/2010 | NE | 28 | 23S | 24E | 1014 TOUREVILLE ROAD | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1968 |
| 089-10 | 8/25/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 090-10 | 8/26/2010 | SW | 23 | 23S | 24E | 42 BLACK KNOB VIEW | | SERVICE REPAIR | X | | | | | | | | GS | 1 | | | | 1908 |
| 091-10 | 8/30/2010 | SW | 23 | 23S | 24E | 202 MILL ROAD | | MAIN REPAIR | X | | | | | | | | STEEL | 3/4 | | | | 1908 |
| 092-10 | 8/30/2010 | SE | 8 | 23S | 24E | 4 LEDGE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 093-10 | 9/1/2010 | SE | 23 | 23S | 24E | 311 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 094-10 | 9/1/2010 | SE | 8 | 23S | 24E | 7 LEDGE AVENUE | | SERVICE REPLACEMENT | | | X | X | | | | | STEEL | 3/4 | | | | 1939 |
| 095-10 | 9/2/2010 | SE | 29 | 23S | 24E | 204 SAN JOSE DRIVE | | SERVICE REPLACEMENT | X | | | | | | | | PVC | 3/4 | | | | 1960 |
| 096-10 | 9/3/2010 | SE | 23 | 23S | 24E | 311 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 097-10 | 9/9/2010 | SW | 23 | 23S | 24E | 208 EAST VISTA | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 6 | 1908 |
| 098-10 | 9/15/2010 | SW | 9 | 23S | 24E | 59 ANGIOS AVENUE #C | | MAIN REPAIR | X | | | | | | | | | | 12 | GS | 1 | 1950 |
| 099-10 | 9/16/2010 | SE | 23 | 23S | 24E | 300 BLACK KNOB VIEW | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 1/2 | 1908 |
| 100-10 | 9/20/2010 | SE | 23 | 23S | 24E | 323 VAN DYKE STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 101-10 | 9/23/2010 | SE | 23 | 23S | 24E | 300 BLACK KNOB VIEW | | SERVICE REPAIR | X | | | | | | | | CU | 1/2 | | | | |
| 102-10 | 9/24/2010 | NE | 23 | 23S | 24E | 300 COLE AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 103-10 | 9/24/2010 | SW | 23 | 23S | 24E | 112 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 104-10 | 9/24/2010 | SE | 23 | 23S | 24E | 216 CLAWSON STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 105-10 | 9/28/2010 | SE | 23 | 23S | 24E | 303 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | 1908 |
| 106-10 | 9/28/2010 | SE | 8 | 23S | 24E | 112 QUALITY HILL | | MAIN REPAIR | X | | | | | | | | | | | GS | 1 | 1939 |
| 107-10 | 10/2/2010 | NW | 28 | 23S | 24E | 401 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | CU | | 1980 |
| 108-10 | 10/4/2010 | NW | 28 | 23S | 24E | 411 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | CU | | 1980 |
| 109-10 | 10/4/2010 | NW | 28 | 23S | 24E | 400 N MCKINLEY AVENUE | | SERVICE REPLACEMENT | | | | X | | | | 1 | PVC | 1 | | CU | | 1980 |
| 110-10 | 10/4/2010 | NW | 28 | 23S | 24E | 413 N MCKINLEY AVENUE | | SERVICE REPAIR | | | | X | | | | 1 | S | 1 | | CU | | 1980 |
| 111-10 | 10/8/2010 | NW | 9 | 23S | 24E | 216 BREWERY AVENUE #C | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1912 |
| 112-10 | 10/8/2010 | SE | 23 | 23S | 24E | 301 + 303 CAMPBELL STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1908 |
| 113-10 | 10/8/2010 | SE | 23 | 23S | 24E | 312 CAMPBELL STREET | | SERVICE REPLACEMENT | | | | X | | | | 1 | GS | 3/4 | | | | 1908 |
| 114-10 | 10/18/2010 | SW | 23 | 23S | 24E | 23 HAZZARD STREET | | SERVICE REPLACEMENT | | | 22848 | X | | | | 1 | STEEL | 3/4 | | | | |
| 115-10 | 10/19/2010 | SE | 8 | 23S | 24E | 134 MAIN STREET | | SERVICE REPLACEMENT | | | X | X | | | | 1 | PVC | 3/4 | | | | |
| 116-10 | 10/21/2010 | SE | 23 | 23S | 24E | 501 CAMPBELL STREET | | SERVICE REPAIR | X | | | | | | | | GS/CU | 3/4 | | | | 1908 |
| 117-10 | 10/22/2010 | SE | 29 | 23S | 24E | 1350 NACO HIGHWAY | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 2 | 1954 |
| 118-10 | 10/22/2010 | SE | 23 | 23S | 24E | 201 BLACK KNOB VIEW | | SERVICE REPAIR | X | | | | | | | | GS | 3/4 | | | | |
| 119-10 | 10/22/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 120-10 | 11/4/2010 | SE | 15 | 23S | 24E | 7A OLD DOUGLAS ROAD | | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1952 |
| 121-10 | 11/12/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | 8 | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 122-10 | 11/17/2010 | SE | 29 | 23S | 24E | 103 COCONINO DRIVE | 2 | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1957 |
| 123-10 | 11/17/2010 | NW | 8 | 23S | 24E | 914 TPMBSTONE CANYON | 8 | MAIN REPAIR | X | | | | | | | | | | 18" | CU | 2 | |
| 124-10 | 11/18/2010 | NE | 5 | 24S | 24E | BOWERS STREET & MACDONALD STREET | | MAIN REPAIR | X | | | | | | | | | | | PVC | 1 | 1980 |
| 125-10 | 11/18/2010 | SE | 8 | 23S | 24E | 15 ART AVENUE | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 1/2 | 1912 |
| 126-10 | 11/18/2010 | SE | 8 | 23S | 24E | 184 QUALITY HILL #A | 1 | MAIN REPAIR | X | | | | | | | | | | | GS | 3/4 | 1939 |
| 127-10 | 11/19/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | 4 | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 128-10 | 11/23/2010 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |

| LEAK # | REPAIR/ REPLACE DATE | 1/4 | SECTION | TOWN SHIP | RANGE | ADDRESS | MAN HOURS | LEAK TYPE | LEAK REPORT | BLUE STAKE | PDR | ONION SKINS | SERVICE ORDER | AS 400 | FIELD CHECK | # SERVICES REPLACED | SERVICE MATERIAL | SERVICE LINE SIZE (IN) | LF MAIN REPLACED | MAIN MATERIAL | MAIN SIZE (IN) | ORIGINAL INSTALL DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 129-10 | 11/23/2010 | NE | 5 | 24S | 24E | 2233 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 130-10 | 11/24/2010 | SE | 15 | 23S | 24E | 7 DOUGLAS ROAD #4 | 4 | MAIN REPAIR | X | | | | | | | | | | 24" | STEEL | 2 | |
| 131-10 | 11/29/2010 | SE | 8 | 23S | 24E | 184 QUALITY HILL #A | 1 | MAIN REPAIR | X | | | | | | | | | | | GS | 3/4 | 1939 |
| 132-10 | 11/29/2010 | SE | 8 | 23S | 24E | 184 QUALITY HILL #A | 4 | MAIN REPLACEMENT | X | | | | | | | | | | 2 | GS | 3/4 | 1939 |
| 133-10 | 11/29/2010 | SE | 23 | 23S | 24E | 301 HAZZARD | 2 | MAIN REPAIR | X | | | | | | | | | | 36 | STEE | 3/4 | |
| 134-10 | 12/1/2010 | NE | 32 | 23S | 24E | 517 SAN JOSE DRIVE | | MAIN REPLACEMENT | X | | | | | | | | | | | CA | 4 | 1962 |
| 135-10 | 12/2/2010 | SE | 23 | 23S | 24E | 201 CLAWSON STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 136-10 | 12/7/2010 | SE | 14 | 23S | 24E | HIGHWAY 80 WEST OF WARREN CUT OFF | 1 | SERVICE REPAIR | X | | | | | | | | | | | CU | 2 | 2006 |
| 137-10 | 12/7/2010 | SE | 8 | 23S | 24E | 183 QUALITY HILL | 3 | MAIN REPAIR | X | | | | | | | | | | | GS | 2 | 1932 |
| 138-10 | 12/7/2010 | SE | 8 | 23S | 24E | 186 QUALITY HILL | 2 | SERVICE REPLACEMENT | X | | | | | | | | STEEL | 2 1/2 | | | | 1947 |
| 139-10 | 12/9/2010 | NW | 9 | 23S | 24E | 215 BREWERY AVENUE | 5 | MAIN REPAIR | X | | | | | | | | | | | STEEL | 1 | 1978 |
| 140-10 | 12/13/2010 | SW | 23 | 23S | 24E | 310 CENTER AVENUE | | MAIN REPLACEMENT | X | | | | | | | | | | 1.5 | GS | 1 1/4 | 1908 |
| 141-10 | 12/16/2010 | SE | 15 | 23S | 24E | 16 ERIE STREET | 8 | MAIN REPAIR | X | | | | | | | | | | | CU | 6 | 1935 |
| 142-10 | 12/21/2010 | SE | 23 | 23S | 24E | 607 CAMPBELL STREET | 6 | MAIN REPAIR | X | | | | | | | | | | | CI | 6 | 1908 |
| 143-10 | 12/22/2010 | NE | 5 | 24S | 24E | 2207 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |
| 144-10 | 12/22/2010 | SE | 23 | 23S | 24E | 214 CLAWSON STREET | 4 | MAIN REPAIR | X | | | | | | | | | | | STEEL | 8 | 1908 |
| 145-10 | 12/27/2010 | NW | 23 | 23S | 24E | 301 COLE AVENUE | | OTHER | X | | | | | | | | STEEL/CU | 3/4 & 1 | | | | |
| 146-10 | 12/29/2010 | NE | 5 | 24S | 24E | 2195 S BOWERS STREET | | MAIN REPAIR | X | | | | | | | | | | | STEEL | 4 | 1958 |

# APPENDIX

# 9.2

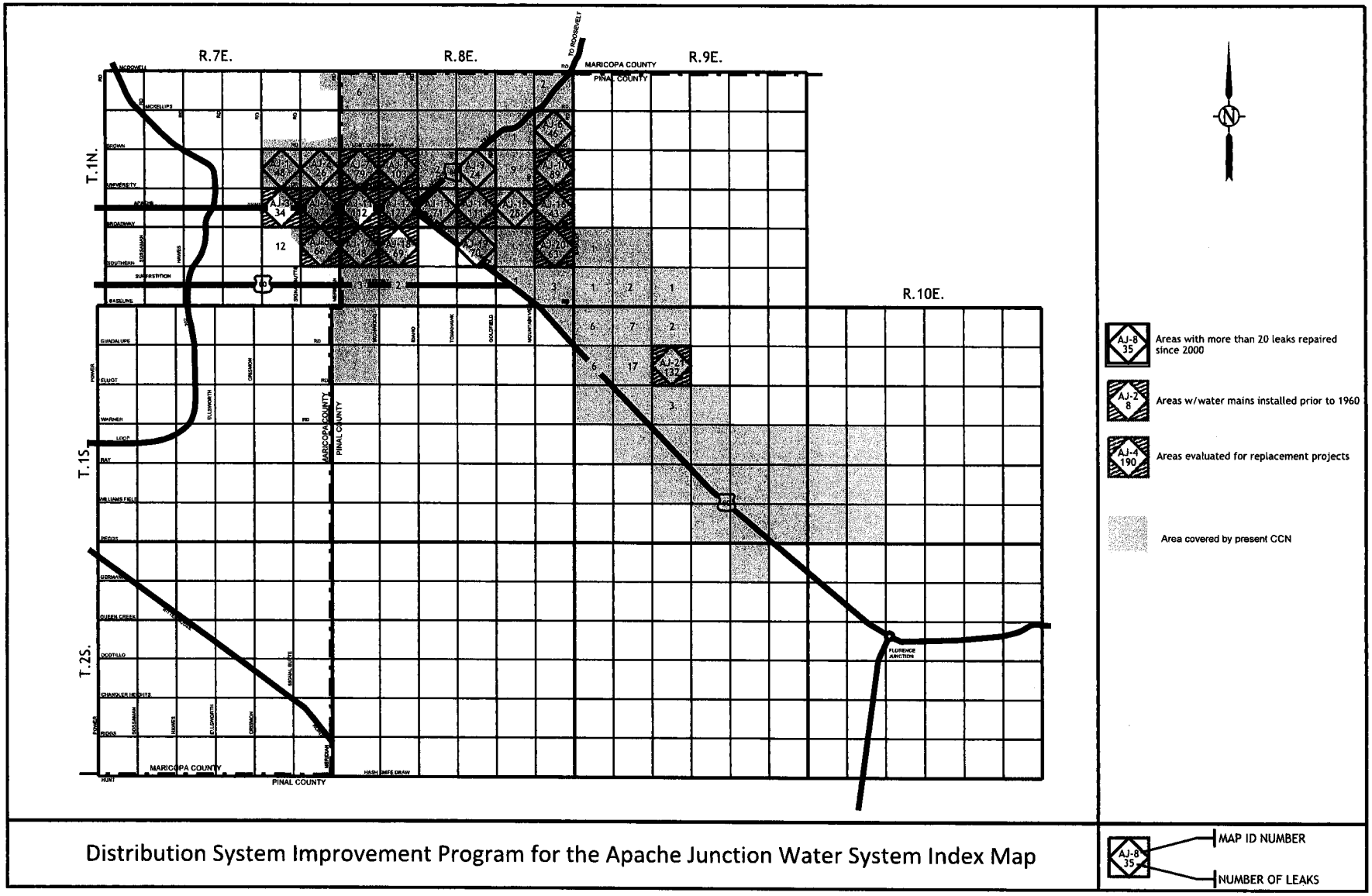
# Leak and Break Repair Maps

# APPENDIX

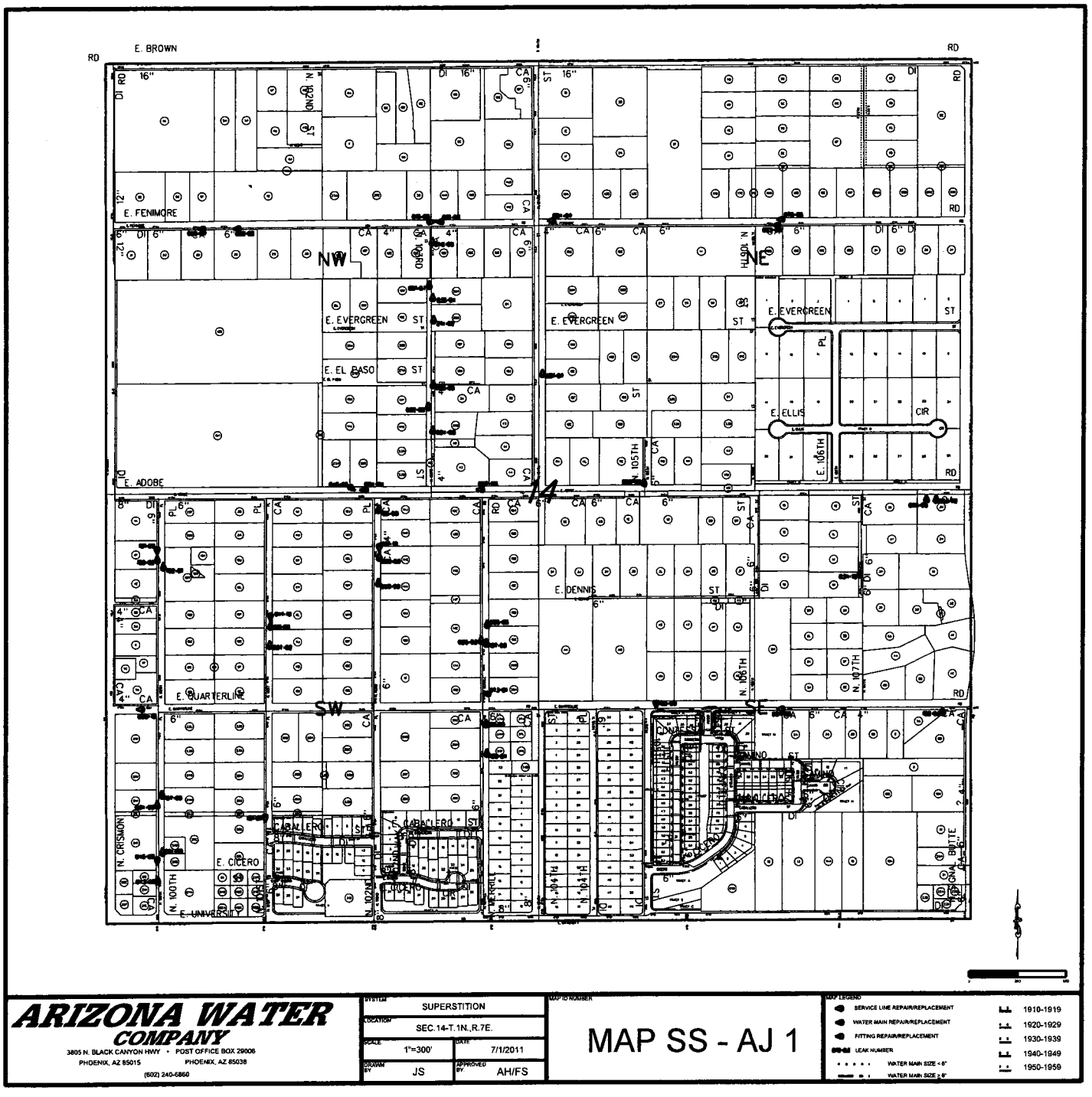
# 9.2.1

# Leak and Break Repair Maps

# Superstition Division




Distribution System Improvement Program for the Apache Junction Water System Index Map




**ARIZONA WATER COMPANY**

3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.14-T.1N.,R.7E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

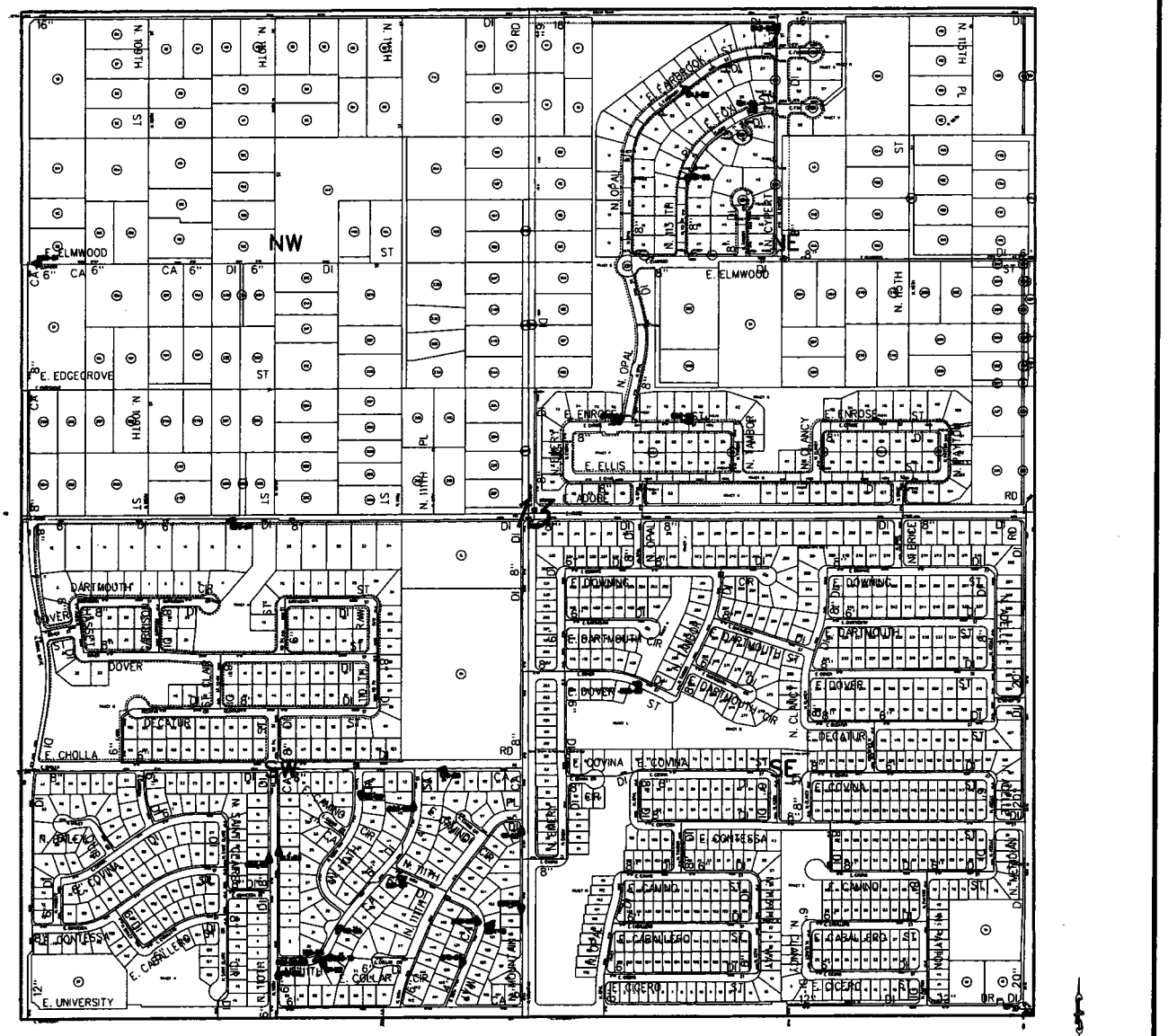
MAP ID NUMBER

# MAP SS - AJ 1

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 8"
- WATER MAIN SIZE ≥ 8"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959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E. EDGEGROVE
E. ENRO
E. ELLIS
E. CROSS
E. DOWNING
E. DARTMOUTH
E. DOVER
E. DECATUR
E. COVINA
E. CONTESSA
E. CAMINO
E. CABALLERO
E. CICERO
E. CHOLLA
E. UNIVERSITY
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N. 113TH PL
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N. 125TH
N. CLANCY
N. TAMBOR
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N. BRICE
N. VALLEY
N. MERIDIAN
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N. HARNESS
N. BRIDLE
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N. STIRRUP
N. SPUR
N. HALTER
N. BIT
N. REINS
N. BRIDGE
N. CURB
N. CHAIN
N. SHOE
N. SHOEING
N. FORGE
N. ANVIL
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N. HORSE
N. HITCH
N. HOOK
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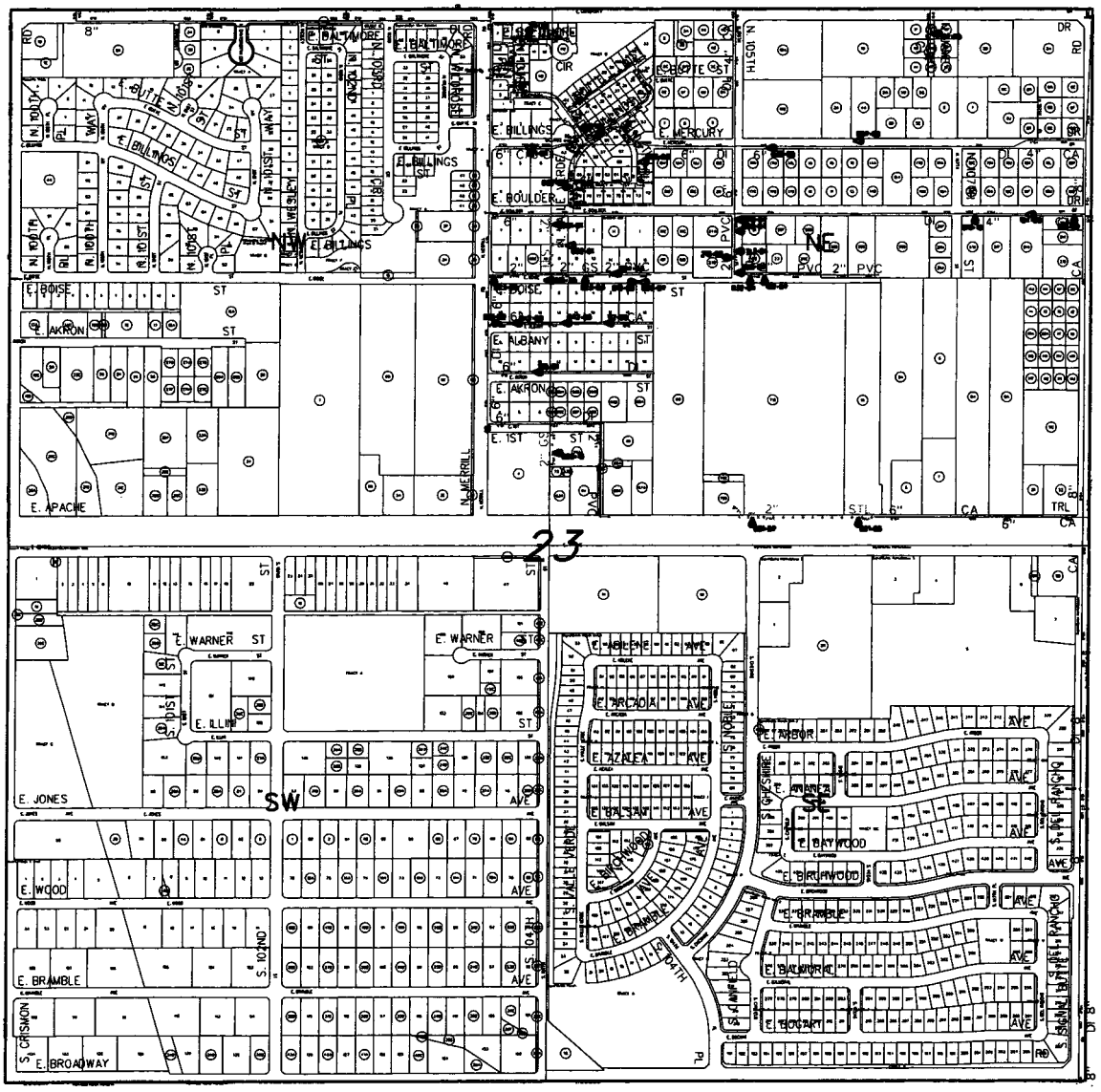
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
N. CORRALLOSSASTATIONSTREETS




**ARIZONA WATER COMPANY**

3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.23-T.1N.,R.7E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

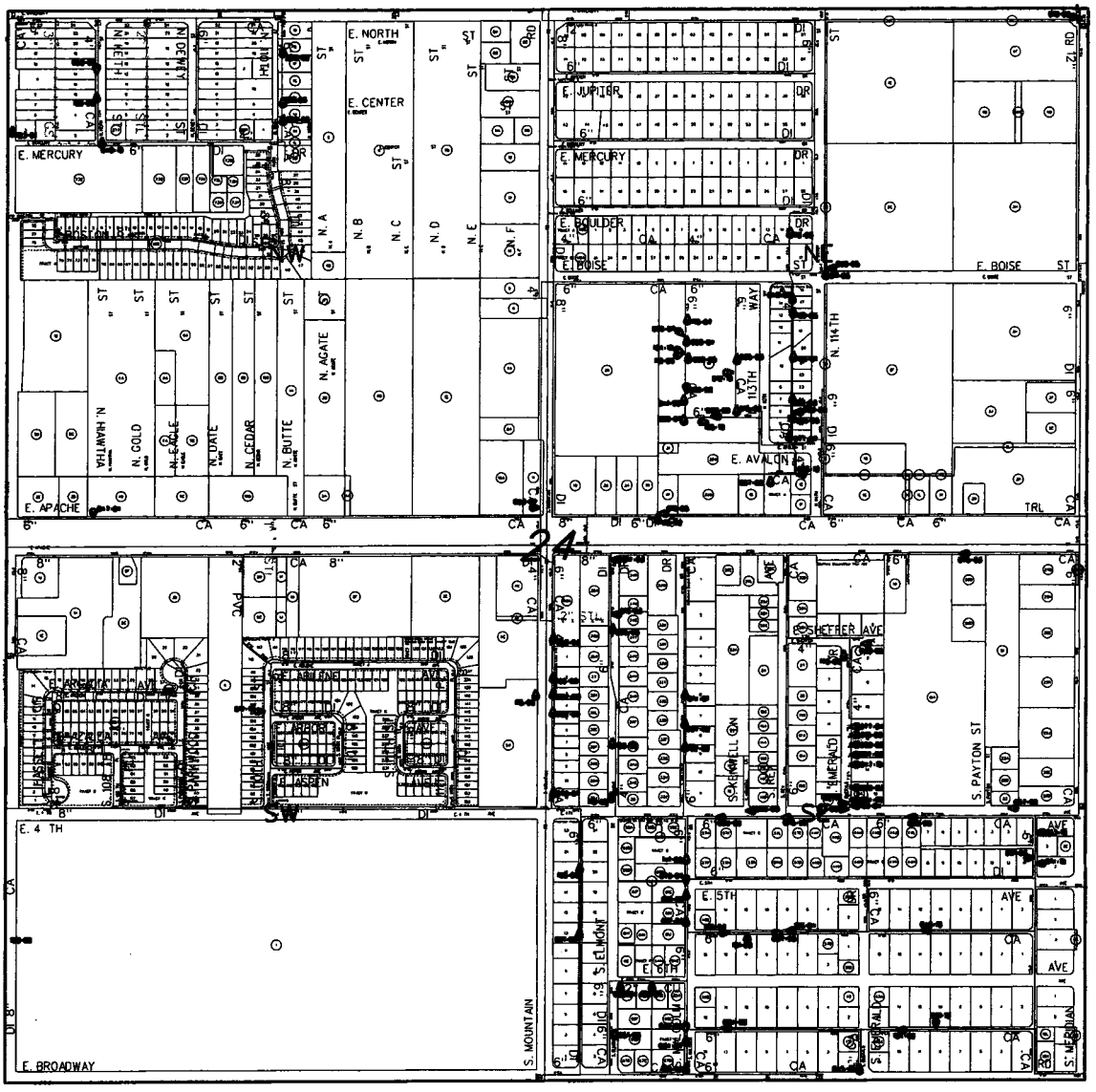
MAP ID NUMBER

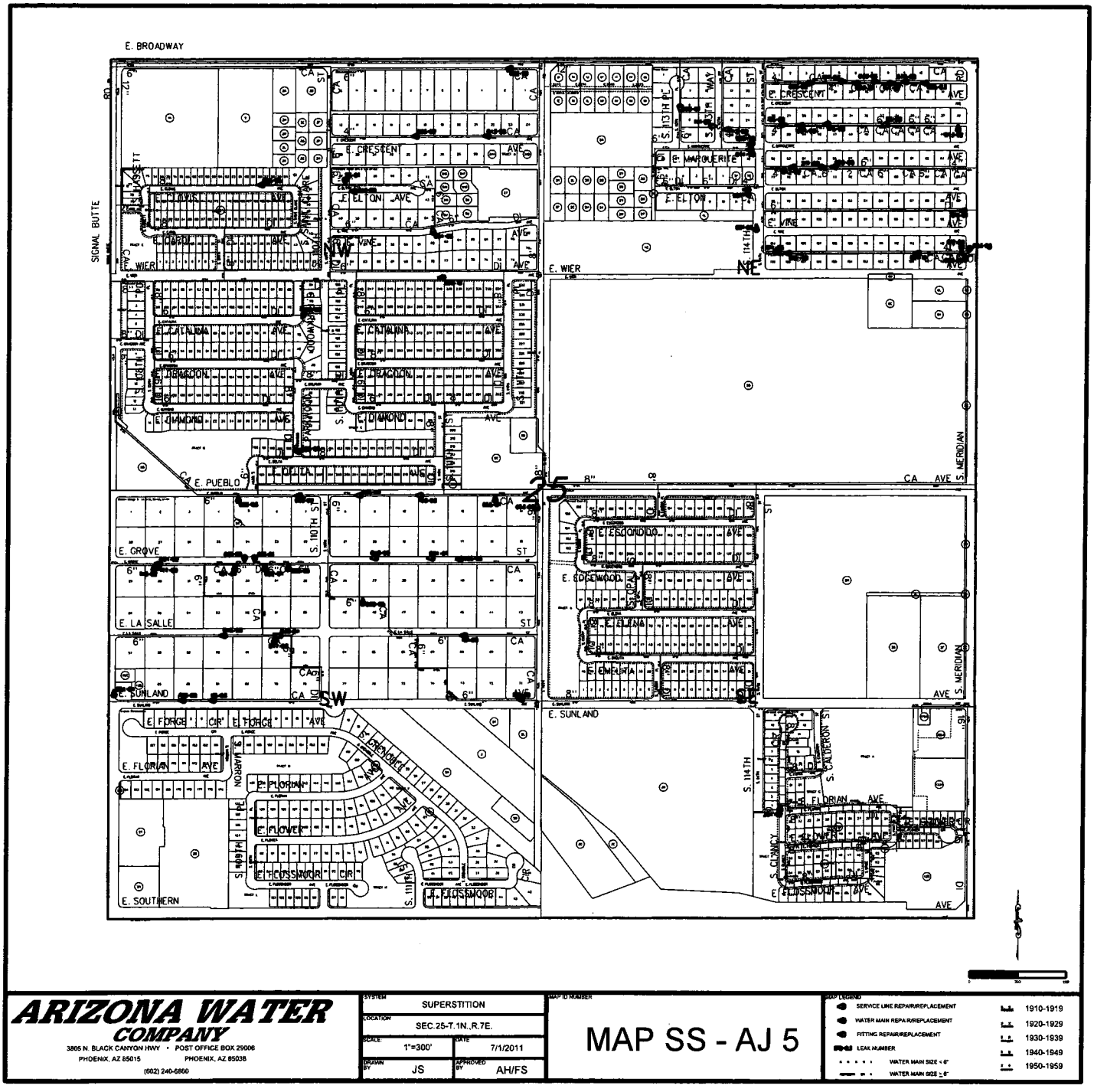
# MAP SS - AJ 3

MAP LEGEND

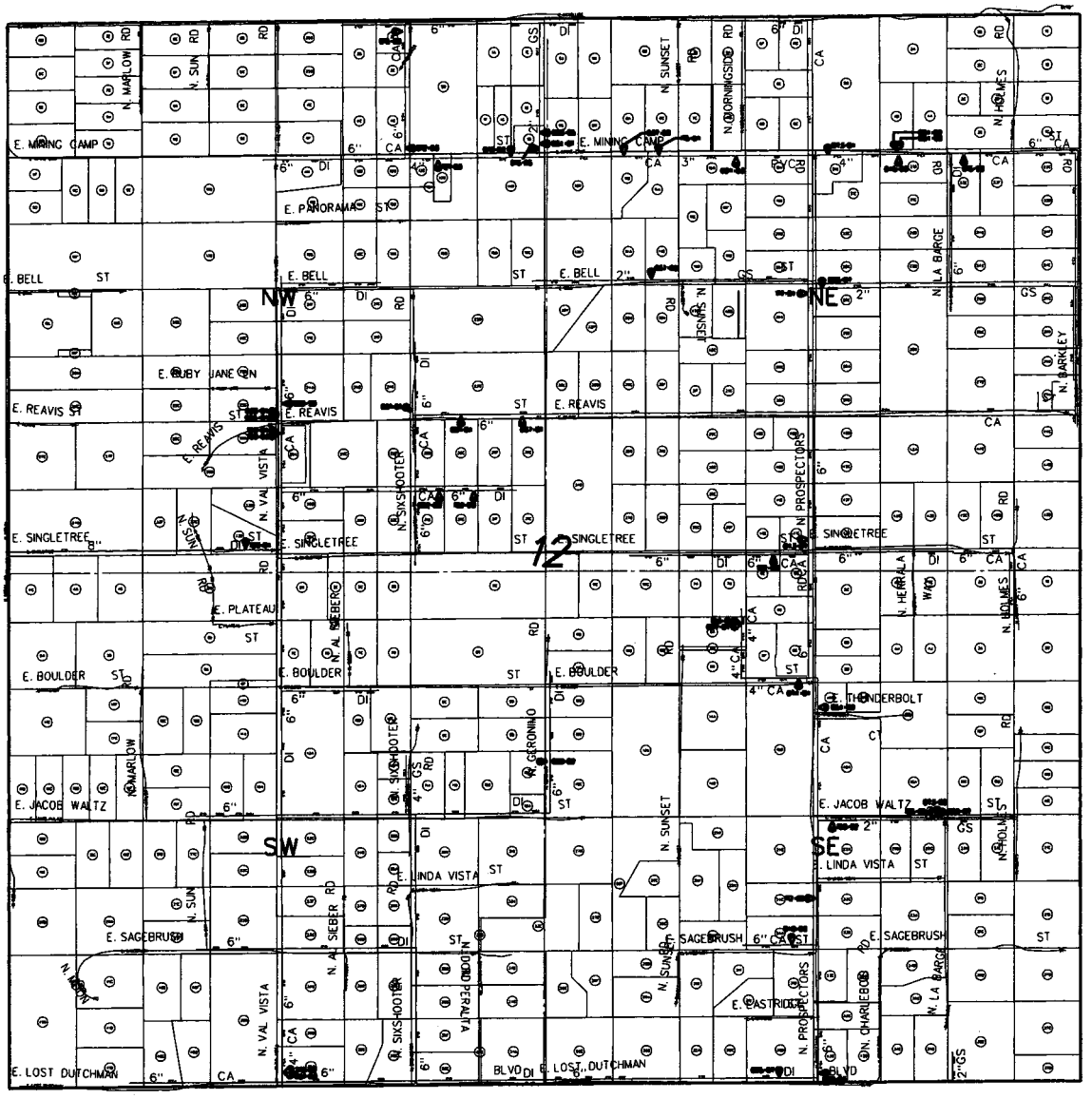
- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959


E. NORTH ST
E. CENTER ST
E. MERCURY
E. JUPITER
E. BOULDER
E. BOISE ST
E. APACHE
E. AVALON
E. 4 TH
E. BROADWAY
N. ACATE
N. BUTTE
N. CEDAR
N. DATE
N. EAGLE
N. GOLD
N. HAWTHORN
N. 114TH
S. PAYTON ST
S. MOUNTAIN
S. MERIDIAN
E. 5TH AVE
E. 6TH
SOUTHWELL DR
SOUTHWELL CIR
SOUTHWELL WAY
SOUTHWELL RD
SOUTHWELL AVE
SOUTHWELL TRL
SOUTHWELL CT
SOUTHWELL PL
SOUTHWELL LN
SOUTHWELL TER




| | | | |
|---|---|---|---|
| **ARIZONA WATER COMPANY** | SYSTEM: SUPERSTITION | MAP ID NUMBER | MAP LEGEND |
| 3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006 | LOCATION: SEC.25-T.1N.,R.7E. | MAP SS - AJ 5 | SERVICE LINE REPAIR/REPLACEMENT |
| PHOENIX, AZ 85015 PHOENIX, AZ 85038 | SCALE: 1"=300' DATE: 7/1/2011 | | WATER MAIN REPAIR/REPLACEMENT |
| (602) 240-6860 | DRAWN BY: JS APPROVED BY: AH/FS | | FITTING REPAIR/REPLACEMENT |
| | | | LEAK NUMBER |
| | | | WATER MAIN SIZE < 6" |
| | | | WATER MAIN SIZE ≥ 6" |
| | | | 1910-1919 |
| | | | 1920-1929 |
| | | | 1930-1939 |
| | | | 1940-1949 |
| | | | 1950-1959 |

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.12-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

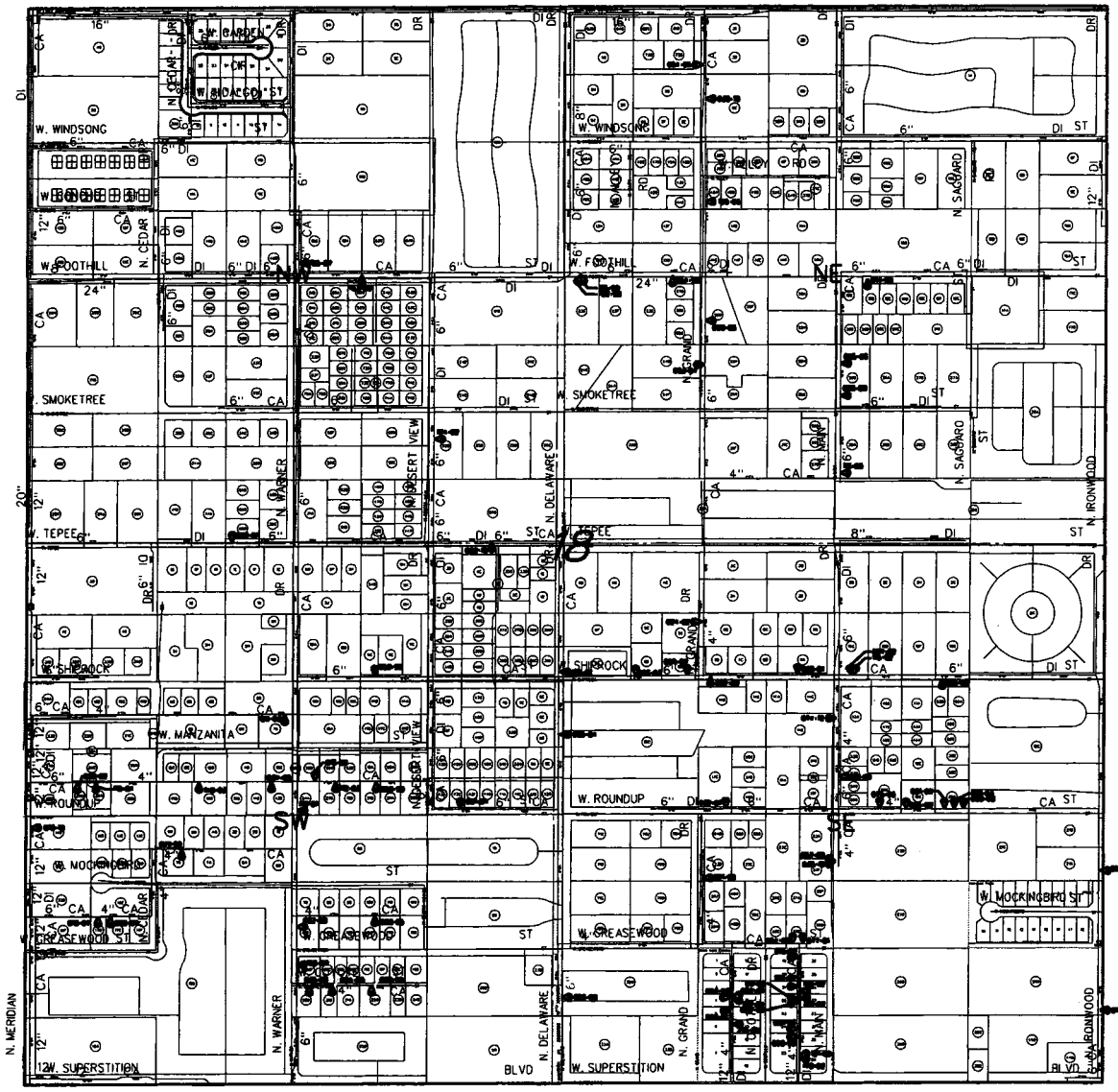
MAP ID NUMBER

# MAP SS - AJ 6

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.18-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

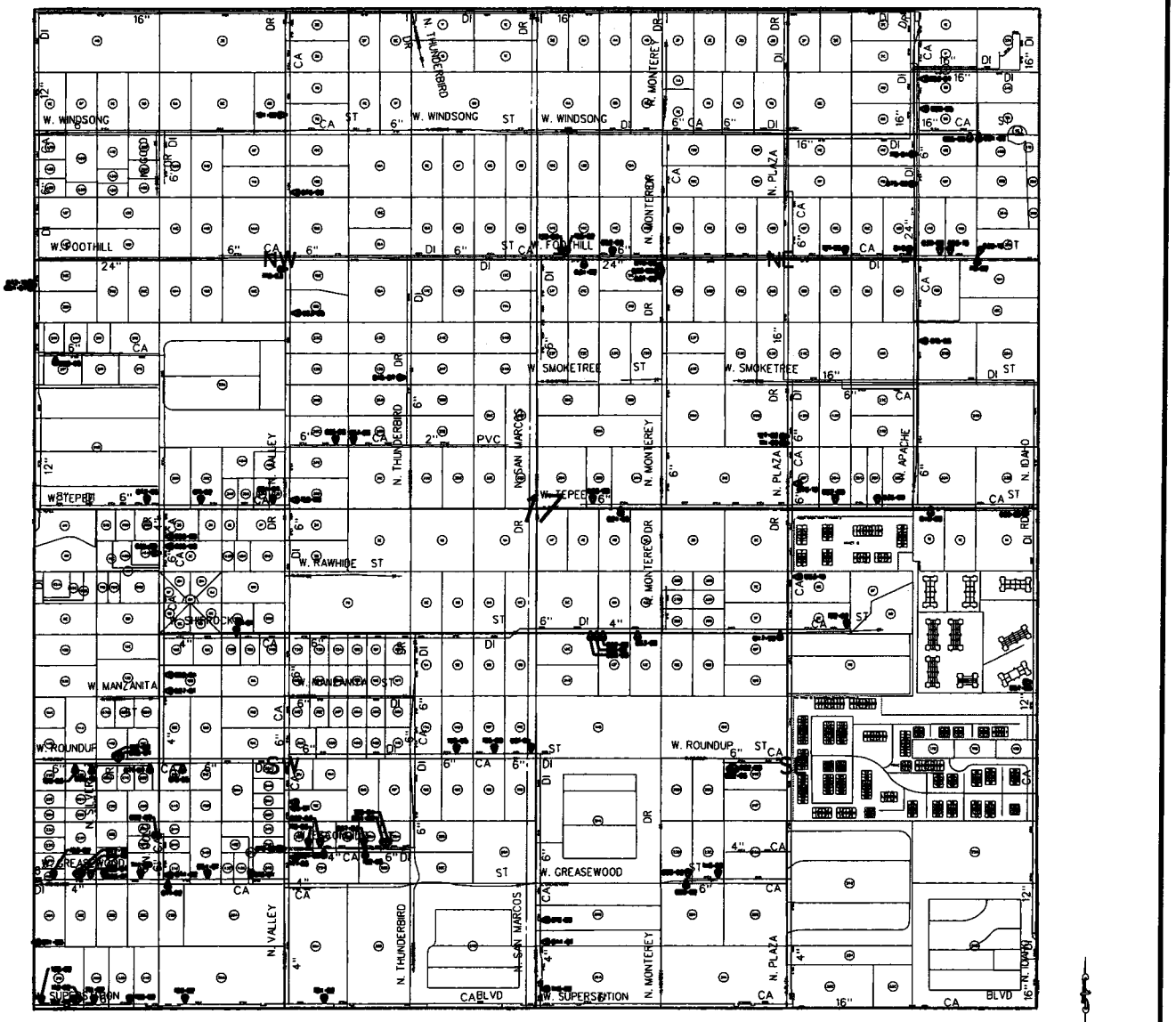
MAP ID NUMBER

# MAP SS - AJ 7

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.17-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

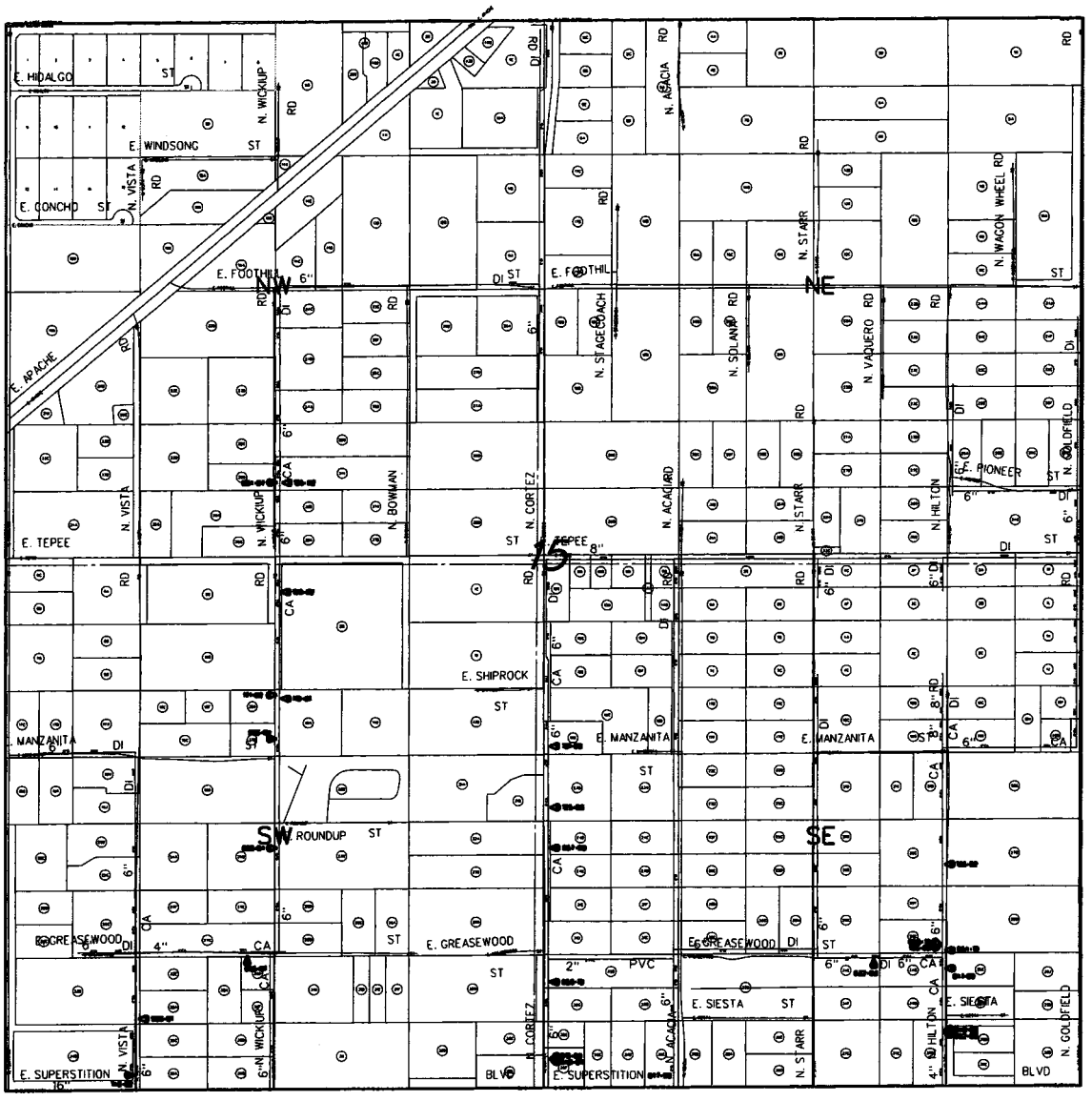
MAP ID NUMBER

# MAP SS - AJ 8

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

- 1910-1919
- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.15-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

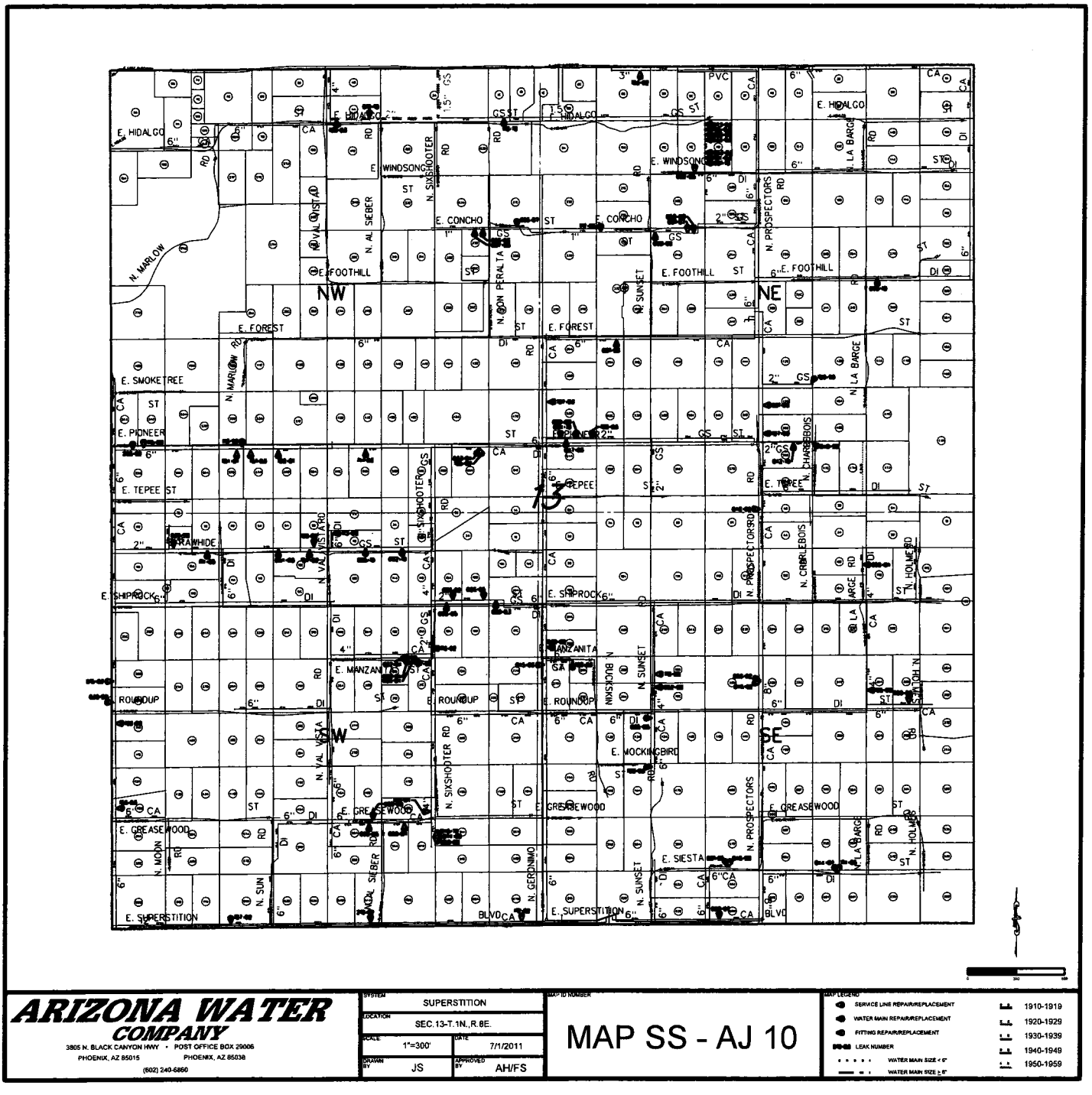
MAP ID NUMBER

# MAP SS - AJ 9

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 8"
- WATER MAIN SIZE ≥ 8"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.13-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

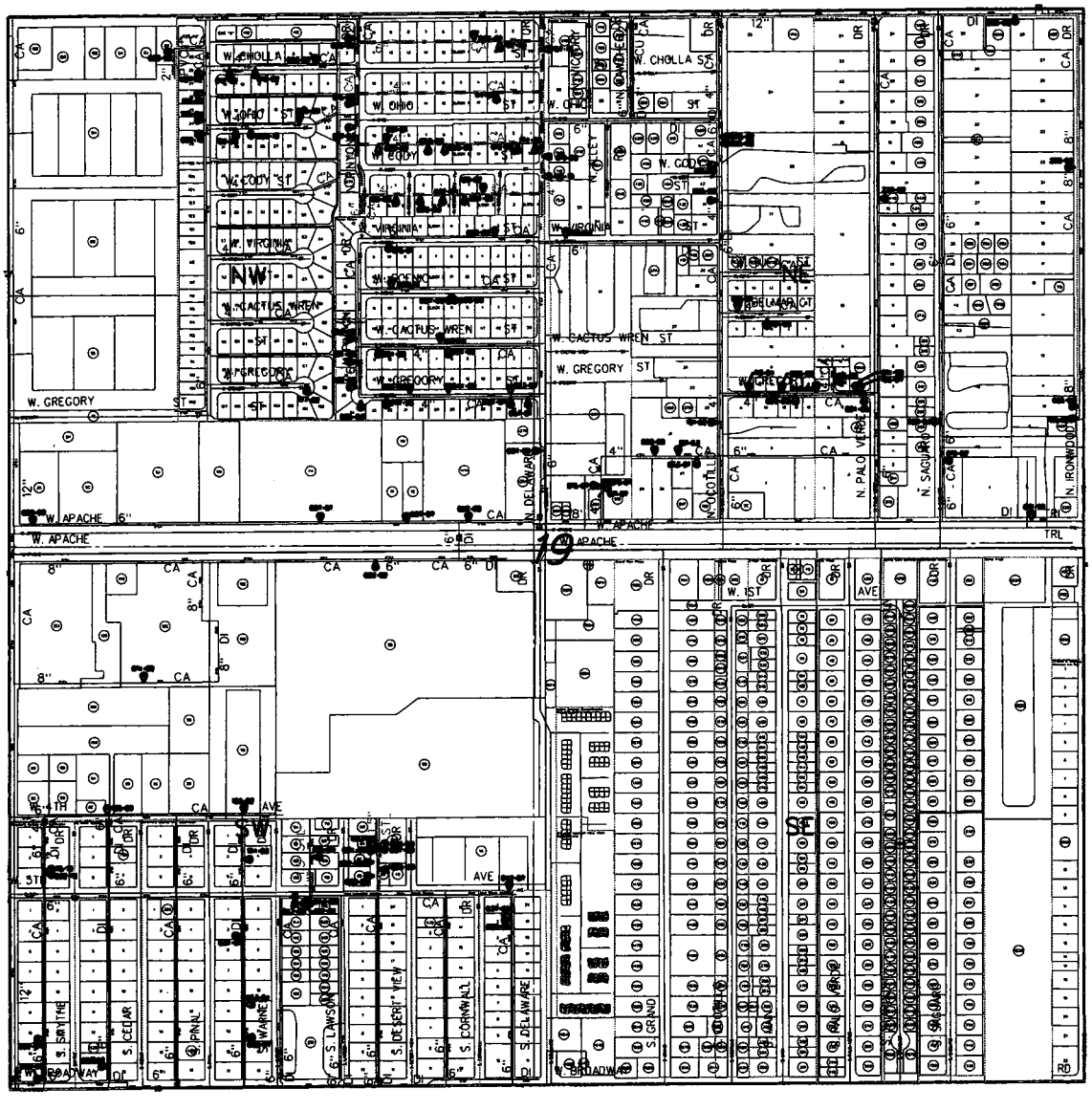
MAP ID NUMBER

# MAP SS - AJ 10

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.19-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

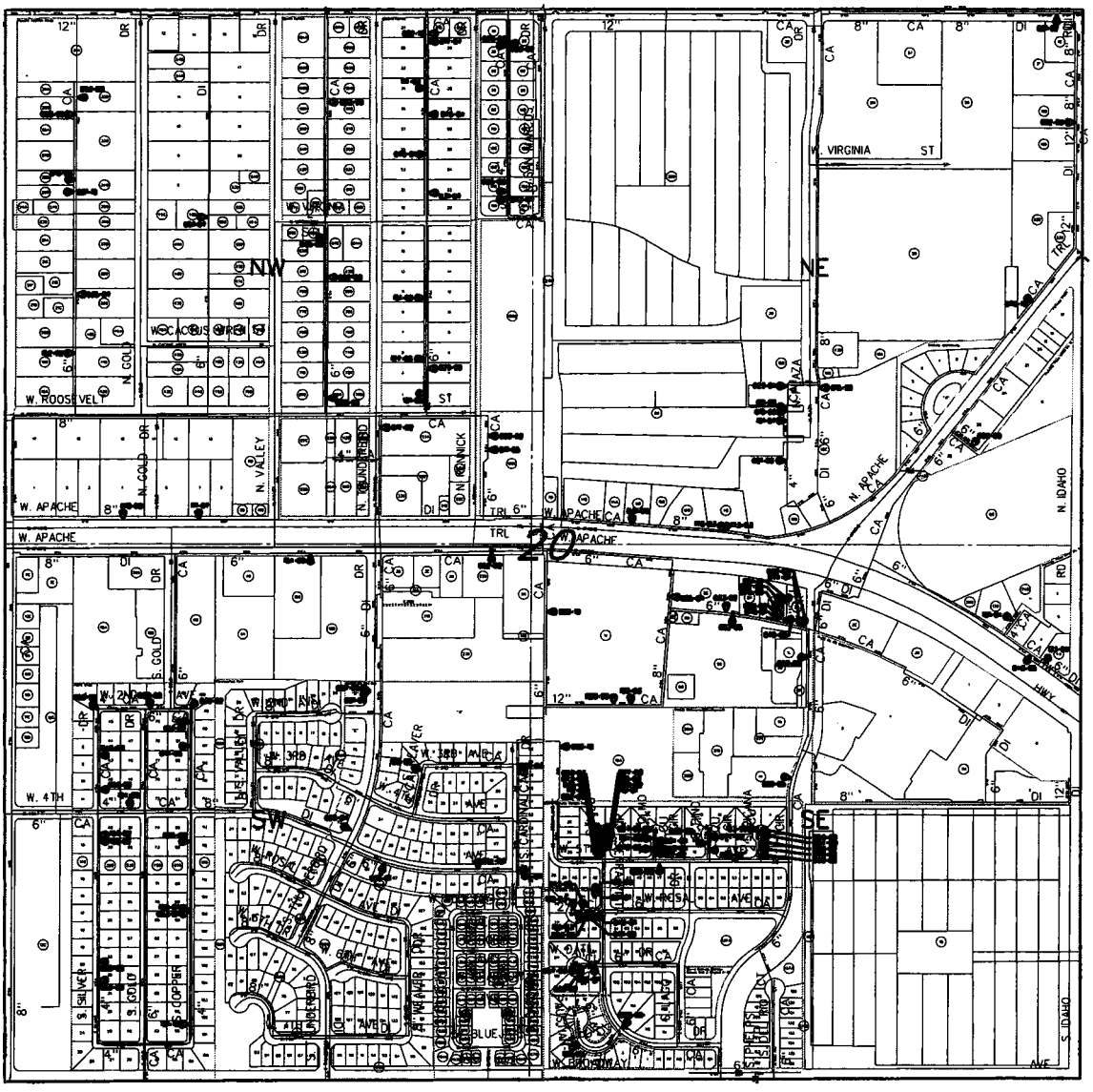
MAP ID NUMBER

# MAP SS - AJ 11

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 8"
- WATER MAIN SIZE ≥ 8"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

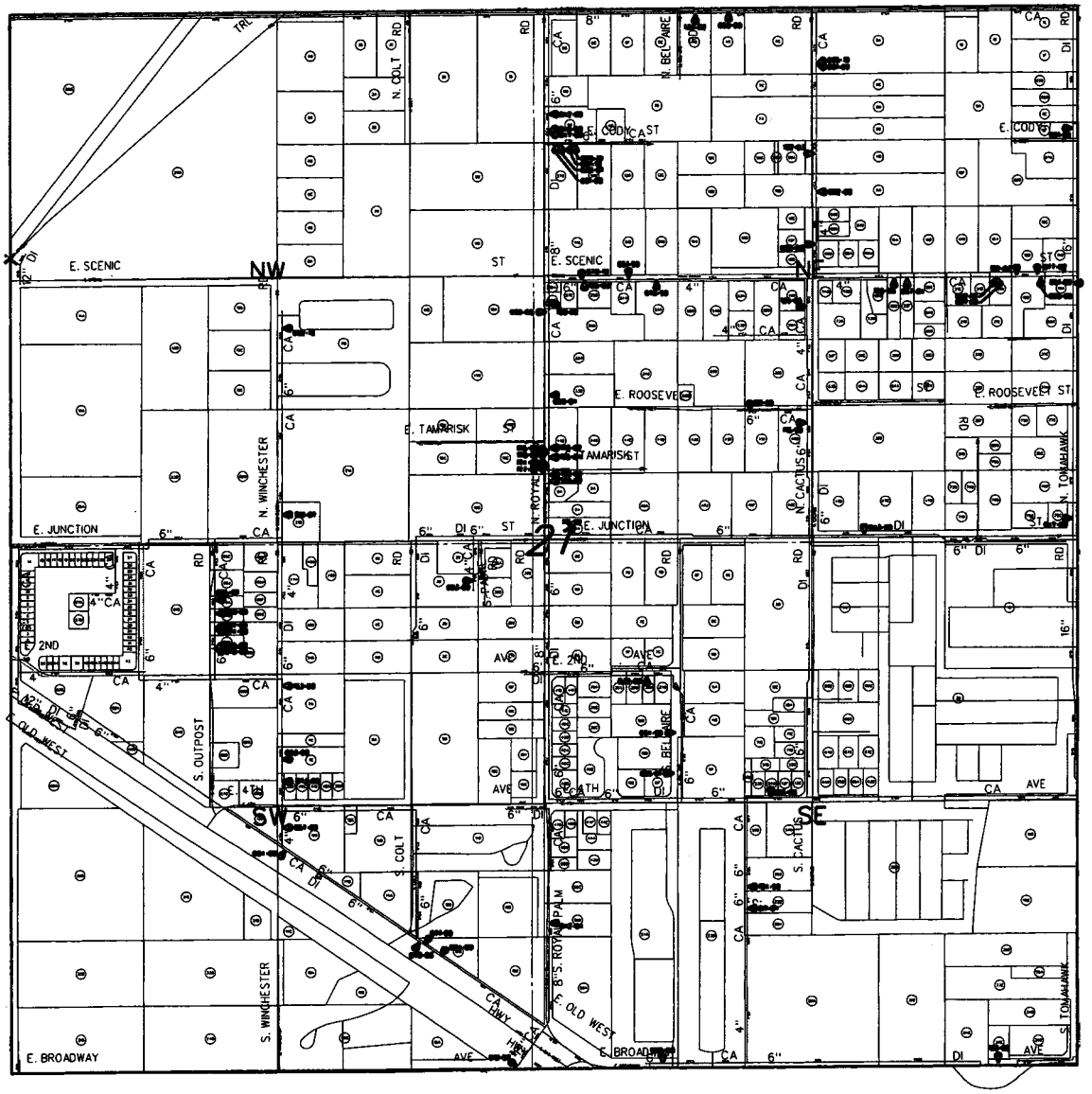
| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.20-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP SS - AJ 12

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 8"
- WATER MAIN SIZE ≥ 8"
- 1910-1919
- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.21-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

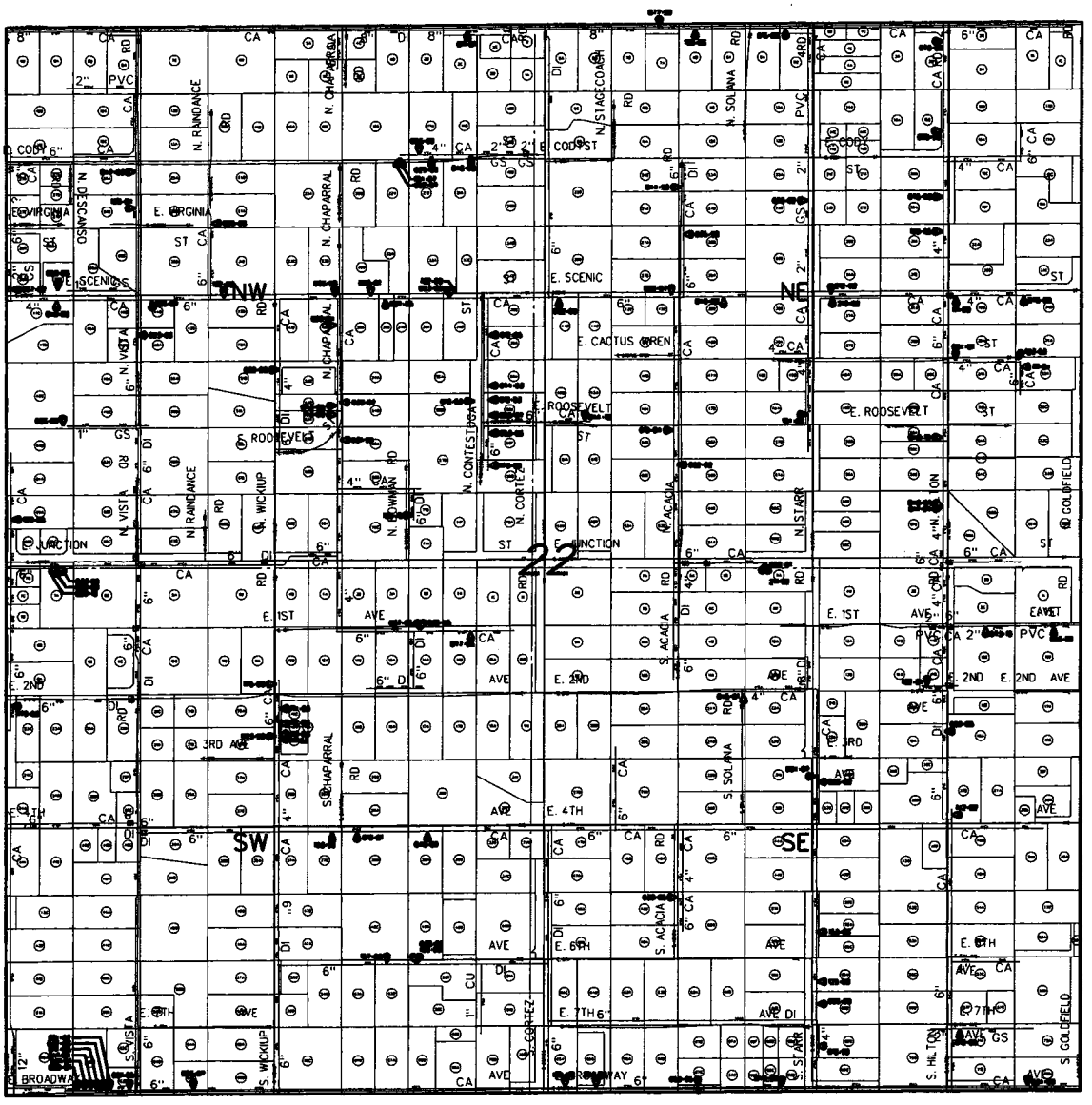
MAP ID NUMBER

# MAP SS - AJ 13

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959




**ARIZONA WATER COMPANY**

3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85036
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.22-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

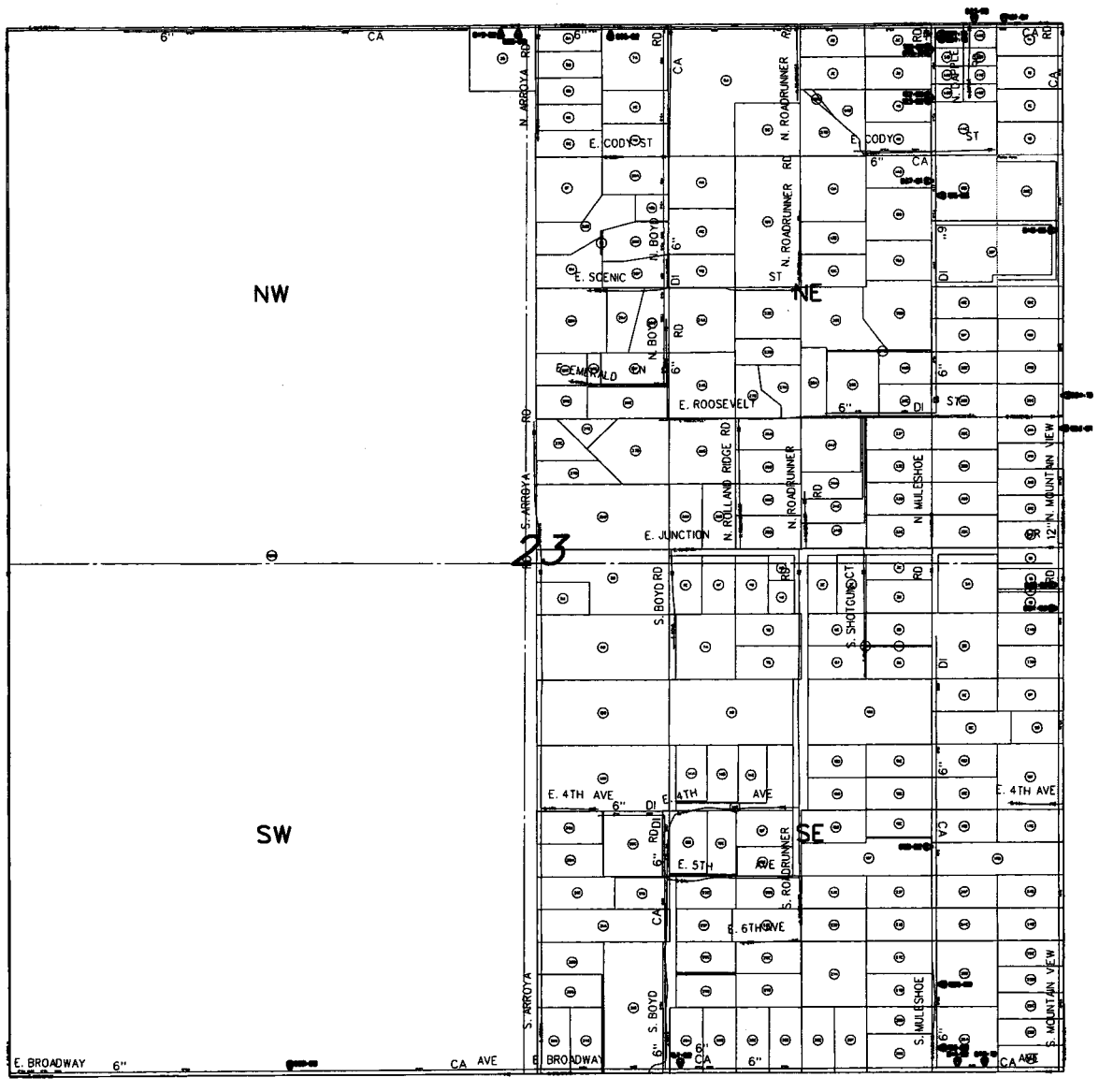
MAP ID NUMBER

# MAP SS - AJ 14

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.23-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

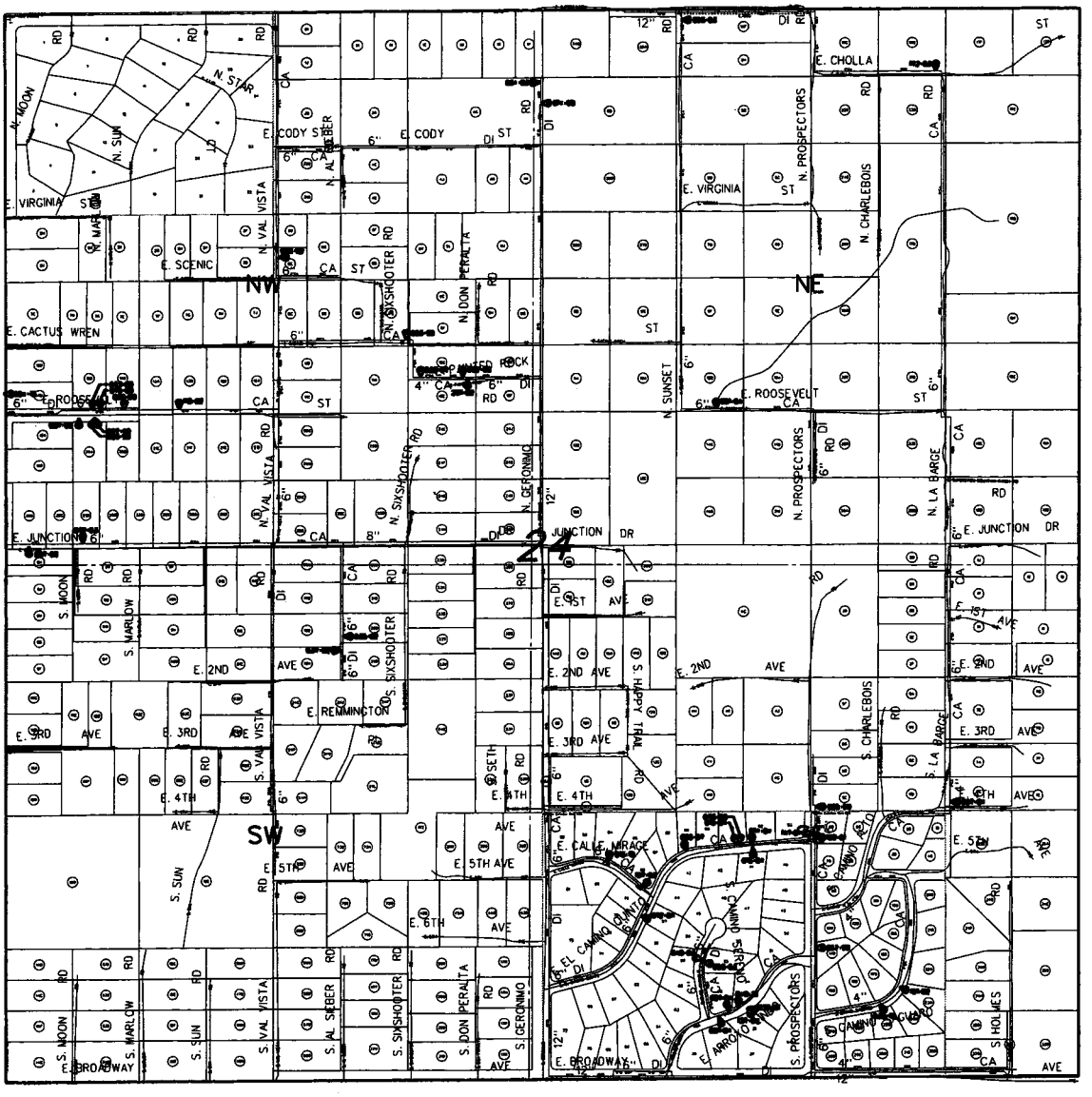
MAP ID NUMBER

# MAP SS - AJ 15

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.24-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

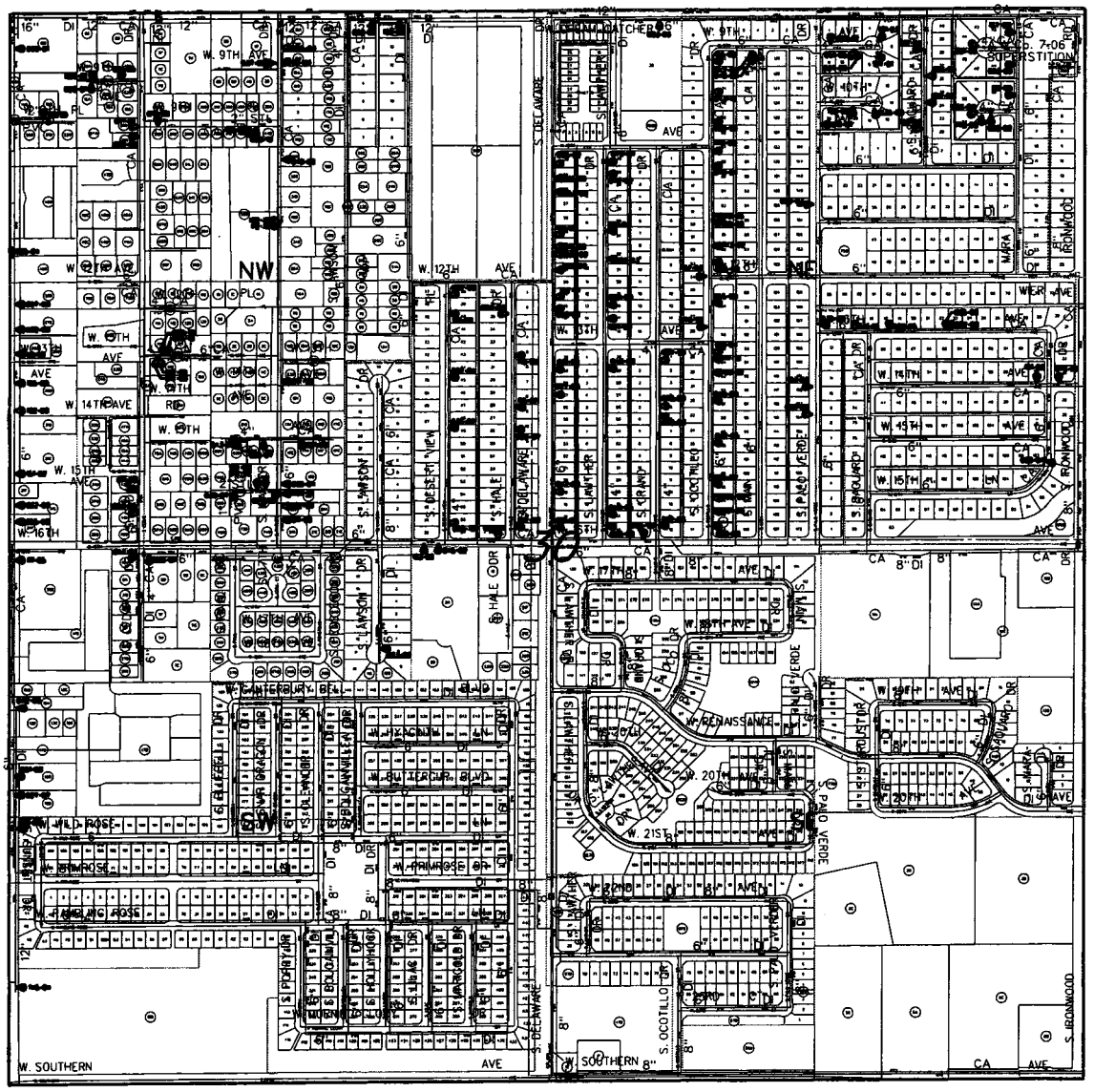
MAP ID NUMBER

# MAP SS - AJ 16

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.30-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

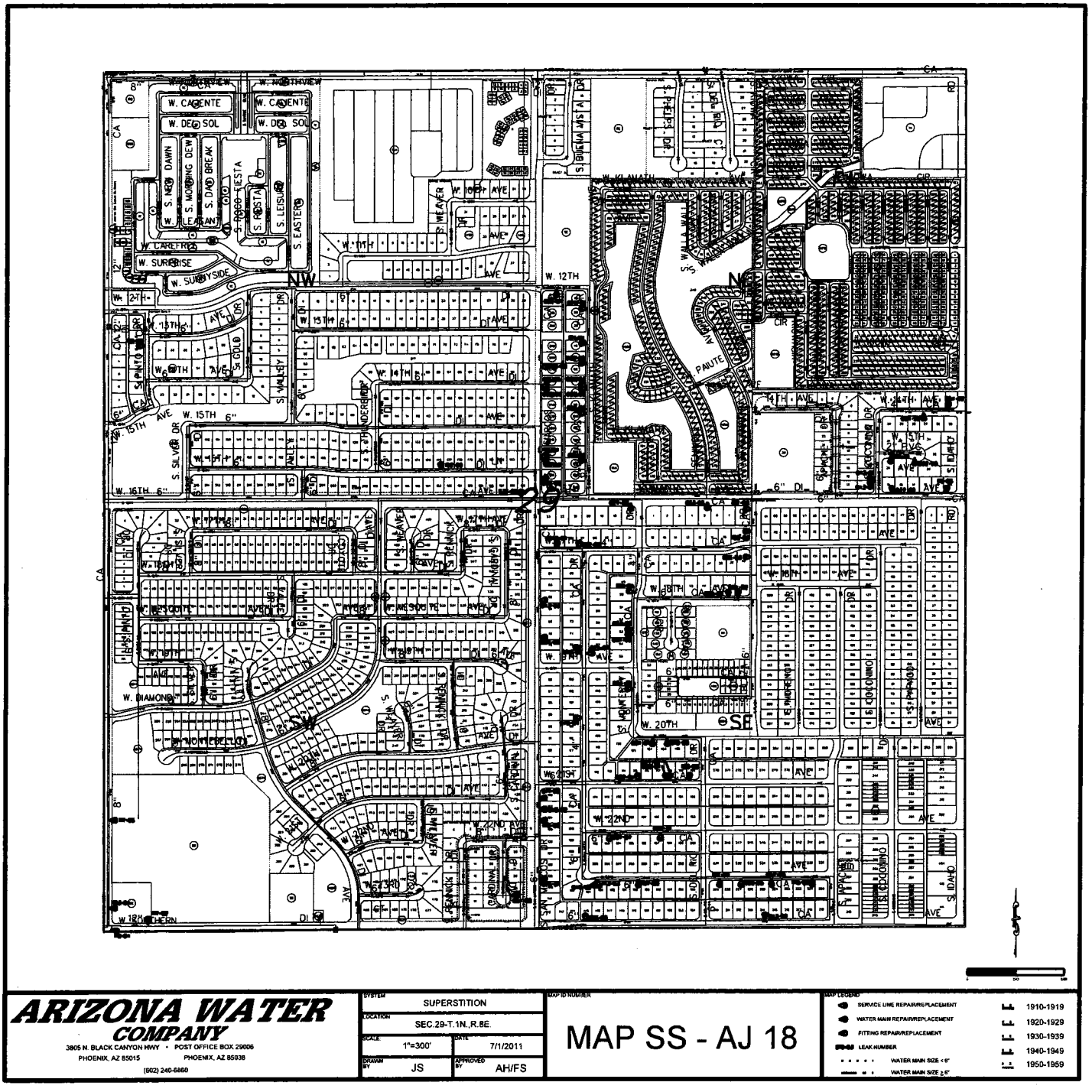
MAP ID NUMBER

# MAP SS - AJ 17

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.29-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

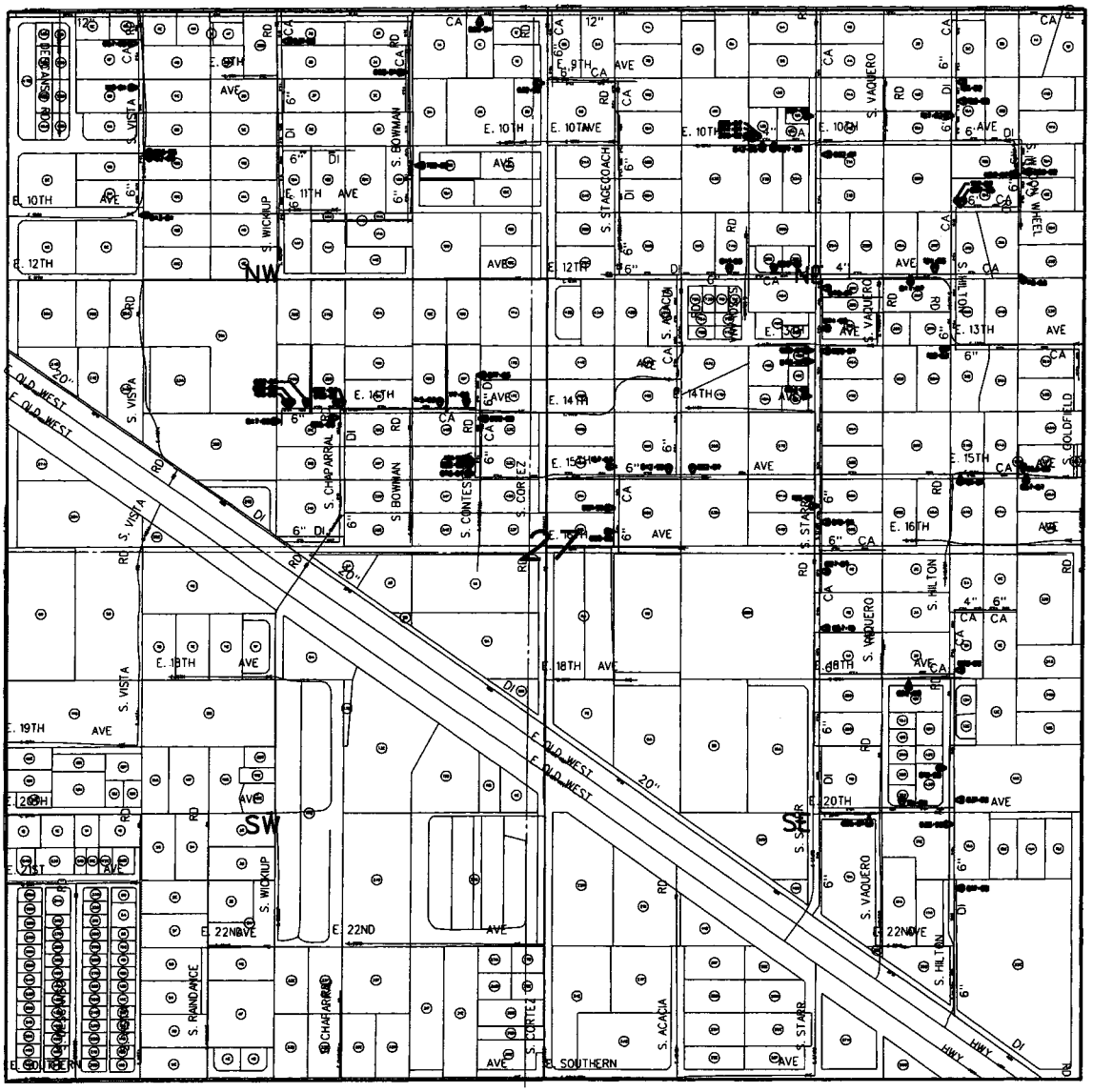
MAP ID NUMBER

# MAP SS - AJ 18

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.27-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

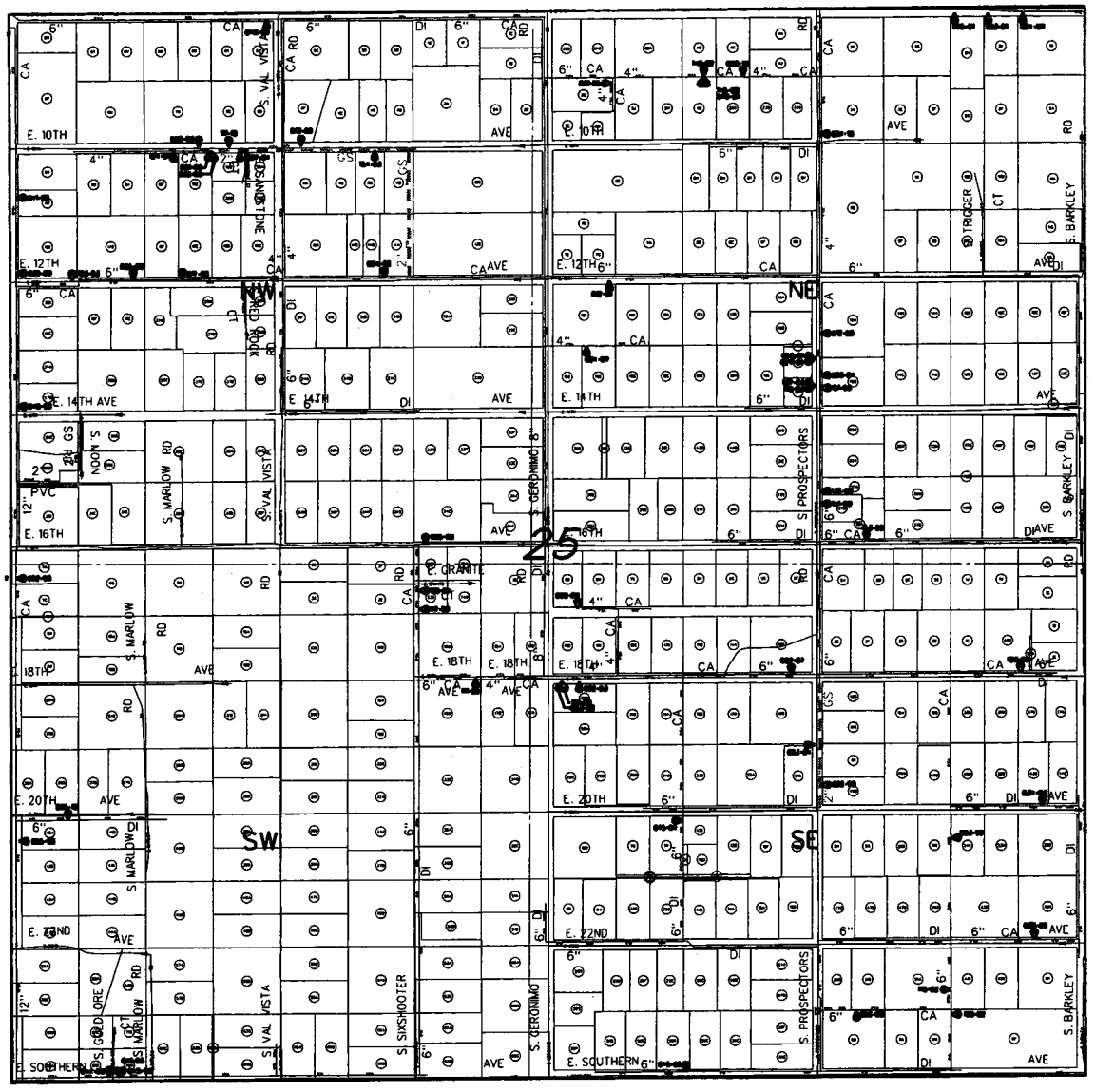
MAP ID NUMBER

# MAP SS - AJ 19

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.25-T.1N.,R.8E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

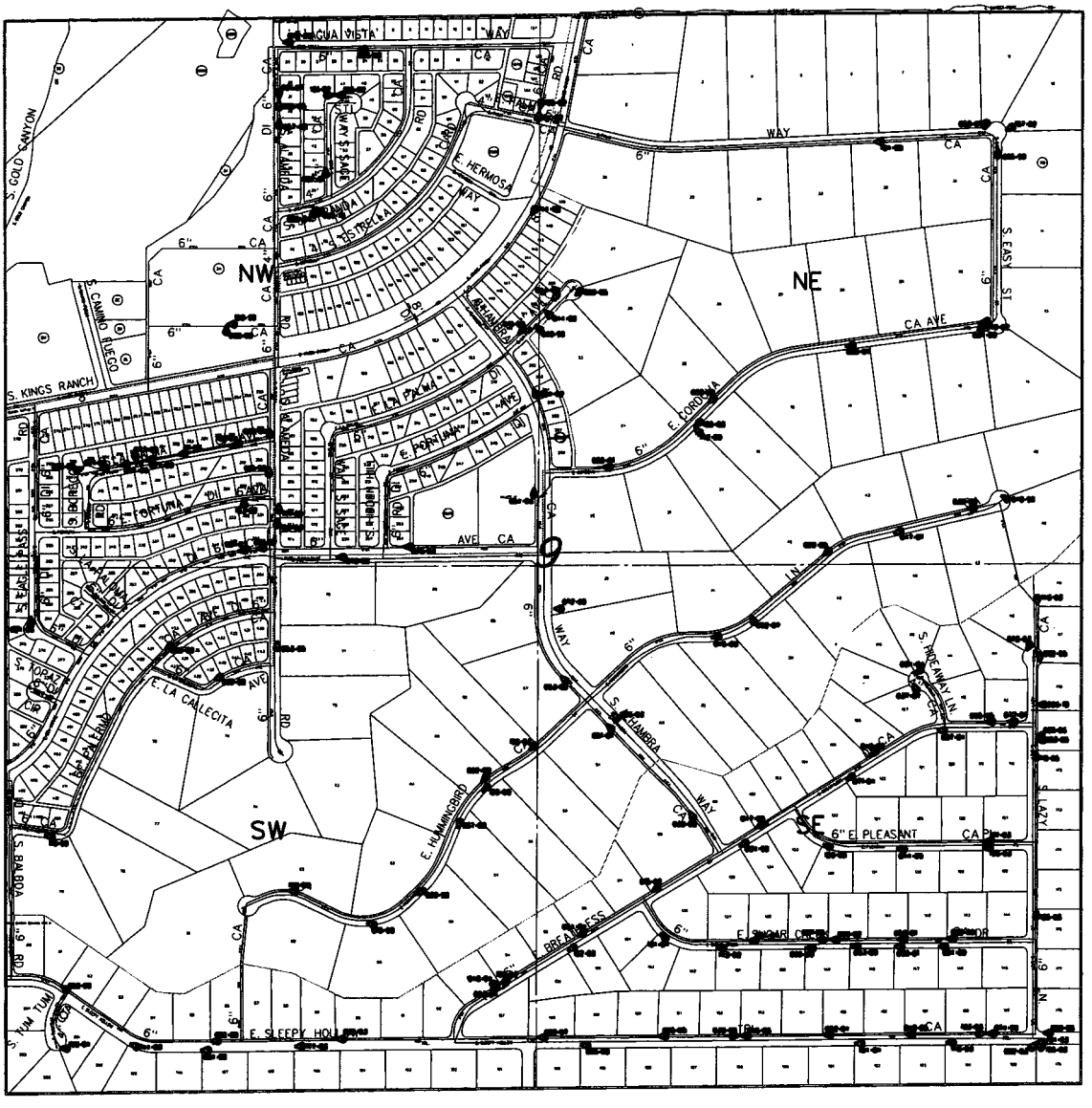
MAP ID NUMBER

# MAP SS - AJ 20

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.9-T.1S.,R.9E. |
| SCALE | 1"=300' |
| DATE | 7/15/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

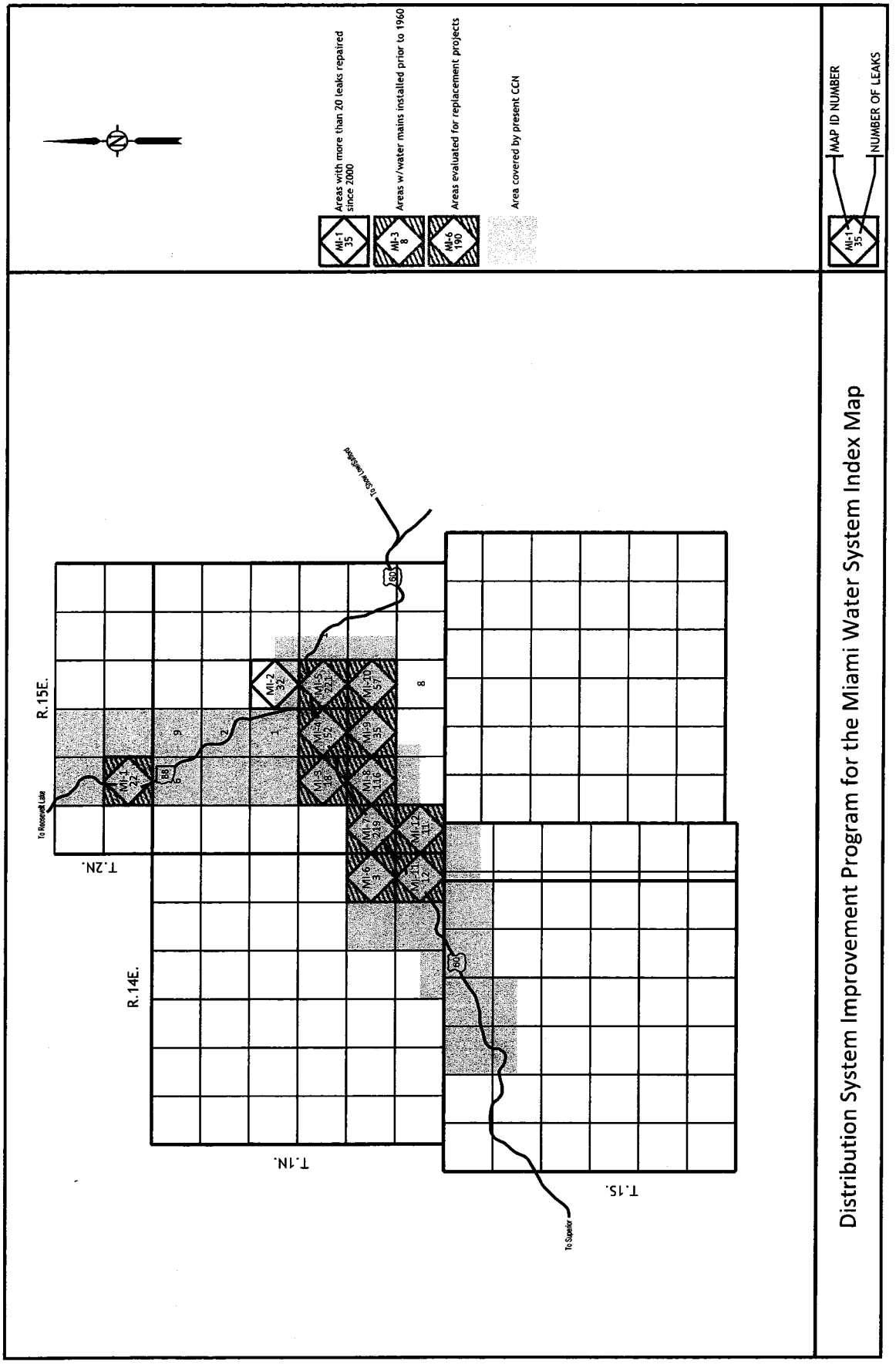
MAP ID NUMBER

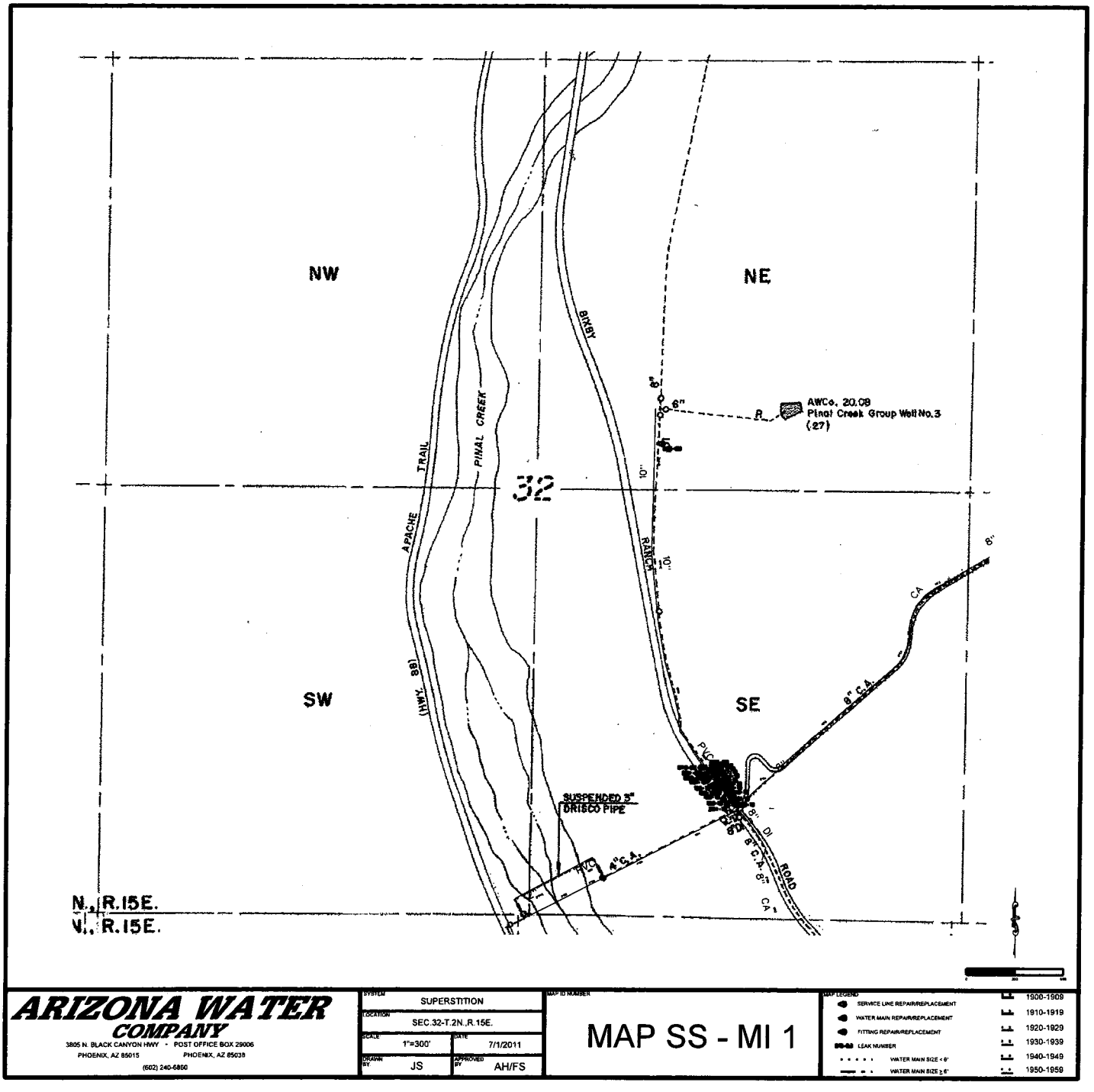
# MAP SS - AJ 21

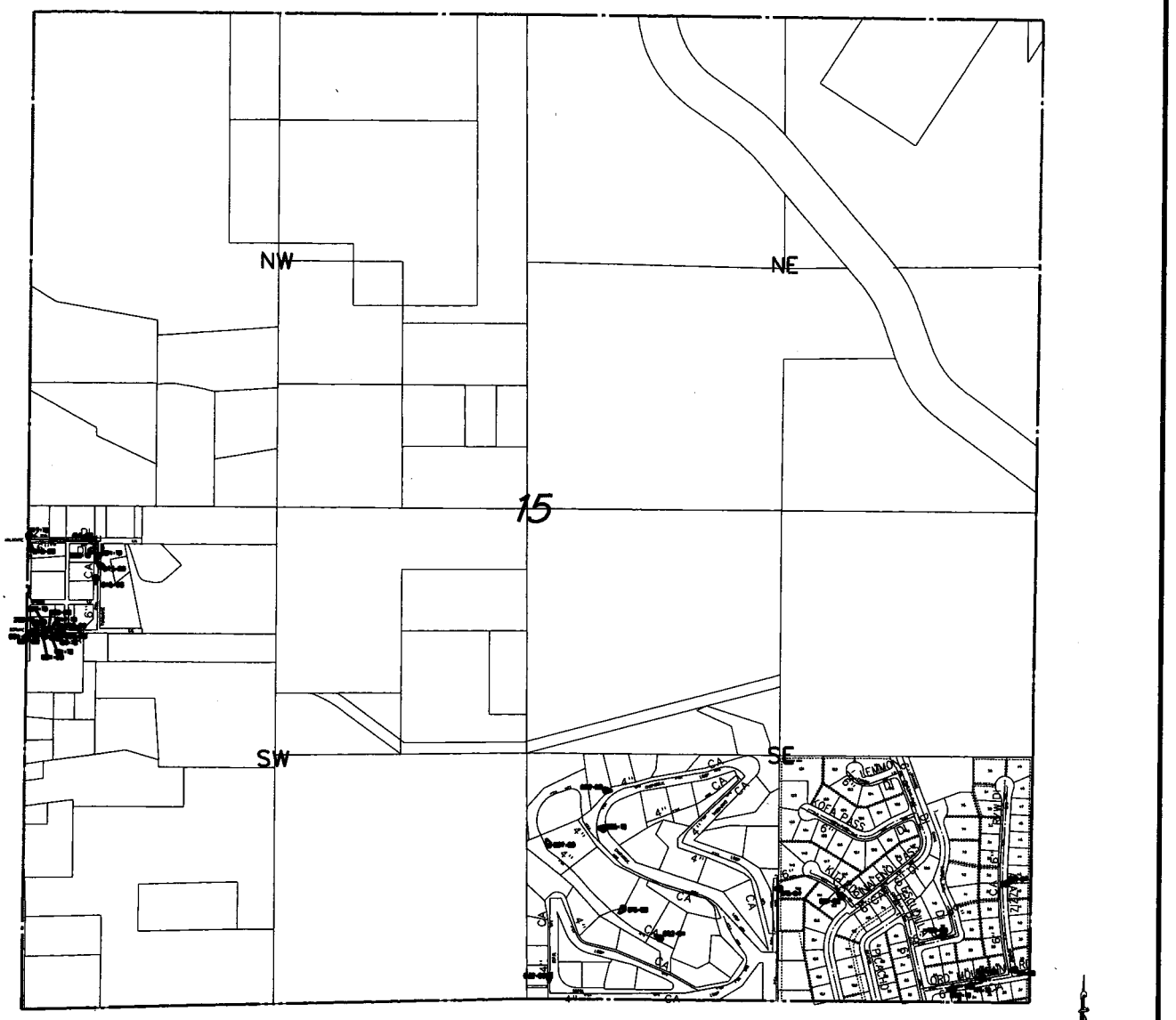
MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959


Areas with more than 20 leaks repaired since 2000
Areas w/water mains installed prior to 1960
Areas evaluated for replacement projects
Area covered by present CGN
MAP ID NUMBER
NUMBER OF LEAKS
MI-1 35
MI-3 8
MI-6 190
Distribution System Improvement Program for the Miami Water System Index Map
R.15E.
R.14E.
T.2N.
T.1N.
T.1S.
To Superior
To Snapper Creek Expressway
To Roosevelt Lake


NW
NE
SW
SE
32
PINAL CREEK
APACHE TRAIL
BIXBY
RANCH ROAD
HWY. 88
AWCo. 20.09
Pinal Creek Group Well No.3
(27)
SUSPENDED 3"
DRISCO PIPE
8" C.A.
6" C.A.
N., R.15E.
V., R.15E.
ARIZONA WATER COMPANY
3805 N. BLACK CANYON HWY - POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860
SYSTEM SUPERSTITION
LOCATION SEC.32-T.2N.,R.15E.
SCALE 1"=300'
DATE 7/1/2011
DRAWN BY JS
APPROVED BY AH/FS
MAP ID NUMBER
MAP SS - MI 1
MAP LEGEND
SERVICE LINE REPAIR/REPLACEMENT
WATER MAIN REPAIR/REPLACEMENT
FITTING REPAIR/REPLACEMENT
LEAK NUMBER
WATER MAIN SIZE < 6"
WATER MAIN SIZE ≥ 6"
1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5850

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.15-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

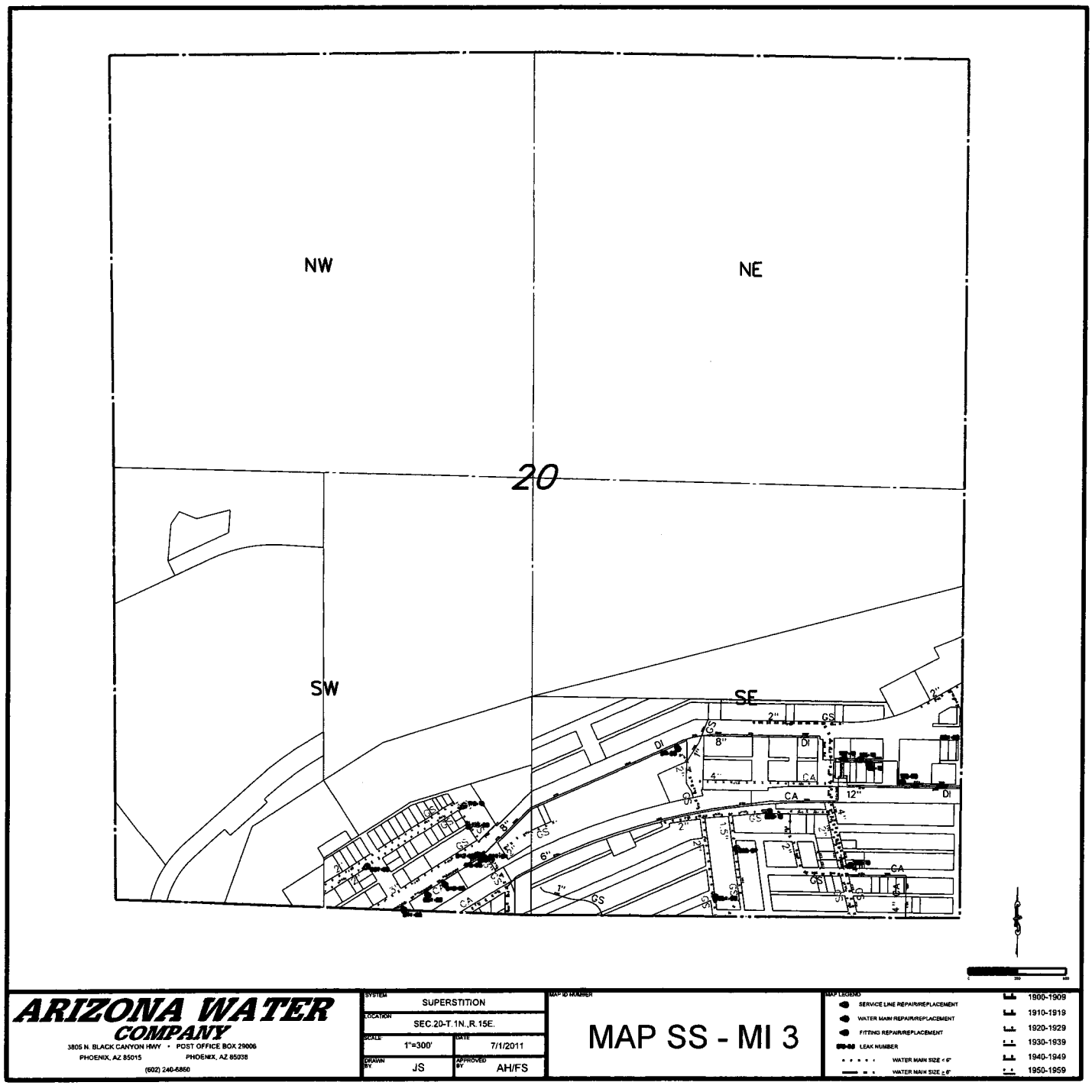
MAP ID NUMBER

# MAP SS - MI 2

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.20-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

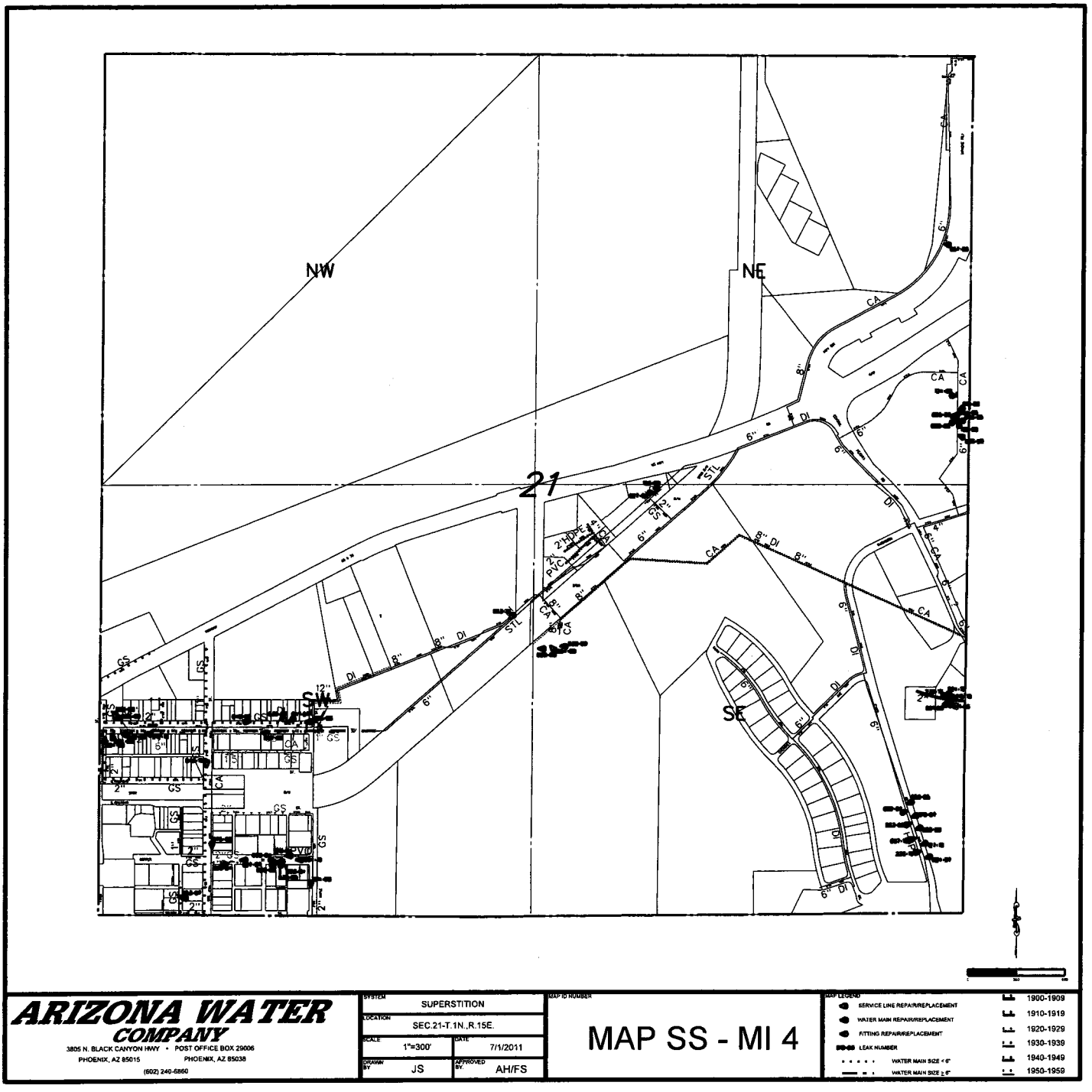
MAP ID NUMBER

# MAP SS - MI 3

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959




**ARIZONA WATER COMPANY**

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(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.21-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

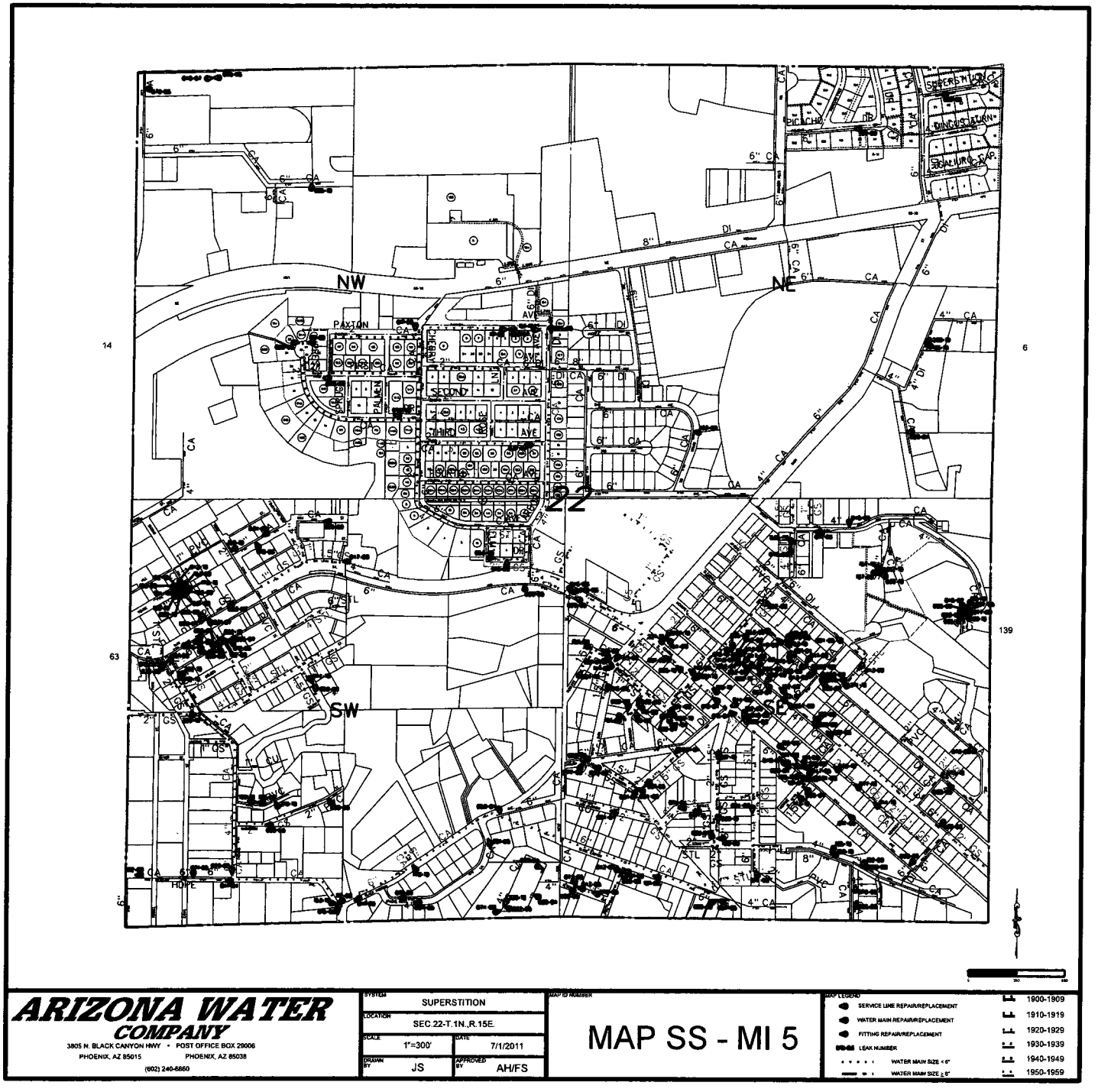
MAP ID NUMBER

# MAP SS - MI 4

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.22-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

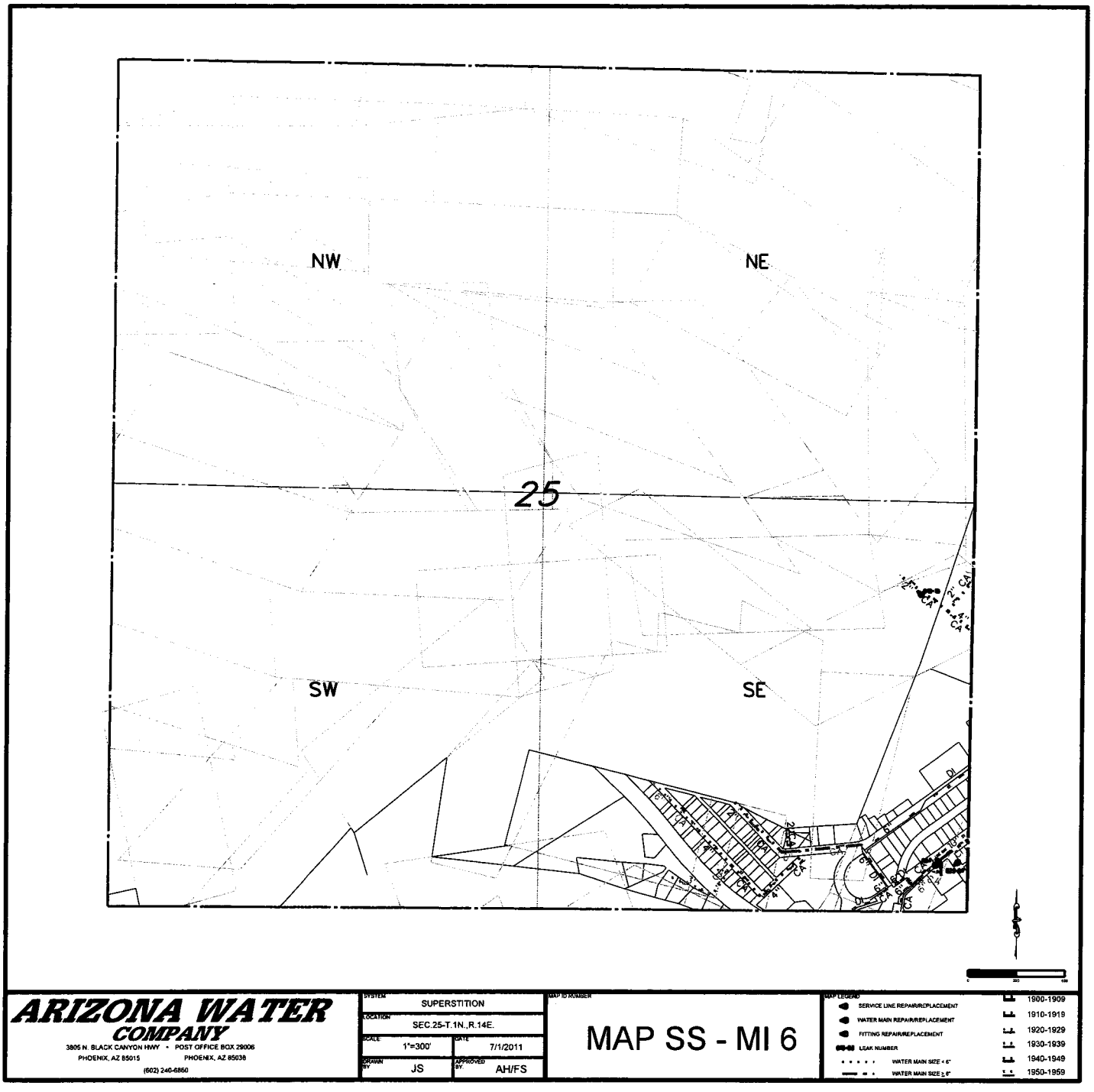
MAP ID NUMBER

# MAP SS - MI 5

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.25-T.1N.,R.14E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

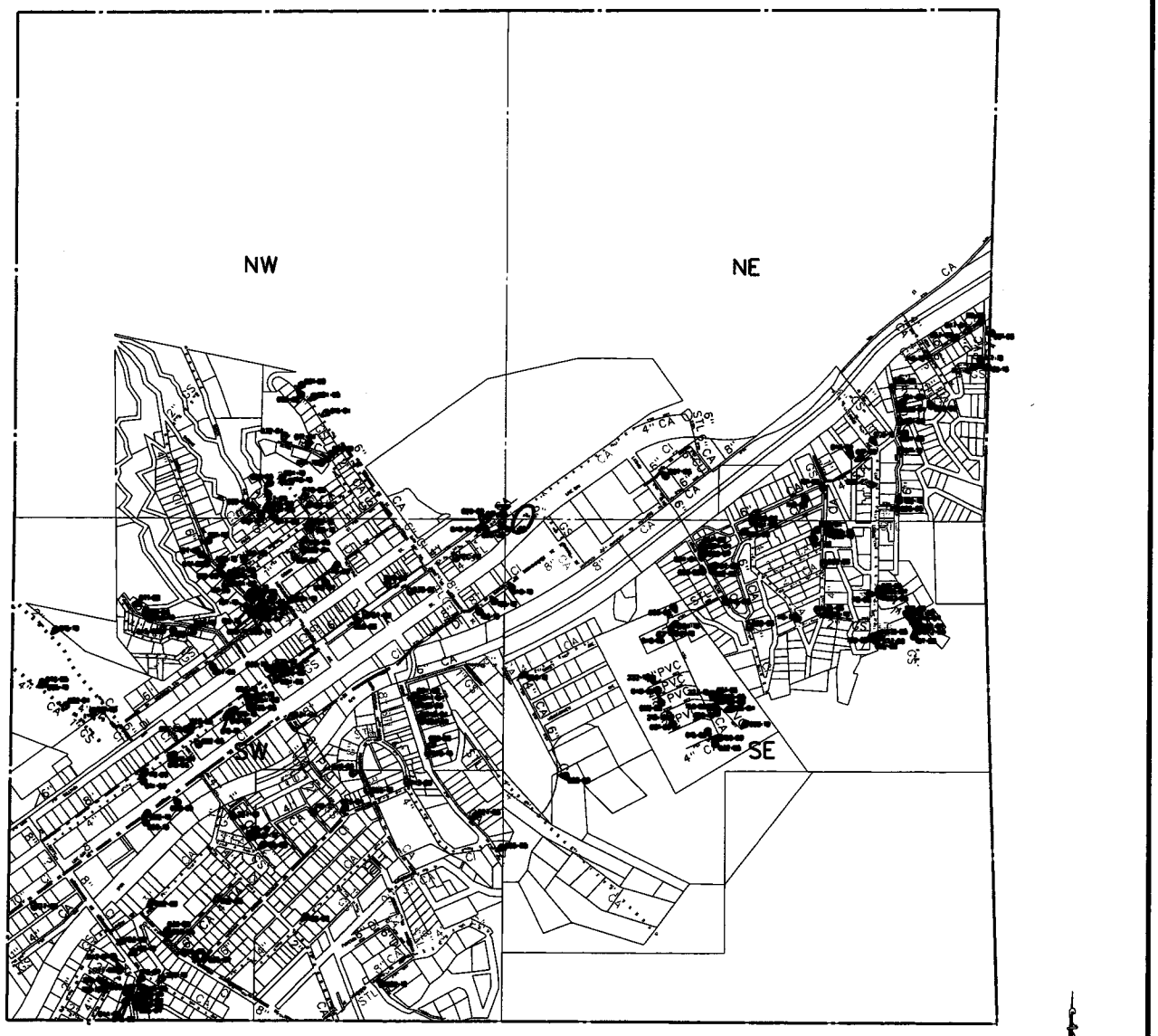
MAP ID NUMBER

# MAP SS - MI 6

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.30-T.1N.,R.15E. |
| SCALE: | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

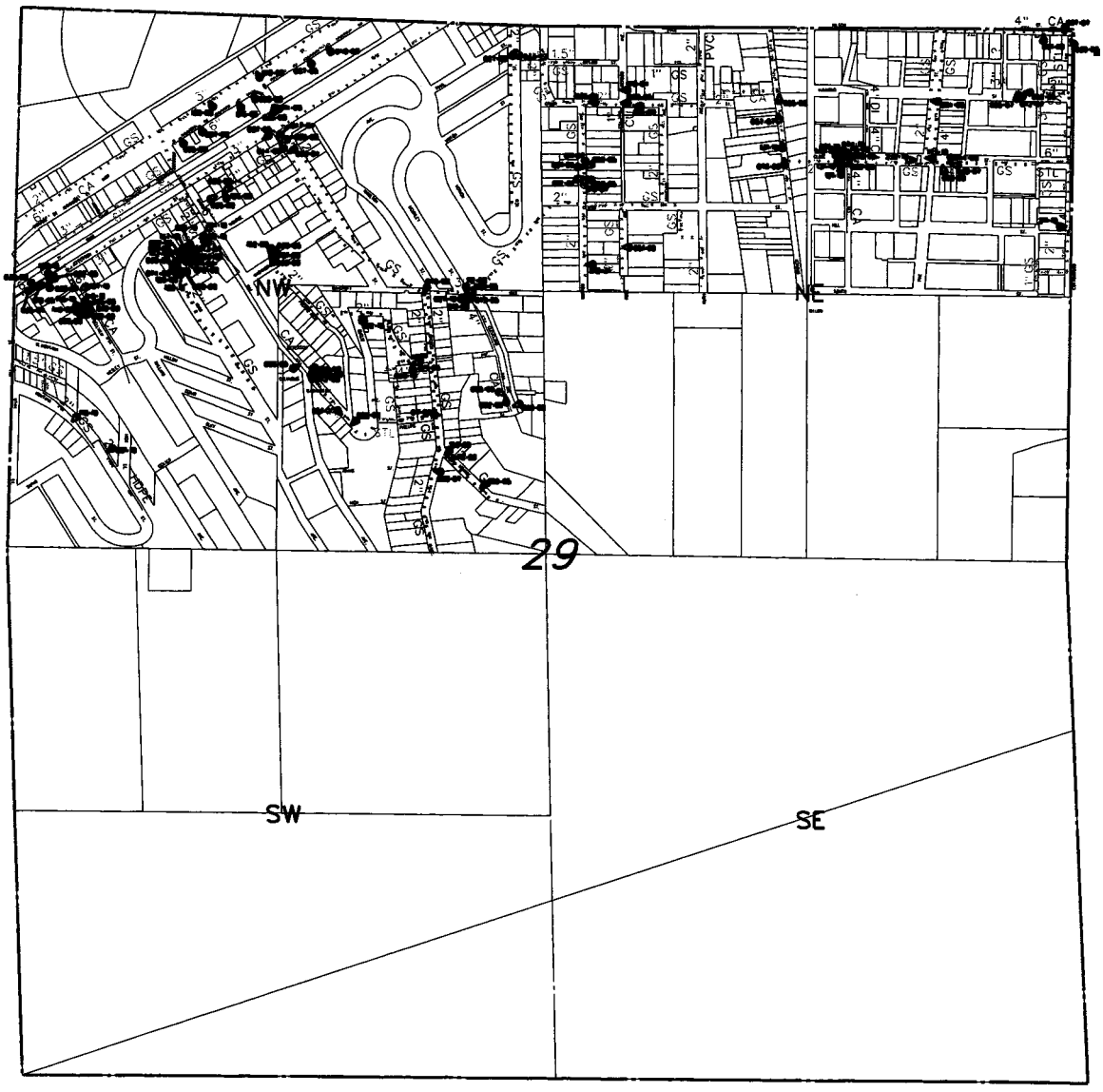
MAP ID NUMBER

# MAP SS - MI 7

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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PHOENIX, AZ 85015 PHOENIX, AZ 85036
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.29-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

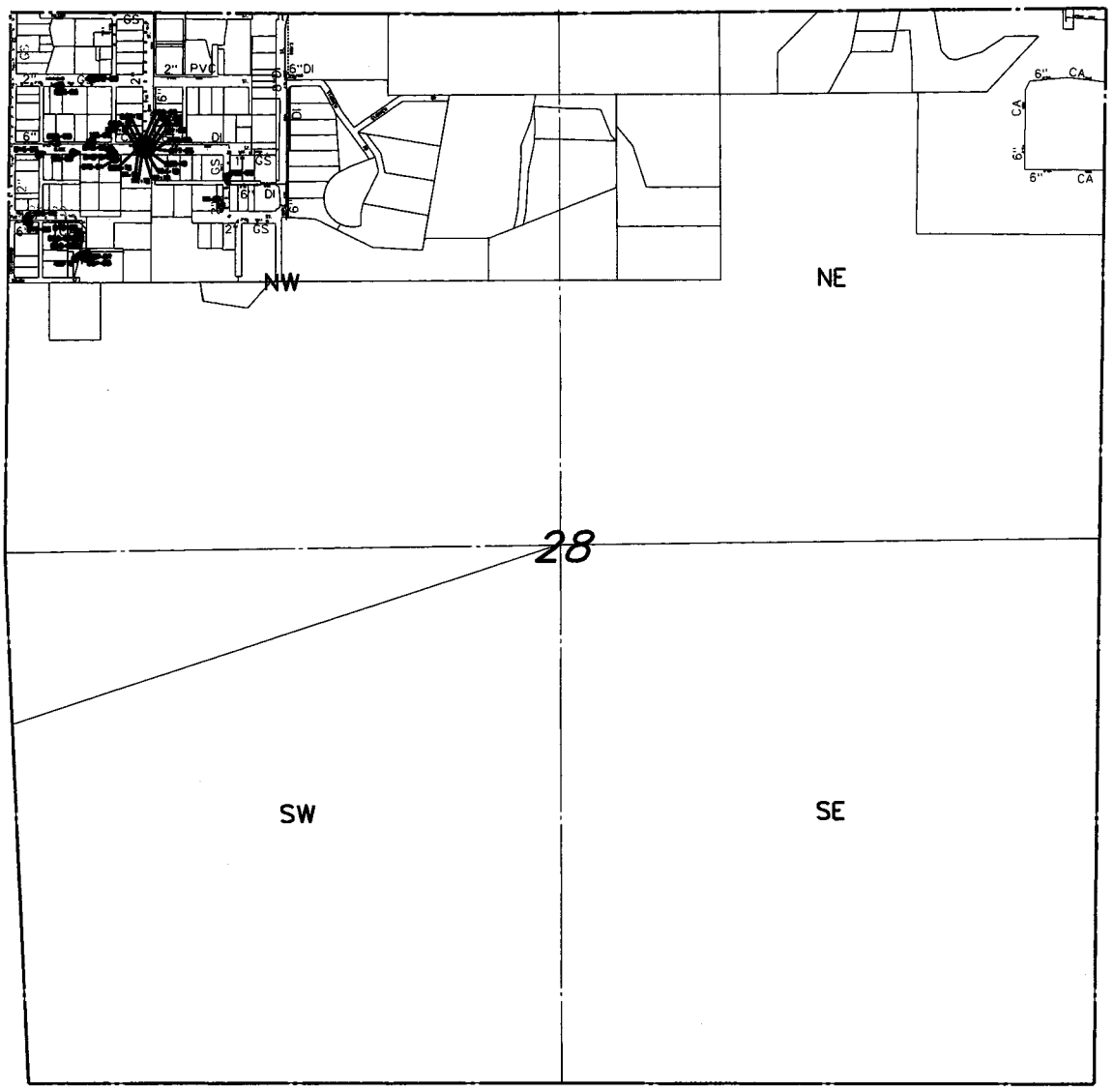
MAP ID NUMBER

# MAP SS - MI 8

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.28-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

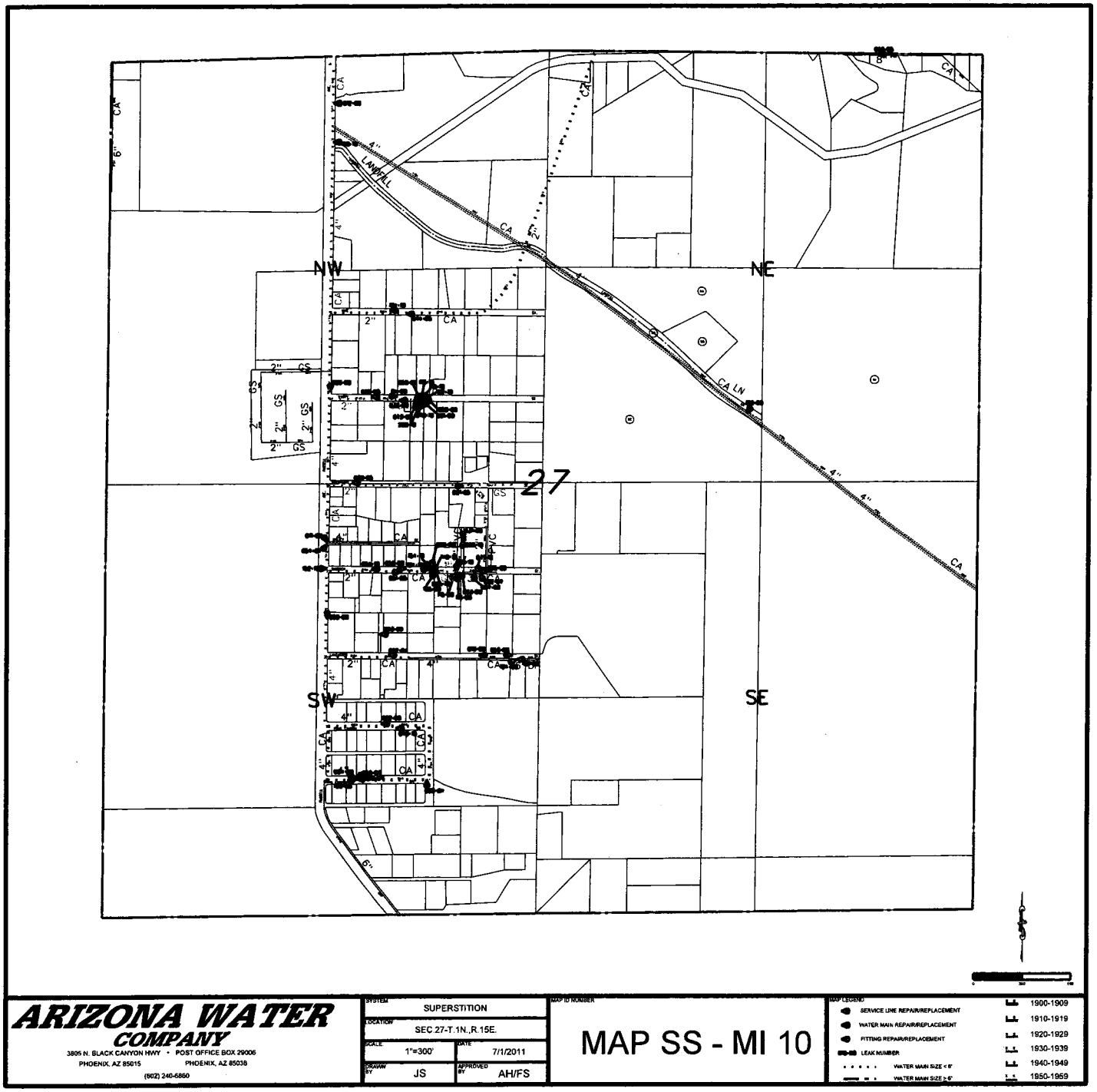
MAP ID NUMBER

# MAP SS - MI 9

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC 27-T.1N.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

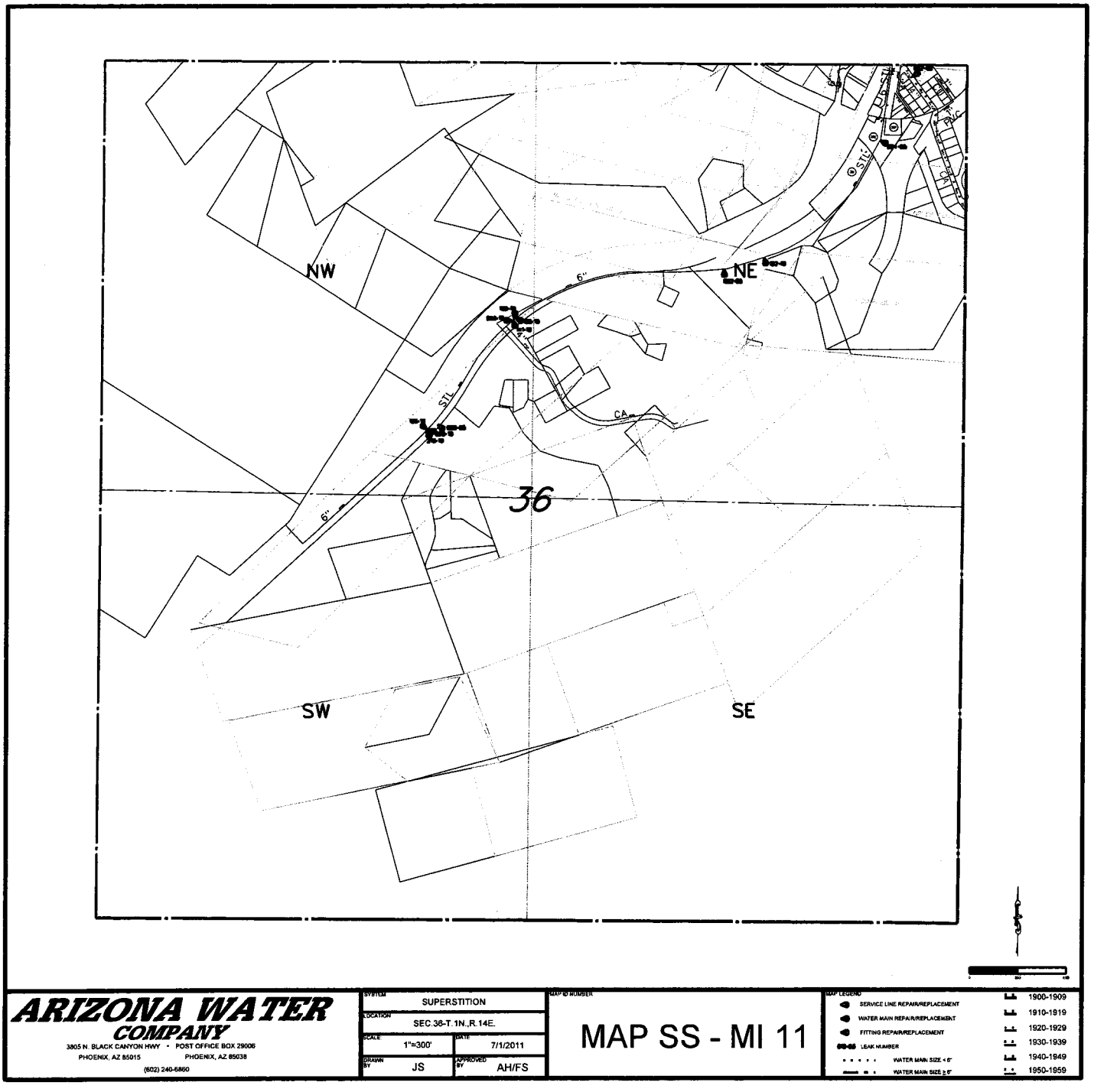
MAP ID NUMBER

# MAP SS - MI 10

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 8"
- WATER MAIN SIZE > 8"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959




**ARIZONA WATER COMPANY**

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PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERSTITION |
| LOCATION | SEC.36-T.1N.,R.14E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

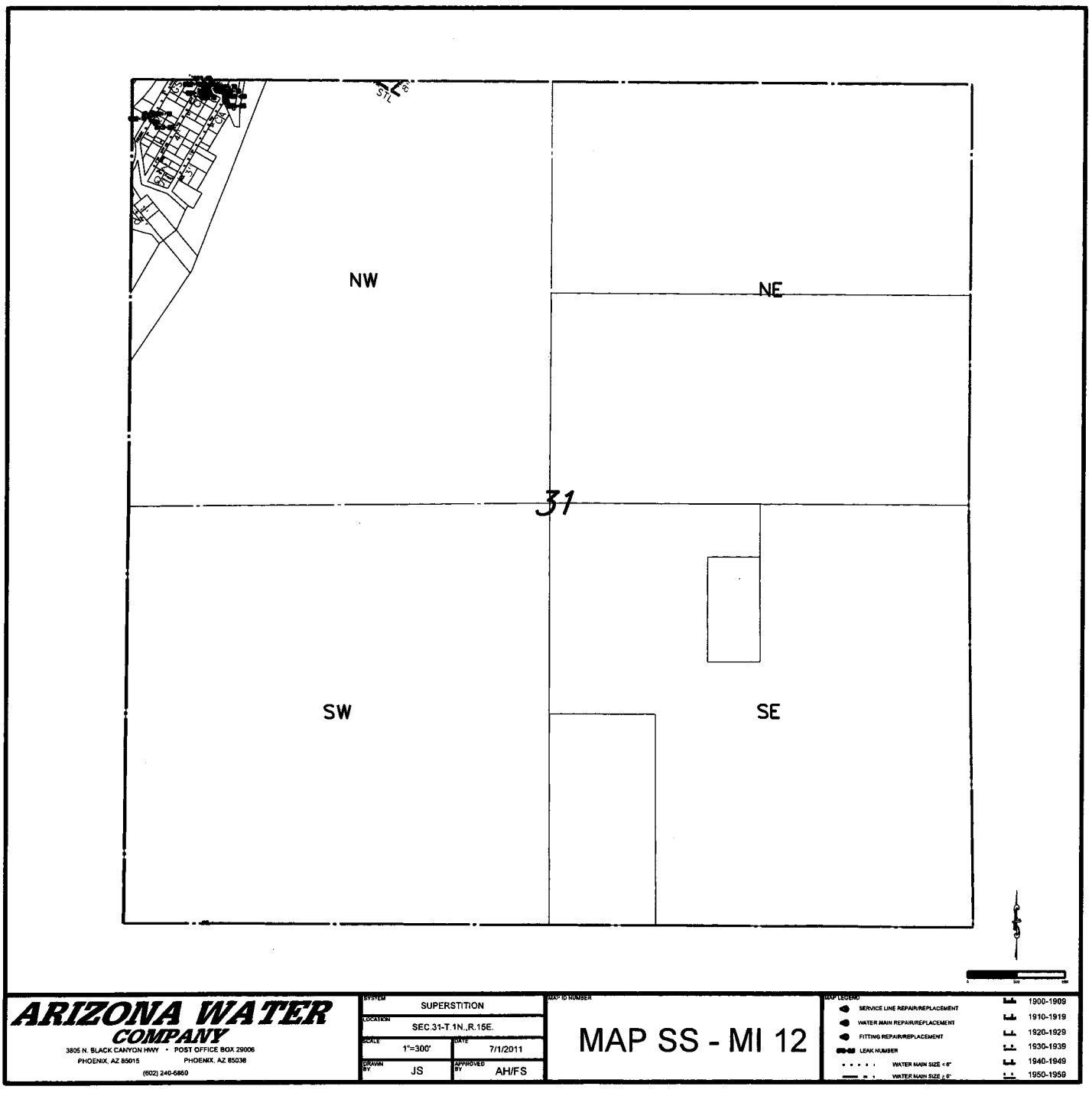
MAP ID NUMBER

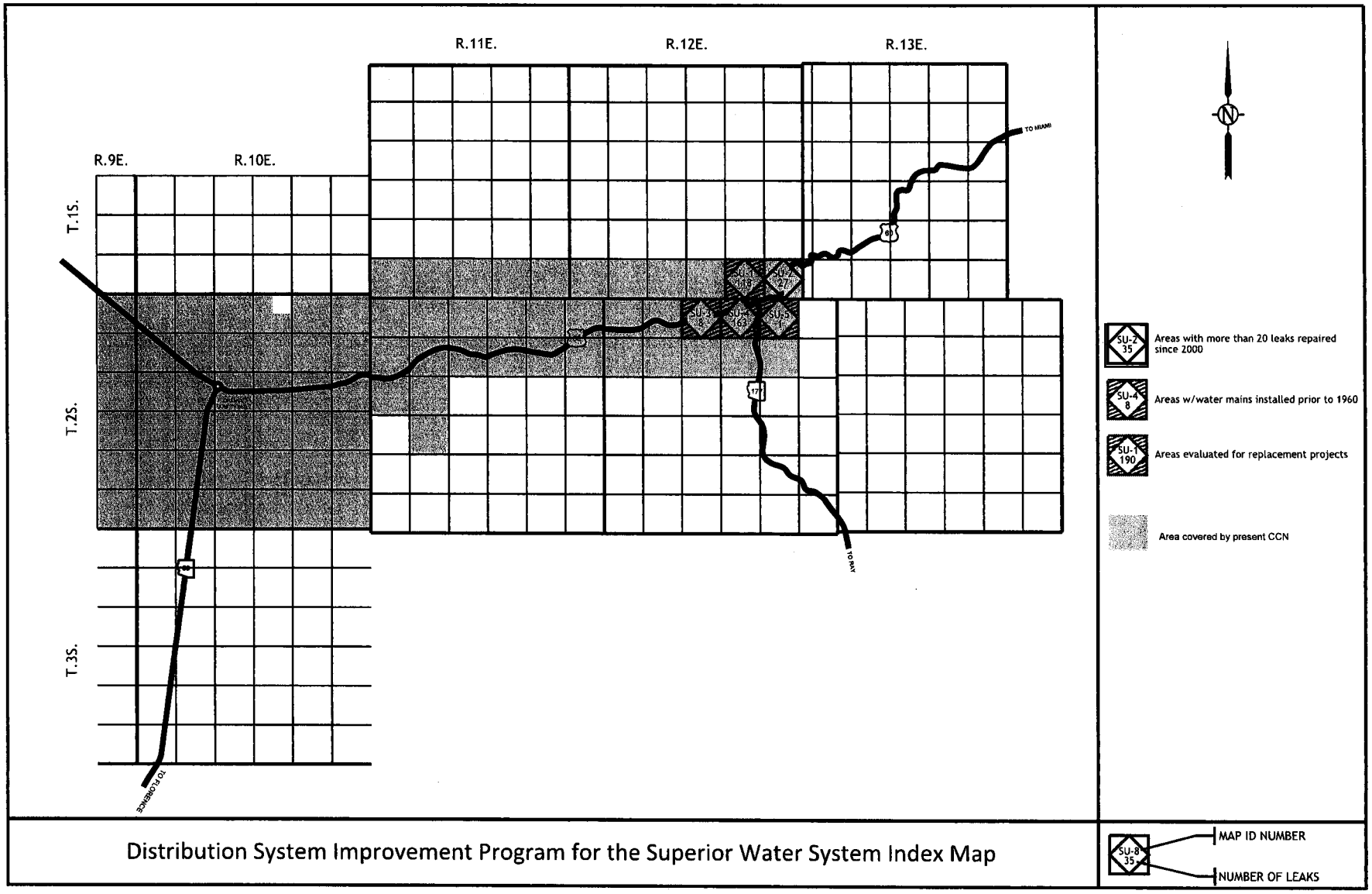
# MAP SS - MI 11

MAP LEGEND

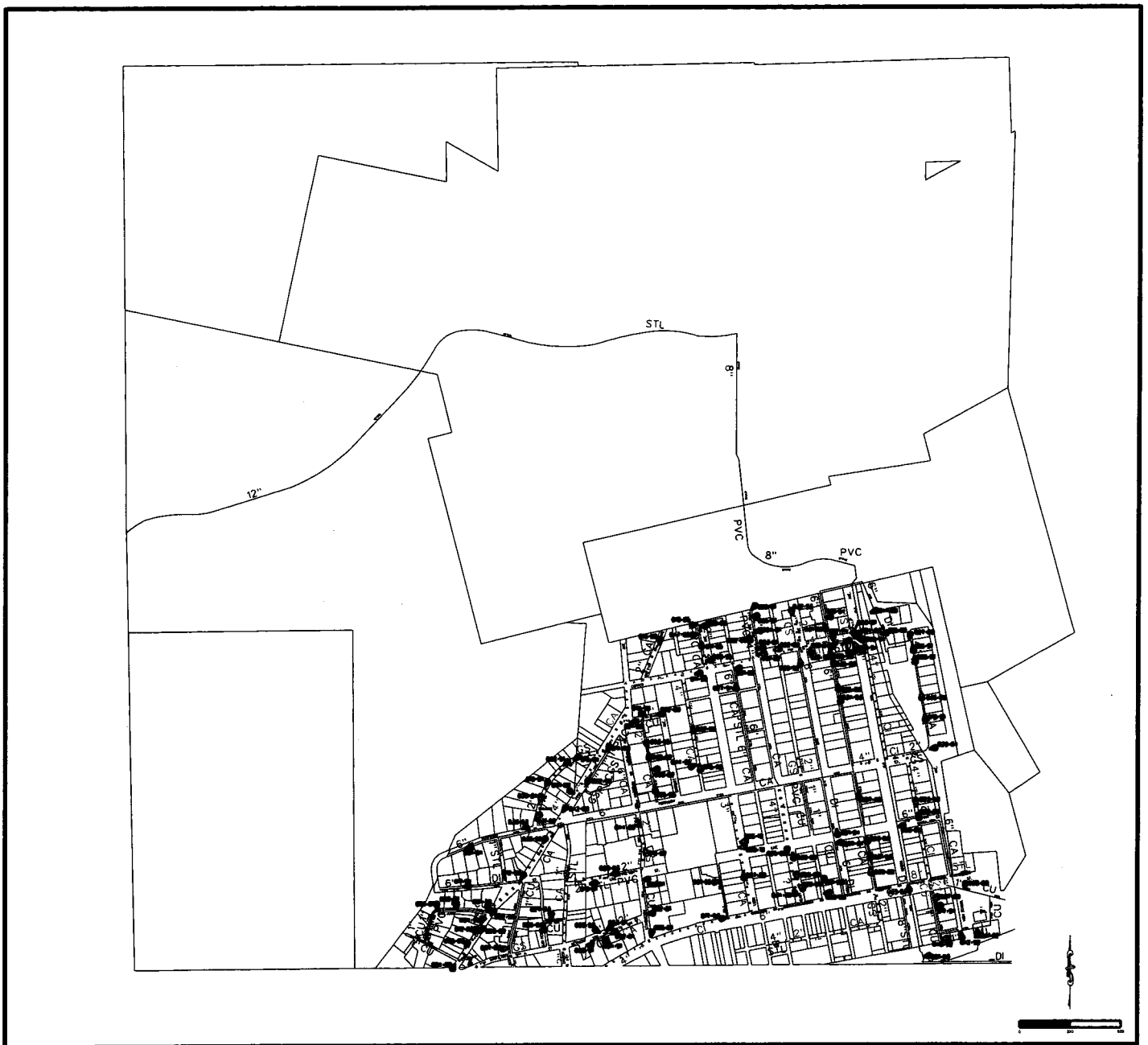
- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959


NW
NE
31
SW
SE
ARIZONA WATER COMPANY
3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860
SYSTEM SUPERSTITION
LOCATION SEC.31-T.1N.,R.15E.
SCALE 1"=300' DATE 7/1/2011
DRAWN BY JS APPROVED BY AH/FS
MAP ID NUMBER
MAP SS - MI 12
MAP LEGEND
SERVICE LINE REPAIR/REPLACEMENT
WATER MAIN REPAIR/REPLACEMENT
FITTING REPAIR/REPLACEMENT
LEAK NUMBER
WATER MAIN SIZE < 6"
WATER MAIN SIZE ≥ 6"
1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959




Distribution System Improvement Program for the Superior Water System Index Map

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(602) 240-5860

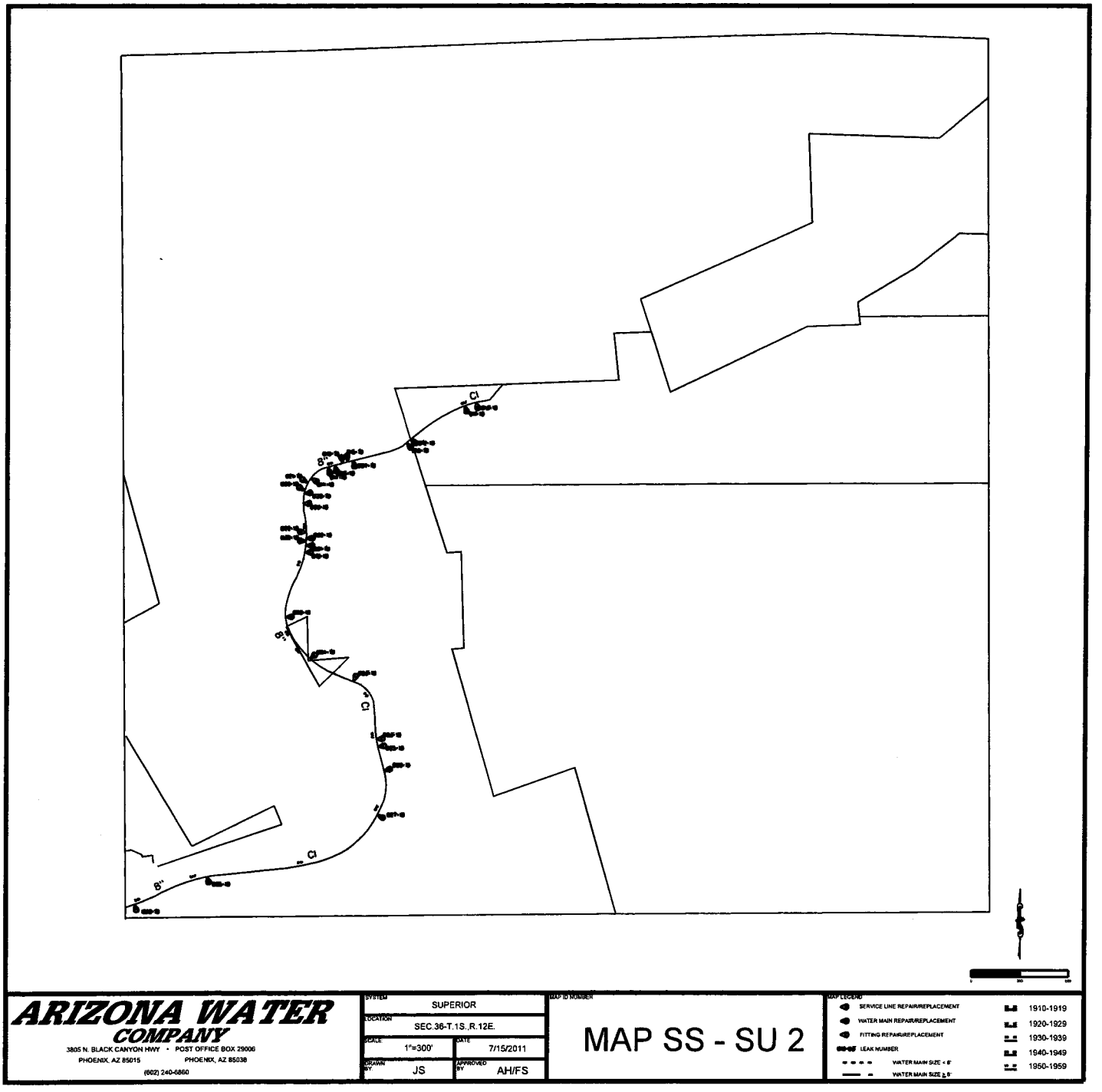
| | |
|---|---|
| SYSTEM | SUPERIOR |
| LOCATION | SEC.36-T.1S.,R.12E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP SS - SU 1

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"
- 1910-1919
- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERIOR |
| LOCATION | SEC.36-T.1S.,R.12E. |
| SCALE | 1"=300' |
| DATE | 7/15/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

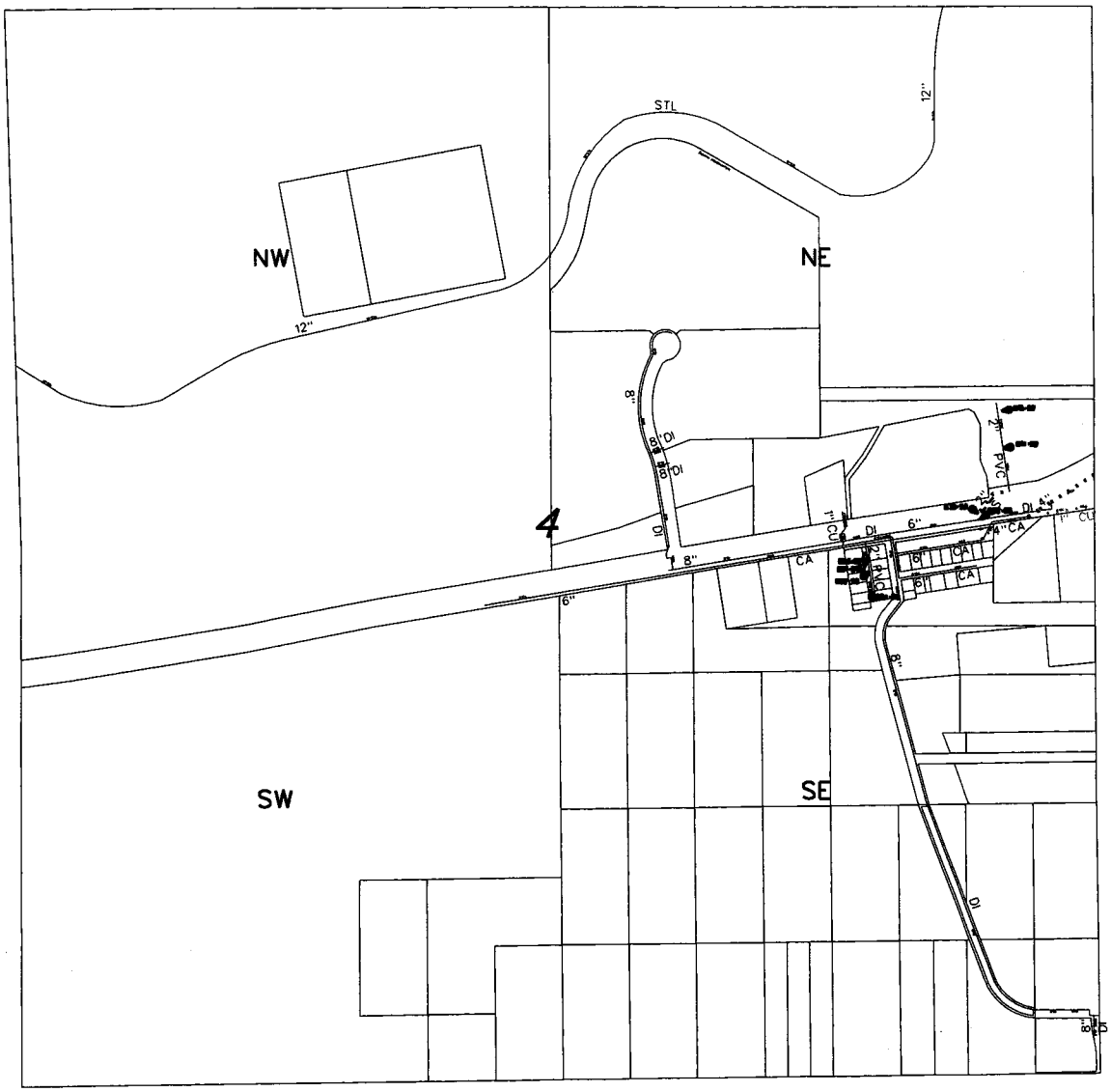
MAP ID NUMBER

# MAP SS - SU 2

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | SUPERIOR |
| LOCATION | SEC.4-T.2S.,R.12E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

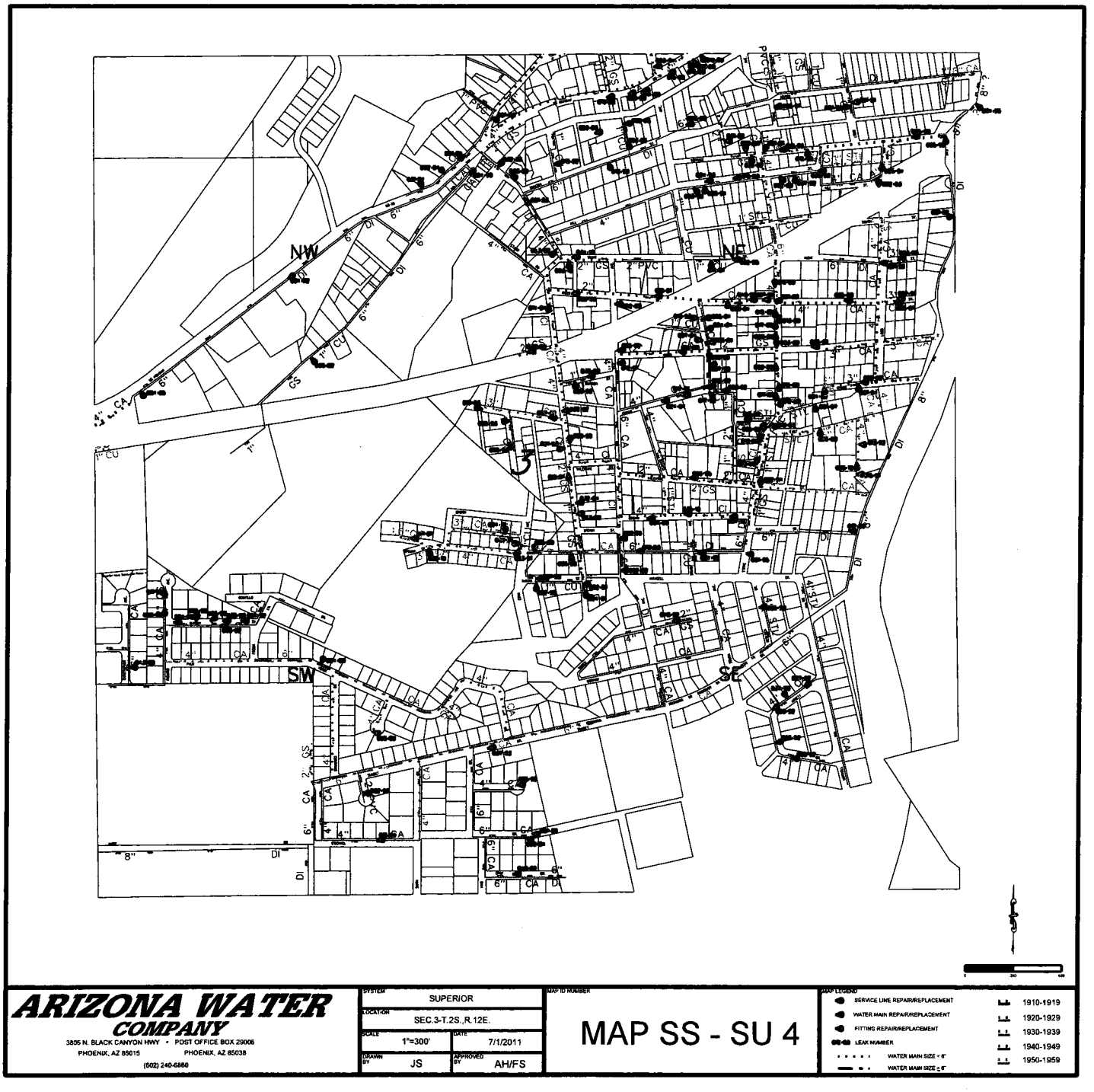
MAP ID NUMBER

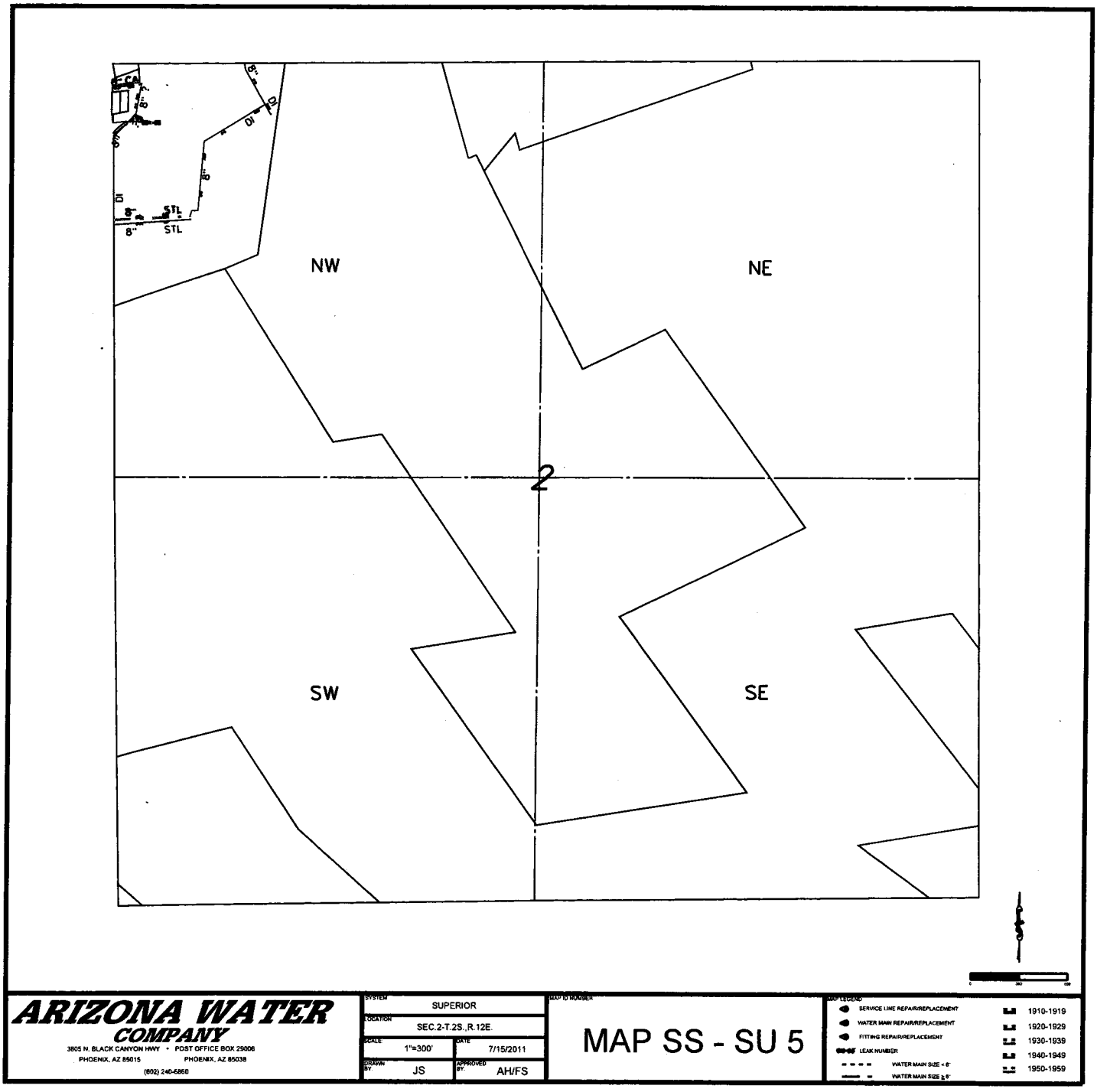
# MAP SS - SU 3

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1910-1919
1920-1929
1930-1939
1940-1949
1950-1959


NW
NE
SW
SE
ARIZONA WATER COMPANY
3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860
SYSTEM SUPERIOR
LOCATION SEC.3-T.2S.,R.12E.
SCALE 1"=300' DATE 7/1/2011
DRAWN BY JS APPROVED BY AH/FS
MAP ID NUMBER
MAP SS - SU 4
MAP LEGEND
SERVICE LINE REPAIR/REPLACEMENT
WATER MAIN REPAIR/REPLACEMENT
FITTING REPAIR/REPLACEMENT
LEAK NUMBER
WATER MAIN SIZE < 6"
WATER MAIN SIZE ≥ 6"
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | SUPERIOR |
| LOCATION | SEC.2-T.2S.,R.12E. |
| SCALE | 1"=300' |
| DATE | 7/15/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP SS - SU 5

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

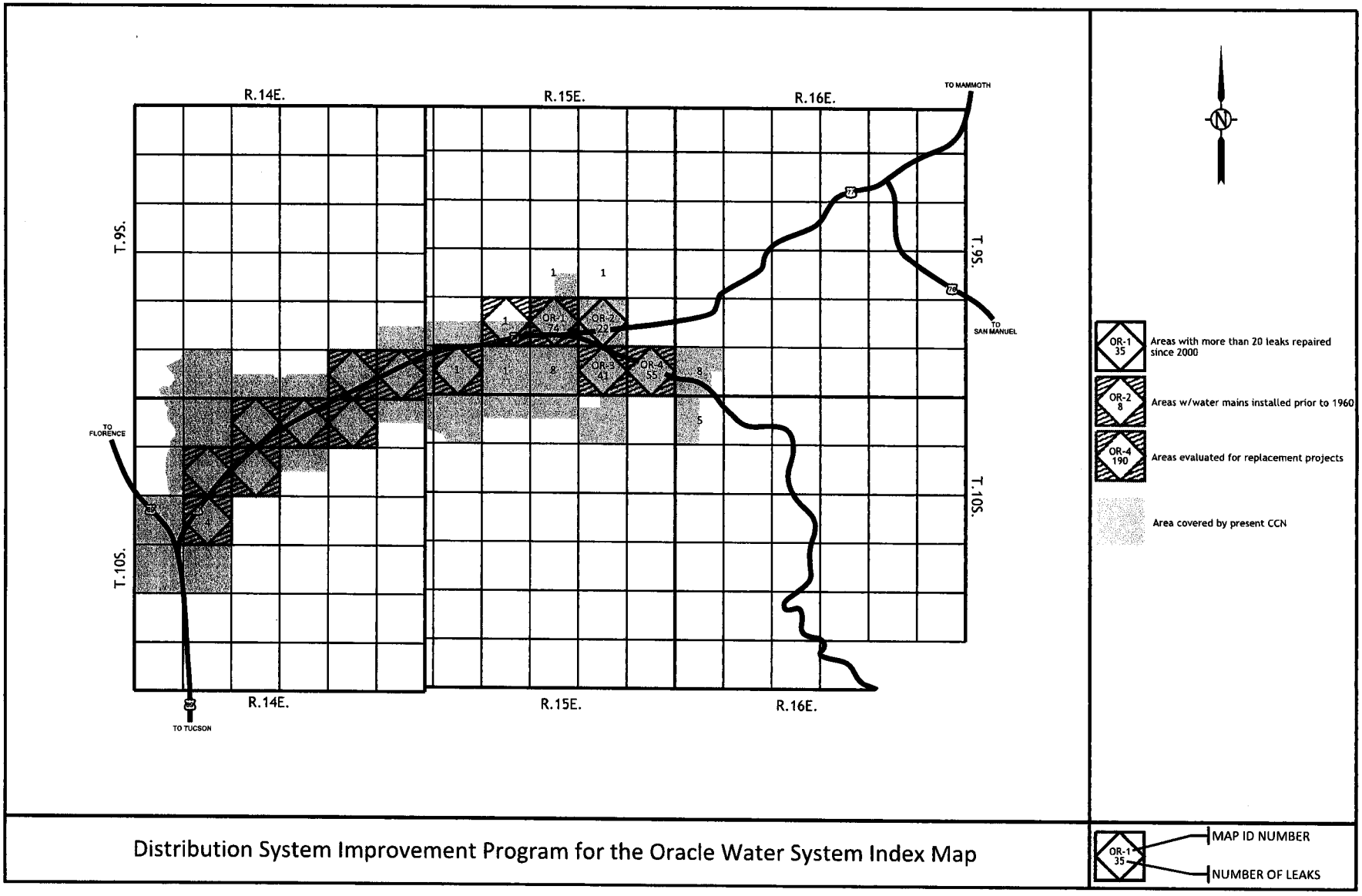
- 1910-1919
- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

# APPENDIX

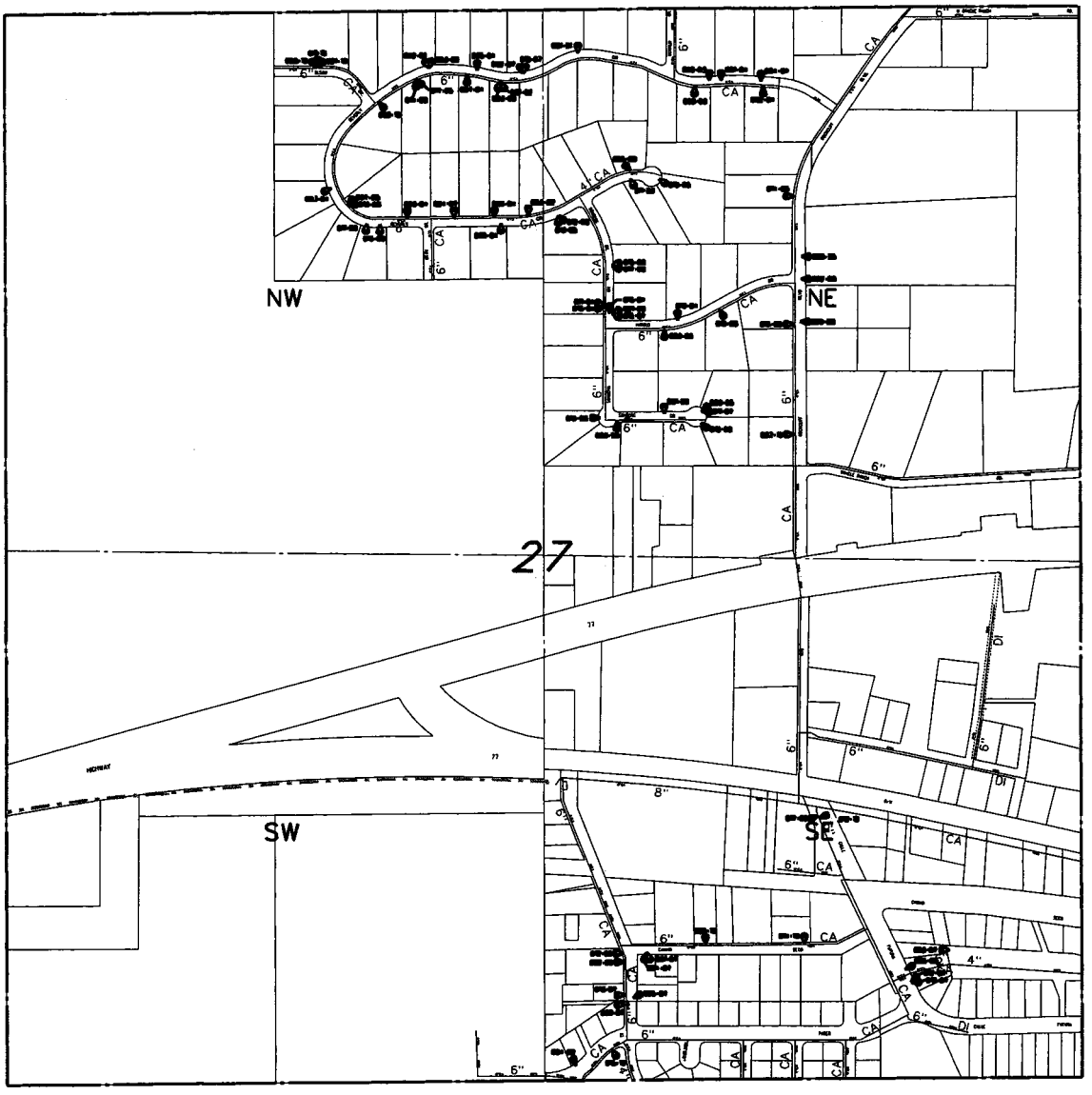
# 9.2.2

# Leak and Break Repair Maps

# Oracle water system




Distribution System Improvement Program for the Oracle Water System Index Map

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(602) 240-5860

| | |
|---|---|
| SYSTEM | ORACLE |
| LOCATION | SEC.27-T.9S.,R.15E. |
| SCALE | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

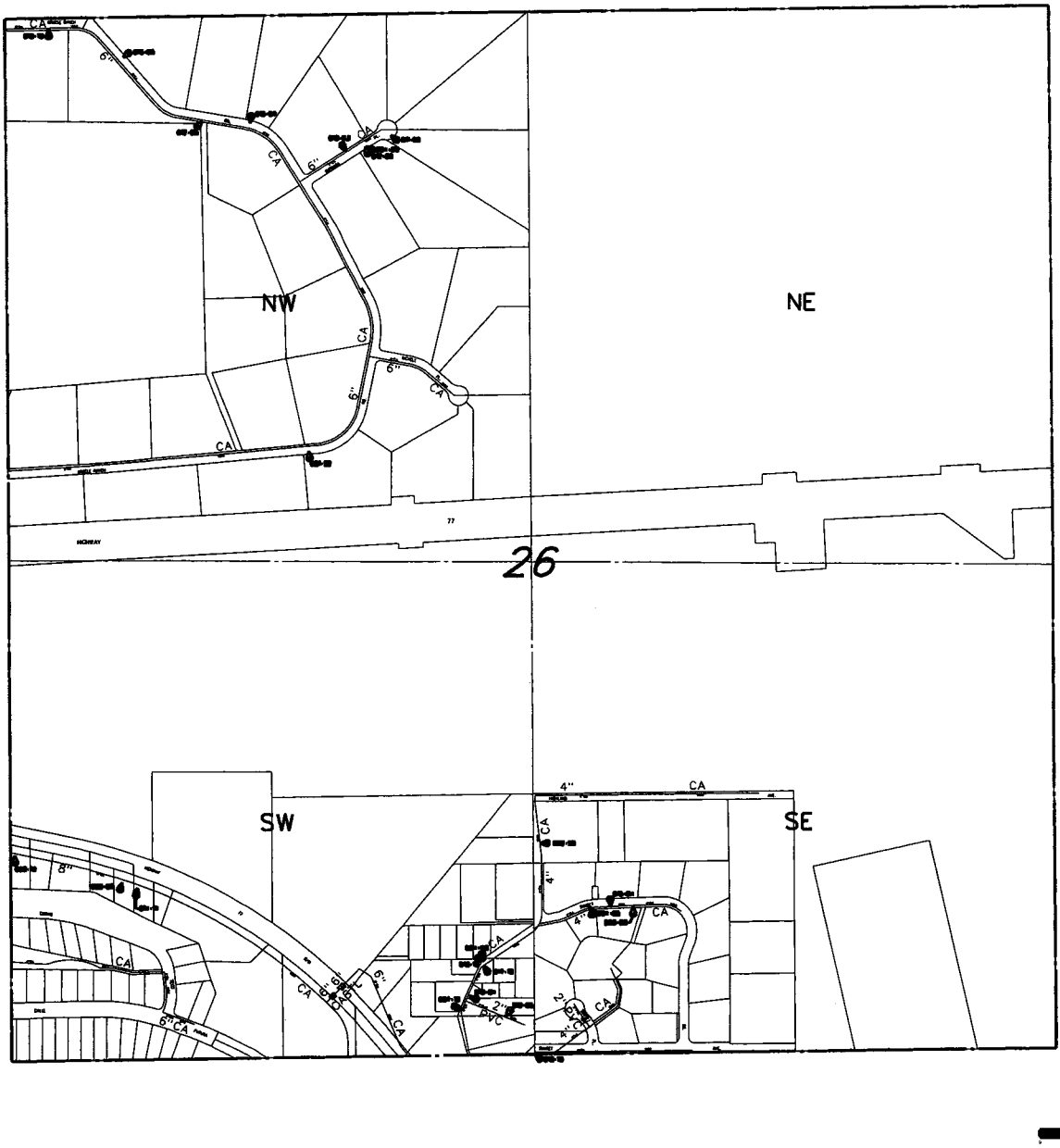
MAP ID NUMBER

# MAP OR - 1

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | ORACLE |
| LOCATION | SEC.26-T.9S.,R.15E. |
| SCALE: | 1"=300' |
| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

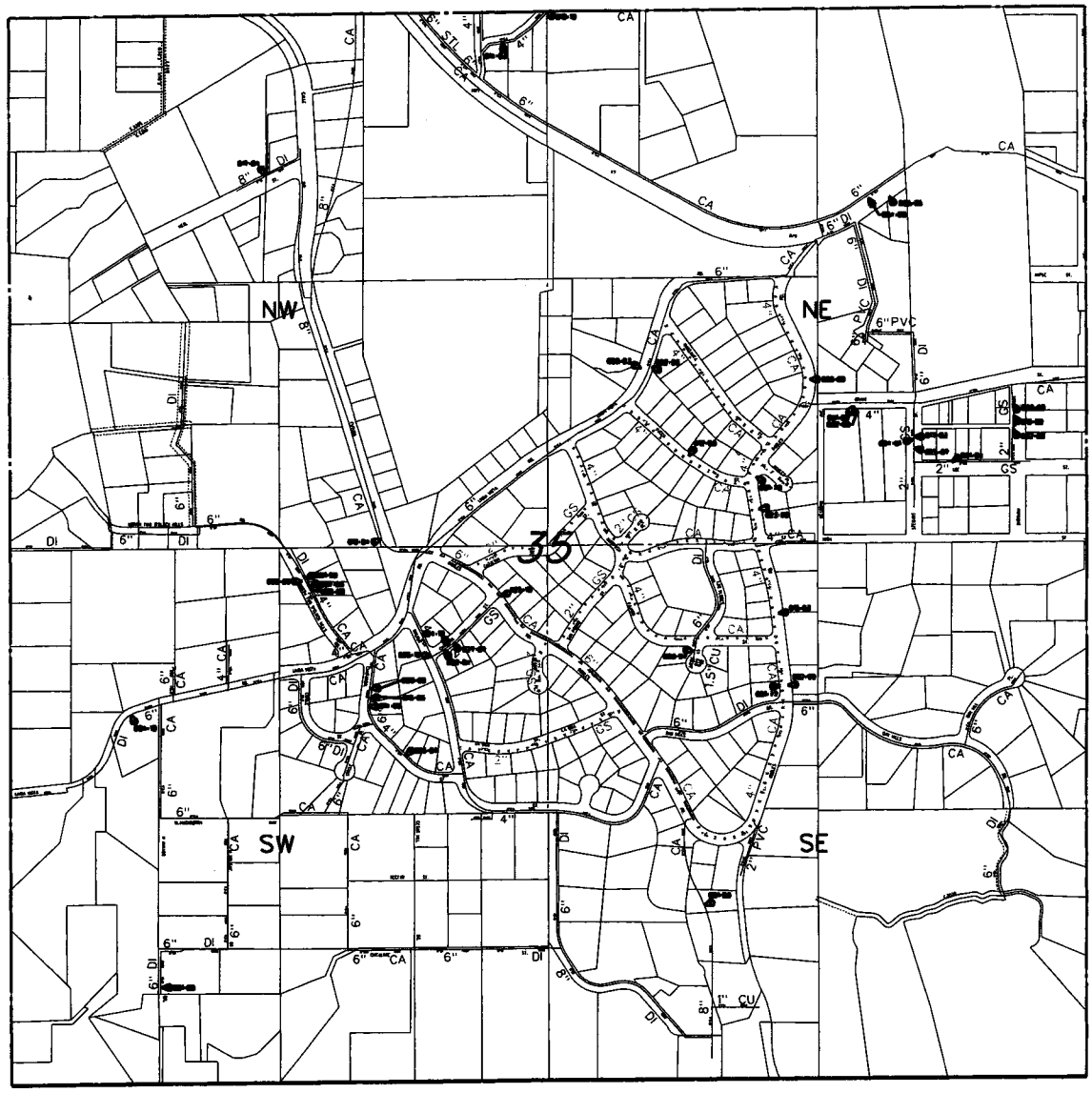
MAP ID NUMBER

# MAP OR - 2

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 8"

1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
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| DRAWN BY | JS |
| APPROVED BY | AH/FS |

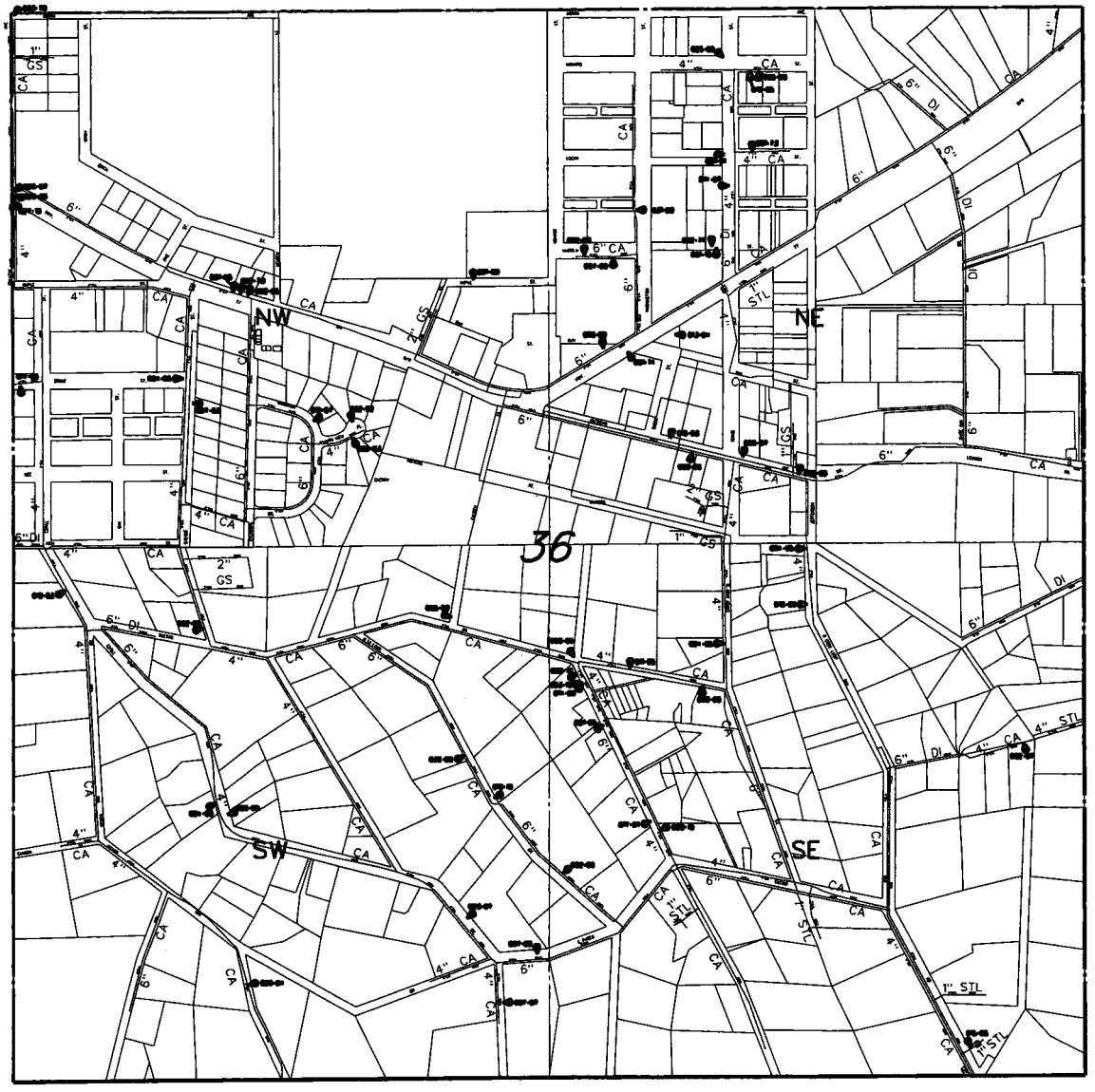
MAP ID NUMBER

# MAP OR - 3

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

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(602) 240-5860

| | |
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| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP OR - 4

MAP LEGEND

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- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

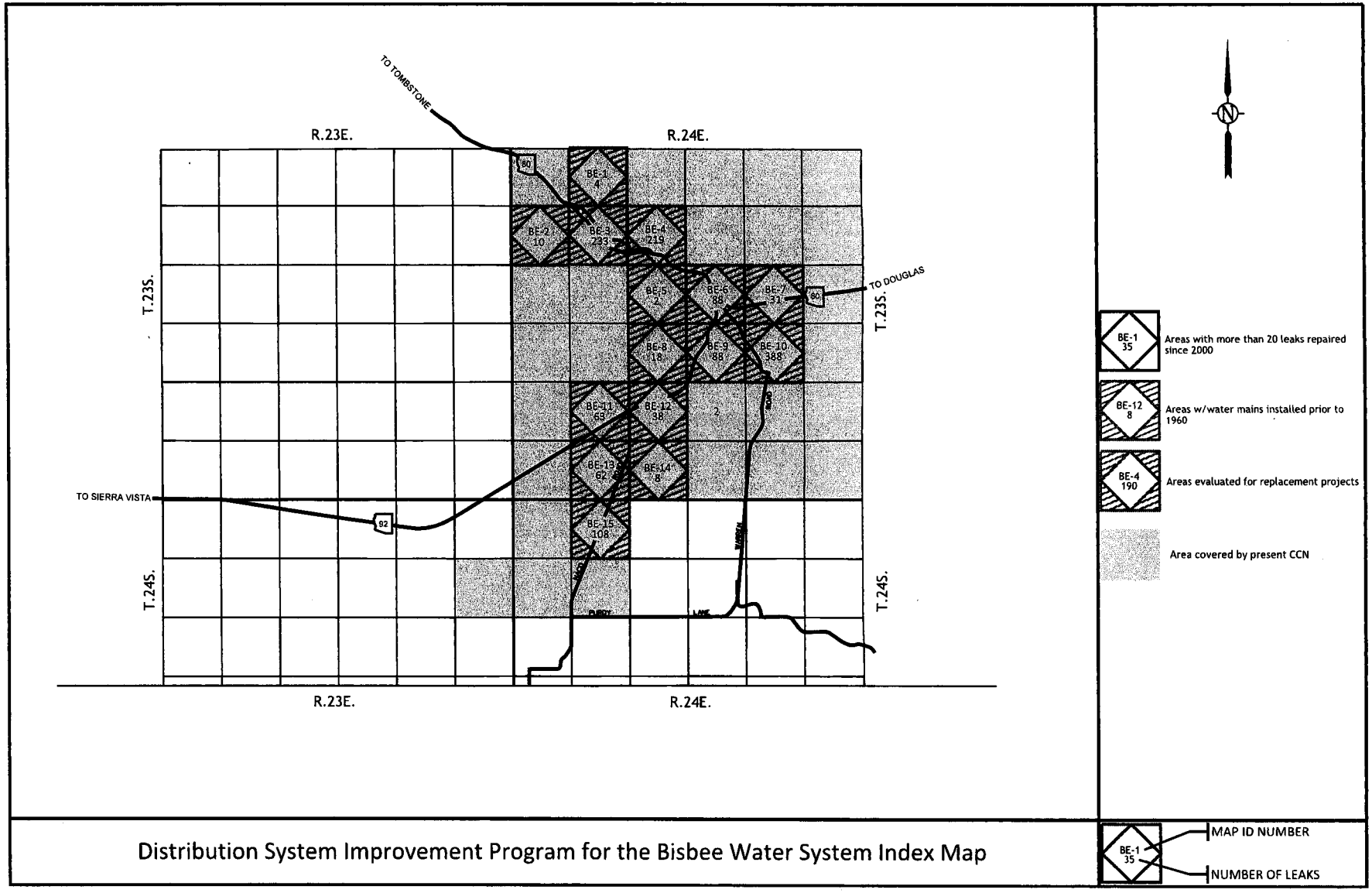
1920-1929
1930-1939
1940-1949
1950-1959

# APPENDIX

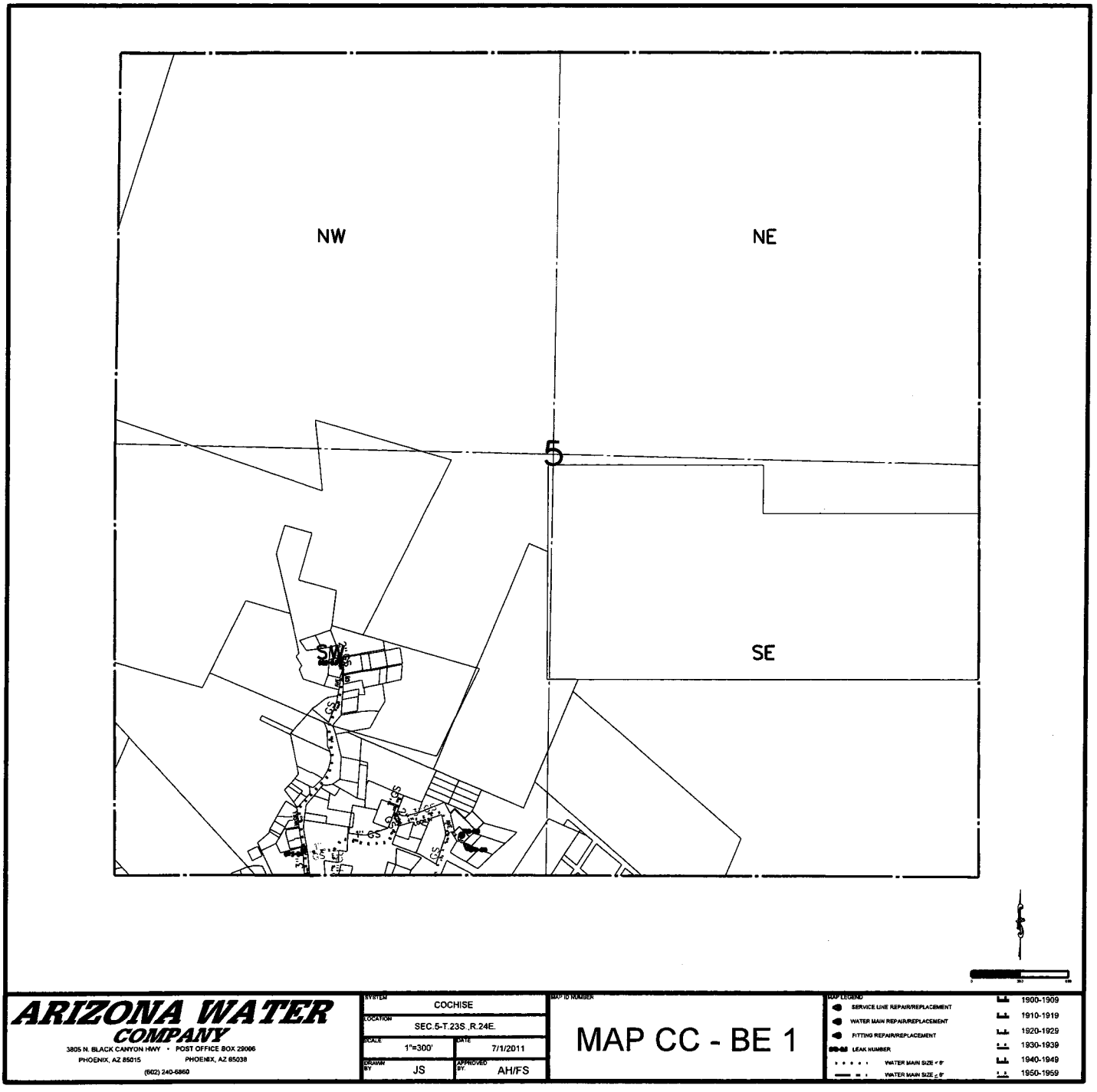
# 9.2.3

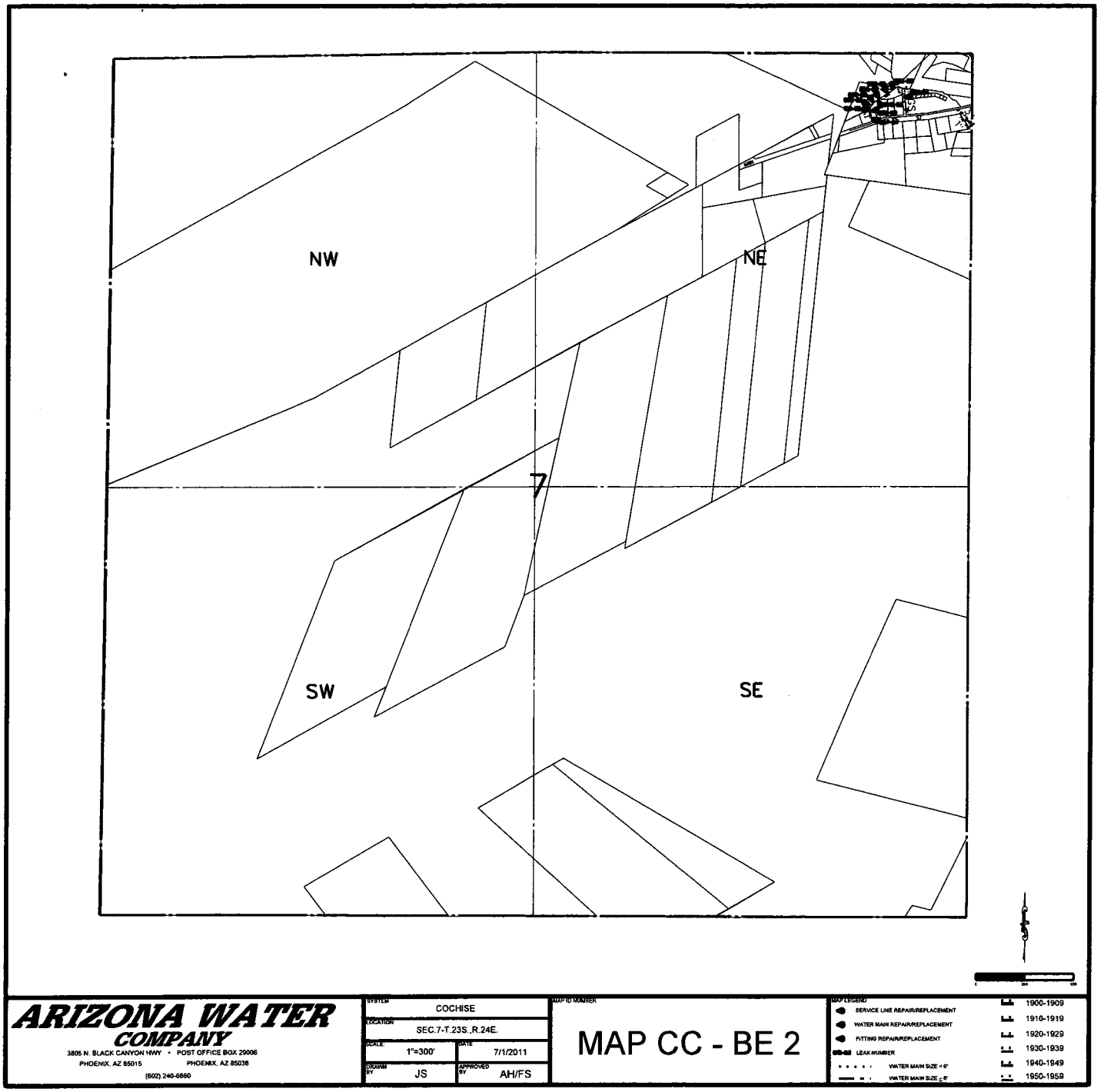
# Leak and Break Repair Maps

# Bisbee water system




Distribution System Improvement Program for the Bisbee Water System Index Map


NW
NE
5
SE
SW
ARIZONA WATER COMPANY
3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860
SYSTEM COCHISE
LOCATION SEC.5-T.23S.,R.24E.
SCALE 1"=300'
DATE 7/1/2011
DRAWN BY JS
APPROVED BY AH/FS
MAP ID NUMBER
MAP CC - BE 1
MAP LEGEND
SERVICE LINE REPAIR/REPLACEMENT
WATER MAIN REPAIR/REPLACEMENT
FITTING REPAIR/REPLACEMENT
LEAK NUMBER
WATER MAIN SIZE < 8"
WATER MAIN SIZE ≥ 8"
1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
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| APPROVED BY | AH/FS |

MAP ID NUMBER

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MAP LEGEND

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- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
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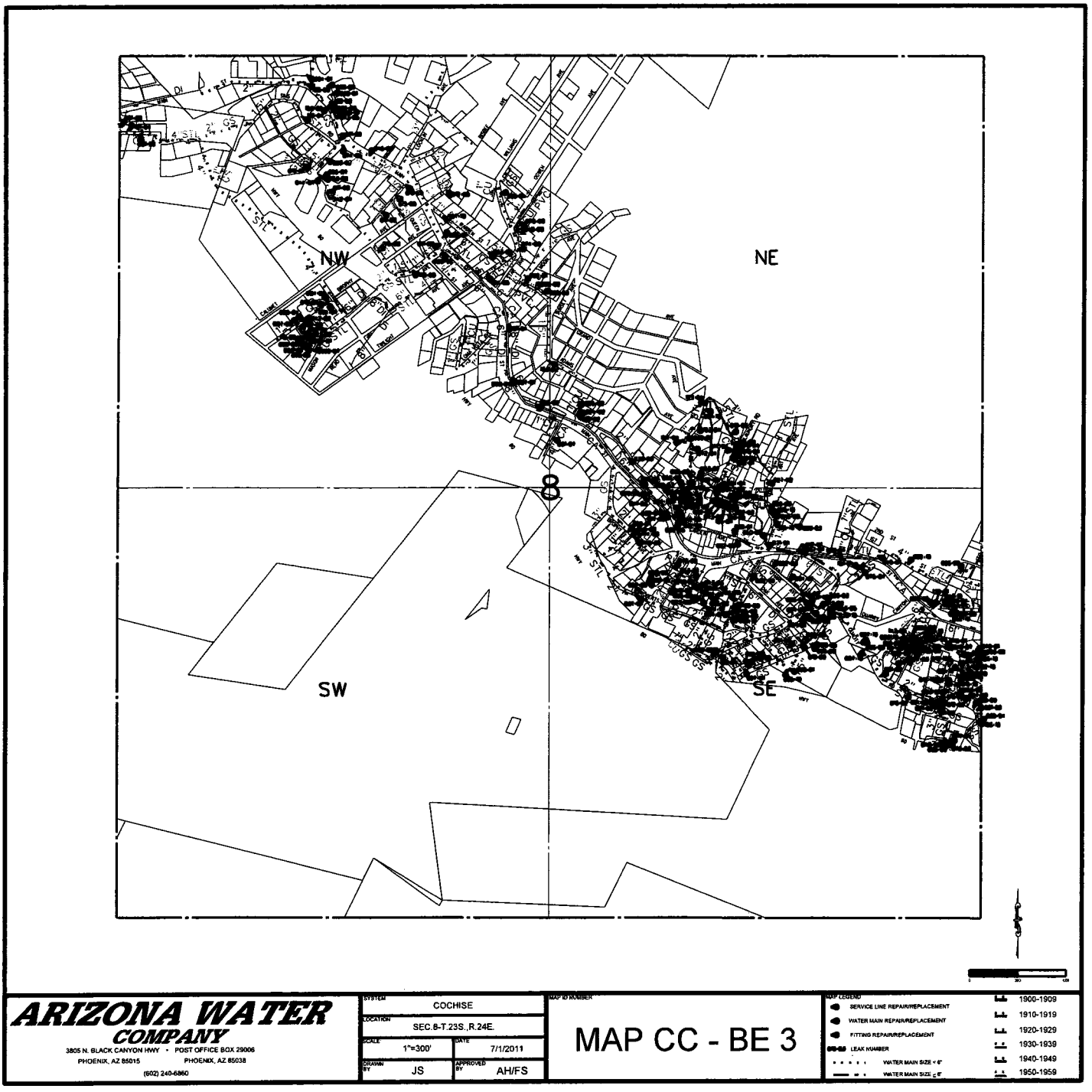
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
| SYSTEM | COCHISE |
| LOCATION | SEC.8-T.23S.,R.24E. |
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| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP CC - BE 3

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
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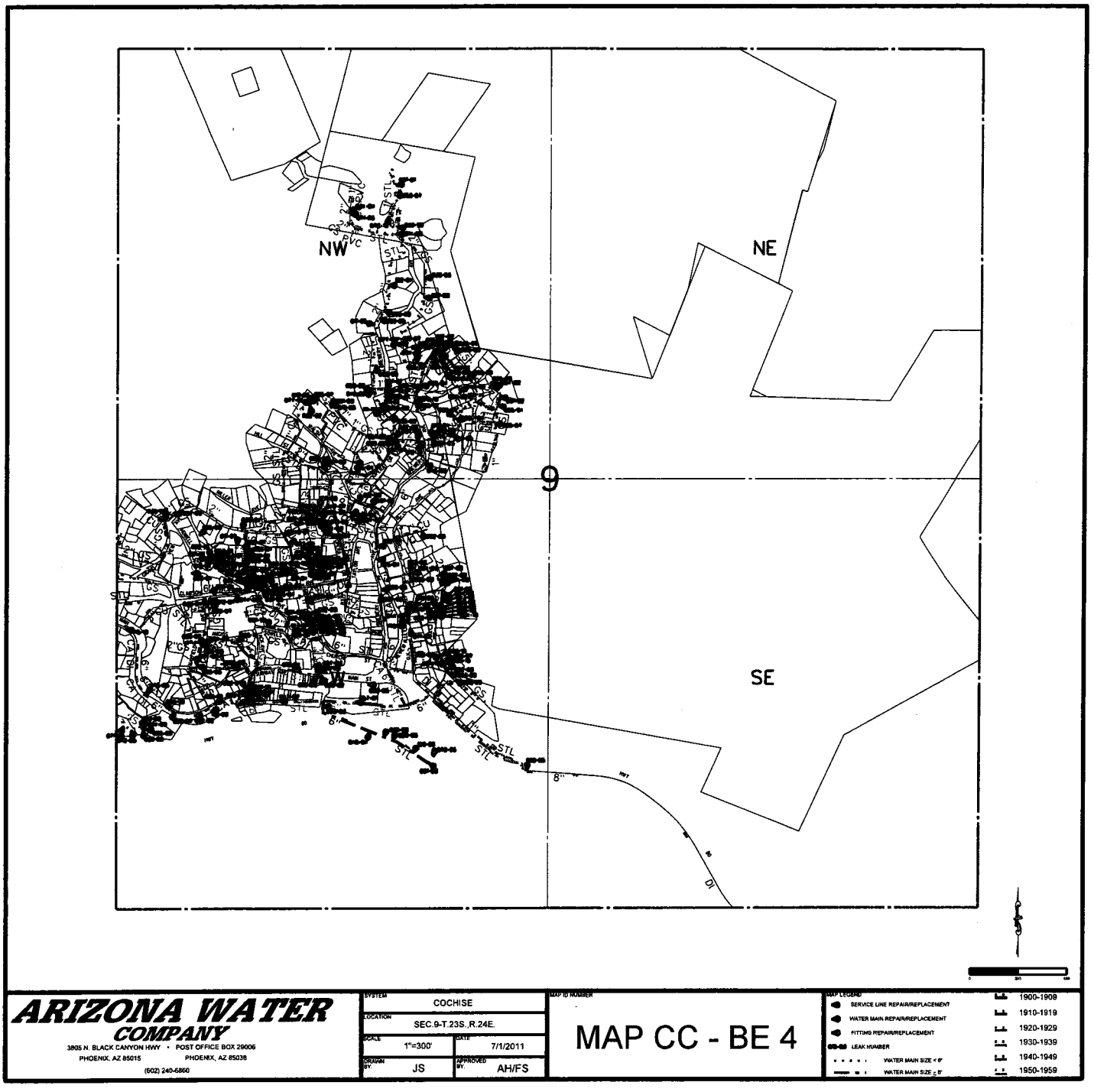
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-5860

| | |
|---|---|
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| APPROVED BY | AH/FS |

MAP ID NUMBER

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- FITTING REPAIR/REPLACEMENT
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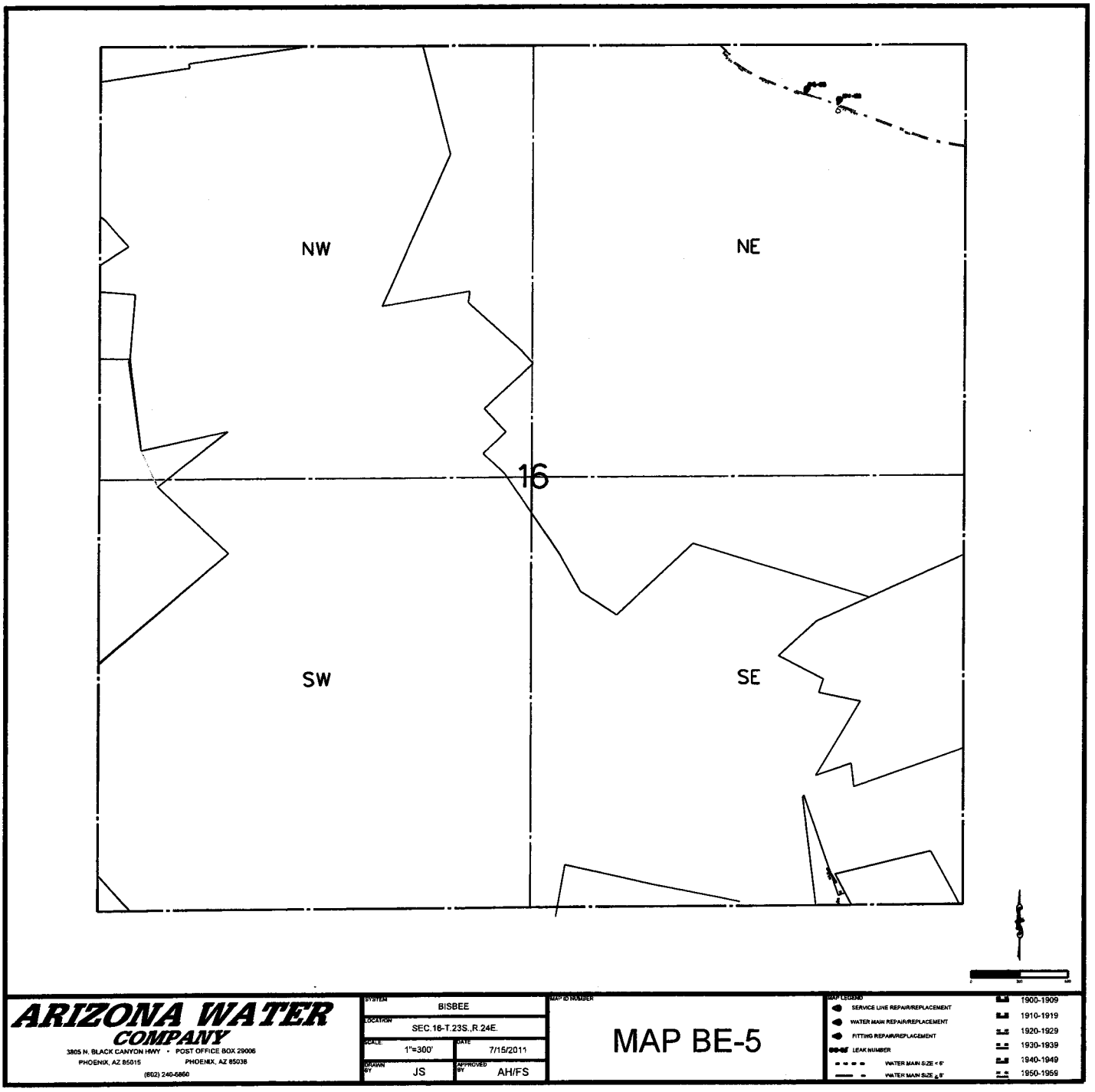
- WATER MAIN SIZE ≥ 8"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | BISBEE |
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| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP BE-5

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
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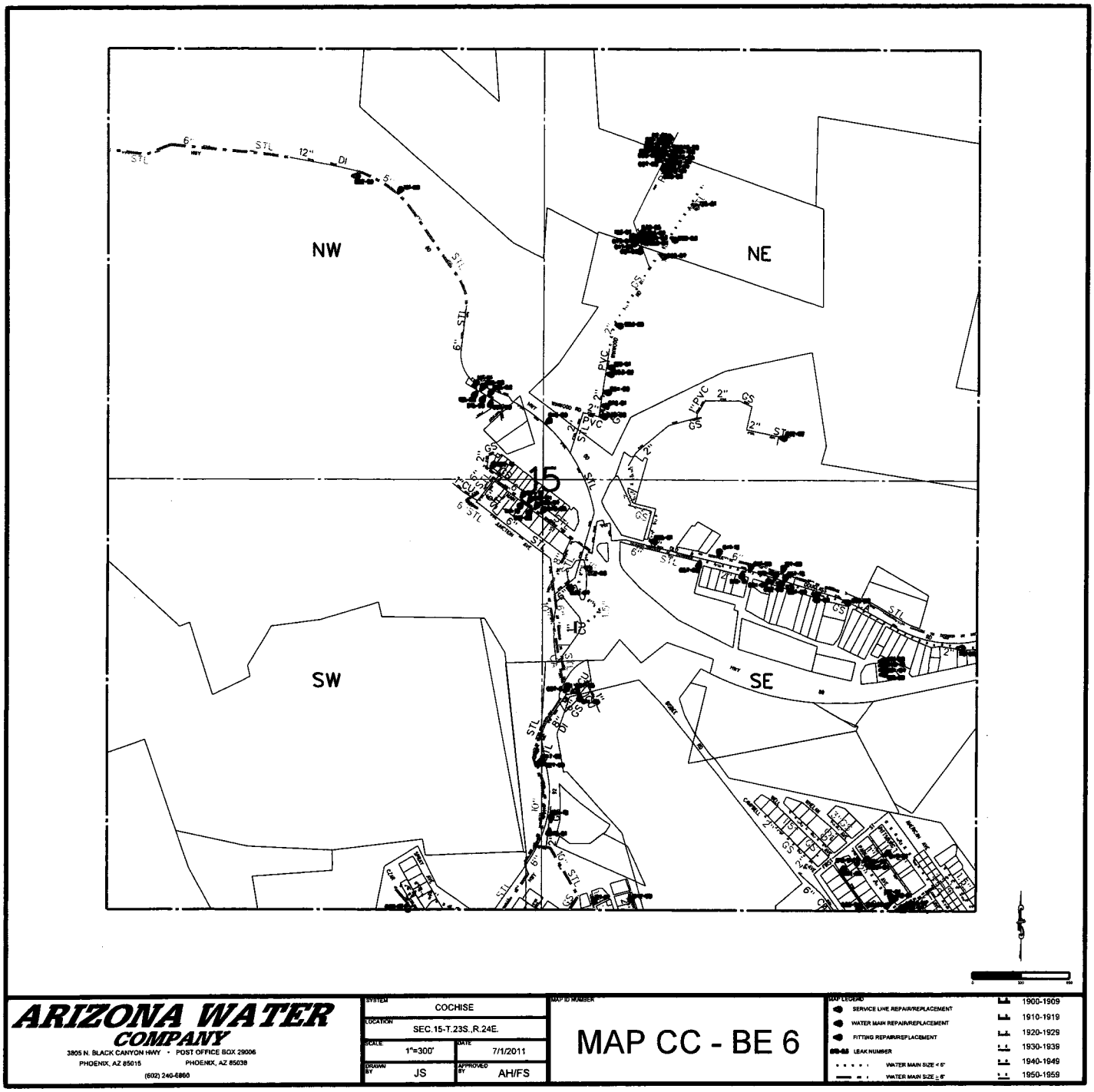
- WATER MAIN SIZE ≥ 6"

- 1900-1909
- 1910-1919
- 1920-1929
- 1930-1939
- 1940-1949
- 1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | COCHISE |
| LOCATION | SEC.15-T.23S.,R.24E. |
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| APPROVED BY | AH/FS |

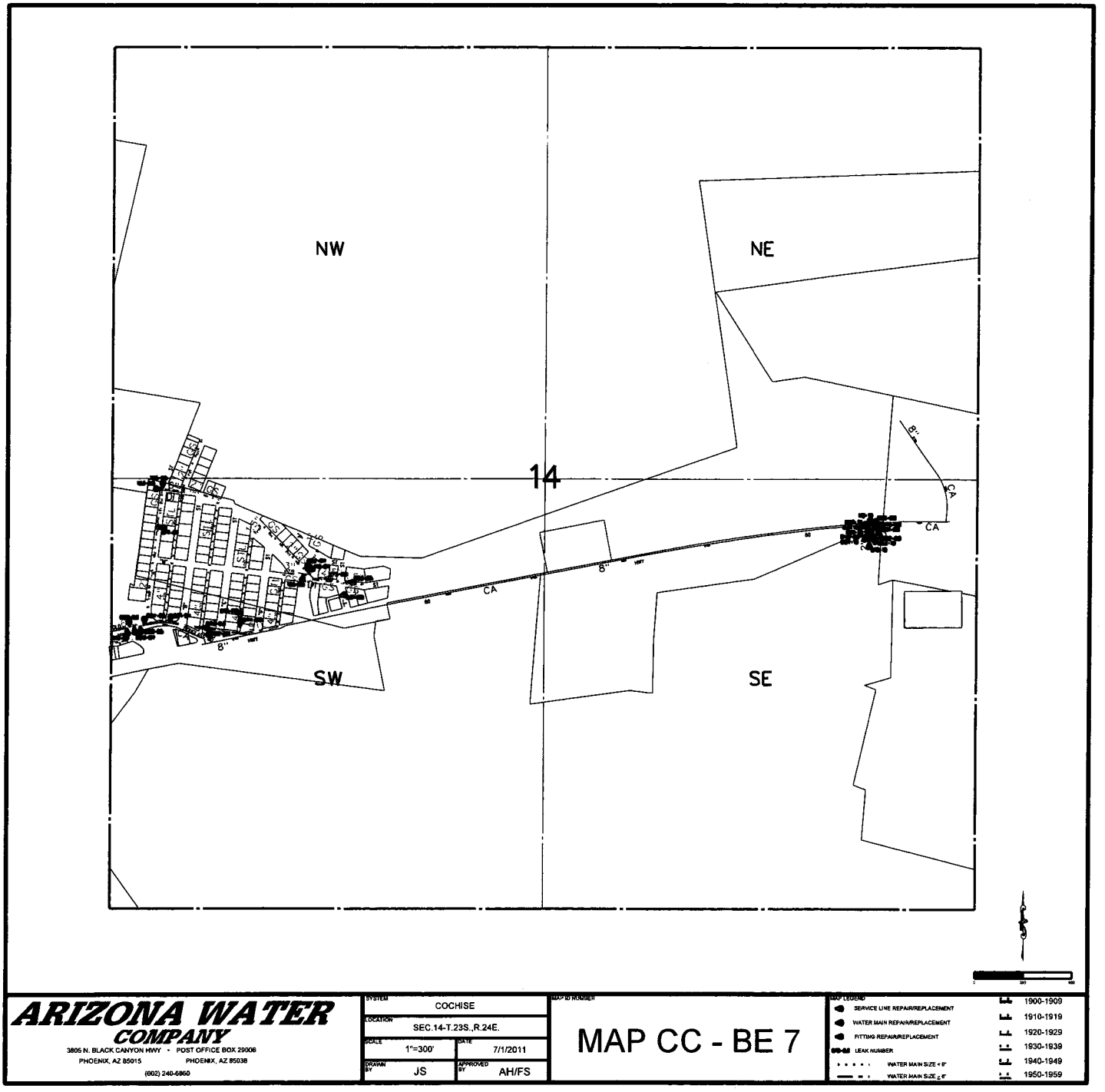
MAP ID NUMBER

# MAP CC - BE 6

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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| | |
|---|---|
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MAP ID NUMBER

# MAP CC - BE 7

MAP LEGEND

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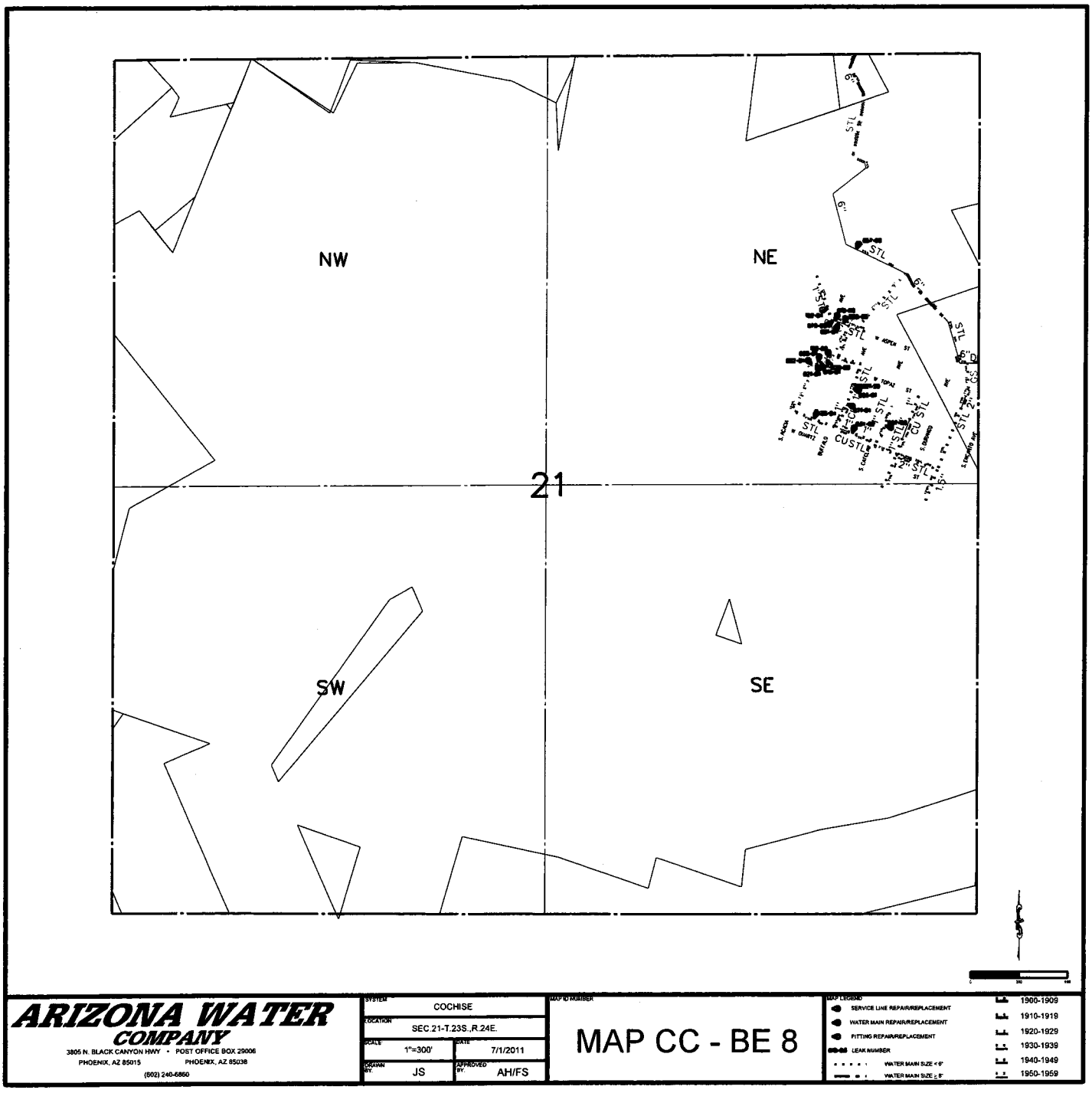
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959


NW
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ARIZONA WATER COMPANY
3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006
PHOENIX, AZ 85015 PHOENIX, AZ 85038
(602) 240-6860
SYSTEM: COCHISE
LOCATION: SEC.21-T.23S.,R.24E.
SCALE: 1"=300'
DATE: 7/1/2011
DRAWN BY: JS
APPROVED BY: AH/FS
MAP ID NUMBER
MAP CC - BE 8
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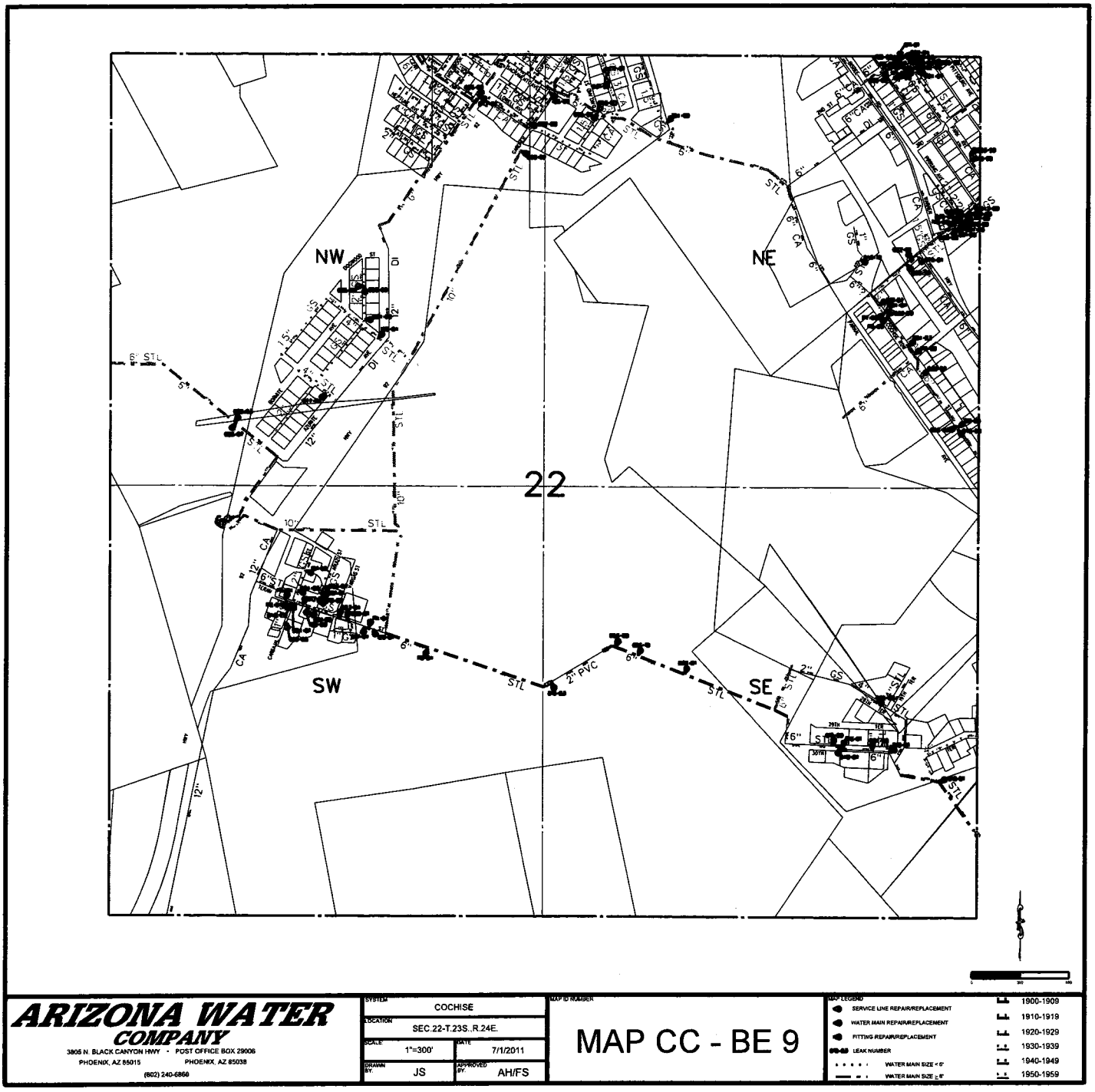
WATER MAIN REPAIR/REPLACEMENT
FITTING REPAIR/REPLACEMENT
LEAK NUMBER
WATER MAIN SIZE < 6"
WATER MAIN SIZE ≥ 6"
1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | COCHISE |
| LOCATION | SEC.22-T.23S..R.24E. |
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| DATE | 7/1/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP CC - BE 9

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
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| APPROVED BY | AH/FS |

MAP ID NUMBER

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- FITTING REPAIR/REPLACEMENT
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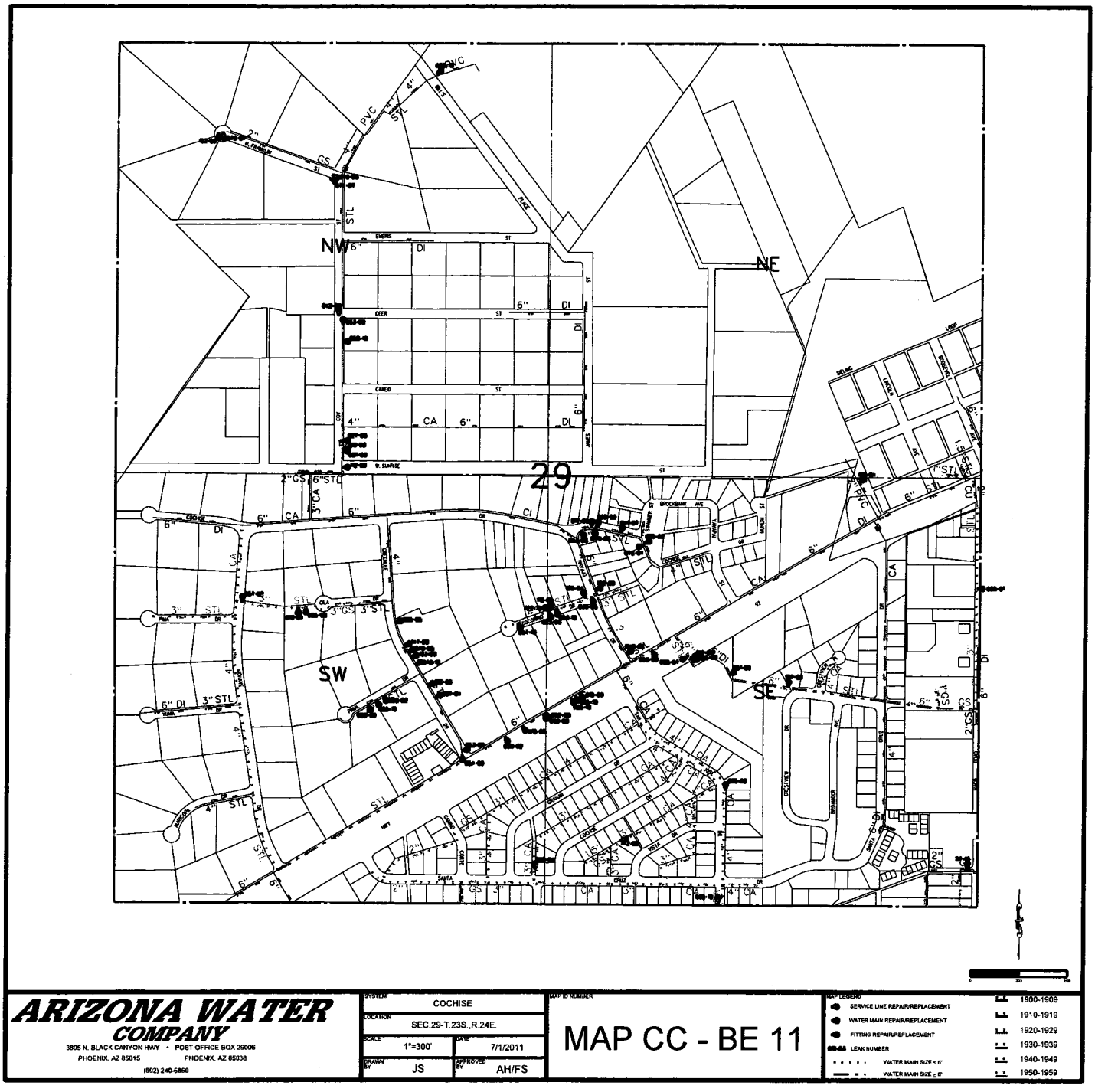
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
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| APPROVED BY | AH/FS |

MAP ID NUMBER

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- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- 88-88 LEAK NUMBER
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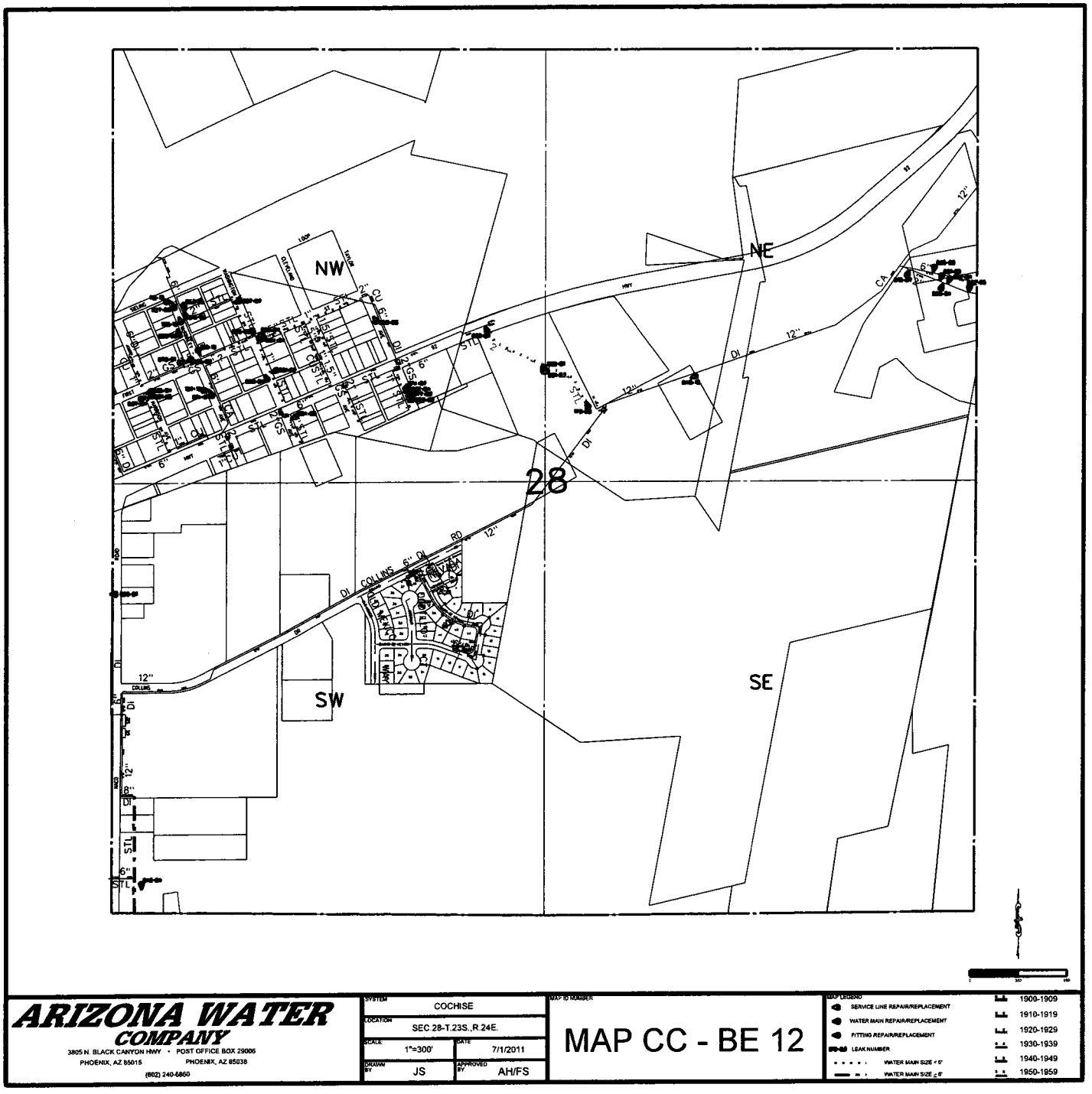
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
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| APPROVED BY | AH/FS |

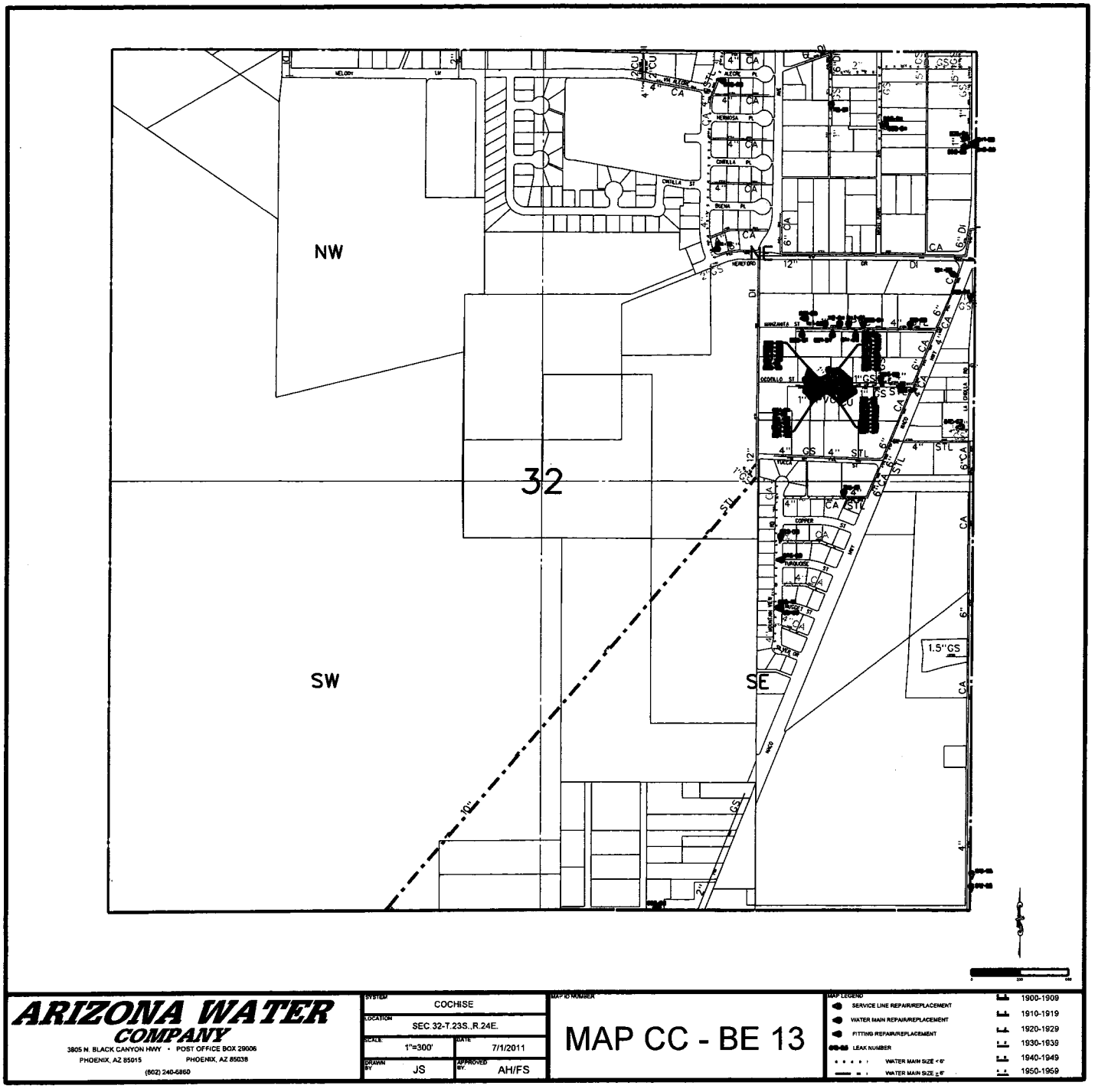
MAP ID NUMBER

# MAP CC - BE 12

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-5860

| | |
|---|---|
| SYSTEM | COCHISE |
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| APPROVED BY | AH/FS |

MAP ID NUMBER

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MAP LEGEND

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- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
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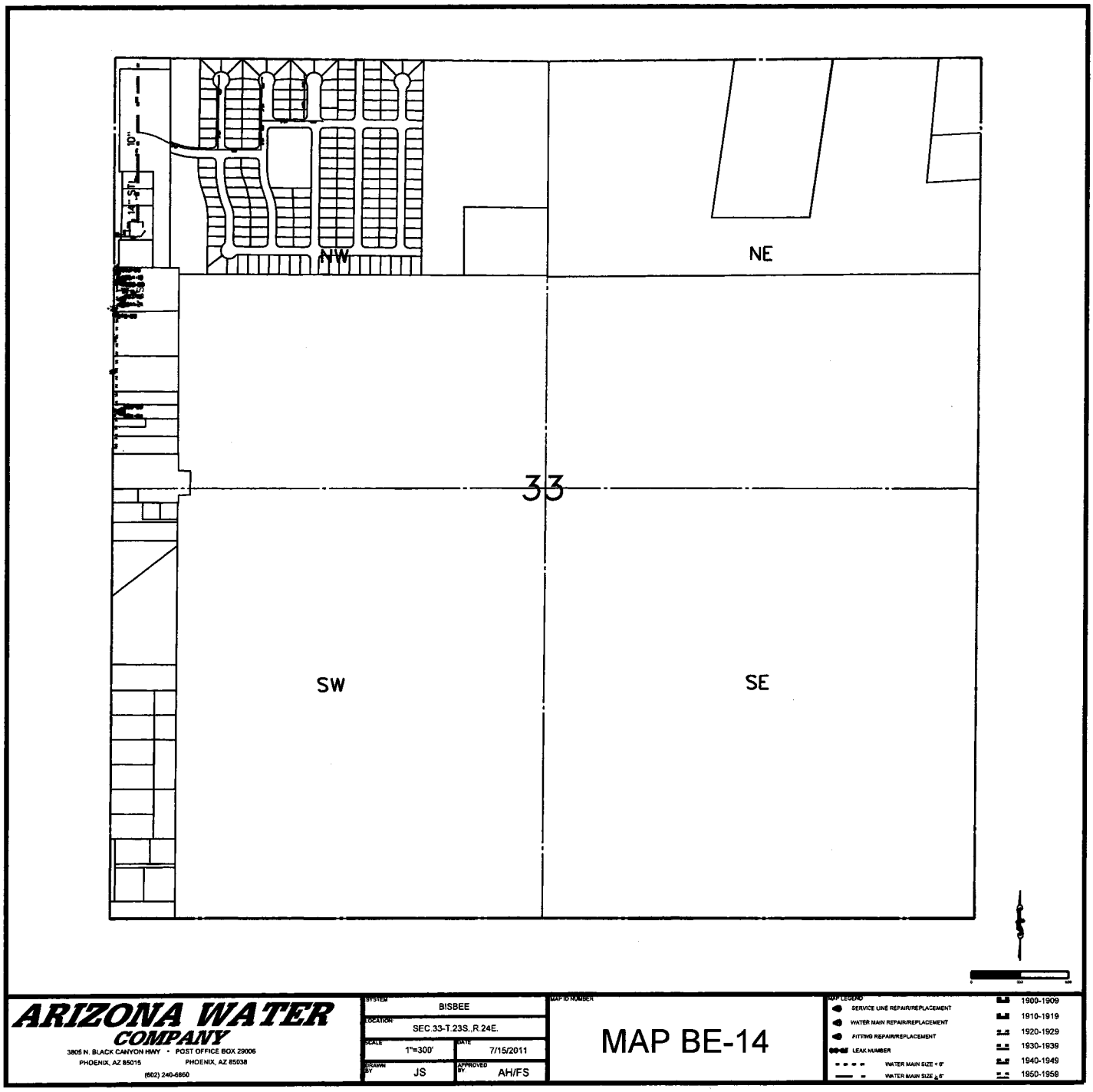
- WATER MAIN SIZE < 6"
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1959

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(602) 240-6860

| | |
|---|---|
| SYSTEM | BISBEE |
| LOCATION | SEC.33-T.23S.,R.24E. |
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| DATE | 7/15/2011 |
| DRAWN BY | JS |
| APPROVED BY | AH/FS |

MAP ID NUMBER

# MAP BE-14

MAP LEGEND

- SERVICE LINE REPAIR/REPLACEMENT
- WATER MAIN REPAIR/REPLACEMENT
- FITTING REPAIR/REPLACEMENT
- LEAK NUMBER
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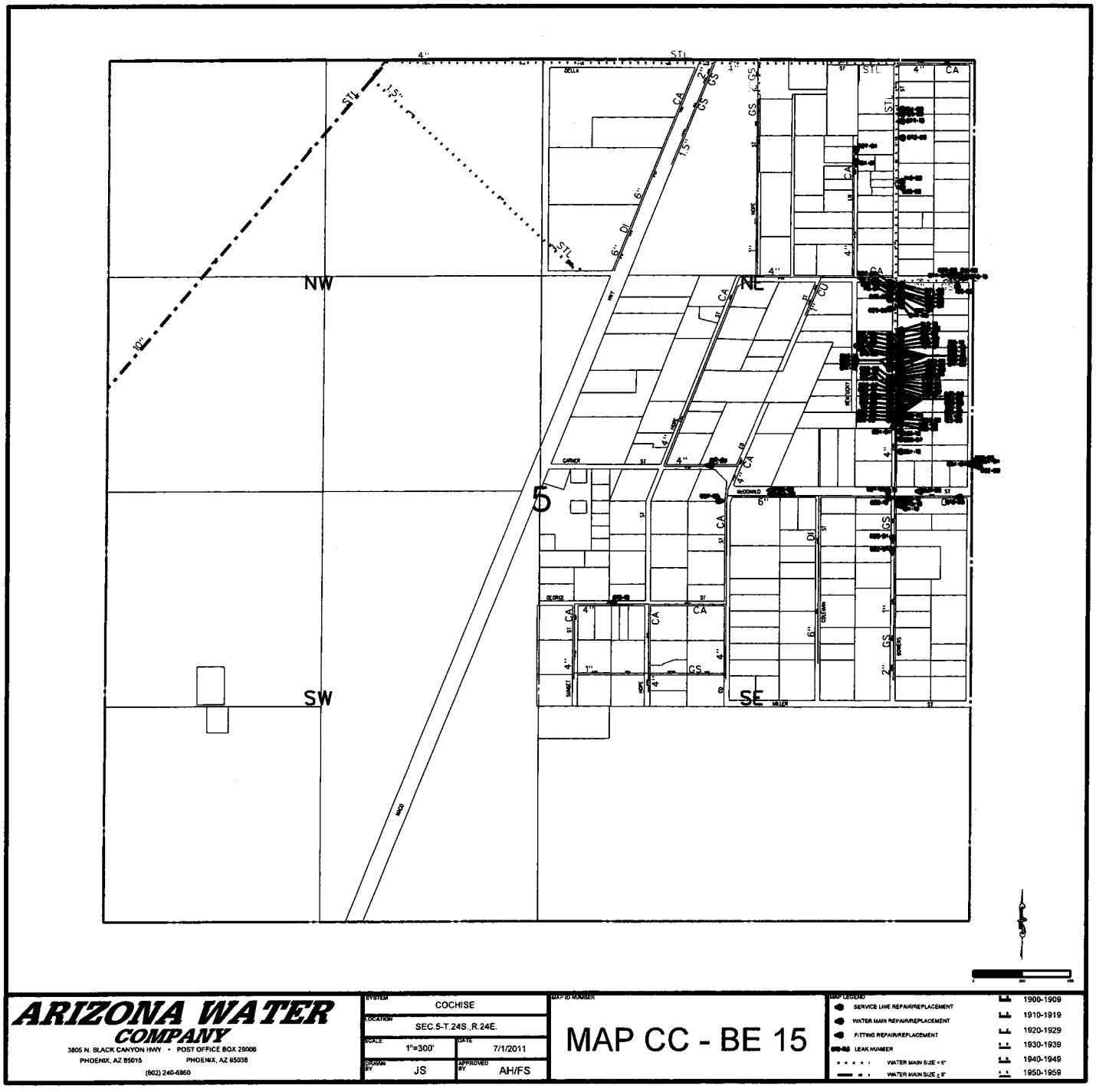
- WATER MAIN SIZE ≥ 6"

1900-1909
1910-1919
1920-1929
1930-1939
1940-1949
1950-1958




| | | | |
|---|---|---|---|
| **ARIZONA WATER COMPANY**<br>3805 N. BLACK CANYON HWY • POST OFFICE BOX 29006<br>PHOENIX, AZ 85015 PHOENIX, AZ 85038<br>(602) 240-6860 | SYSTEM: COCHISE<br>LOCATION: SEC.5-T.24S.,R.24E.<br>SCALE: 1"=300' DATE: 7/1/2011<br>DRAWN BY: JS APPROVED BY: AH/FS | MAP ID NUMBER:<br>MAP CC - BE 15 | MAP LEGEND<br>SERVICE LINE REPAIR/REPLACEMENT<br>WATER MAIN REPAIR/REPLACEMENT<br>FITTING REPAIR/REPLACEMENT<br>LEAK NUMBER<br>WATER MAIN SIZE < 6"<br>WATER MAIN SIZE ≥ 6"<br>1900-1909<br>1910-1919<br>1920-1929<br>1930-1939<br>1940-1949<br>1950-1959 |

# APPENDIX

# 9.3

# Arizona Department of Water Resources Third Management Plan

# Excerpts Related to Water Losses

# THIRD MANAGEMENT PLAN

## FOR

# PHOENIX
## ACTIVE MANAGEMENT AREA

# 2000-2010

ARIZONA DEPARTMENT OF WATER RESOURCES

In addition to these individual user requirements, the Third Management Plan contains an individual user requirement that was not included in the Second Management Plan. This additional requirement prohibits the use of groundwater to maintain a water feature installed in a publicly owned right-of-way after January 1, 2002.

Either the individual user or the municipal provider serving the individual user is responsible for complying with the individual user requirement. See section 5-112 for determining responsibility for compliance with the individual user requirements.

### 5.7.6.2 Distribution System Requirements

Lost and unaccounted for water is defined as the total water from any source, except direct use effluent, withdrawn, diverted, or received in a year minus the total amount of authorized deliveries made by the municipal provider in that year. Lost and unaccounted for water includes line leakage, meter under-registration, evaporation or leakage from storage ponds or tanks, system and hydrant leaks or breaks, and illegal connections.

All municipal providers are required to meet an efficient lost and unaccounted for water standard in their service areas. Lost and unaccounted for water will be determined for each municipal provider based on the total quantity of metered and unmetered water deliveries and the total water pumped, received, or diverted by the municipal provider for each calendar year, excluding direct use effluent. Small municipal providers must maintain lost and unaccounted for water at or below 15 percent. Large municipal providers are required to maintain their system not to exceed 10 percent lost and unaccounted for water. Large untreated water providers are required to either line all canals used to deliver untreated water to the provider's delivery points with a material that allows no more lost water than a well-maintained concrete lining, or operate and maintain its distribution system to limit lost and unaccounted for water at or below 10 percent.

For the third management period, the Department will allow providers to exclude water from the lost and unaccounted for water calculation that is either metered or estimated using approved estimating procedures and that is used pursuant to other regulatory requirements such as well purging and line flushing. Providers may also exclude estimated water uses such as construction (truck loads for dust control) or fire services, but all other uses of water within a distribution system must be metered. Appendix 5-M provides a complete list of uses that are considered in the lost and unaccounted for water calculation and those uses that can be estimated to determine the volume.

### 5.7.6.3 Monitoring and Reporting Requirements

All municipal providers are required to annually: (1) report to the Department information on the total quantity of water used within the service area and the total volume of water delivered for various municipal purposes, (2) calculate the volume of lost and unaccounted for water within the service area, and (3) report the total number of housing units, by unit type, added to the water service area from July 1 of the previous calendar year to July 1 of the reporting year.

Large municipal providers are required to separately measure and report the amount of water delivered each month for: irrigation uses; residential uses, separated by single family and multifamily; and non-residential uses, separated by water use categories, including turf-related facility use, commercial use, industrial use, government use, construction use, surface water treatment, and other uses.

All municipal providers are required to submit to the Department, on an annual basis, an updated service area and distribution system map delineating all potable and non-potable distribution lines greater than four inches, all potable treatment facilities, all well sites, and all non-potable treatment.

**APPENDIX 5-M**
**THIRD MANAGEMENT PLAN**
**LOST & UNACCOUNTED FOR WATER REQUIREMENTS**

**Lost & Unaccounted For Water Includes:**

**Leaks:**
- Distribution Lines
- Sewer Lines
- Storage Tanks
- Storage Ponds
- Hydrants
- Other

**Breaks:**
- Distribution Lines
- Sewer Lines
- Mains
- Hydrants
- Other

**Measurement Errors:**
- Meter Under/Over-Registration
- Source Meter Errors
- Flumes/Weirs Errors

**Evaporation**

**Illegal Connections/Water Theft**

**Phreatophyte Uses**

**********

**Water System Uses Include:**

- Residential Metered Deliveries
- Non-Residential Metered Deliveries
- Standpipe Uses
- Fire Flow [1]
- Hydrant Meter Reading
- Hydrant Flow Tests [1]
- Fire Sprinkler System Flow Tests [1]
- Construction [1]
- Dust Control [1]
- Line Flushing (distribution, sewer, or treatment facility) [1]
- Street Cleaning [1]
- Storm Drain Flushing [1]
- Water Tests & Pressure Tests [1]
- Well Purging

[1] Estimates can be provided, using a method approved by the director. Documentation must be submitted with annual report.

# THIRD MANAGEMENT PLAN

## FOR

# TUCSON
## ACTIVE MANAGEMENT AREA

# 2000-2010

ARIZONA DEPARTMENT OF WATER RESOURCES

Either the individual user or the municipal provider serving the individual user is responsible for complying with the individual user requirement. See section 5.2.3 for a discussion of how responsibility is determined.

#### 5.6.5.2 Distribution System Requirements

All municipal providers are required to limit lost and unaccounted for water use in their service area. Lost and unaccounted for water includes line leakage, meter under-registration, evaporation or leakage from storage ponds or tanks, system and hydrant leaks or breaks, and illegal connections. Lost and unaccounted for water is defined as the total water from any source, except direct use effluent, withdrawn, diverted, or received in a year minus the total amount of authorized deliveries made by the municipal provider in that year. Small municipal providers must maintain lost and unaccounted for water volumes at no more than 15 percent. Large municipal providers are required to maintain systems not to exceed 10 percent lost and unaccounted for water.

Water that is put to a beneficial use and water system operation uses, whether metered or estimated, are not counted as lost or unaccounted for water. For the third management period, the Department will allow providers to either meter or estimate (using approved estimating procedures) the volume of water used pursuant to regulatory requirements such as well purging and line flushing. Providers may also estimate water for uses such as construction or fire services. However, all other water uses must be metered. This is especially important for large distribution systems which tend to have many hundreds of customers and many miles of distribution pipe. For a complete listing of uses that can be estimated, refer to Appendix 5J.

#### 5.6.5.3 Monitoring and Reporting Requirements

All municipal providers are required to annually report to the Department the total volume of water used within the service area and the total volume of water delivered for various municipal purposes. In addition, the provider must calculate the volume of lost and unaccounted for water within the service area and report the total number of housing units, by unit type, added to the service area from July 1 of the previous calendar year to July 1 of the reporting year. Most municipal providers maintain a database and tracking system of this information for the previous 12 months. Maintaining this type of information allows municipal providers to identify difficulties in the operation of the distribution system and better meet water management objectives within their service areas.

Large municipal providers are required to separately measure and report the amount of water delivered each month for the following uses and categories: irrigation; residential separated into single family and multifamily; and non-residential separated into turf-related, commercial, industrial, government, construction, surface water treatment, and other uses.

All municipal providers are required to annually submit to the Department an updated service area and distribution system map that includes all potable and non-potable distribution lines greater than 4 inches, all potable treatment facilities, all well sites, all non-potable treatment facilities, and other information.

Large municipal providers regulated under the NPCCP or the ACP are required to submit a progress report that includes an evaluation of the results of implementing the reasonable conservation measures in accordance with their written stipulated agreement.

**APPENDIX 5J**
**CONSERVATION REQUIREMENTS FOR MUNICIPAL DISTRIBUTION SYSTEMS**
**LOST AND UNACCOUNTED FOR WATER**
**TUCSON ACTIVE MANAGEMENT AREA**

**Lost & Unaccounted For Includes:**

- **Leaks:**
  - Distribution Lines
  - Sewer Lines
  - Storage Tanks
  - Storage Ponds
  - Hydrants
  - Other
- **Breaks:**
  - Distribution Lines
  - Sewer Lines
  - Mains
  - Hydrants
  - Other
- **Measurement Errors:**
  - Meter Under-Registration
  - Source Meter Errors
  - Flume/Weir Errors
- **Evaporation**
- **Illegal Connections/Water Theft**
- **Phreatophyte Uses**

**Water System Uses Include:**

- Residential Metered Deliveries
- Non-Residential Metered Deliveries
- Standpipe Uses
  - *(1)* Fire Flow
    Hydrant Meter Reading
  - *(1)* Hydrant Flow Tests
  - *(1)* Fire Sprinkler System Flow Tests
  - *(1)* Construction
  - *(1)* Dust Control
  - *(1)* Line Flushing (distribution, sewer, or treatment facility)
  - *(1)* Street Cleaning
  - *(1)* Storm Drain Flushing
  - *(1)* Water Tests & Pressure Tests
    Well Purging

*(1)* ***These uses may be estimated using a method approved by the director. Documentation must be submitted with annual report.***

# APPENDIX

# 9.4

# Recommended Projects and

# Preliminary Cost Estimates

# APPENDIX

# 9.4.1

# Recommended Projects and Preliminary Cost Estimates Superstition Division

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PERALTA ESTATES UNIT 2 | | | | 126 | | | 0 | 0 | 25 | 25 | $523,827 |
| 2 | BOISE STREET & AVALON | 1,350 | 6 | DI | 88 | 4 | CA | 1 | 0 | 21 | 22 | $544,964 |
| 3 | 114TH STREET | 650 | 6 | DI | 102 | | | 1 | 3 | 18 | 22 | $432,978 |
| 4 | DELAWARE DRIVE | | | | 87 | | | 0 | 0 | 22 | 22 | $346,461 |
| 5 | GLOBE AVENUE | | | | 10 | | | 0 | 0 | 22 | 22 | $42,274 |
| 6 | GREASEWOOD DRIVE | | | | 25 | | | 1 | 0 | 19 | 20 | $102,008 |
| 7 | CHISOLM AVENUE | | | | 22 | | | 0 | 0 | 20 | 20 | $92,818 |
| 8 | RANCH ROAD | 600 | 6 | DI | | 2 | PVC | 0 | 18 | 2 | 20 | $57,240 |
| 9 | HIDALGO STREET | 4,700 | 6 | DI | 32 | 1, 1.5, 2 | GS | 1 | 12 | 6 | 19 | $563,475 |
| 10 | SUGAR CREEK DRIVE | | | | 46 | | | 0 | 0 | 19 | 19 | $191,151 |
| 11 | PINYON DRIVE | | | | 101 | | | 0 | 0 | 18 | 18 | $416,305 |
| 12 | PERALTA ESTATES | | | | 44 | | | 0 | 0 | 17 | 17 | $182,880 |
| 13 | RUSSELL AVENUE | 1,050 | 6 | DI | 23 | | | 0 | 0 | 17 | 17 | $190,232 |
| 14 | COPPER DRIVE | | | | 121 | | | 0 | 1 | 15 | 16 | $509,123 |
| 15 | MCKINNEY AVENUE | | | | 18 | | | 0 | 0 | 16 | 16 | $74,439 |
| 16 | MONROE STREET | 250 | 6 | DI | 6 | 2 | PVC, GS | 0 | 12 | 4 | 16 | $46,212 |
| 17 | SLEEPY HOLLOW & LAZY | | | | 25 | | | 0 | 0 | 15 | 15 | $102,927 |
| 18 | HIDEAWAY LANE | | | | 21 | | | 0 | 0 | 14 | 14 | $84,548 |
| 19 | STONE AVENUE | 1,350 | 6 | DI | 25 | 2, 4 | CI, CA | 0 | 2 | 12 | 14 | $222,528 |
| 20 | CENTRAL AVENUE | 550 | 6 | DI | 25 | 6 | ST | 0 | 1 | 13 | 14 | $154,785 |
| 21 | ORPHAN STREET | 1,700 | 6 | DI | 33 | 1, 2 | CA, GS | 0 | 4 | 10 | 14 | $280,425 |
| 22 | FREDRIC STREET | 2,750 | 6 | DI | 53 | 2, 4 | GS, CA | 0 | 10 | 3 | 13 | $464,224 |
| 23 | GLENDALE AVENUE | | | | 17 | | | 0 | 1 | 12 | 13 | $69,844 |
| 24 | STORY STREET | 600 | 6 | DI | 11 | | | 0 | 0 | 12 | 12 | $98,595 |
| 25 | MOUNTAIN ROAD | | | | 48 | | | 0 | 0 | 11 | 11 | $193,908 |
| 26 | YOUNG STREET | 800 | 6 | DI | 17 | 1,2 | ST, CU, PVC | 0 | 9 | 2 | 11 | $138,506 |
| 27 | EMERALD DRIVE | 500 | 6 | DI | 8 | 2 | ST | 0 | 10 | 0 | 10 | $78,640 |
| 28 | SLEEPY HOLLOW TRAIL | | | | 30 | | | 0 | 0 | 10 | 10 | $121,307 |
| 29 | WASHBORN ROAD | 1,600 | 6 | DI | | 6 | HDPE | 0 | 9 | 0 | 9 | $142,838 |
| 30 | LOOMIS AVENUE | 500 | 6 | DI | 5 | 1 | GS | 0 | 9 | 0 | 9 | $63,017 |
| 31 | HUMMINGBIRD LANE | | | | 14 | | | 0 | 0 | 7 | 7 | $57,897 |
| 32 | BROADWAY AVENUE | 600 | 6 | DI | 3 | 6 | CA | 0 | 7 | 0 | 7 | $67,349 |
| 33 | BOISE STREET | 1,400 | 6 | DI | 13 | 2 | PVC | 0 | 7 | 0 | 7 | $176,447 |
| 34 | HILL STREET | | | | 28 | | | 0 | 0 | 7 | 7 | $114,874 |
| 35 | ALHAMBRA WAY | | | | 14 | | | 0 | 0 | 6 | 6 | $57,897 |
| 36 | GARROT AVENUE | 1,250 | 6 | DI | 31 | 1,2,6 | CA,CU | 0 | 0 | 6 | 6 | $278,915 |
| | | | | | | | | | | | **Total** | **$7,285,858** |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.30-T.1N., R.8E. | 1 | MAP SS-AJ 17 |

PROJECT DESCRIPTION:

REPLACE 126 SERVICE CONNECTIONS IN PERALTA ESTATES UNIT TWO.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 60 | EA | 2,800 | REPLACE SHORT SERVICE | $ 168,000 |
| 66 | EA | 3,500 | REPLACE LONG SERVICE | 231,000 |
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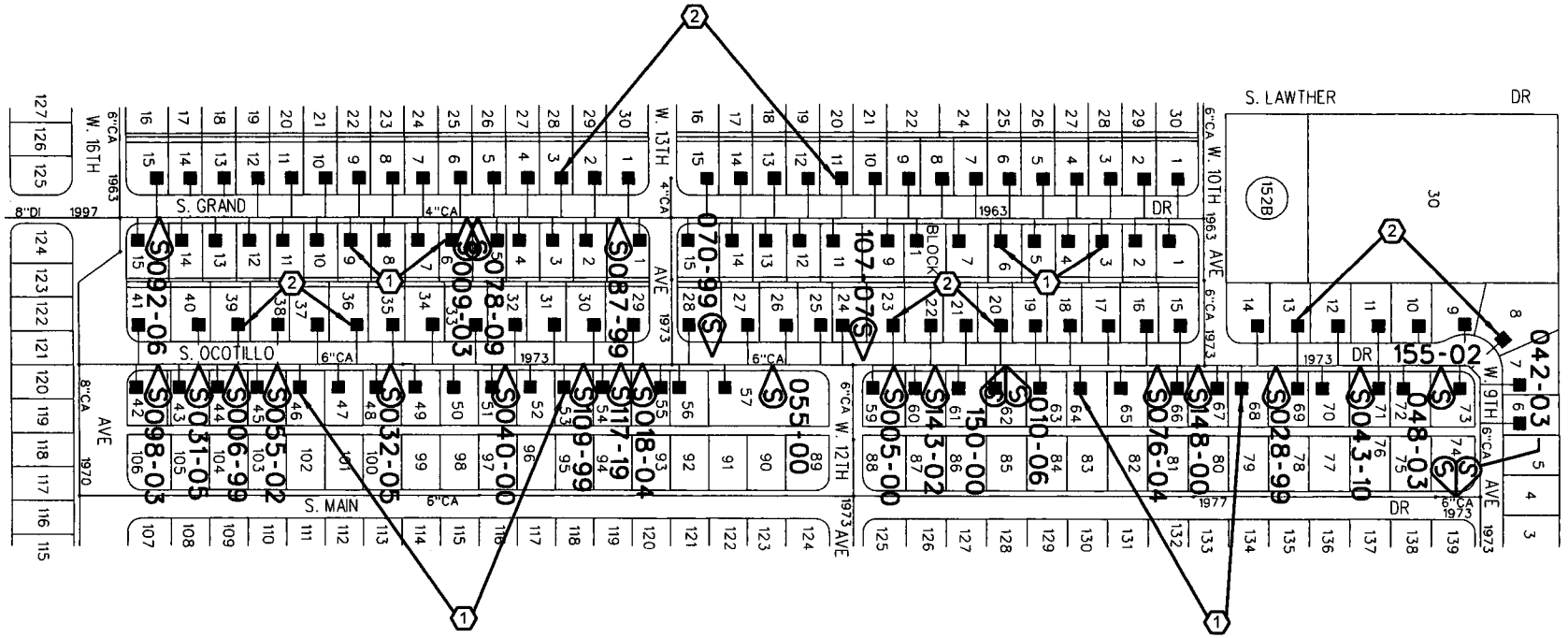
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 399,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 5,985 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 27,930 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 432,915** |
| (5) OVERHEAD - 15% OF LINE (4) | 64,937 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 25,975 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 523,827** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 523,827** |

AFH

# PROJECT 1

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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 60 EA. |
| 2 | REPLACE LONG SERVICE | 66 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 126 SERVICE CONNECTIONS
IN PERALTA ESTATES UNIT TWO.

**PROJECT LOCATION**
NW 1/4 SEC. 30-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 17 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.24-T.1N., R.7E. | 2 | MAP SS-AJ 4 |

PROJECT DESCRIPTION:

INSTALL 1,350 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 88 SERVICE CONNECTIONS BETWEEN BOISE STREET AND AVALON STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,350 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 91,800 |
| 25 | EA | 2,800 | REPLACE SHORT SERVICE | 70,000 |
| 34 | EA | 3,500 | REPLACE LONG SERVICE | 119,000 |
| 27 | EA | 4,700 | RELOCATE LONG SERVICE | 126,900 |
| 2 | EA | 3,700 | RELOCATE SHORT SERVICE | 7,400 |
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| (1) **SUBTOTAL - MATERIALS AND LABOR** | 415,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 6,227 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 29,057 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 450,384** |
| (5) OVERHEAD - 15% OF LINE (4) | 67,558 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 27,023 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 544,964** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 544,964** |

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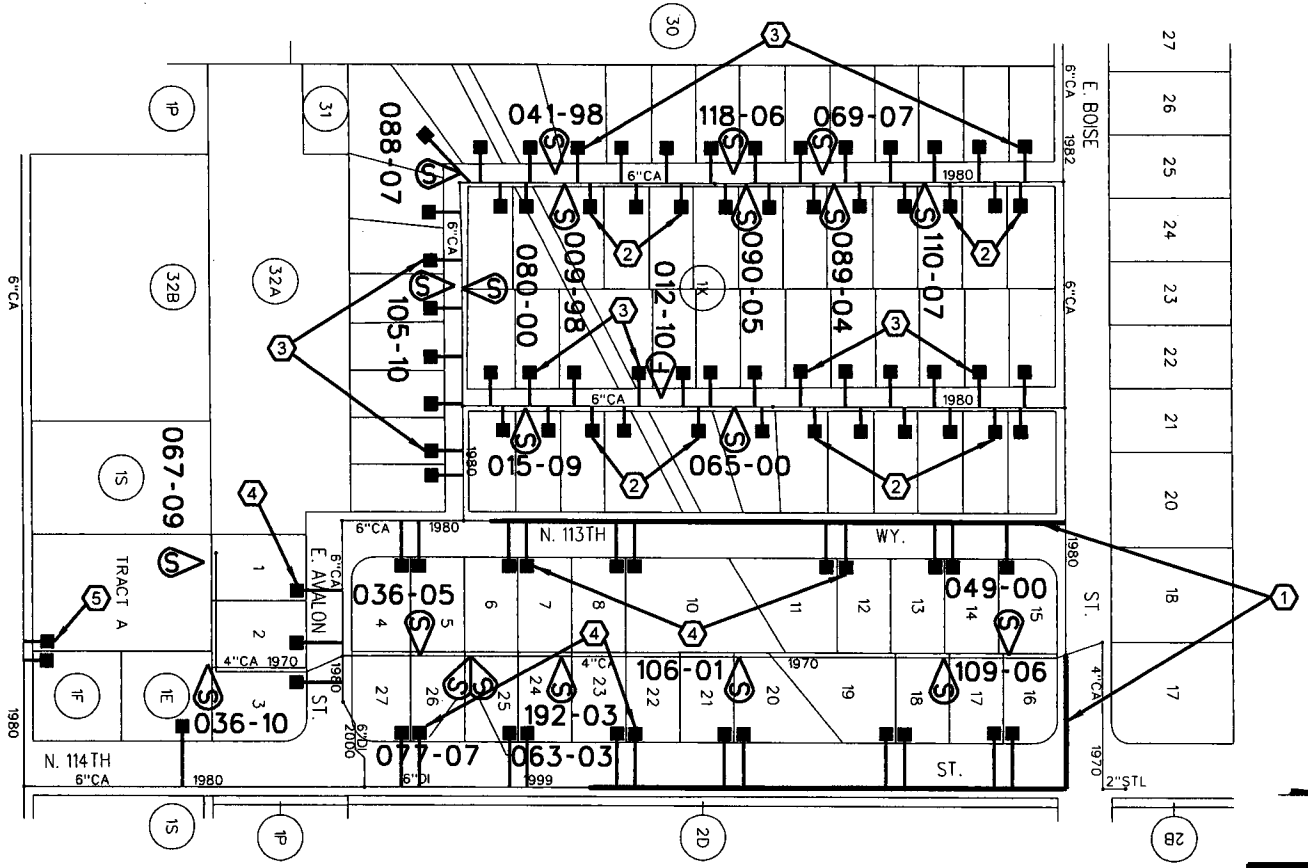
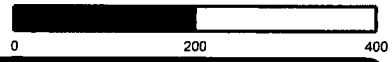
# PROJECT 2




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,350 LF |
| 2 | REPLACE SHORT SERVICE | 25 EA. |
| 3 | REPLACE LONG SERVICE | 34 EA. |
| 4 | RELOCATE LONG SERVICE | 27 EA. |
| 5 | RELOCATE SHORT SERVICE | 2 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,350 LF OF 6" DIP w/POLYWRAP AND REPLACE 88 SERVICE CONNECTIONS BETWEEN BOISE STREET AND AVALON STREET.

**PROJECT LOCATION**

NE 1/4 SEC. 24-T.1N., R.7E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 4 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.25-T.1N., R.7E. | 3 | MAP SS-AJ 5 |

PROJECT DESCRIPTION:

INSTALL 650 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 102 SERVICE CONNECTIONS BETWEEN 114TH STREET AND MERIDIAN ROAD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 650 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 44,200 |
| 102 | EA | 2,800 | REPLACE SHORT SERVICE | 285,600 |
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| (1) **SUBTOTAL - MATERIALS AND LABOR** | 329,800 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 4,947 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 23,086 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 357,833** |
| (5) OVERHEAD - 15% OF LINE (4) | 53,675 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 21,470 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 432,978** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 432,978** |

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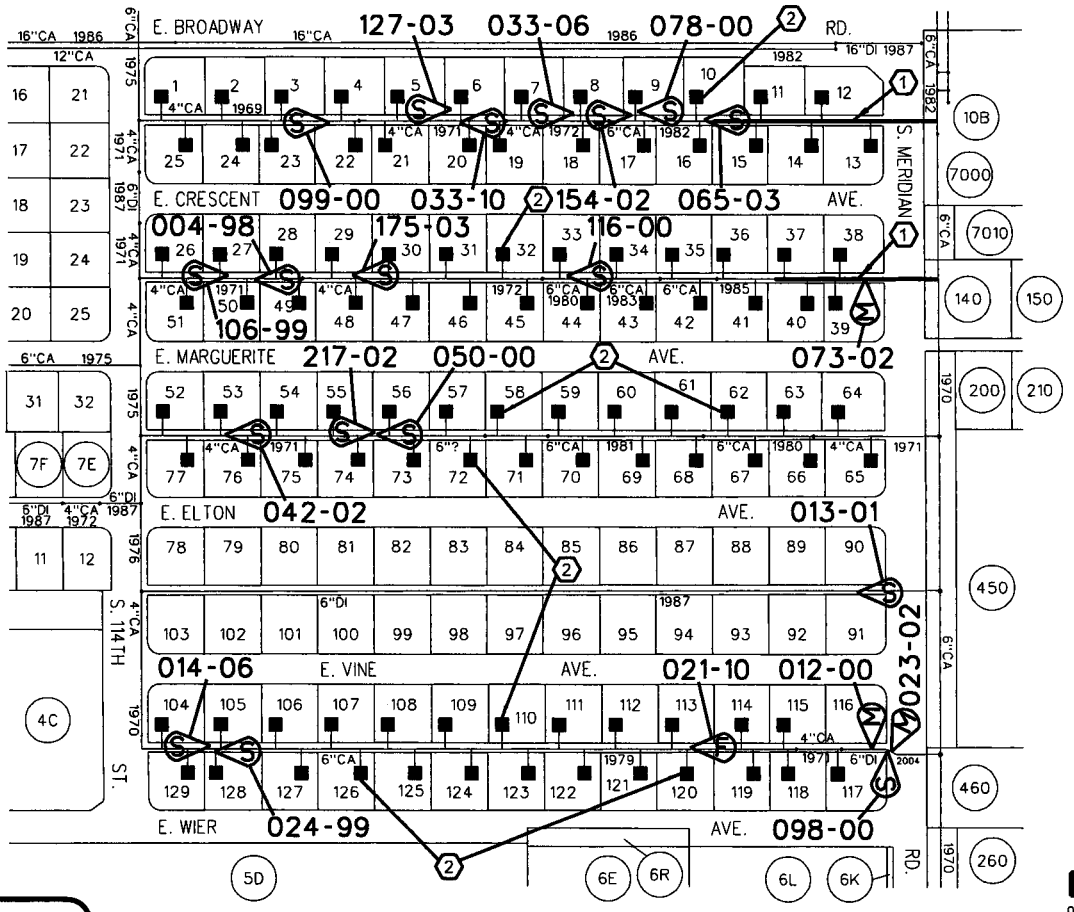
# PROJECT 3




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 650 LF |
| 2 | REPLACE SHORT SERVICE | 102 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 650 LF OF 6" DIP w/POLYWRAP AND REPLACE 102 SERVICE CONNECTIONS BETWEEN 114TH STREET AND MERIDIAN ROAD.

**PROJECT LOCATION**

NE 1/4 SEC. 25-T.1N., R.7E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 5 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.30-T.1N., R.8E. | 4 | MAP SS-AJ 17 |

PROJECT DESCRIPTION:

REPLACE 87 SERVICE CONNECTIONS ALONG DELAWARE AND LAWTHER DRIVES.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 58 | EA | 2,800 | REPLACE SHORT SERVICE | $ 162,400 |
| 29 | EA | 3,500 | REPLACE LONG SERVICE | 101,500 |
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| (1) **SUBTOTAL - MATERIALS AND LABOR** | 263,900 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 3,959 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 18,473 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 286,332** |
| (5) OVERHEAD - 15% OF LINE (4) | 42,950 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 17,180 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 346,461** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 346,461** |

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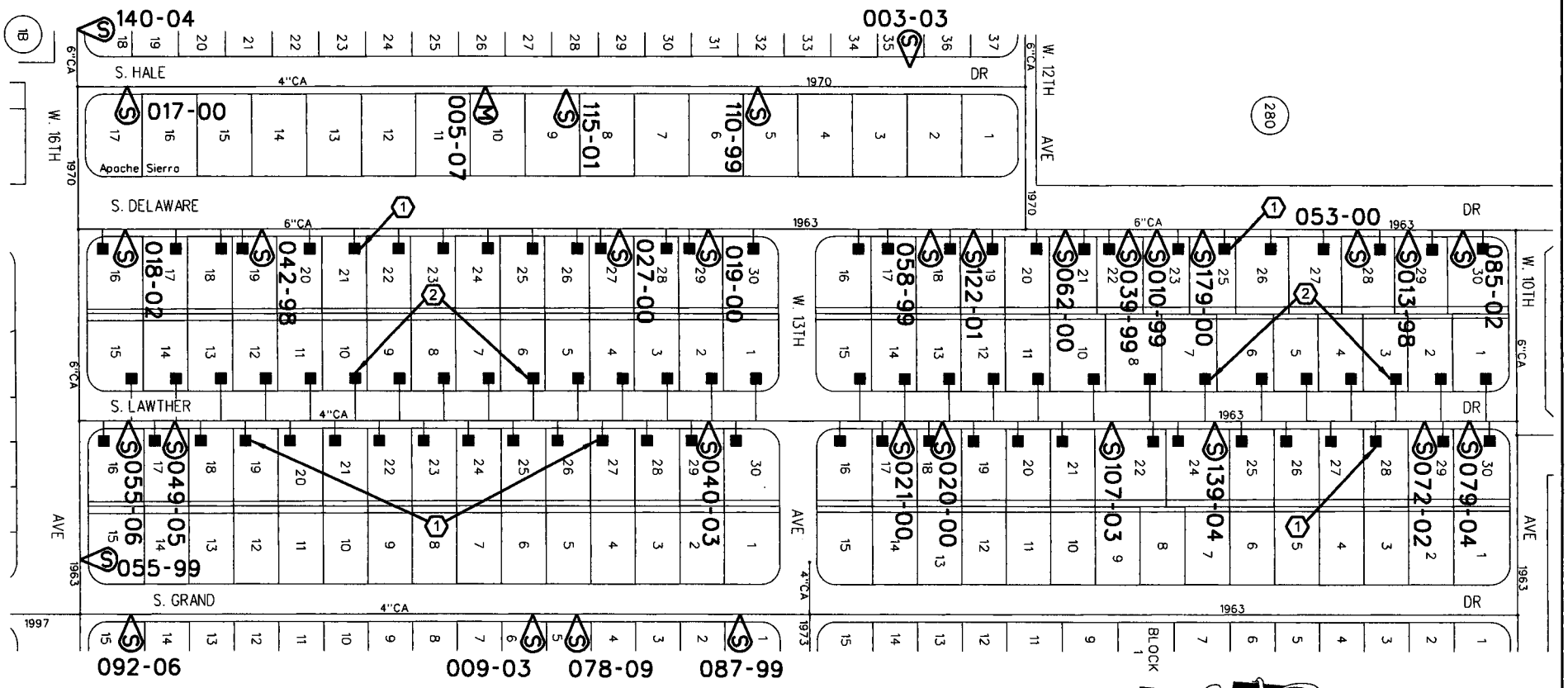
# PROJECT 4




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 58 EA. |
| 2 | REPLACE LONG SERVICE | 29 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 87 SERVICE CONNECTIONS ALONG DELAWARE AND LAWTHER DRIVES.

**PROJECT LOCATION**
NE 1/4 SEC. 30-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 17 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

| DATE PREPARED: |
|---|
| 7/15/11 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.28-T.1N., R.15E. | 5 | MAP SS-MI 9 |

PROJECT DESCRIPTION:

REPLACE 10 SERVICE CONNECTIONS ALONG GLOBE AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 4 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 11,200 |
| 6 | EA | 3,500 | REPLACE LONG SERVICE | 21,000 |
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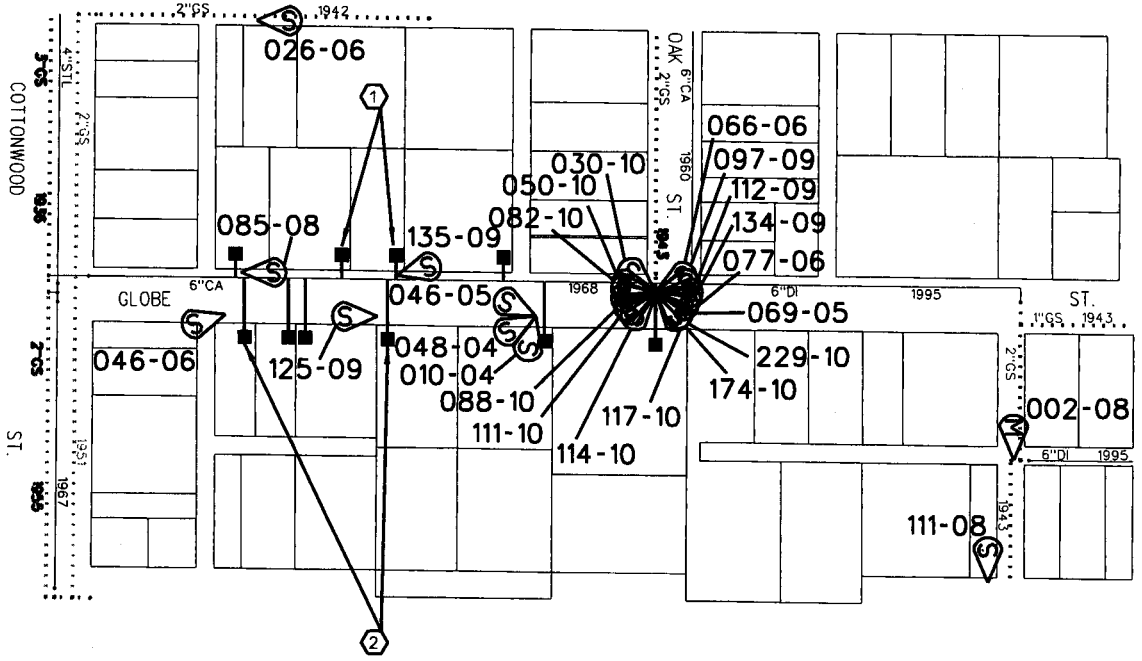
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 32,200 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 483 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,254 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 34,937** |
| (5) OVERHEAD - 15% OF LINE (4) | 5,241 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,096 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 42,274** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 42,274** |

AFH

# PROJECT 5



0 200 400

| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 4 EA. |
| 2 | REPLACE LONG SERVICE | 6 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

| | |
|---|---|
| PROJECT DESCRIPTION | REPLACE 10 SERVICE CONNECTIONS ALONG GLOBE AVENUE. |
| PROJECT LOCATION | NW 1/4 SEC. 28-T.1N., R.15E. |

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 9 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.17-T.1N., R.8E. | 6 | MAP SS-AJ 8 |

PROJECT DESCRIPTION:

REPLACE 25 SERVICE CONNECTIONS ALONG GREASEWOOD DRIVE AND ESCONDIDO COURT.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 14 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 39,200 |
| 11 | EA | 3,500 | REPLACE LONG SERVICE | 38,500 |
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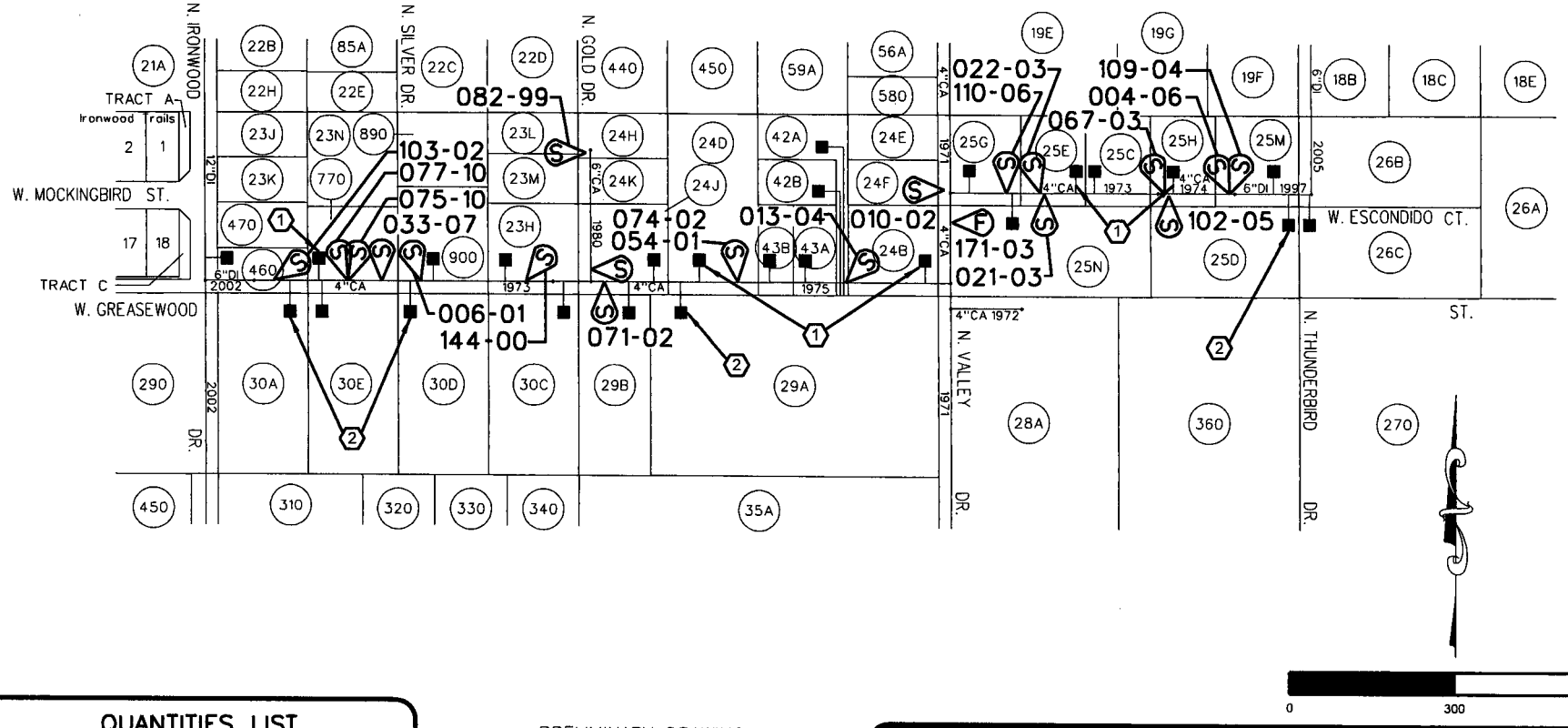
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 77,700 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,166 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,439 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 84,305** |
| (5) OVERHEAD - 15% OF LINE (4) | 12,646 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 5,058 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 102,008** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 102,008** |

AFH

# PROJECT 6




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 14 EA. |
| 2 | REPLACE LONG SERVICE | 11 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 25 SERVICE CONNECTIONS ALONG GREASEWOOD DRIVE AND ESCONDIDO COURT.

**PROJECT LOCATION**
SW 1/4 SEC. 17-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 8 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.30-T.1N., R.15E. | 7 | MAP SS-MI 7 |

PROJECT DESCRIPTION:

REPLACE 22 SERVICE CONNECTIONS ALONG CHISOLM AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 9 | EA | 2,800 | REPLACE SHORT SERVICE | $ 25,200 |
| 13 | EA | 3,500 | REPLACE LONG SERVICE | 45,500 |
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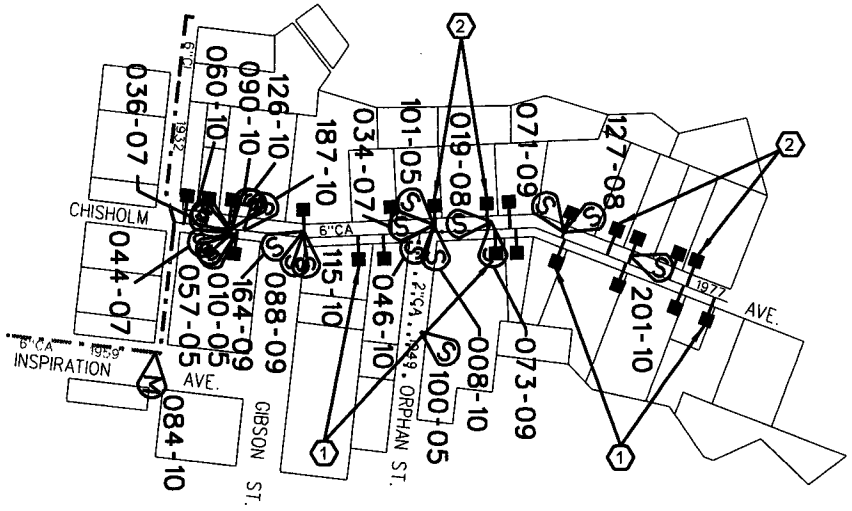
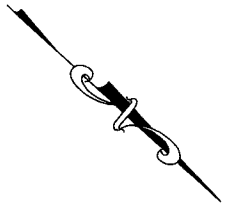
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 70,700 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,061 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,949 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 76,710** |
| (5) OVERHEAD - 15% OF LINE (4) | 11,506 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,603 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 92,818** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 92,818** |

AFH

# PROJECT 7



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| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 9 EA. |
| 2 | REPLACE LONG SERVICE | 13 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

| | |
|---|---|
| PROJECT DESCRIPTION | REPLACE 22 SERVICE CONNECTIONS ALONG CHISOLM AVENUE. |
| PROJECT LOCATION | SW 1/4 SEC. 30-T.1N., R.15E. |

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 7 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.32-T.2N., R.15E. | 8 | MAP SS-MI 1 |

PROJECT DESCRIPTION:

INSTALL 600 LF OF 6-INCH DIP w/POLYWRAP ALONG RANCH ROAD AND REPLACE 1 SERVICE CONNECTION.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 600 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 40,800 |
| 1 | EA | 2,800 | REPLACE SHORT SERVICE | 2,800 |
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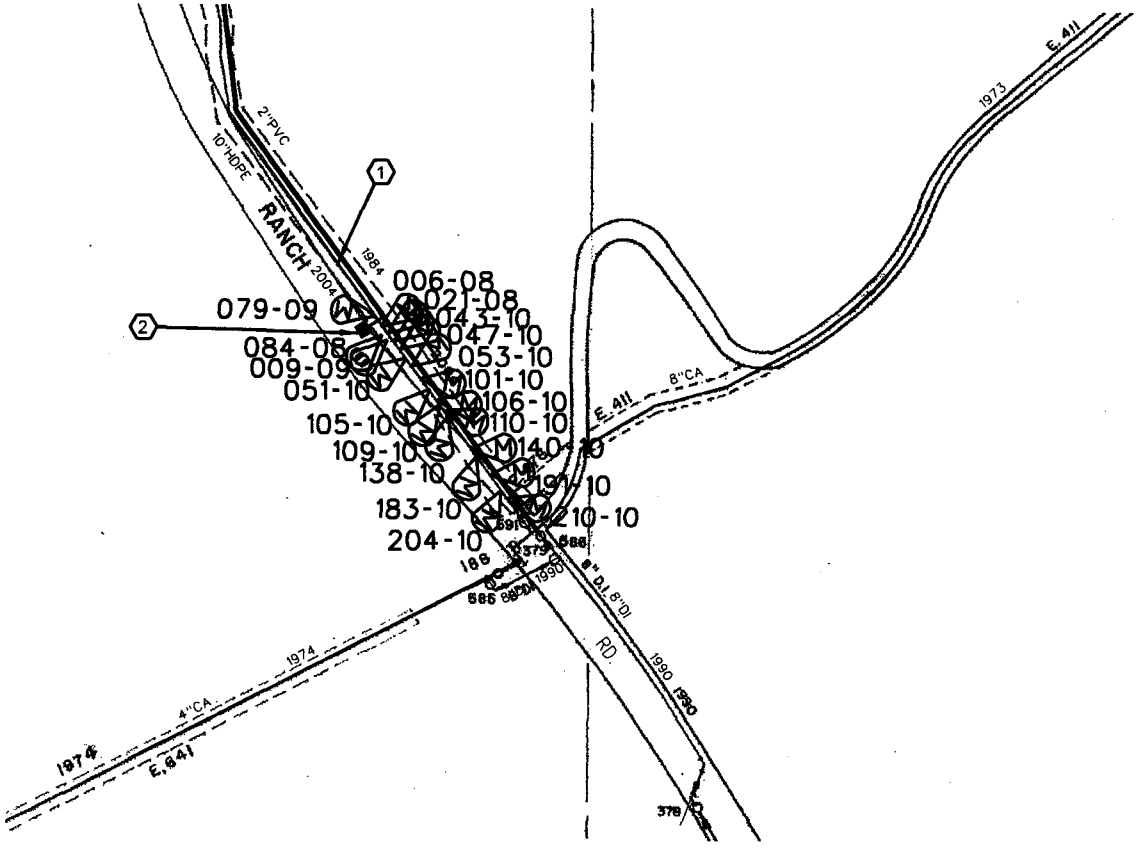
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 43,600 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 654 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,052 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 47,306** |
| (5) OVERHEAD - 15% OF LINE (4) | 7,096 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,838 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 57,240** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 57,240** |

AFH

# PROJECT 8

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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 600 LF |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 600 LF OF 6" DIP w/POLYWRAP ALONG RANCH ROAD.

**PROJECT LOCATION**

SE 1/4 SEC. 32-T.2N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 1 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| N 1/2 SEC.13-T.1N., R.8E. | 9 | MAP SS-AJ 10 |

PROJECT DESCRIPTION:

INSTALL 4,700 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 32 SERVICE CONNECTIONS ALONG HIDALGO STREET AND CONCHO STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 4,700 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 319,600 |
| 8 | EA | 2,800 | REPLACE SHORT SERVICE | 22,400 |
| 8 | EA | 3,500 | REPLACE LONG SERVICE | 28,000 |
| 16 | EA | 3,700 | RELOCATE SHORT SERVICE | 59,200 |
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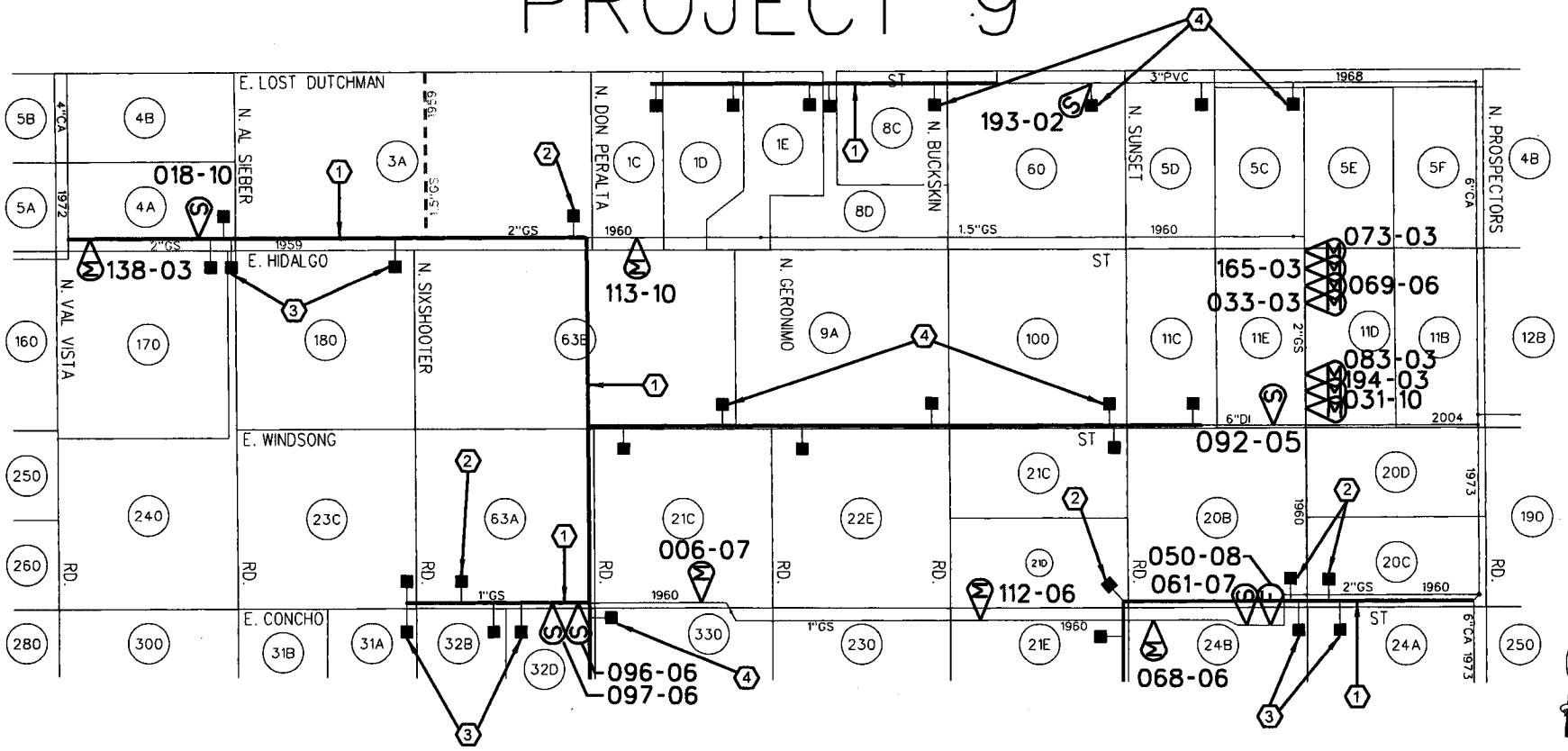
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 429,200 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 6,438 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 30,044 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 465,682** |
| (5) OVERHEAD - 15% OF LINE (4) | 69,852 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 27,941 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 563,475** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 563,475** |

AFH

# PROJECT 9




## QUANTITIES LIST

| # | | qty. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 4,700 LF |
| 2 | REPLACE SHORT SERVICE | 8 EA. |
| 3 | REPLACE LONG SERVICE | 8 EA. |
| 4 | RELOCATE SHORT SERVICE | 16 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 4,700 LF OF 6" DIP w/POLYWRAP AND REPLACE 32 SERVICE CONNECTIONS ALONG HIDALGO STREET AND CONCHO STREET.

**PROJECT LOCATION**

N 1/2 SEC. 13-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 10 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.9-T.1S., R.9E. | 10 | MAP SS-AJ 21 |

PROJECT DESCRIPTION:

REPLACE 46 SERVICE CONNECTIONS ALONG SUGAR CREEK DRIVE, PLEASANT PLACE AND BREATHLESS DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 27 | EA | 2,800 | REPLACE SHORT SERVICE | $ 75,600 |
| 20 | EA | 3,500 | REPLACE LONG SERVICE | 70,000 |
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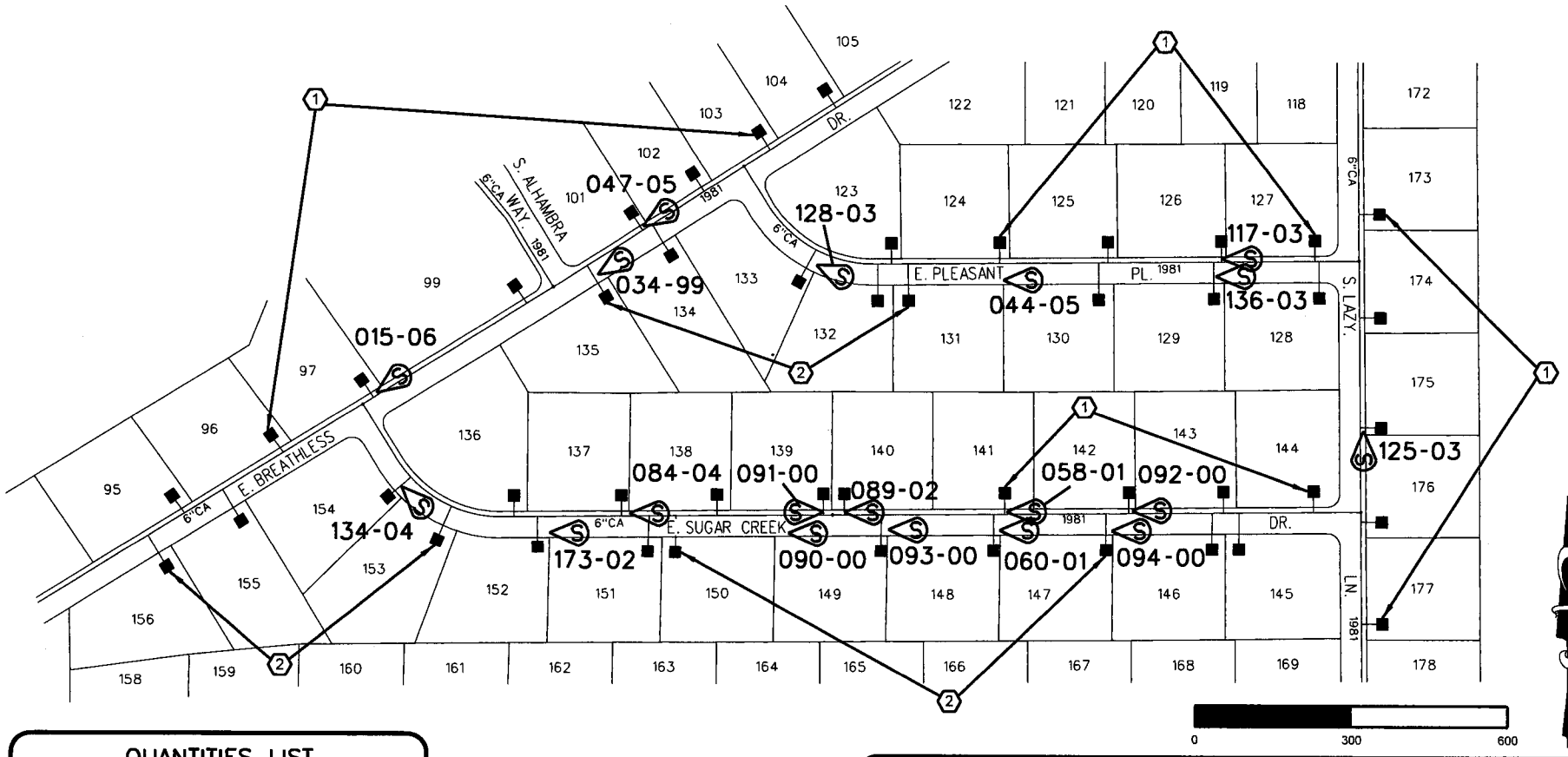
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 145,600 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,184 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 10,192 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 157,976** |
| (5) OVERHEAD - 15% OF LINE (4) | 23,696 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 9,479 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 191,151** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 191,151** |

AFH

# PROJECT 10




## QUANTITIES LIST

| I | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 27 EA. |
| 2 | REPLACE LONG SERVICE | 20 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 47 SERVICE CONNECTIONS ALONG SUGAR CREEK DRIVE, PLEASANT PLACE AND BREATHLESS DRIVE.

**PROJECT LOCATION**
SE 1/4 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 21 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.19-T.1N., R.8E. | 11 | MAP SS-AJ 11 |

PROJECT DESCRIPTION:

REPLACE 101 SERVICE CONNECTIONS ALONG PINYON DRIVE AND VIRGINIA, SCENIC, CACTUS WREN, AND GREGORY STREETS.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 52 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 145,600 |
| 49 | EA | 3,500 | REPLACE LONG SERVICE | 171,500 |
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| (1) **SUBTOTAL - MATERIALS AND LABOR** | 317,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 4,757 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 22,197 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 344,054** |
| (5) OVERHEAD - 15% OF LINE (4) | 51,608 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 20,643 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 416,305** |
| ***ESTIMATED COST OF CONSTRUCTION*** | **$ 416,305** |

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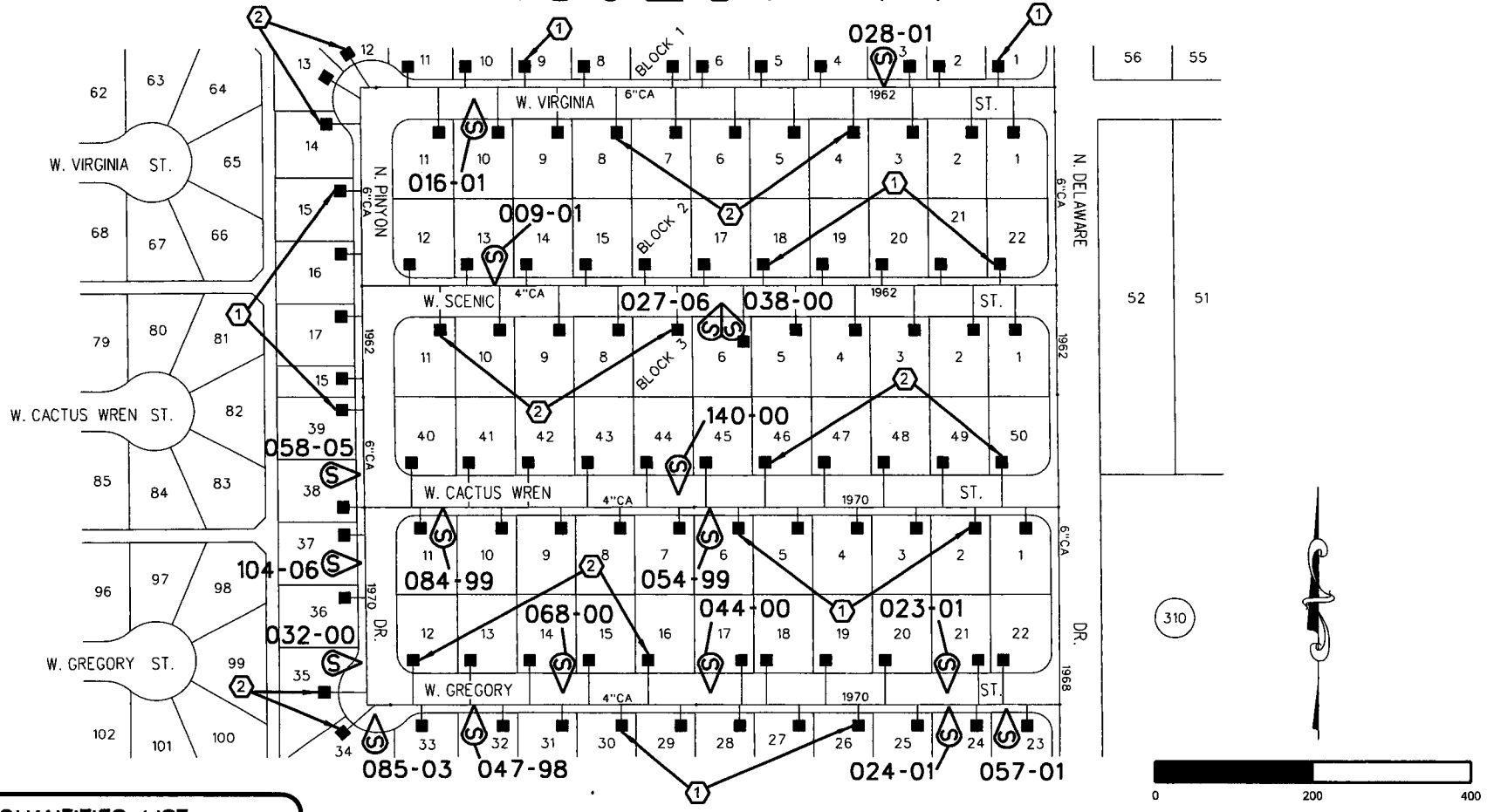
# PROJECT 11




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 52 EA. |
| 2 | REPLACE LONG SERVICE | 49 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 101 SERVICE CONNECTIONS ALONG PINYON DRIVE AND VIRGINIA, SCENIC, CACTUS WREN, AND GREGORY STREETS.

**PROJECT LOCATION**

NW 1/4 SEC. 19-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 11 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.24-T.1N., R.8E. | 12 | MAP SS-AJ 16 |

PROJECT DESCRIPTION:

REPLACE 44 SERVICE CONNECTIONS IN PERALTA ESTATES UNIT TWO.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 21 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 58,800 |
| 23 | EA | 3,500 | REPLACE LONG SERVICE | 80,500 |
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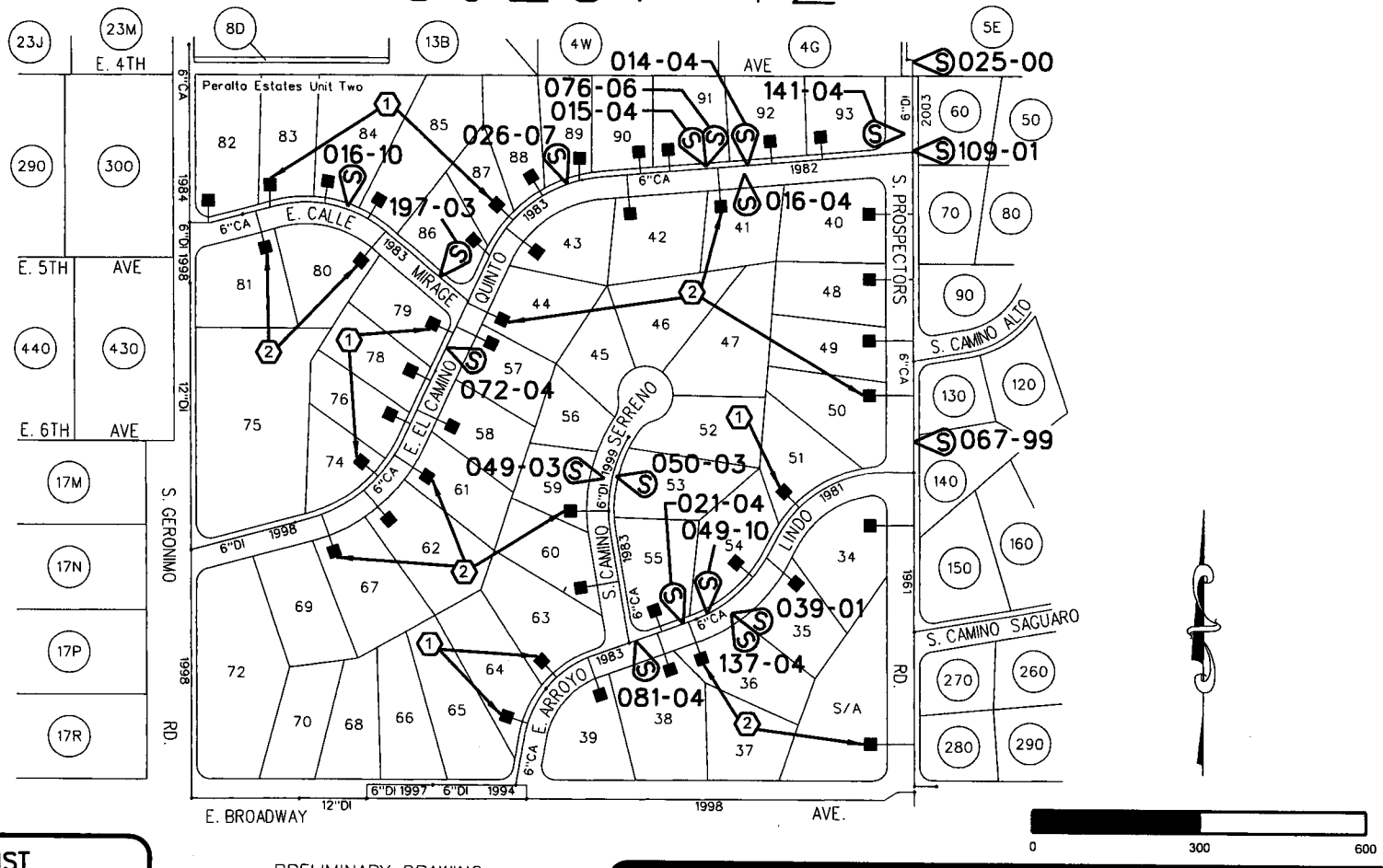
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 139,300 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,090 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 9,751 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 151,141** |
| (5) OVERHEAD - 15% OF LINE (4) | 22,671 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 9,068 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 182,880** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 182,880** |

AFH

# PROJECT 12




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 21 EA. |
| 2 | REPLACE LONG SERVICE | 23 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 44 SERVICE CONNECTIONS
IN PERALTA ESTATES UNIT TWO.

**PROJECT LOCATION**

SE 1/4 SEC. 24-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 16 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.27-T.1N., R.15E. | 13 | MAP SS-MI 10 |

PROJECT DESCRIPTION:

INSTALL 1,050 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 23 SERVICE CONNECTIONS ALONG SNEDDEN AVENUE EAST OF RUSSELL AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,050 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 71,400 |
| 10 | EA | 2,800 | REPLACE SHORT SERVICE | 28,000 |
| 13 | EA | 3,500 | REPLACE LONG SERVICE | 45,500 |
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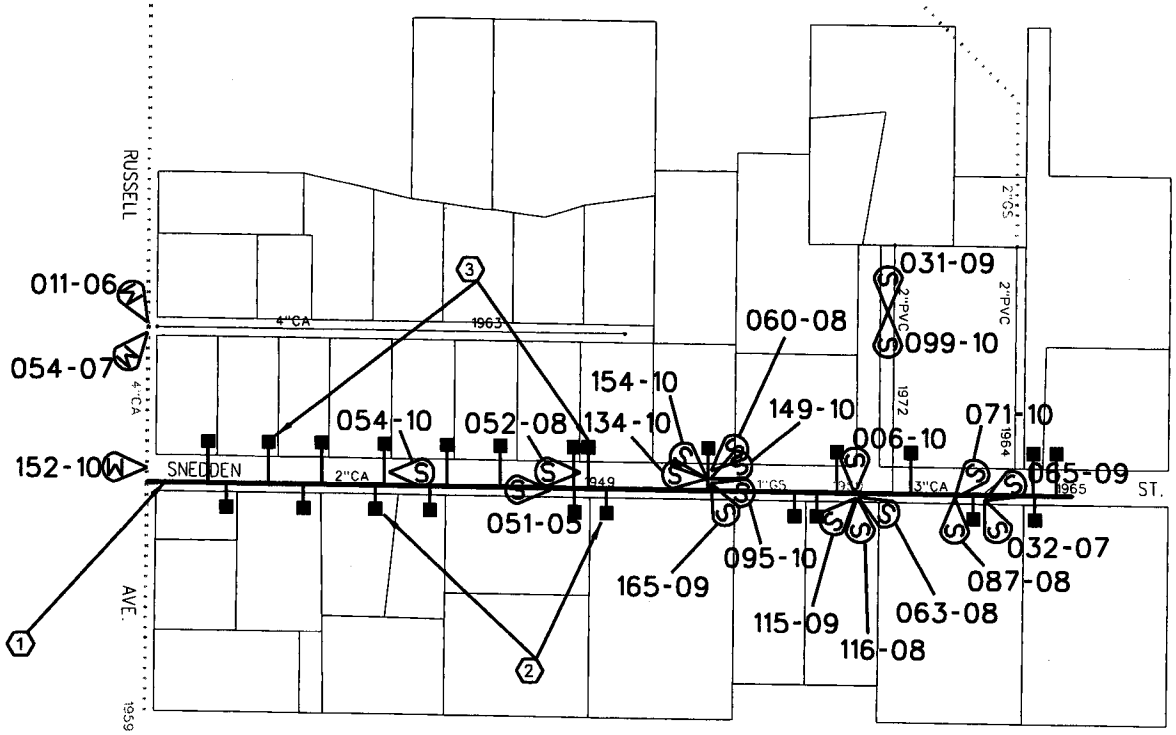
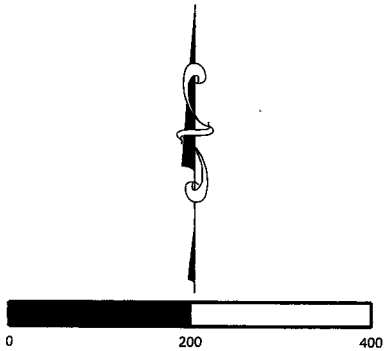
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 144,900 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,174 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 10,143 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 157,217** |
| (5) OVERHEAD - 15% OF LINE (4) | 23,582 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 9,433 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 190,232** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 190,232** |

AFH

# PROJECT 13




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,050 LF |
| 2 | REPLACE SHORT SERVICE | 10 EA. |
| 3 | REPLACE LONG SERVICE | 13 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,050 LF OF 6" DIP w/POLYWRAP AND REPLACE 23 SERVICE CONNECTIONS ALONG SNEDDEN AVENUE EAST OF RUSSELL AVENUE.

**PROJECT LOCATION**

SW 1/4 SEC. 27-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 10 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.20-T.1N., R.8E. | 14 | MAP SS-AJ 12 |

PROJECT DESCRIPTION:

REPLACE 121 SERVICE CONNECTIONS ALONG COPPER, GOLD AND SILVER DRIVES.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 51 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 142,800 |
| 70 | EA | 3,500 | REPLACE LONG SERVICE | 245,000 |
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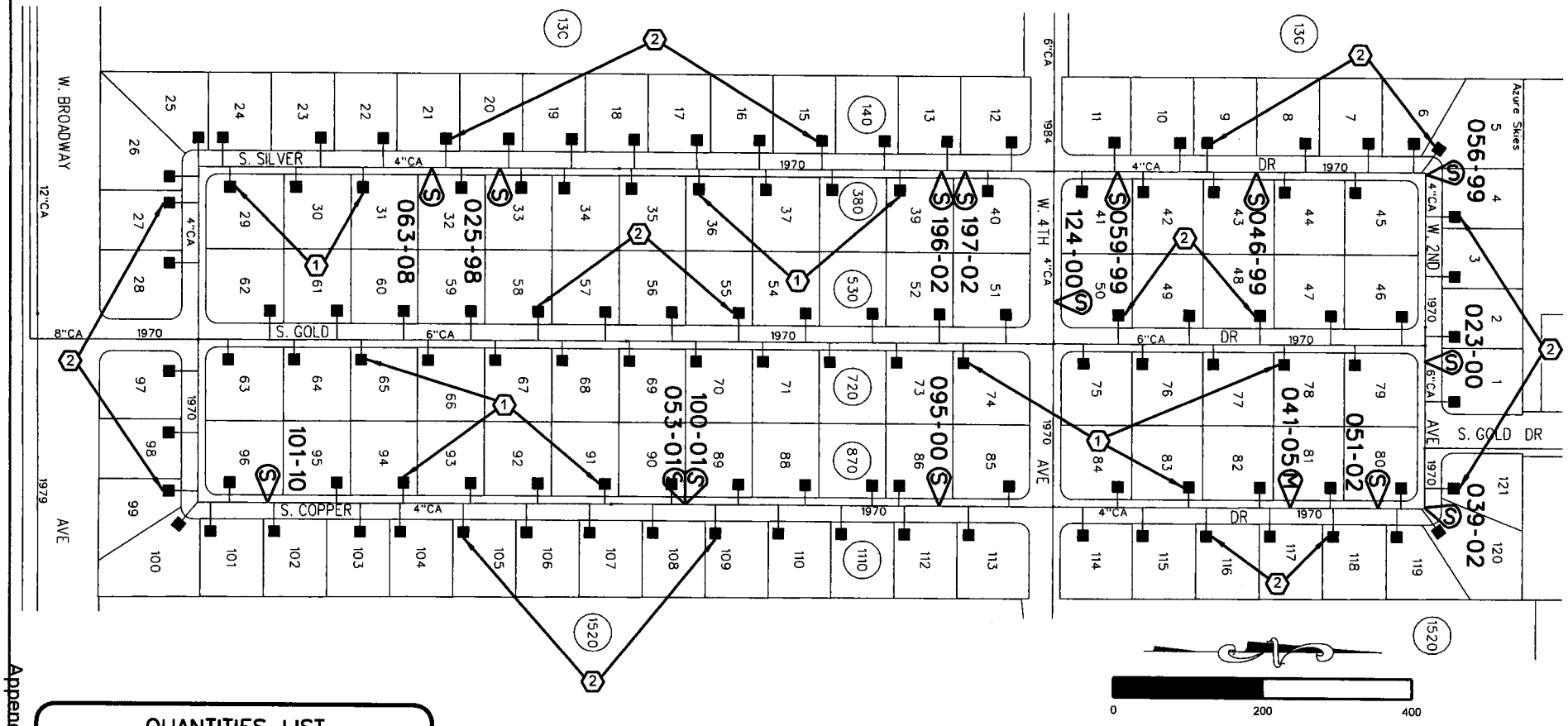
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 387,800 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 5,817 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 27,146 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 420,763** |
| (5) OVERHEAD - 15% OF LINE (4) | 63,114 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 25,246 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 509,123** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 509,123** |

AFH

# PROJECT 14




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 51 EA. |
| 2 | REPLACE LONG SERVICE | 70 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 121 SERVICE CONNECTIONS ALONG COPPER, GOLD, AND SILVER DRIVES.

**PROJECT LOCATION**
SW 1/4 SEC. 20-T.1N., R.8E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 12 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.22-T.1N., R.15E. | 15 | MAP SS-MI 5 |

PROJECT DESCRIPTION:

REPLACE 18 SERVICE CONNECTIONS ALONG MCKINNEY AVENUE FROM BRALEY STREET TO HILL STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 9 | EA | 2,800 | REPLACE SHORT SERVICE | $ 25,200 |
| 9 | EA | 3,500 | REPLACE LONG SERVICE | 31,500 |
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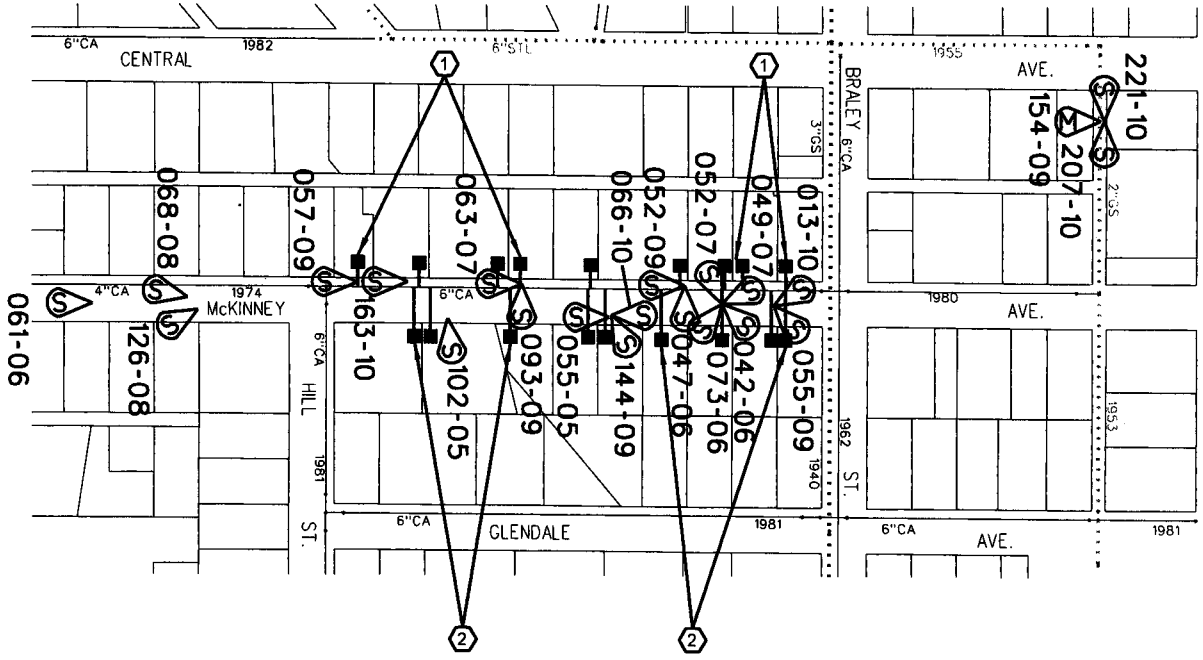
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 56,700 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 851 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,969 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 61,520** |
| (5) OVERHEAD - 15% OF LINE (4) | 9,228 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,691 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 74,439** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 74,439** |

AFH

# PROJECT 15




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 9 EA. |
| 2 | REPLACE LONG SERVICE | 9 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 18 SERVICE CONNECTIONS
ALONG MCKINNEY AVENUE FROM BRALEY STREET TO HILL STREET.

**PROJECT LOCATION**
SE 1/4 SEC. 22-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 5 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.29-T.1N., R.15E. | 16 | MAP SS-MI 8 |

PROJECT DESCRIPTION:

INSTALL 250 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 6 SERVICE CONNECTIONS ALONG MONROE STREET FROM MIAMI STREET TO MARION STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 250 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 17,000 |
| 4 | EA | 2,800 | REPLACE SHORT SERVICE | 11,200 |
| 2 | EA | 3,500 | REPLACE LONG SERVICE | 7,000 |
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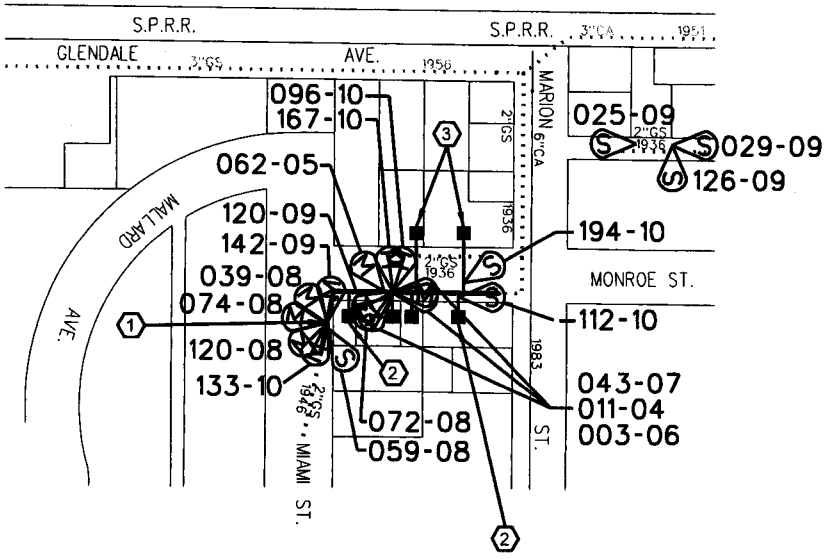
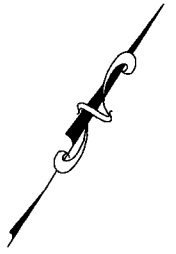
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 35,200 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 528 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,464 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 38,192** |
| (5) OVERHEAD - 15% OF LINE (4) | 5,729 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,292 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 46,212** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 46,212** |

AFH

# PROJECT 16



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 250 LF |
| 2 | REPLACE SHORT SERVICE | 4 EA. |
| 3 | REPLACE LONG SERVICE | 2 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 250 LF OF 6" DIP w/POLYWRAP AND REPLACE 6 SERVICE CONNECTIONS ALONG MONROE STREET FROM MIAMI STREET TO MARION STREET.

**PROJECT LOCATION**
NW 1/4 SEC. 29-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/1/2011 | MAP SS - MI 8 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.9-T.1S., R.9E. | 17 | MAP SS-AJ 21 |

PROJECT DESCRIPTION:

REPLACE 25 SERVICE CONNECTIONS ALONG SLEEPY HOLLOW TRAIL AND LAZY LANE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 13 | EA | 2,800 | REPLACE SHORT SERVICE | $ 36,400 |
| 12 | EA | 3,500 | REPLACE LONG SERVICE | 42,000 |
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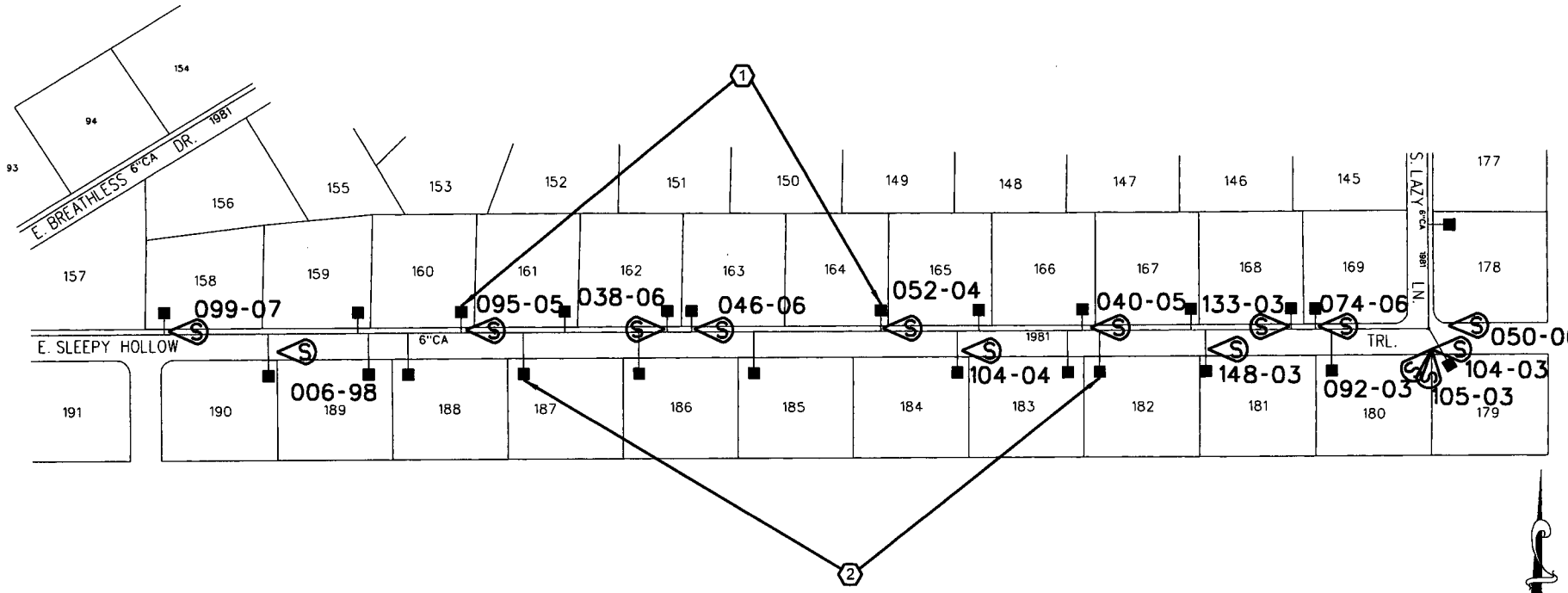
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 78,400 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,176 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,488 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 85,064** |
| (5) OVERHEAD - 15% OF LINE (4) | 12,760 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 5,104 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 102,927** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 102,927** |

AFH

# PROJECT 17




0 300 600

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 13 EA. |
| 2 | REPLACE LONG SERVICE | 12 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 25 SERVICE CONNECTIONS ALONG
SLEEPY HOLLOW TRAIL AND LAZY LANE.

**PROJECT LOCATION**
SE 1/4 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 21 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.9-T.1S., R.9E. | 18 | MAP SS-AJ 17 |

PROJECT DESCRIPTION:

REPLACE 21 SERVICE CONNECTIONS ALONG HIDEAWAY LANE, LAZY LANE AND BREATHLESS DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 13 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 36,400 |
| 8 | EA | 3,500 | REPLACE LONG SERVICE | 28,000 |
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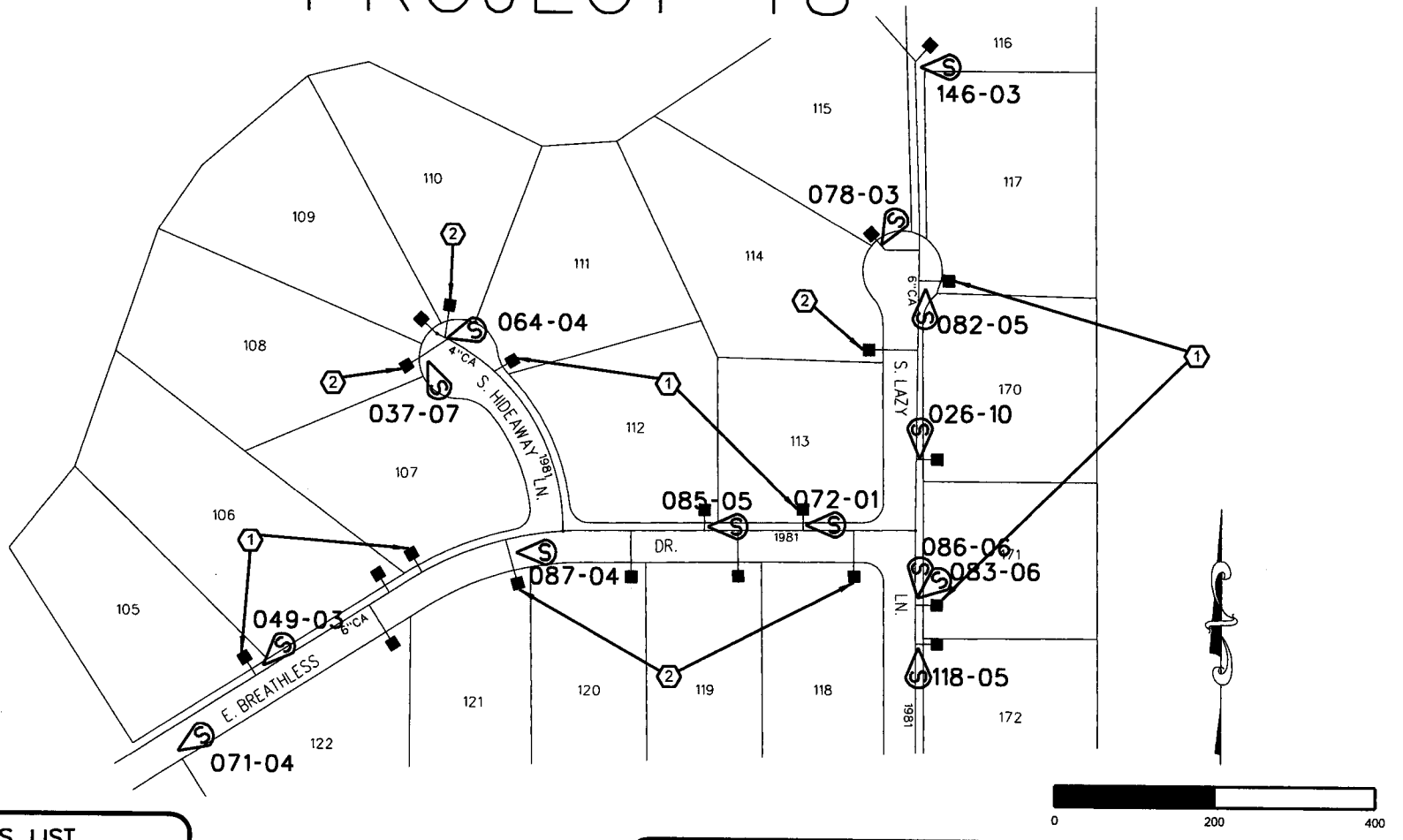
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 64,400 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 966 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,508 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 69,874** |
| (5) OVERHEAD - 15% OF LINE (4) | 10,481 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,192 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 84,548** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 84,548** |

AFH

# PROJECT 18




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 13 EA. |
| 2 | REPLACE LONG SERVICE | 8 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 21 SERVICE CONNECTIONS ALONG HIDEAWAY LANE, LAZY LANE AND BREATHLESS DRIVE.

**PROJECT LOCATION**
SE 1/4 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 17 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | SUPERIOR | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.3-T.2S., R.12E. | 19 | MAP SS-SU 4 |

PROJECT DESCRIPTION:

INSTALL 1,350 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 25 SERVICE CONNECTIONS ALONG STONE AVENUE FROM KISER STREET TO MOFATT STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,350 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 91,800 |
| 14 | EA | 2,800 | REPLACE SHORT SERVICE | 39,200 |
| 11 | EA | 3,500 | REPLACE LONG SERVICE | 38,500 |
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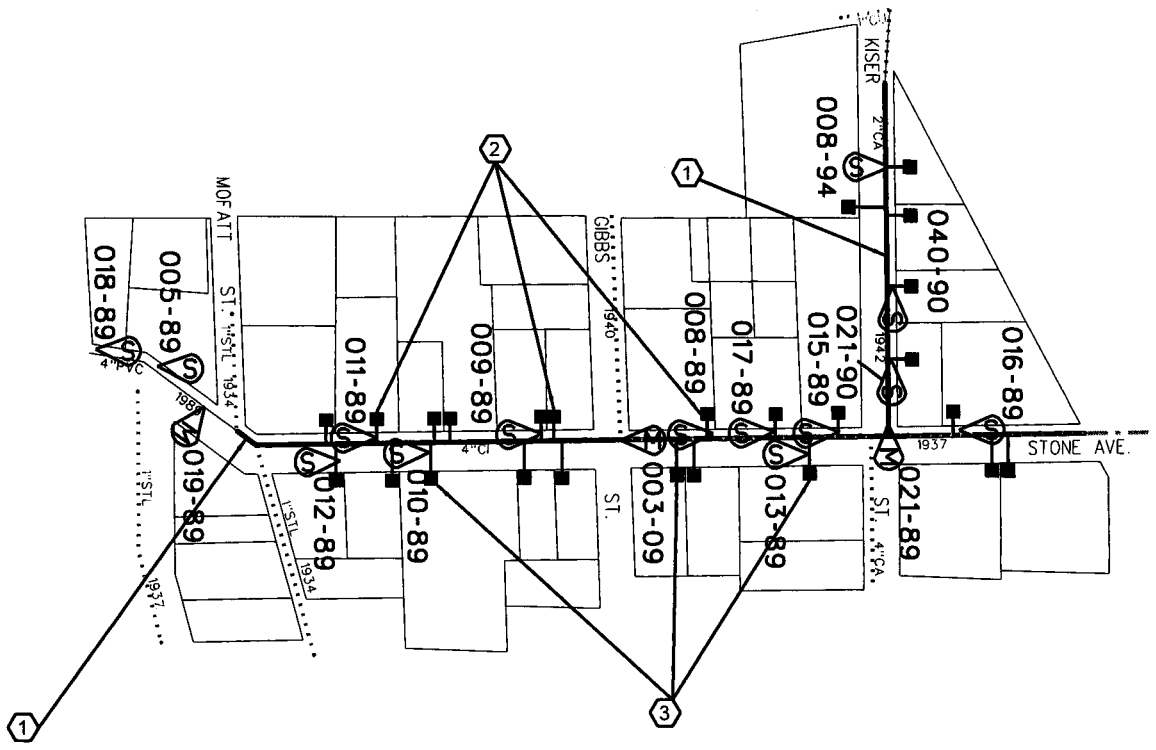
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 169,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,543 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 11,865 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 183,908** |
| (5) OVERHEAD - 15% OF LINE (4) | 27,586 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 11,034 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 222,528** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 222,528** |

AFH

# PROJECT 19

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| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,350 LF |
| 2 | REPLACE SHORT SERVICE | 14 EA. |
| 3 | REPLACE LONG SERVICE | 11 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 1,350 LF OF 6" DIP w/POLYWRAP AND REPLACE 25 SERVICE CONNECTIONSALONG STONE AVENUE FROM KISER STREET TO MOFATT STREET.

**PROJECT LOCATION**
NE 1/4 SEC. 3-T.2S., R.12E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - SU 4 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.22-T.1N., R.15E. | 20 | MAP SS-MI 5 |

PROJECT DESCRIPTION:

INSTALL 550 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 25 SERVICE CONNECTIONS ALONG CENTRAL AVENUE FROM BRALEY STREET TO MONROE STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 550 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 37,400 |
| 10 | EA | 2,800 | REPLACE SHORT SERVICE | 28,000 |
| 15 | EA | 3,500 | REPLACE LONG SERVICE | 52,500 |
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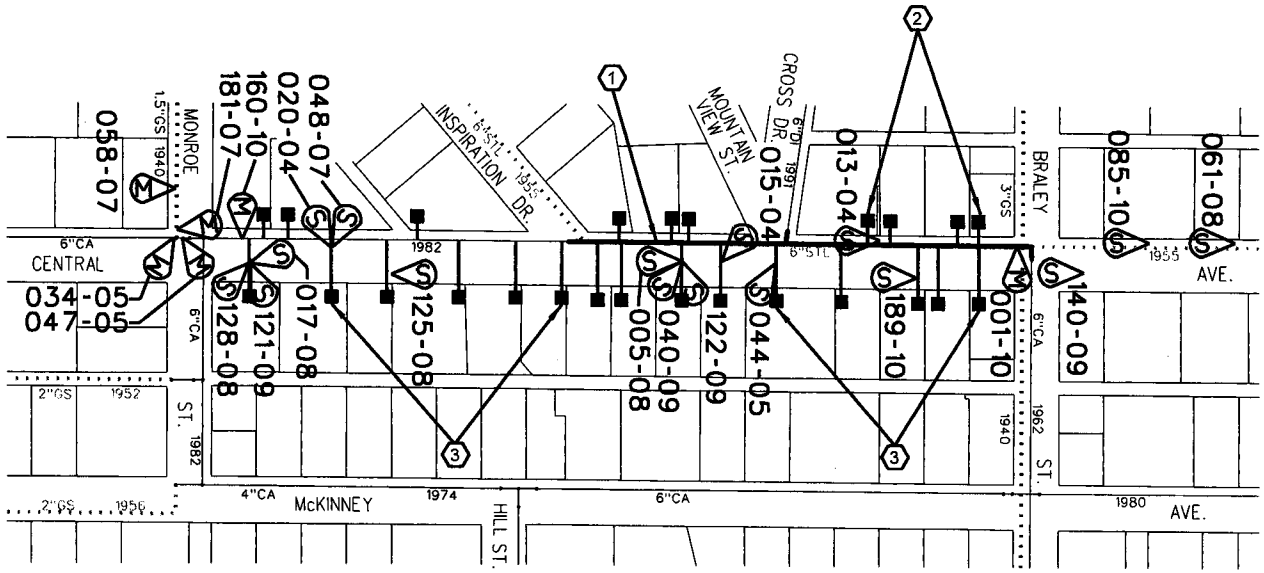
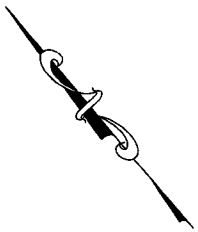
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 117,900 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,769 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 8,253 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 127,922** |
| (5) OVERHEAD - 15% OF LINE (4) | 19,188 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 7,675 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 154,785** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 154,785** |

AFH

# PROJECT 20



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 550 LF |
| 2 | REPLACE SHORT SERVICE | 10 EA. |
| 3 | REPLACE LONG SERVICE | 15 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 550 LF OF 6" DIP w/POLYWRAP AND REPLACE 25 SERVICE CONNECTIONS ALONG CENTRAL AVENUE FROM BRALEY STREET TO MONROE STREET.

**PROJECT LOCATION**
SE 1/4 SEC. 22-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 5 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| W 1/2 SEC.30-T.1N., R.15E | 21 | MAP SS-MI 7 |

INSTALL 1,700 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 33 SERVICE CONNECTIONS ALONG ORPHAN STREET AND KENZIE AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,700 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 115,600 |
| 25 | EA | 2,800 | REPLACE SHORT SERVICE | 70,000 |
| 8 | EA | 3,500 | REPLACE LONG SERVICE | 28,000 |
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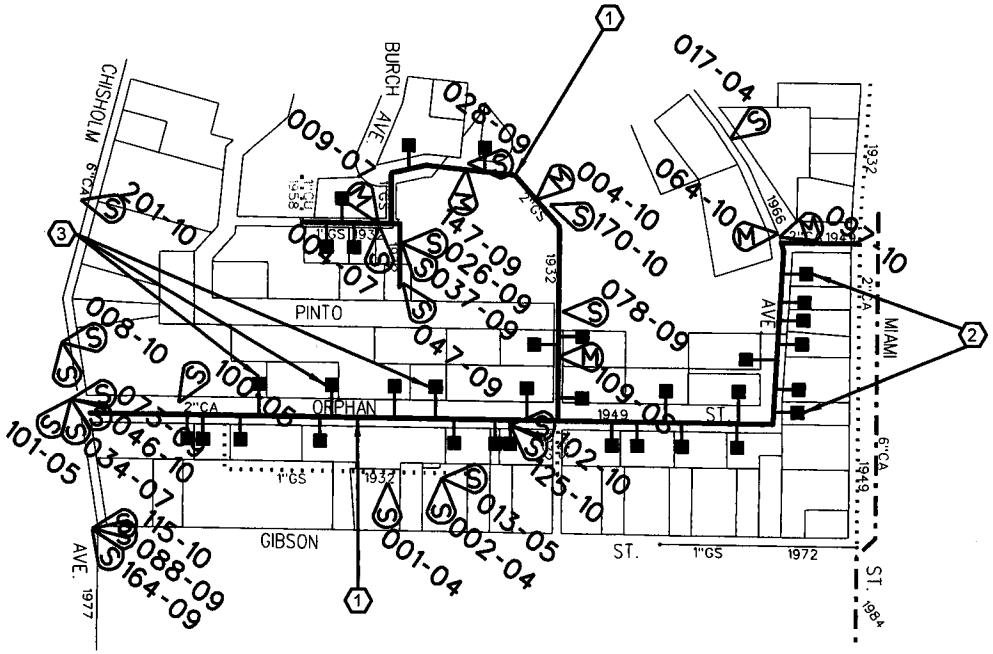
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 213,600 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 3,204 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 14,952 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 231,756** |
| (5) OVERHEAD - 15% OF LINE (4) | 34,763 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 13,905 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 280,425** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 280,425** |

AFH

# PROJECT 21




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,700 LF |
| 2 | REPLACE SHORT SERVICE | 25 EA. |
| 3 | REPLACE LONG SERVICE | 8 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

0 200 400

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 1,700 LF OF 6" DIP w/POLYWRAP AND REPLACE 33 SERVICE CONNECTIONS ALONG ORPHAN STREET AND KENZIE AVENUE.

**PROJECT LOCATION**
W 1/2 SEC. 30-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 7 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.30-T.1N., R.15E.<br>NW 1/4 SEC.31-T.1N., R.15E. | 22 | MAP SS-MI 7<br>MAP SS-MI 12 |

PROJECT DESCRIPTION:

INSTALL 2,750 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 53 SERVICE CONNECTIONS ALONG FREDRIC STREET AND BIRD STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 2,750 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 187,000 |
| 27 | EA | 2,800 | REPLACE SHORT SERVICE | 75,600 |
| 26 | EA | 3,500 | REPLACE LONG SERVICE | 91,000 |
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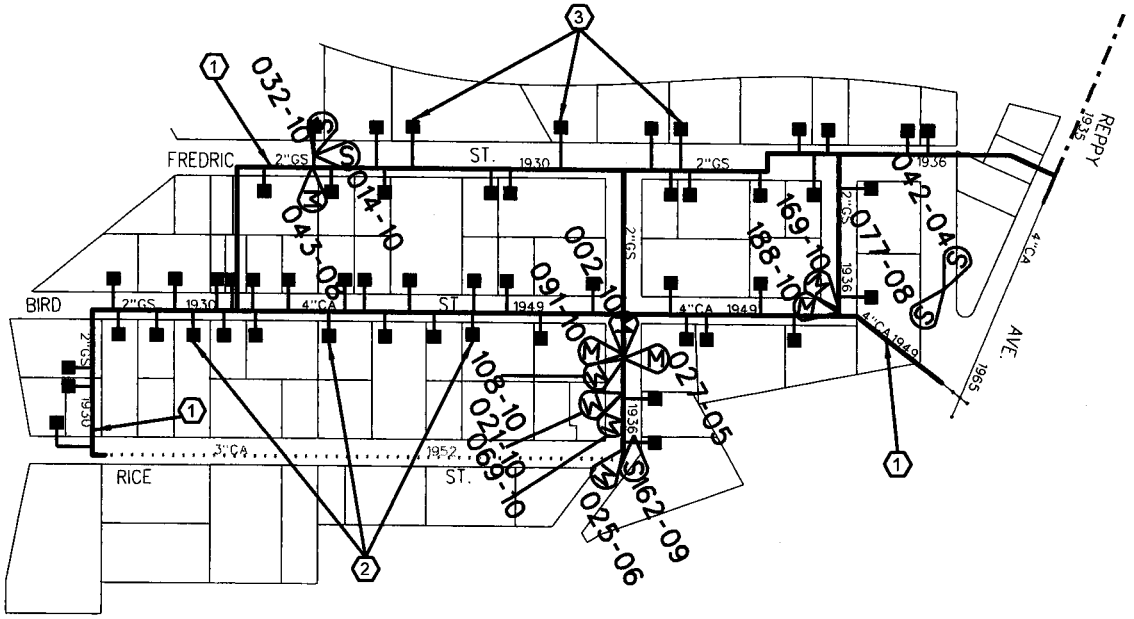
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 353,600 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 5,304 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 24,752 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 383,656** |
| (5) OVERHEAD - 15% OF LINE (4) | 57,548 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 23,019 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 464,224** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 464,224** |

AFH

# PROJECT 22

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| QUANTITIES LIST | | |
|---|---|---|
| I | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 2,750 LF |
| 2 | REPLACE SHORT SERVICE | 27 EA. |
| 3 | REPLACE LONG SERVICE | 26 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 2,750 LF OF 6" DIP w/POLYWRAP AND REPLACE 53 SERVICE CONNECTIONS ALONG FREDRIC STREET AND BIRD STREET.

**PROJECT LOCATION**
SW 1/4 SEC. 30-T.1N., R.15E.
NW 1/4 SEC. 31-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 7 & MI 12 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.22-T.1N., R.15E. | 23 | MAP SS-MI 5 |

PROJECT DESCRIPTION:

REPLACE 17 SERVICE CONNECTIONS ALONG GLENDALE AVENUE FROM BRALEY STREET TO HILL STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 9 | EA | 2,800 | REPLACE SHORT SERVICE | $ 25,200 |
| 8 | EA | 3,500 | REPLACE LONG SERVICE | 28,000 |
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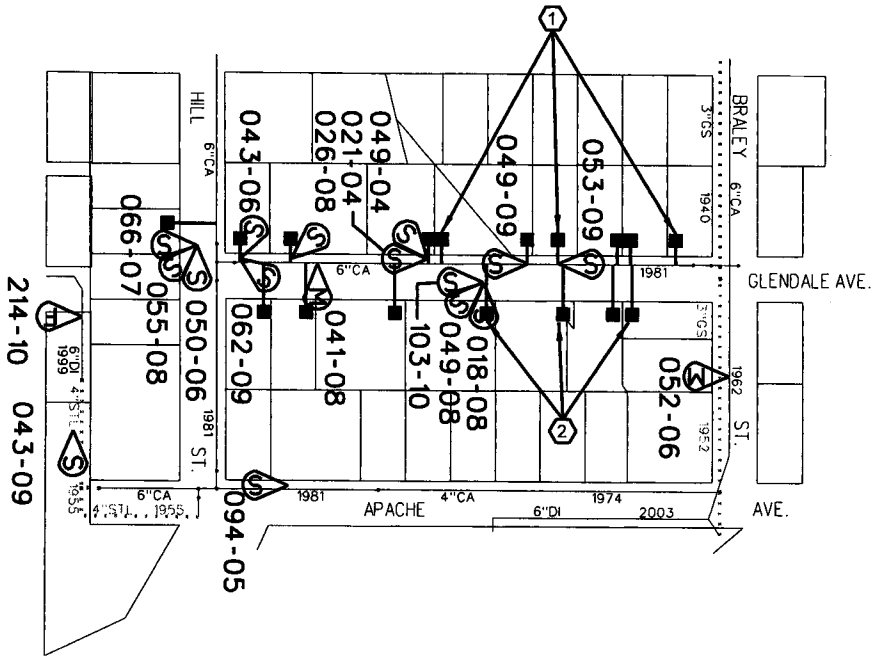
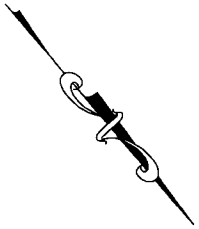
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 53,200 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 798 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,724 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 57,722** |
| (5) OVERHEAD - 15% OF LINE (4) | 8,658 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,463 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 69,844** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 69,844** |

AFH

# PROJECT 23



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 9 EA. |
| 2 | REPLACE LONG SERVICE | 8 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 17 SERVICE CONNECTIONS
ALONG GLENDALE AVENUE FROM BRALEY STREET TO HILL STREET.

**PROJECT LOCATION**
SE 1/4 SEC. 22-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 5 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.27-T.1N., R.15E. | 24 | MAP SS-MI 10 |

PROJECT DESCRIPTION:

INSTALL 600 LF OF 6-INCH DIP W/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG STORY STREET EAST OF RUSSELL AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 600 | LF | $ 68 | 6" DIP W/POLYWRAP | $ 40,800 |
| 6 | EA | 2,800 | REPLACE SHORT SERVICE | 16,800 |
| 5 | EA | 3,500 | REPLACE LONG SERVICE | 17,500 |
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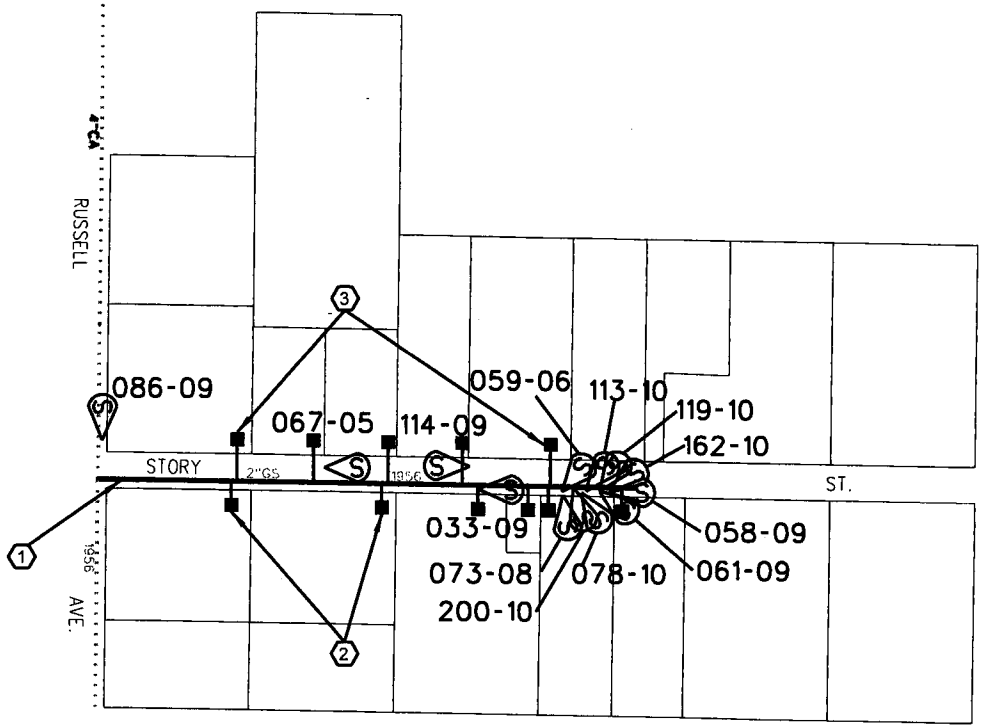
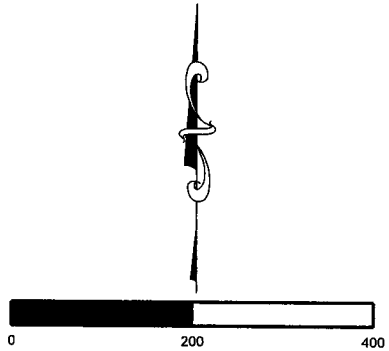
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 75,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,127 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,257 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 81,484** |
| (5) OVERHEAD - 15% OF LINE (4) | 12,223 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,889 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 98,595** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 98,595** |

AFH

# PROJECT 24




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 600 LF |
| 2 | REPLACE SHORT SERVICE | 6 EA. |
| 3 | REPLACE LONG SERVICE | 5 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 600 LF OF 6" DIP w/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG STORY STREET EAST OF RUSSELL AVENUE.

**PROJECT LOCATION**

NW 1/4 SEC. 27-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 10 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.24-T.1N., R.7E. | 25 | MAP SS-AJ 4 |

PROJECT DESCRIPTION:

REPLACE 48 SERVICE CONNECTIONS ALONG MOUNTAIN ROAD, ELMONT DRIVE AND MALCOLM DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 29 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 81,200 |
| 19 | EA | 3,500 | REPLACE LONG SERVICE | 66,500 |
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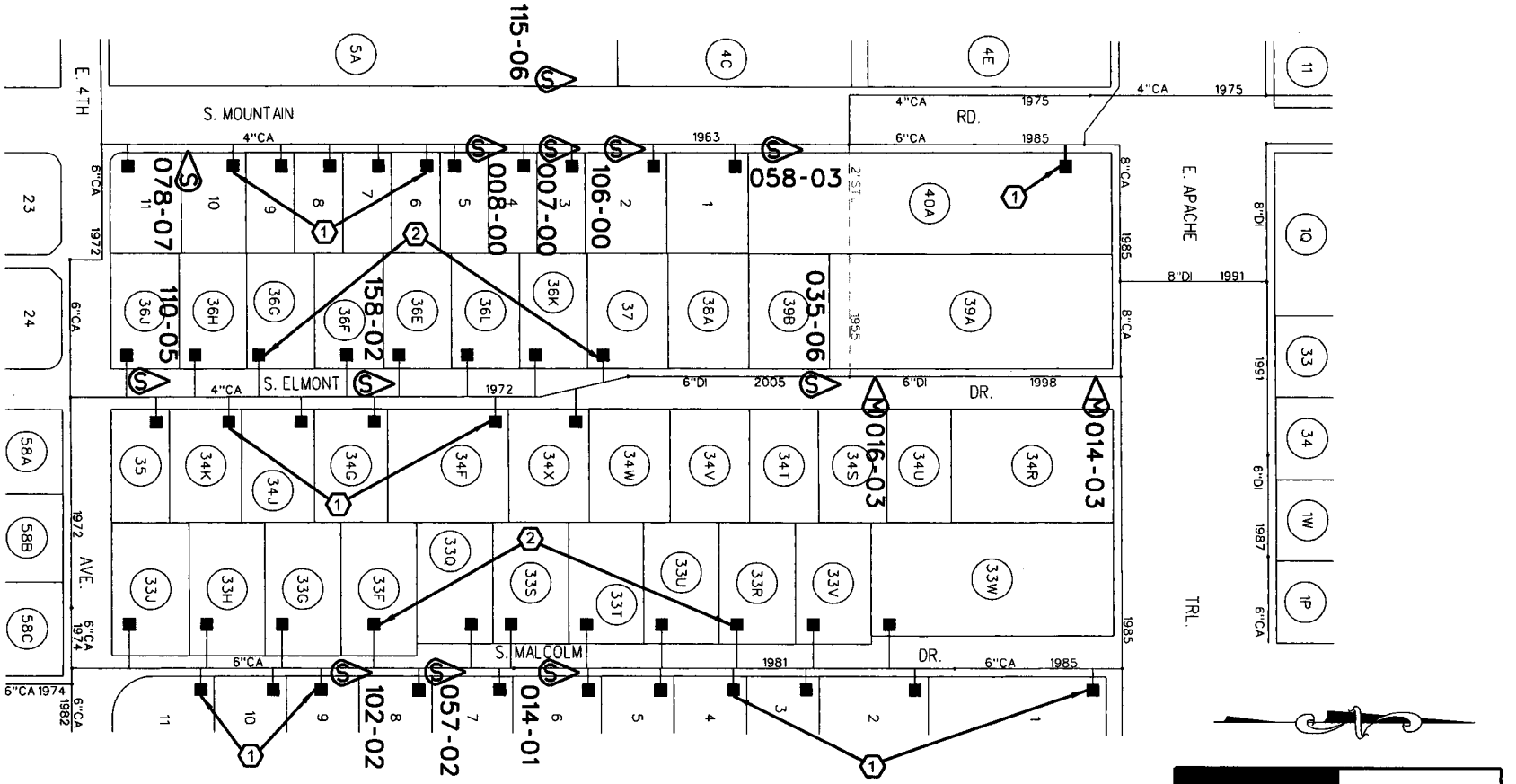
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 147,700 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,216 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 10,339 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 160,255** |
| (5) OVERHEAD - 15% OF LINE (4) | 24,038 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 9,615 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 193,908** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 193,908** |

AFH

# PROJECT 25




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 29 EA. |
| 2 | REPLACE LONG SERVICE | 19 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 48 SERVICE CONNECTIONS
ALONG MOUNTAIN ROAD, ELMONT DRIVE AND MALCOLM DRIVE.

**PROJECT LOCATION**

SE 1/4 SEC. 24-T.1N., R.7E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 4 |

# ARIZONA WATER COMPANY

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.22-T.1N., R.15E. | 26 | MAP SS-MI 10 |

PROJECT DESCRIPTION:

INSTALL 800 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 17 SERVICE CONNECTIONS ALONG YOUNG STREET, SECOND AVENUE, HILL STREET AND THIRD AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 800 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 54,400 |
| 12 | EA | 2,800 | REPLACE SHORT SERVICE | 33,600 |
| 5 | EA | 3,500 | REPLACE LONG SERVICE | 17,500 |
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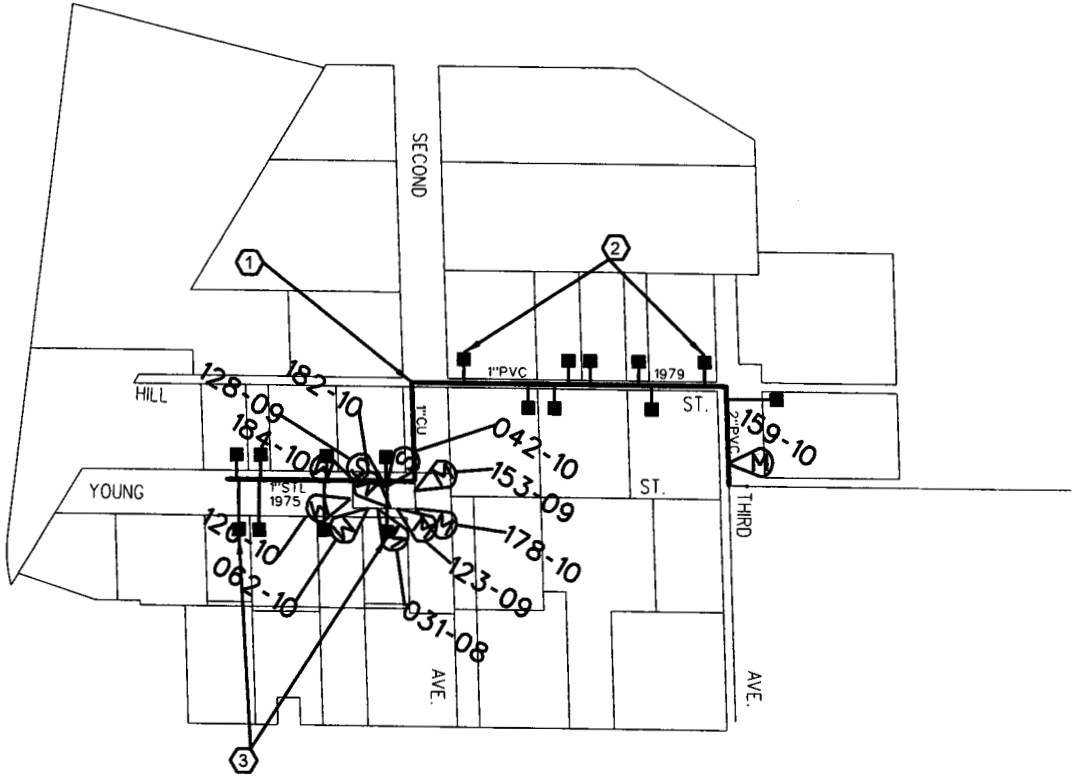
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 105,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,583 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 7,385 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 114,468** |
| (5) OVERHEAD - 15% OF LINE (4) | 17,170 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 6,868 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 138,506** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 138,506** |

AFH

# PROJECT 26



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 800 LF |
| 2 | REPLACE SHORT SERVICE | 12 EA. |
| 3 | REPLACE LONG SERVICE | 5 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 800 LF OF 6" DIP w/POLYWRAP AND REPLACE 17 SERVICE CONNECTIONS ALONG YOUNG STREET, SECOND AVENUE, HILL STREET AND THIRD AVENUE.

**PROJECT LOCATION**
SW 1/4 SEC. 22-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 5 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.24-T.1N., R.7E. | 27 | MAP SS-AJ 4 |

PROJECT DESCRIPTION:

INSTALL 500 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 8 SERVICE CONNECTIONS ALONG SOUTH EMERALD DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 500 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 34,000 |
| 3 | EA | 2,800 | REPLACE SHORT SERVICE | 8,400 |
| 5 | EA | 3,500 | REPLACE LONG SERVICE | 17,500 |
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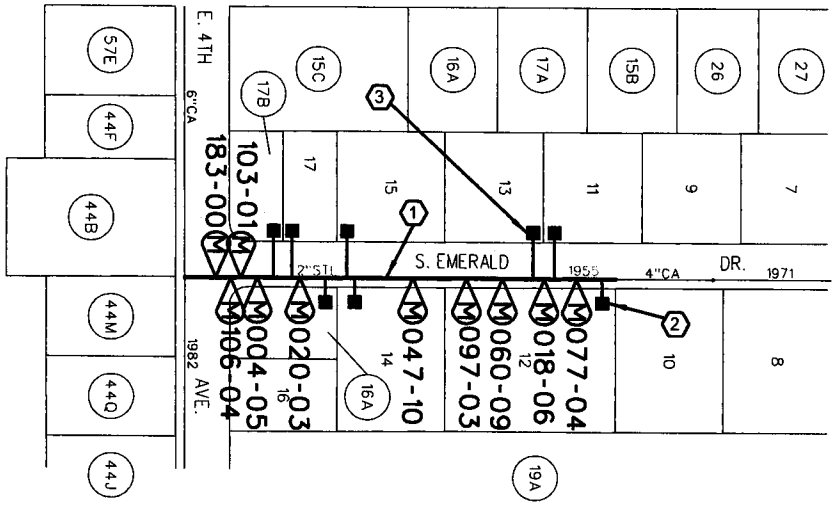
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 59,900 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 899 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,193 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 64,992** |
| (5) OVERHEAD - 15% OF LINE (4) | 9,749 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,899 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 78,640** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 78,640** |

AFH

# PROJECT 27




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 500 LF |
| 2 | REPLACE SHORT SERVICE | 3 EA. |
| 3 | REPLACE LONG SERVICE | 5 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

0 200 400

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 500 LF OF 6" DIP w/POLYWRAP AND REPLACE 8 SERVICE CONNECTIONS ALONG SOUTH EMERALD DRIVE.

**PROJECT LOCATION**
SE 1/4 SEC. 24-T.1N., R.7E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 4 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.9-T.1S., R.9E. | 28 | MAP SS-AJ 21 |

PROJECT DESCRIPTION:

REPLACE 30 SERVICE CONNECTIONS ALONG SLEEPY HOLLOW TRAIL, BREATHLESS DRIVE AND TUM TUM COURT.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 18 | EA | 2,800 | REPLACE SHORT SERVICE | $ 50,400 |
| 12 | EA | 3,500 | REPLACE LONG SERVICE | 42,000 |
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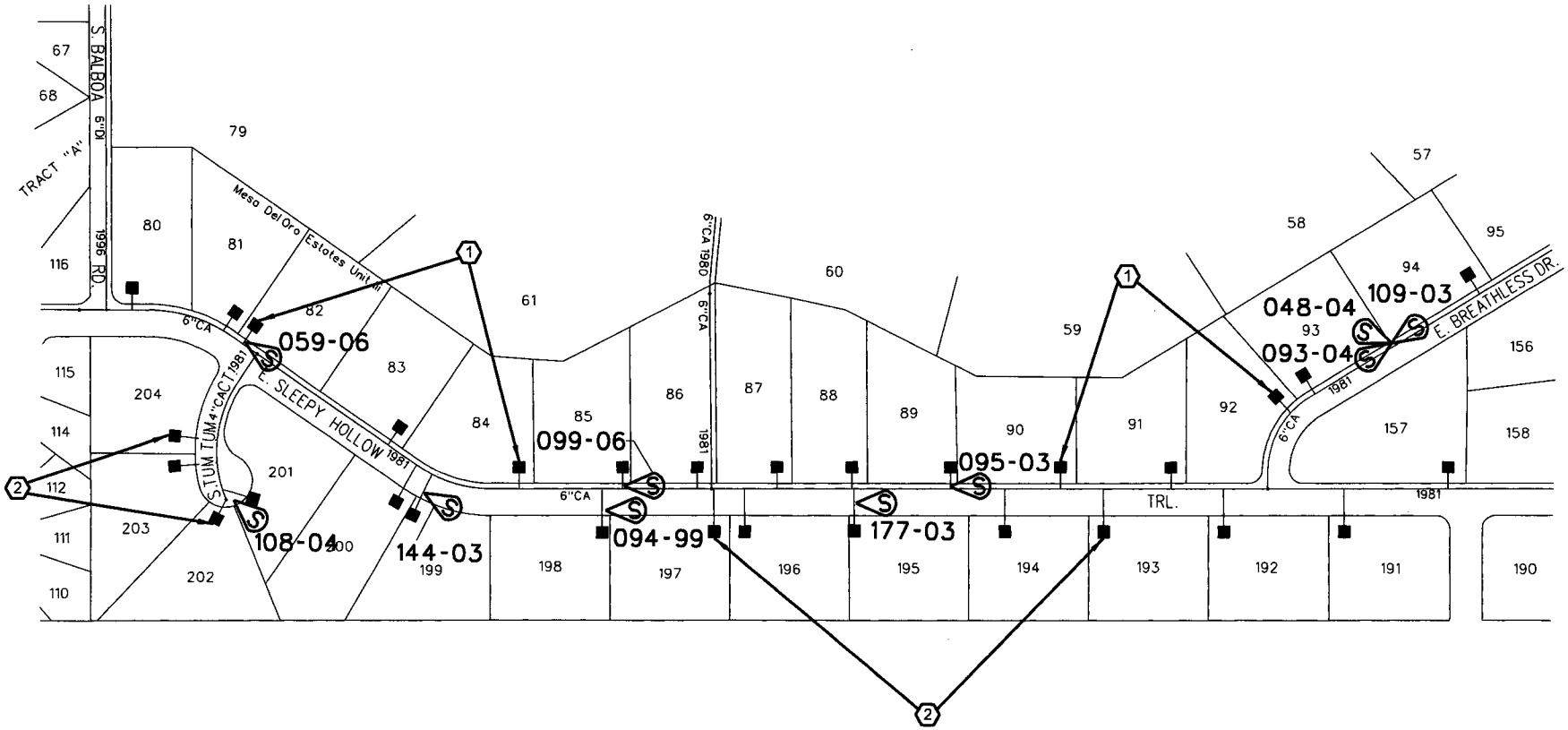
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 92,400 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,386 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 6,468 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 100,254** |
| (5) OVERHEAD - 15% OF LINE (4) | 15,038 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 6,015 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 121,307** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 121,307** |

AFH

# PROJECT 28




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 18 EA. |
| 2 | REPLACE LONG SERVICE | 12 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

0 300 600

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 30 SERVICE CONNECTIONS ALONG SLEEPY HOLLOW TRAIL, BREATHLESS DRIVE, AND TUM TUM COURT.

**PROJECT LOCATION**
SW 1/4 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 21 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.21-T.1N., R.15E. | 29 | MAP SS-MI 4 |

PROJECT DESCRIPTION:

INSTALL 1,600 LF OF 6-INCH DIP w/POLYWRAP ALONG WASHBORN ROAD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,600 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 108,800 |
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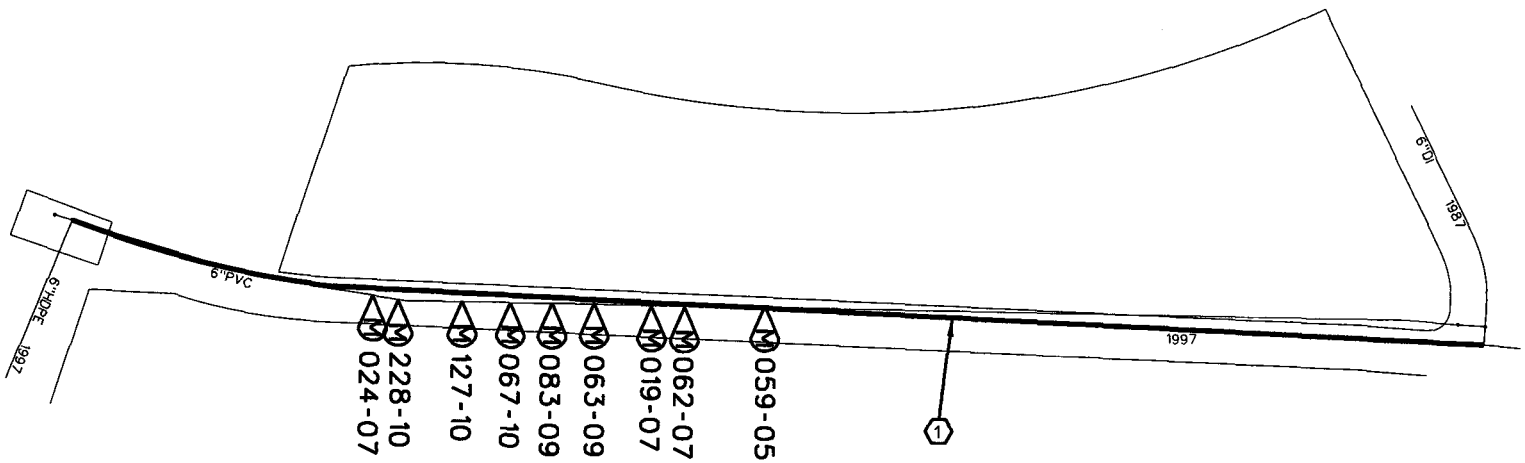
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 108,800 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,632 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 7,616 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 118,048** |
| (5) OVERHEAD - 15% OF LINE (4) | 17,707 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 7,083 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 142,838** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 142,838** |

AFH

# PROJECT 29




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,600 LF |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

0 200 400

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,600 LF OF 6" DIP w/POLYWRAP ALONG WASHBORN ROAD.

**PROJECT LOCATION**

SE 1/4 SEC. 21-T.1N., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 4 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | MIAMI | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.30-T.1S., R.15E. | 30 | MAP SS-MI 7 |

PROJECT DESCRIPTION:

INSTALL 500 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 5 SERVICES EAST OF LOOMIS AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 500 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 34,000 |
| 5 | EA | 2,800 | REPLACE SHORT SERVICE | 14,000 |
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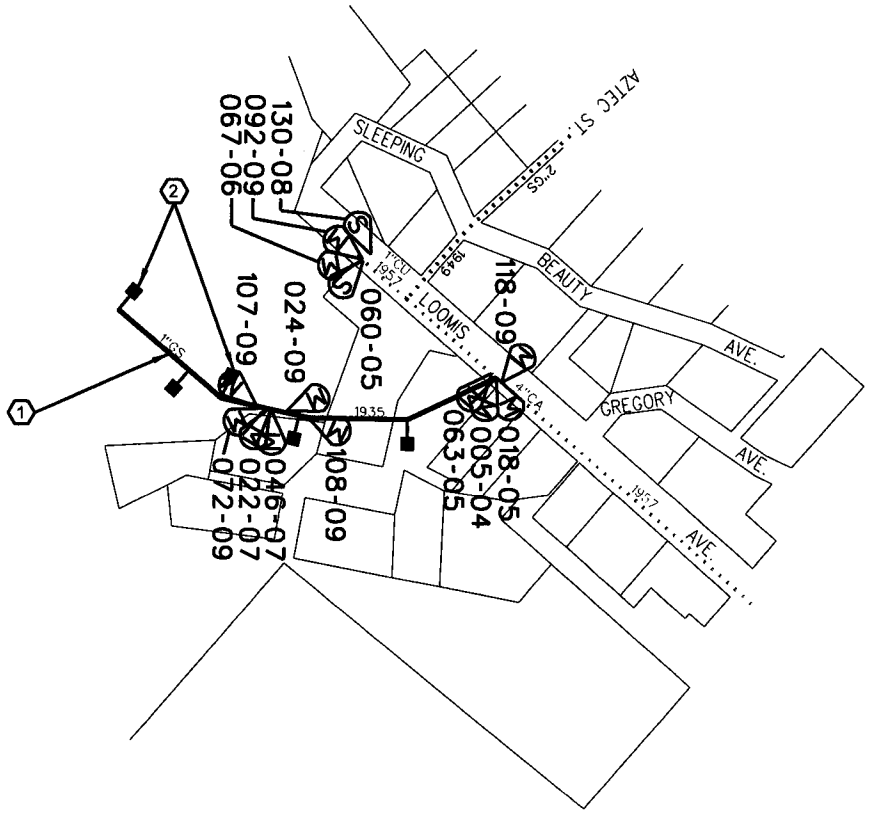
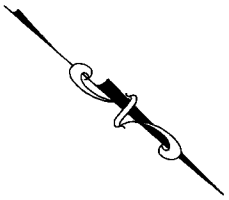
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 48,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 720 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,360 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 52,080** |
| (5) OVERHEAD - 15% OF LINE (4) | 7,812 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,125 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 63,017** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 63,017** |

AFH

# PROJECT 30



0 200 400

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 500 LF |
| 2 | REPLACE SHORT SERVICE | 5 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 500 LF OF 6" DIP w/POLYWRAP AND REPLACE 5 SERVICES EAST OF LOOMIS AVENUE.

**PROJECT LOCATION**
SE 1/4 SEC. 30-T.1S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - MI 7 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| S 1/2 SEC.9-T.1S., R.9E. | 31 | MAP SS-AJ 21 |

PROJECT DESCRIPTION:

REPLACE 14 SERVICE CONNECTIONS ALONG HUMMINGBIRD LANE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 7 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 19,600 |
| 7 | EA | 3,500 | REPLACE LONG SERVICE | 24,500 |
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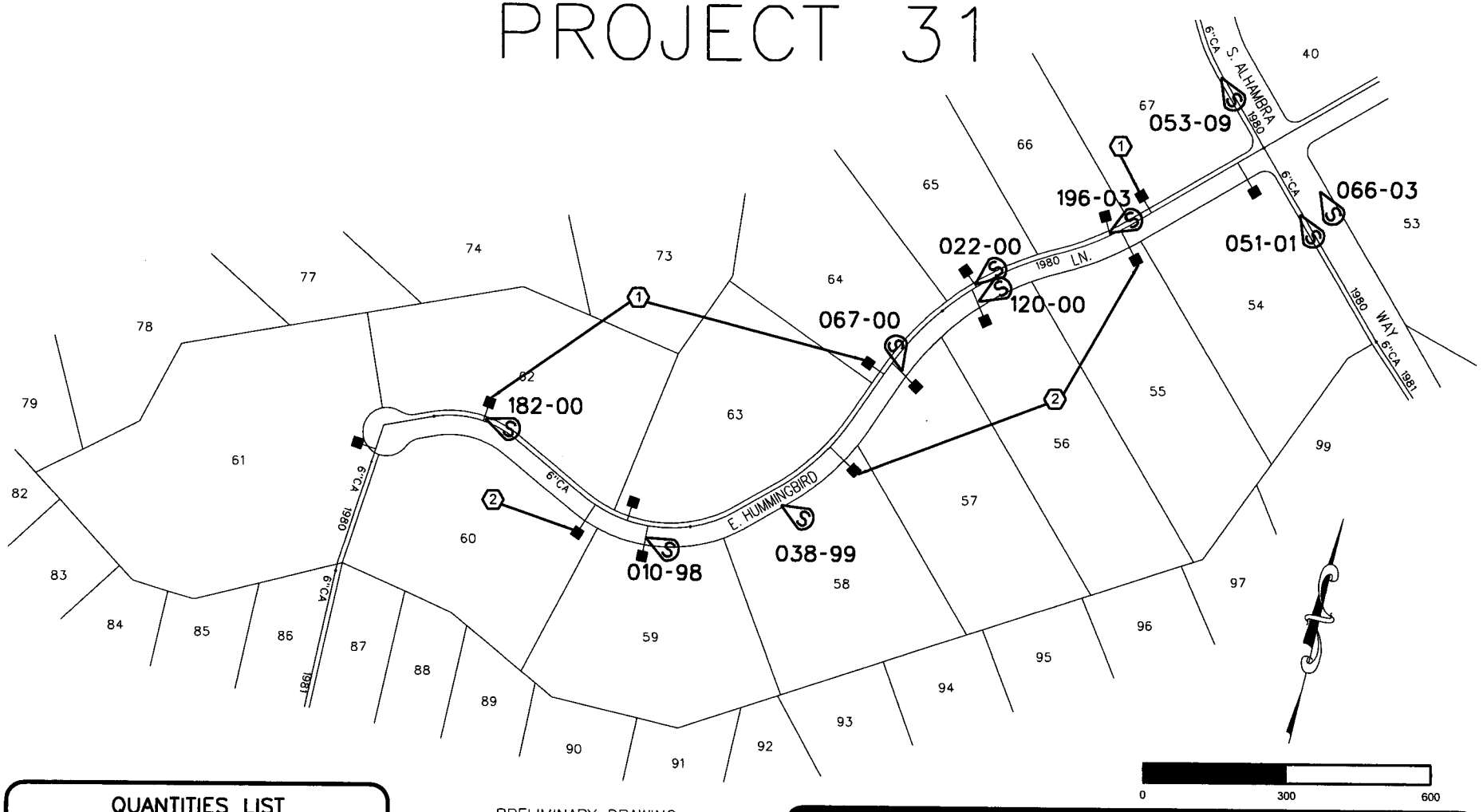
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 44,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 662 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,087 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 47,849** |
| (5) OVERHEAD - 15% OF LINE (4) | 7,177 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,871 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 57,897** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 57,897** |

AFH

# PROJECT 31




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 7 EA. |
| 2 | REPLACE LONG SERVICE | 7 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 14 SERVICE CONNECTIONS
ALONG HUMMINGBIRD LANE.

**PROJECT LOCATION**
S 1/2 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 21 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.22-T.1N., R.8E. | 32 | MAP SS-AJ 14 |

PROJECT DESCRIPTION:

INSTALL 600 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 3 SERVICE CONNECTIONS ALONG BROADWAY AVENUE FROM TOMAHAWK ROAD TO VISTA ROAD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 600 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 40,800 |
| 3 | EA | 3,500 | REPLACE LONG SERVICE | 10,500 |
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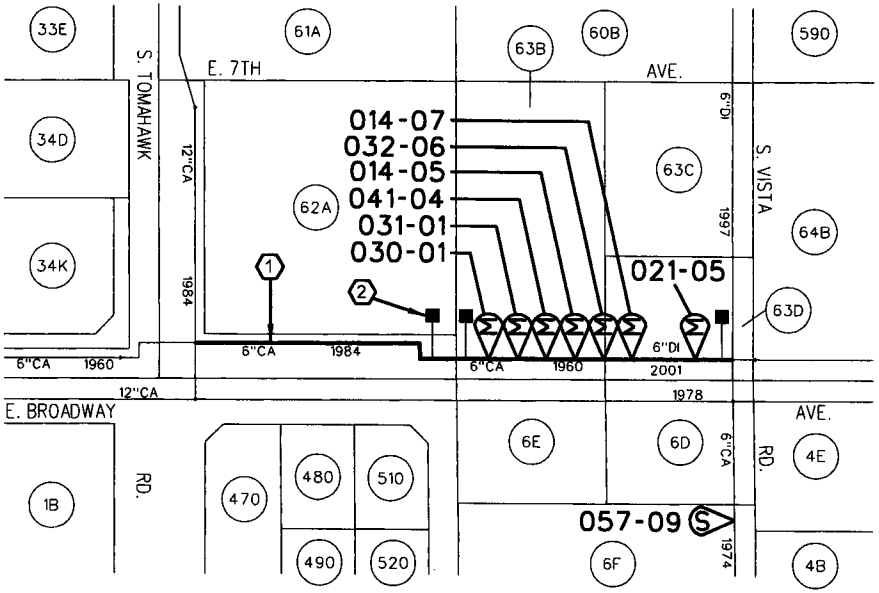
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 51,300 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 770 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,591 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 55,661** |
| (5) OVERHEAD - 15% OF LINE (4) | 8,349 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,340 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 67,349** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 67,349** |

AFH

# PROJECT 32



0 200 400

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 600 LF |
| 2 | REPLACE LONG SERVICE | 3 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

| | |
|---|---|
| PROJECT DESCRIPTION | INSTALL 600 LF OF 6" DIP w/POLYWRAP AND REPLACE 3 SERVICE CONNECTIONS ALONG BROADWAY AVENUE FROM TOMAHAWK ROAD TO VISTA ROAD. |
| PROJECT LOCATION | SW 1/4 SEC. 22-T.1N., R.8E. |

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 14 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.23-T.1N., R.7E. | 33 | MAP SS-AJ 3 |

PROJECT DESCRIPTION:

INSTALL 1,400 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 13 SERVICE CONNECTIONS ALONG BOISE STREET AND 105TH PLACE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,400 | LF | $ 68 | 6" DIP w/POLYWRAP | $ 95,200 |
| 9 | EA | 2,800 | REPLACE SHORT SERVICE | 25,200 |
| 4 | EA | 3,500 | REPLACE LONG SERVICE | 14,000 |
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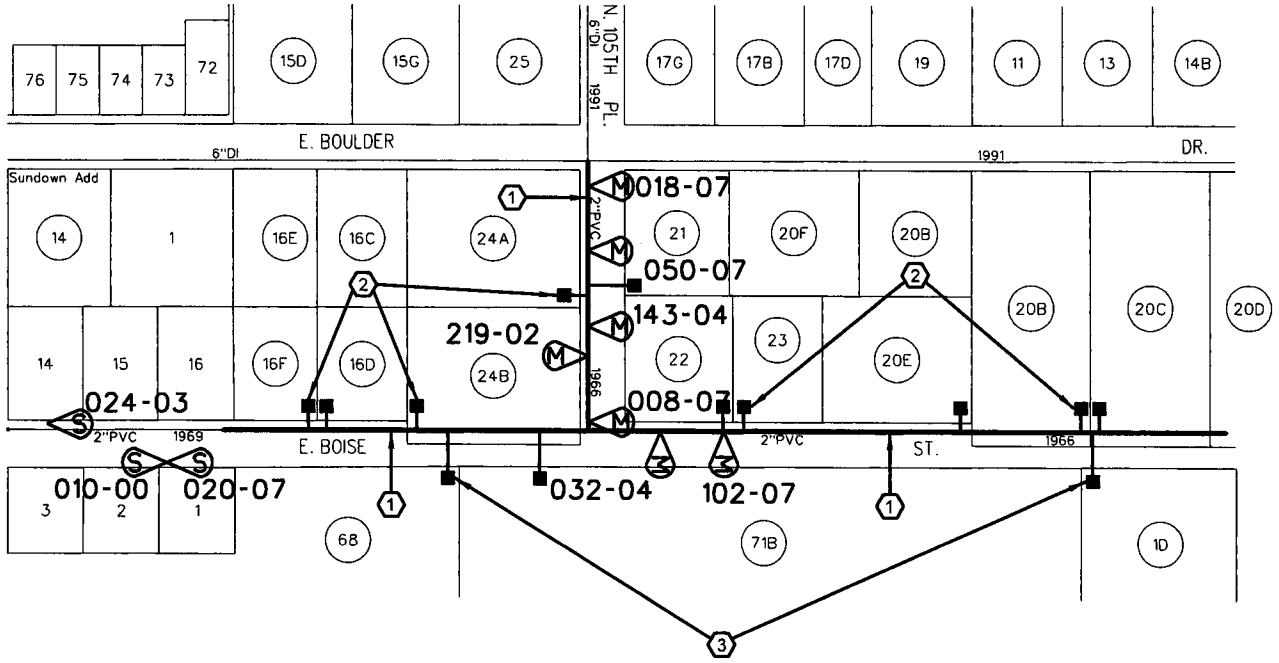
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 134,400 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,016 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 9,408 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 145,824** |
| (5) OVERHEAD - 15% OF LINE (4) | 21,874 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 8,749 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 176,447** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 176,447** |

AFH

# PROJECT 33



0 200 400

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,400 LF |
| 2 | REPLACE SHORT SERVICE | 9 EA. |
| 3 | REPLACE LONG SERVICE | 4 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,400 LF OF 6" DIP w/POLYWRAP AND REPLACE 13 SERVICE CONNECTIONS ALONG BOISE STREET AND 105TH PLACE.

**PROJECT LOCATION**

NE 1/4 SEC. 23-T.1N., R.7E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 3 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | SUPERIOR | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.3-T.2S., R.12E. | 34 | MAP SS-SU 4 |

PROJECT DESCRIPTION:

REPLACE 28 SERVICE CONNECTIONS ALONG HILL STREET FROM CHURCH AVENUE TO TERRANCE DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 15 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 42,000 |
| 13 | EA | 3,500 | REPLACE LONG SERVICE | 45,500 |
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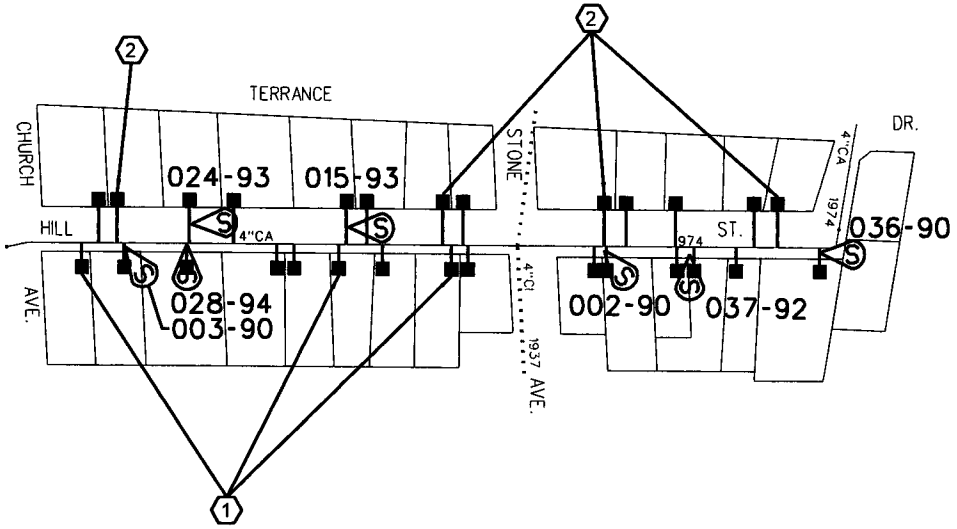
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 87,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,313 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 6,125 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 94,938** |
| (5) OVERHEAD - 15% OF LINE (4) | 14,241 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 5,696 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 114,874** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 114,874** |

AFH

# PROJECT 34



0 200 400

## QUANTITIES LIST

| I | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 15 EA. |
| 2 | REPLACE LONG SERVICE | 13 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 28 SERVICE CONNECTIONS
ALONG HILL STREET FROM CHRUCH AVENUE TO TERRANCE DRIVE.

**PROJECT LOCATION**
NE 1/4 SEC. 3-T.2S., R.12E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - SU 4 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | APACHE JUNCTION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| E 1/2 SEC.9-T.1S., R.9E. | 35 | MAP SS-AJ 21 |

PROJECT DESCRIPTION:

REPLACE 14 SERVICE CONNECTIONS ALONG HUMMINGBIRD LANE AND ALHAMBRA WAY.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 7 | EA | $ 2,800 | REPLACE SHORT SERVICE | $ 19,600 |
| 7 | EA | 3,500 | REPLACE LONG SERVICE | 24,500 |
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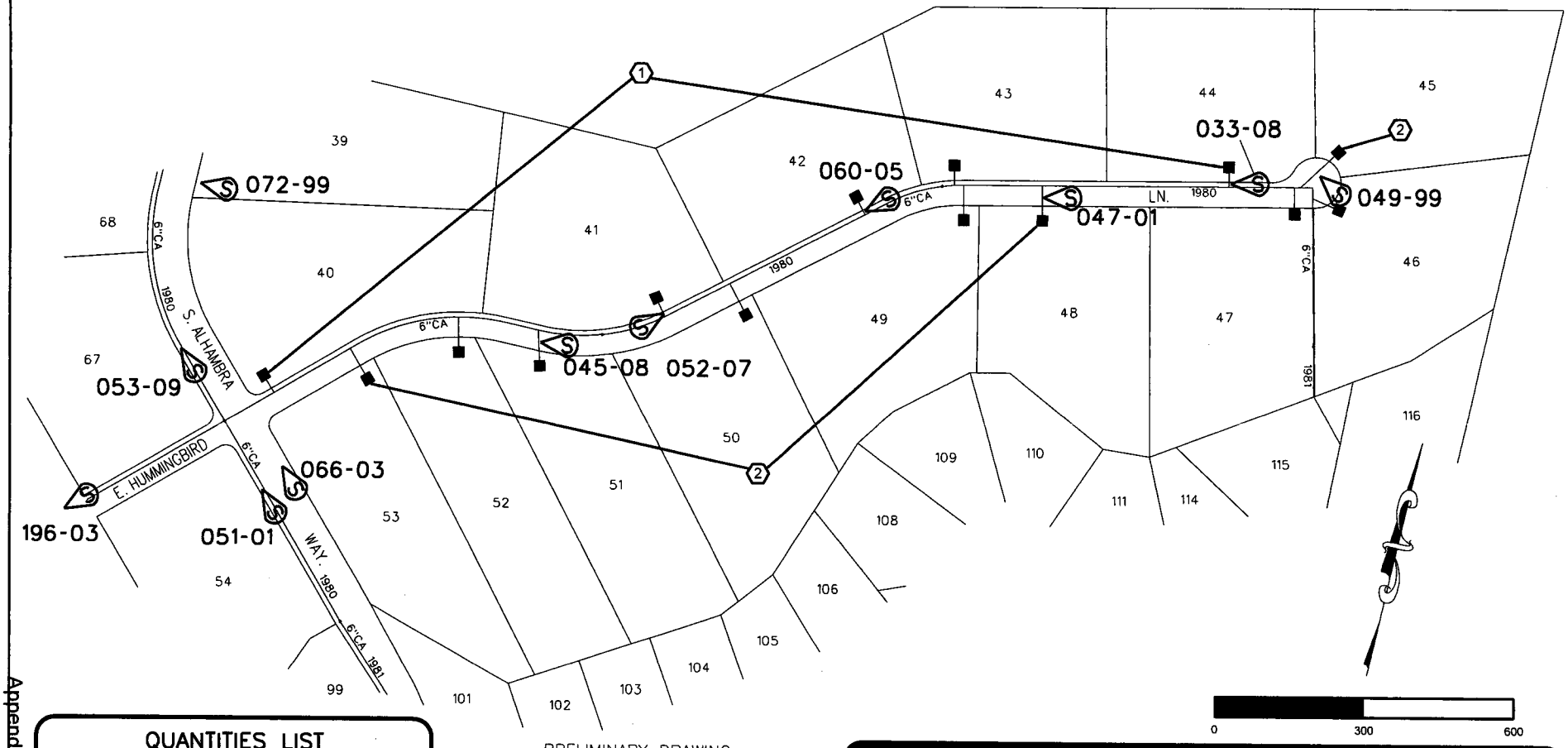
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 44,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 662 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,087 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 47,849** |
| (5) OVERHEAD - 15% OF LINE (4) | 7,177 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,871 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 57,897** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 57,897** |

AFH

# PROJECT 35




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 7 EA. |
| 2 | REPLACE LONG SERVICE | 7 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 14 SERVICE CONNECTIONS ALONG HUMMINGBIRD LANE AND ALHAMBRA WAY.

**PROJECT LOCATION**
E 1/2 SEC. 9-T.1S., R.9E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - AJ 21 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

| DATE PREPARED: |
|---|
| 7/15/11 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | SUPERIOR | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.35-T.1S., R.12E. | 36 | MAP SS - SU 1 |

PROJECT DESCRIPTION:

INSTALL 1,250 LF OF 6" DIP w/POLYWRAP AND REPLACE 31 SERVICE CONNECTIONS ALONG GARROT AVENUE AND STANSBERRY AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,250 | EA | $ 75 | 6" DIP w/POLYWRAP | $ 93,750 |
| 10 | EA | 3,500 | REPLACE LONG SERVICE | 35,000 |
| 15 | EA | 3,700 | RELOCATE SHORT SERVICE | 55,500 |
| 6 | EA | 4,700 | RELOCATE LONG SERVICE | 28,200 |
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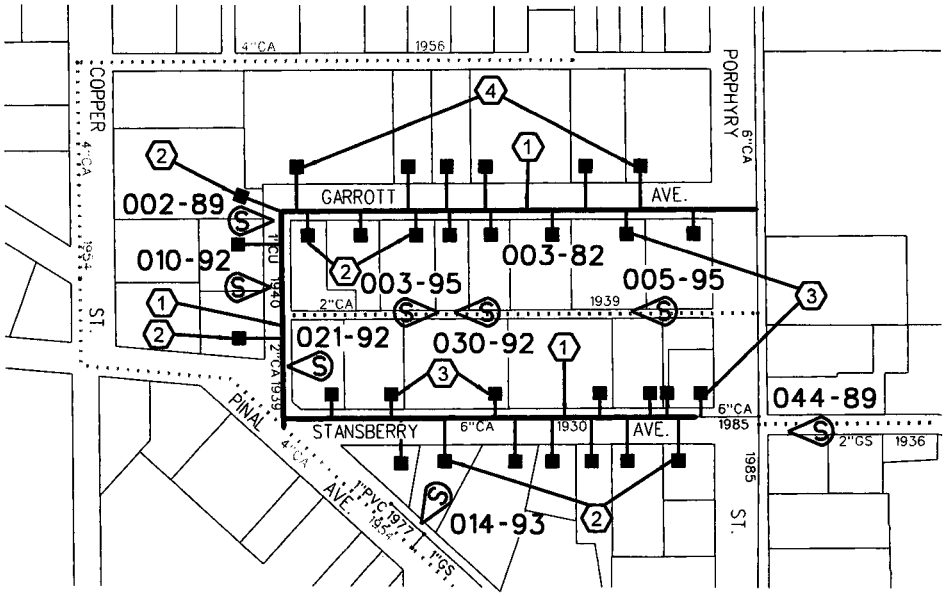
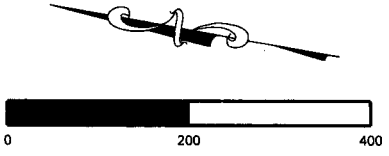
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 212,450 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 3,187 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 14,872 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 230,508** |
| (5) OVERHEAD - 15% OF LINE (4) | 34,576 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 13,830 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 278,915** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 278,915** |

AFH

# PROJECT 36




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,250 LF |
| 2 | REPLACE LONG SERVICE | 10 EA. |
| 3 | RELOCATE SHORT SERVICE | 15 EA. |
| 4 | RELOCATE LONG SERVICE | 6 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,250 LF OF 6" DIP w/POLYWRAP AND REPLACE 31 SERVICE CONNECTIONS ALONG GARROT AVENUE AND STANSBERRY AVENUE.

**PROJECT LOCATION**

SE 1/4 SEC. 35-T.1S., R.12E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP SS - SU 1 |

# APPENDIX

# 9.4.2

# Recommended Projects and

# Preliminary Cost Estimates

# Oracle water system

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | BEVERLY CIRCLE | | | | 61 | | | 0 | 0 | 36 | 36 | $170,671 |
| 38 | SONBERG DRIVE | | | | 35 | | | 0 | 0 | 21 | 21 | $95,182 |
| 39 | CAMINO SECO | | | | 19 | | | 0 | 0 | 9 | 9 | $53,499 |
| 40 | ADAMS STREET | | | | 27 | | | 0 | 1 | 7 | 8 | $78,771 |
| 41 | TWO O'CLOCK HILLS ROAD | | | | 24 | | | 0 | 0 | 8 | 8 | $65,971 |
| 42 | CEDAR RIDGE DRIVE | | | | 16 | | | 0 | 0 | 6 | 6 | $44,637 |
| | | | | | | | | | | | **Total** | **$508,729** |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| N 1/2 SEC.27-T.9S., R.15E. | 37 | MAP OR-1 |

PROJECT DESCRIPTION:

REPLACE 61 SERVICE CONNECTIONS ALONG BEVERLY CIRCLE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 30 | EA | $ 1,750 | REPLACE SHORT SERVICE | $ 52,500 |
| 31 | EA | 2,500 | REPLACE LONG SERVICE | 77,500 |
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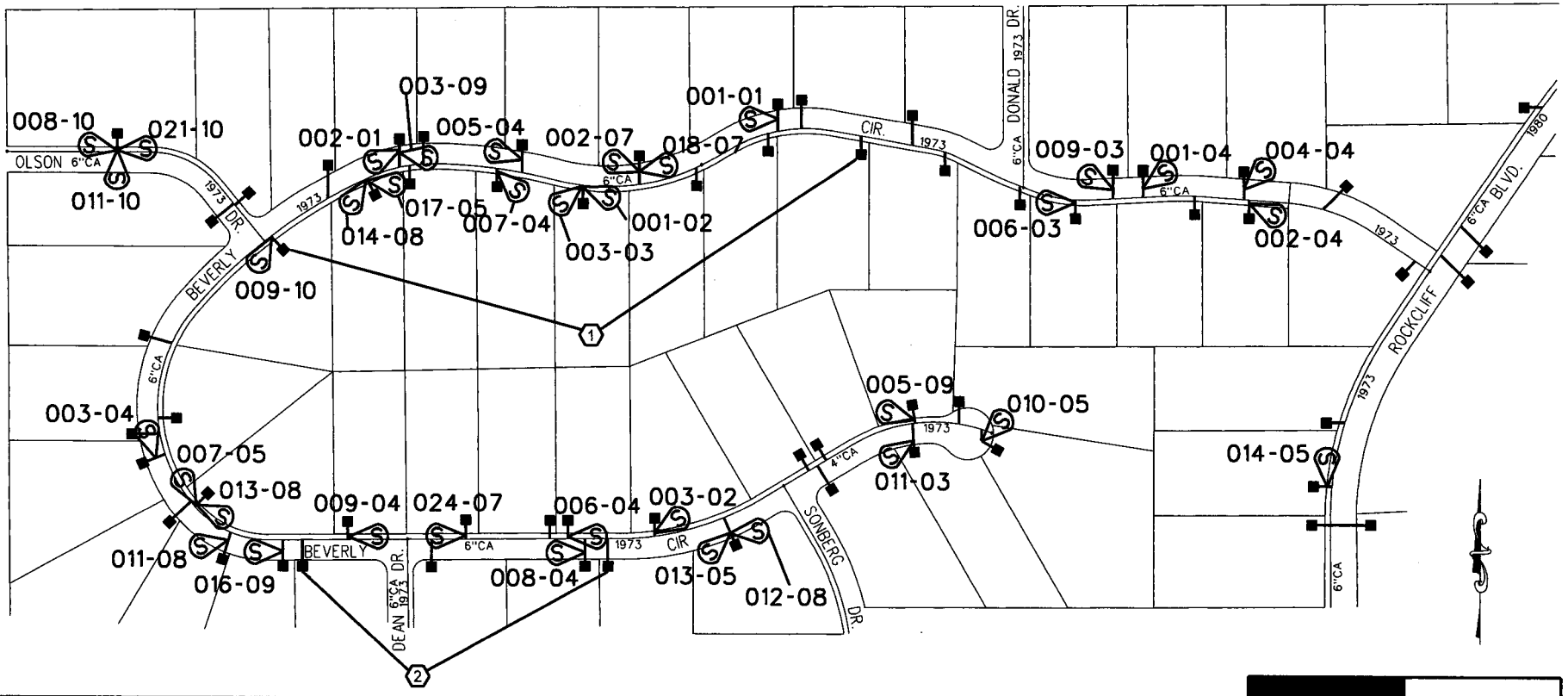
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 130,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,950 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 9,100 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 141,050** |
| (5) OVERHEAD - 15% OF LINE (4) | 21,158 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 8,463 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 170,671** |
| ***ESTIMATED COST OF CONSTRUCTION*** | **$ 170,671** |

AFH

# PROJECT 37




Appendix 9.4.2 Page 3 of 13

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 30 EA. |
| 2 | REPLACE LONG SERVICE | 31 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

S — SERVICE LINE REPAIR/REPLACEMENT

F — FITTING REPAIR/REPLACEMENT

M — WATER MAIN REPAIR/REPLACEMENT

021-10 — LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 61 SERVICE CONNECTIONS ALONG BEVERLY CIRCLE.

**PROJECT LOCATION**

N 1/2 SEC. 27-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR - 1 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.27-T.9S., R.15E. | 38 | MAP OR-1 |

PROJECT DESCRIPTION:

REPLACE 35 SERVICE CONNECTIONS ALONG SONBERG DRIVE, HAROLD DRIVE AND ROCKCLIFF BOULEVARD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 20 | EA | $ 1,750 | REPLACE SHORT SERVICE | $ 35,000 |
| 15 | EA | 2,500 | REPLACE LONG SERVICE | 37,500 |
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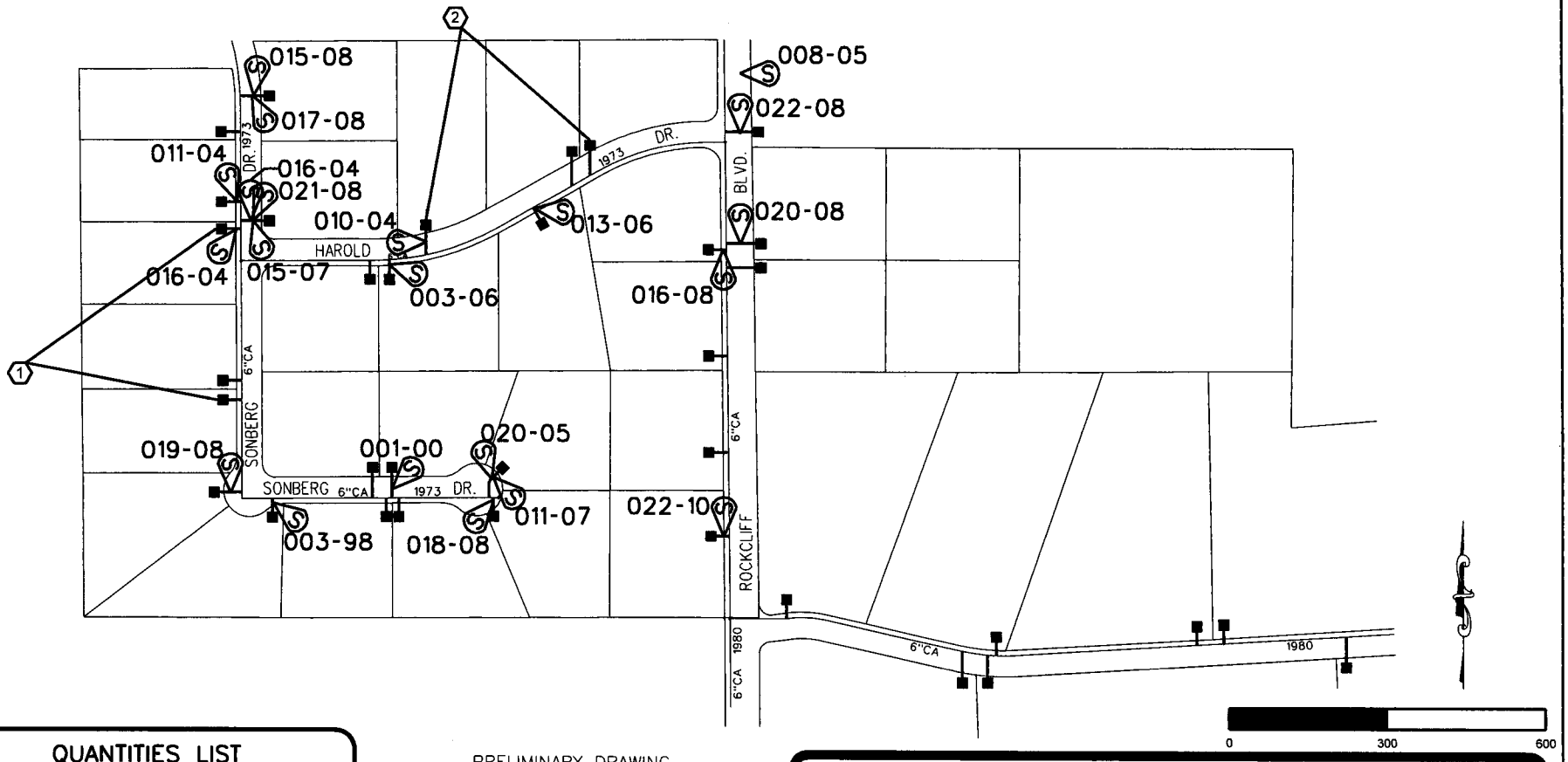
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 72,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,088 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,075 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 78,663** |
| (5) OVERHEAD - 15% OF LINE (4) | 11,799 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,720 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 95,182** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 95,182** |

AFH

# PROJECT 38




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 20 EA. |
| 2 | REPLACE LONG SERVICE | 15 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

S SERVICE LINE REPAIR/REPLACEMENT

F FITTING REPAIR/REPLACEMENT

M WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 35 SERVICE CONNECTIONS ALONG
SONBERG DRIVE, HAROLD DRIVE AND ROCKCLIFF BOULEVARD.

**PROJECT LOCATION**
NE 1/4 SEC. 27-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR - 1 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.27-T.9S., R.15E. | 39 | MAP OR-1 |

PROJECT DESCRIPTION:

REPLACE 19 SERVICE CONNECTIONS ALONG CAMINO SECO AND CALLE VALENCIA.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 9 | EA | $1,750 | REPLACE SHORT SERVICE | $ 15,750 |
| 10 | EA | 2,500 | REPLACE LONG SERVICE | 25,000 |
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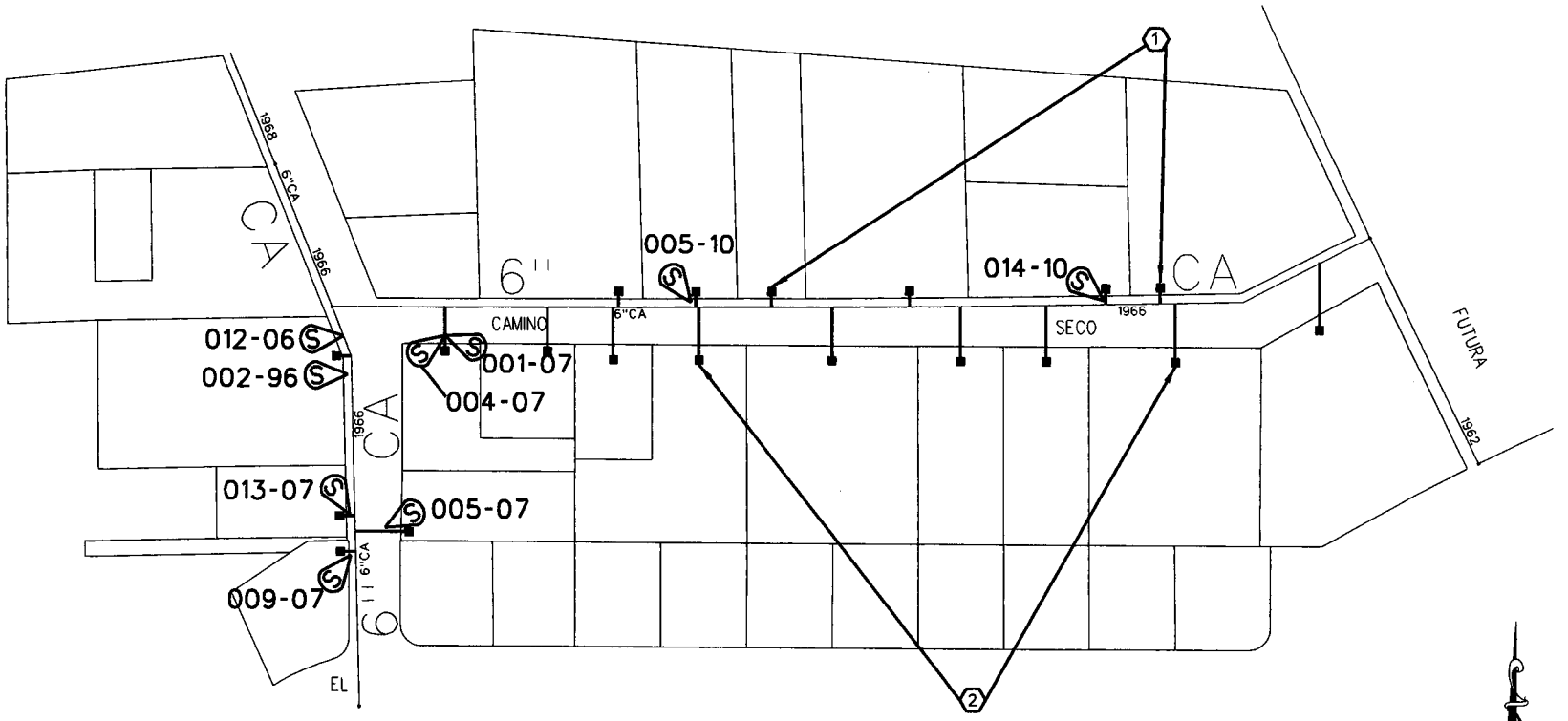
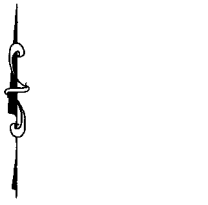
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 40,750 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 611 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,853 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 44,214** |
| (5) OVERHEAD - 15% OF LINE (4) | 6,632 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,653 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 53,499** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 53,499** |

AFH

# PROJECT 39



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Appendix 9.4.2 Page 7 of 13

| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | REPLACE SHORT SERVICE | 9 EA. |
| 2 | REPLACE LONG SERVICE | 10 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 19 SERVICE CONNECTIONS
ALONG CAMINO SECO AND CALLE VALENCIA.

**PROJECT LOCATION**

SE 1/4 SEC. 27-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR-1 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.36-T.9S., R.15E. | 40 | MAP OR-4 |

PROJECT DESCRIPTION:

REPLACE 27 SERVICE CONNECTIONS ALONG ADAMS STREET, HOWARD STREET AND LOGAN STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 10 | EA | $1,750 | REPLACE SHORT SERVICE | $ 17,500 |
| 17 | EA | 2,500 | REPLACE LONG SERVICE | 42,500 |
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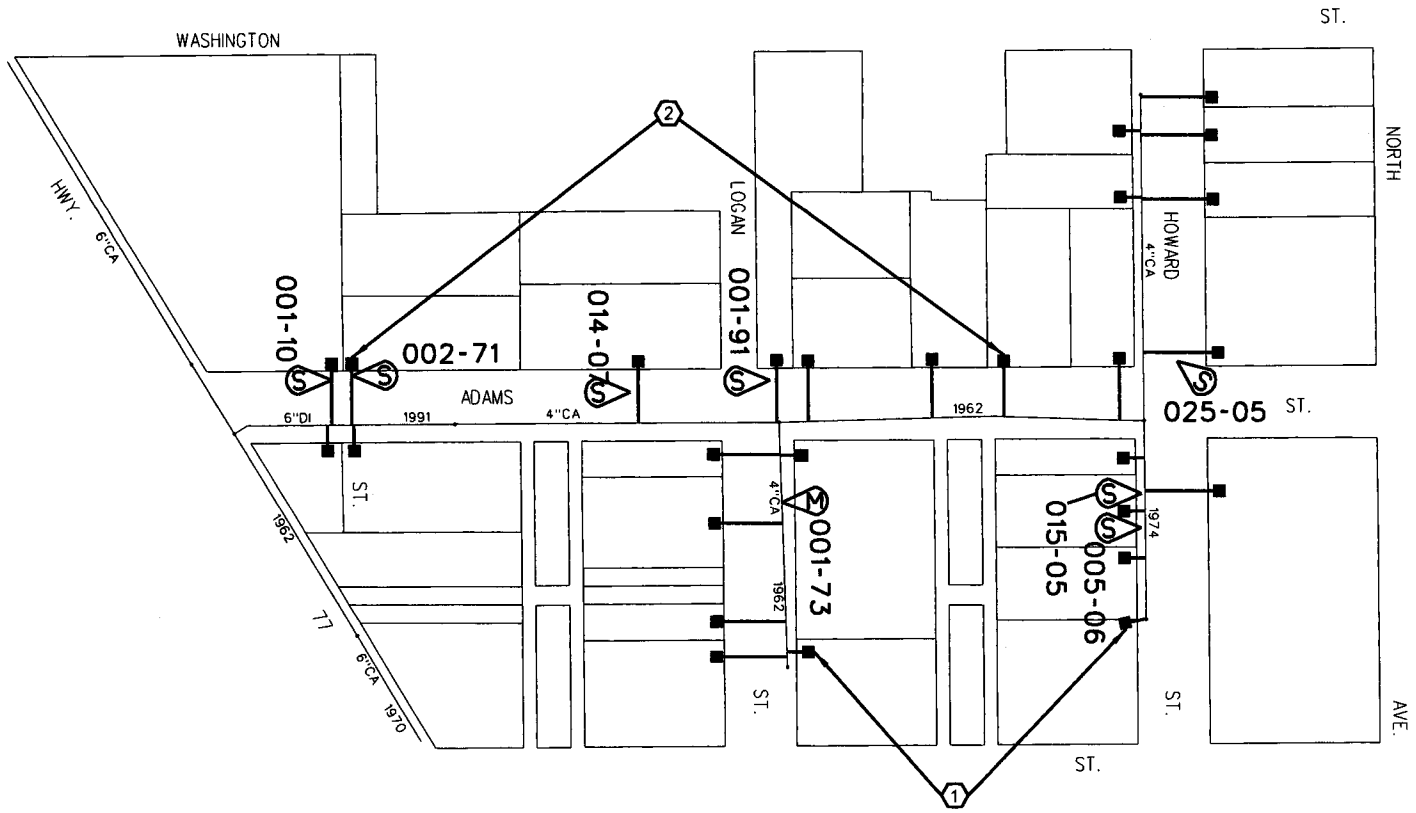
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 60,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 900 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,200 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 65,100** |
| (5) OVERHEAD - 15% OF LINE (4) | 9,765 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,906 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 78,771** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 78,771** |

AFH

# PROJECT 40

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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 10 EA. |
| 2 | REPLACE LONG SERVICE | 17 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 27 SERVICE CONNECTIONS
ALONG ADAMS STREET, HOWARD STREET AND LOGAN STREET.

**PROJECT LOCATION**
NE 1/4 SEC. 36-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR-4 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.35-T.9S., R.15E. | 41 | MAP OR-3 |

PROJECT DESCRIPTION:

REPLACE 24 SERVICE CONNECTIONS ALONG NORTH TWO O'CLOCK HILLS ROAD AND CHAPARRAL STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 13 | EA | $1,750 | REPLACE SHORT SERVICE | $ 22,750 |
| 11 | EA | 2,500 | REPLACE LONG SERVICE | 27,500 |
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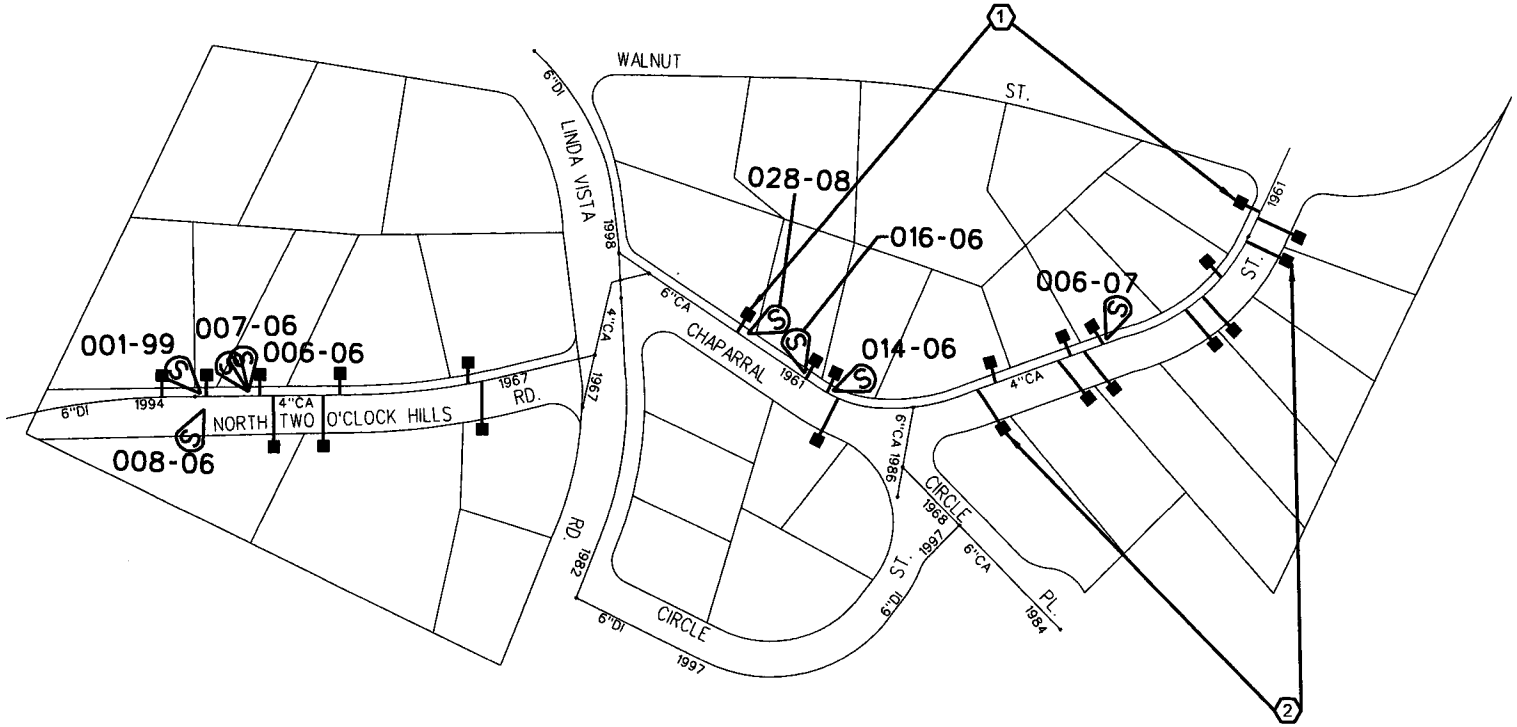
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 50,250 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 754 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,518 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 54,521** |
| (5) OVERHEAD - 15% OF LINE (4) | 8,178 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,271 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 65,971** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 65,971** |

AFH

# PROJECT 41



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 13 EA. |
| 2 | REPLACE LONG SERVICE | 11 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
REPLACE 24 SERVICE CONNECTIONS
ALONG NORTH TWO O'CLOCK HILLS ROAD AND CHAPARRAL STREET.

**PROJECT LOCATION**
SW 1/4 SEC. 35-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR-3 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.36-T.9S., R.15E. | 42 | MAP OR-4 |

PROJECT DESCRIPTION:

REPLACE 16 SERVICE CONNECTIONS ALONG NORTH CEDAR RIDGE DRIVE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 8 | EA | $ 1,750 | REPLACE SHORT SERVICE | $ 14,000 |
| 8 | EA | 2,500 | REPLACE LONG SERVICE | 20,000 |
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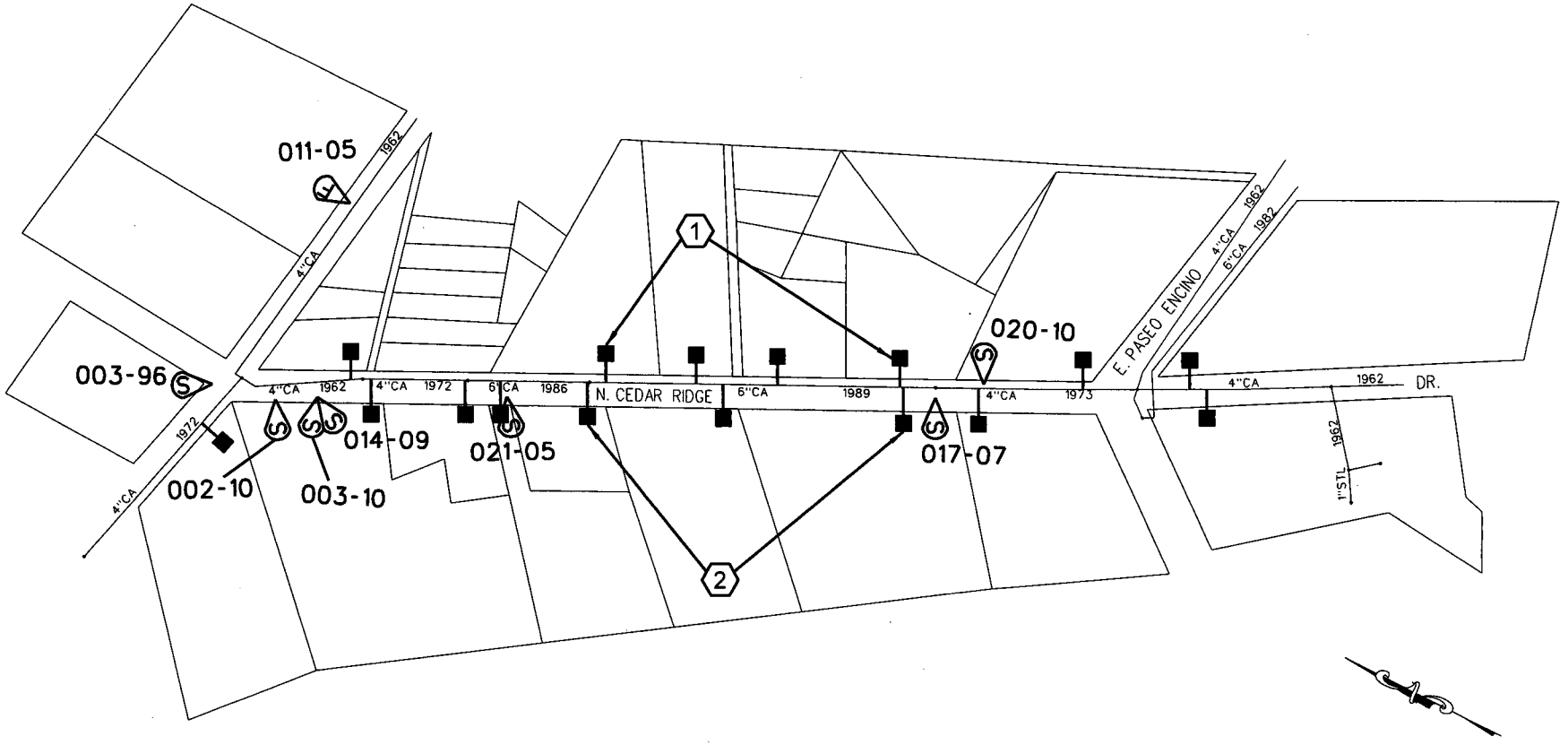
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 34,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 510 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,380 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 36,890** |
| (5) OVERHEAD - 15% OF LINE (4) | 5,534 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,213 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 44,637** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 44,637** |

AFH

# PROJECT 42

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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

| # | | QTY. |
|---|---|---|
| 1 | REPLACE SHORT SERVICE | 8 EA. |
| 2 | REPLACE LONG SERVICE | 8 EA. |

QUANTITIES LIST

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

REPLACE 16 SERVICE CONNECTIONS ALONG NORTH CEDAR RIDGE DRIVE.

**PROJECT LOCATION**

SE 1/4 SEC. 36-T.9S., R.15E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP OR - 4 |

# APPENDIX

# 9.4.3

# Recommended Projects and

# Preliminary Cost Estimates

# Bisbee water system

| PROJECT NUMBER | STREET NAME | NEW PIPE LENGTH (LF) | NEW PIPE DIAMETER (IN) | NEW PIPE MATERIAL | # OF SERVICES TO BE REPLACED | REPLACED PIPE DIAMETER (IN) | REPLACED PIPE MATERIAL | RECORDED FITTING LEAKS | RECORDED MAIN LEAKS | RECORDED SERVICE LEAKS | TOTAL LEAKS | ESTIMATED TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | BOWERS STREET | 1,900 | 6 | DI | 22 | 2, 4 | ST, GS | 0 | 76 | 4 | 80 | $232,374 |
| 44 | OCOTILLO AVENUE | 700 | 6 | DI | 11 | 1,2,4 | PVC, GS, CU, ST | 0 | 34 | 1 | 35 | $94,656 |
| 45 | LEDGE AVENUE | 2,450 | 6 | DI | 41 | 1, 2, 4 | ST, GS | 0 | 22 | 13 | 35 | $318,891 |
| 46 | HIGHWAY 80 | 900 | 6 | DI | 0 | 1 | PVC | 0 | 22 | 0 | 22 | $84,679 |
| 47 | LEDGE AVENUE | 1,650 | 6 | DI | 20 | 1, 2, 3 | GS, PVC | 0 | 19 | 2 | 21 | $192,464 |
| 48 | TERAN STREET | 2,900 | 6 | DI | 22 | 1, 2, 6 | ST, GS | 0 | 20 | 0 | 20 | $312,721 |
| 49 | PARK AVENUE | 700 | 6 | DI | 12 | 2, 4, 6 | GS, ST | 0 | 16 | 0 | 16 | $98,070 |
| 50 | BROPHY AVENUE | 600 | 6 | DI | 11 | 1, 2 | CU, GS | 0 | 13 | 2 | 15 | $76,802 |
| 51 | COLE AVENUE | 1,000 | 6 | DI | 7 | 6,8 | ST | 0 | 8 | 6 | 14 | $112,905 |
| 52 | CHURCH STREET | 400 | 6 | DI | 7 | 4, 6 | ST | 0 | 11 | 1 | 12 | $54,877 |
| | | | | | | | | | | | **Total** | **$1,578,440** |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.5-T.24S., R.24E. | 43 | MAP BE-15 |

PROJECT DESCRIPTION:

INSTALL 1,900 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 22 SERVICE CONNECTIONS ALONG BOWERS STREET FROM MARIE STREET TO McDONALD STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,900 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 133,000 |
| 12 | EA | 1,500 | REPLACE SHORT SERVICE | 18,000 |
| 10 | EA | 2,600 | REPLACE LONG SERVICE | 26,000 |
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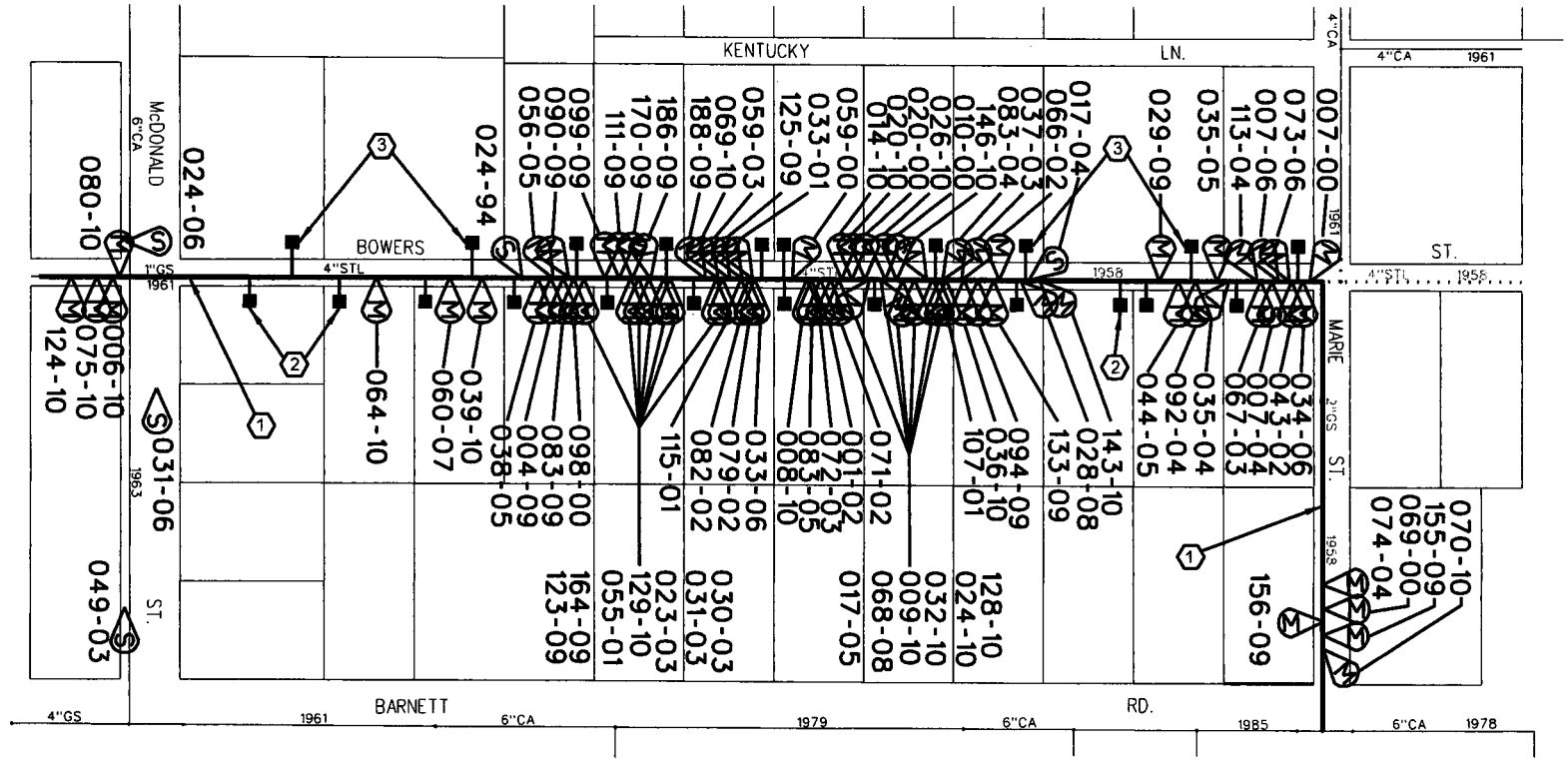
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 177,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,655 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 12,390 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 192,045** |
| (5) OVERHEAD - 15% OF LINE (4) | 28,807 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 11,523 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 232,374** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 232,374** |

AFH

# PROJECT 43




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,900 LF |
| 2 | REPLACE SHORT SERVICE | 12 EA. |
| 3 | REPLACE LONG SERVICE | 10 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 1,900 LF OF 6" DIP w/POLYWRAP AND REPLACE 22 SERVICE CONNECTIONS ALONG BOWERS STREET FROM MARIE STREET TO McDONALD STREET.

**PROJECT LOCATION**
NE 1/4 SEC. 5-T.24S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-15 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

| DATE PREPARED: |
|---|
| 7/15/11 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.32-T.23S., R.24E. | 44 | MAP BE-13 |

PROJECT DESCRIPTION:

INSTALL 700 LF OF 6-INCH DIP W/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG OCOTILLO AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 700 | LF | $ 70 | 6" DIP W/POLYWRAP | $ 49,000 |
| 5 | EA | 1,500 | REPLACE SHORT SERVICE | 7,500 |
| 6 | EA | 2,600 | REPLACE LONG SERVICE | 15,600 |
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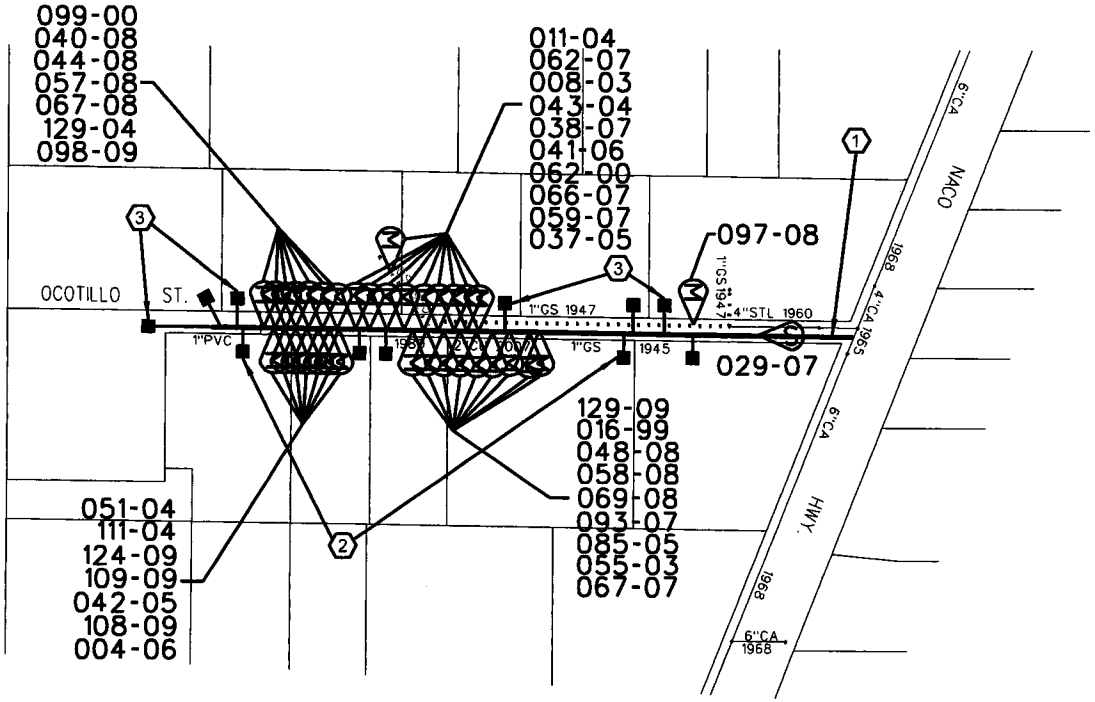
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 72,100 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,082 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,047 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 78,229** |
| (5) OVERHEAD - 15% OF LINE (4) | 11,734 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,694 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 94,656** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 94,656** |

AFH

# PROJECT 44



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 700 LF |
| 2 | REPLACE SHORT SERVICE | 5 EA. |
| 3 | REPLACE LONG SERVICE | 6 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 700 LF OF 6" DIP w/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG OCOTILLO STREET.

**PROJECT LOCATION**
NE 1/4 SEC. 32-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-13 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.8-T.23S., R.24E. | 45 | MAP BE-3 |

PROJECT DESCRIPTION:

INSTALL 2,450 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 41 SERVICE CONNECTIONS ALONG LEDGE AVENUE AND QUALITY ROAD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 2,450 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 171,500 |
| 32 | EA | 1,500 | REPLACE SHORT SERVICE | 48,000 |
| 9 | EA | 2,600 | REPLACE LONG SERVICE | 23,400 |
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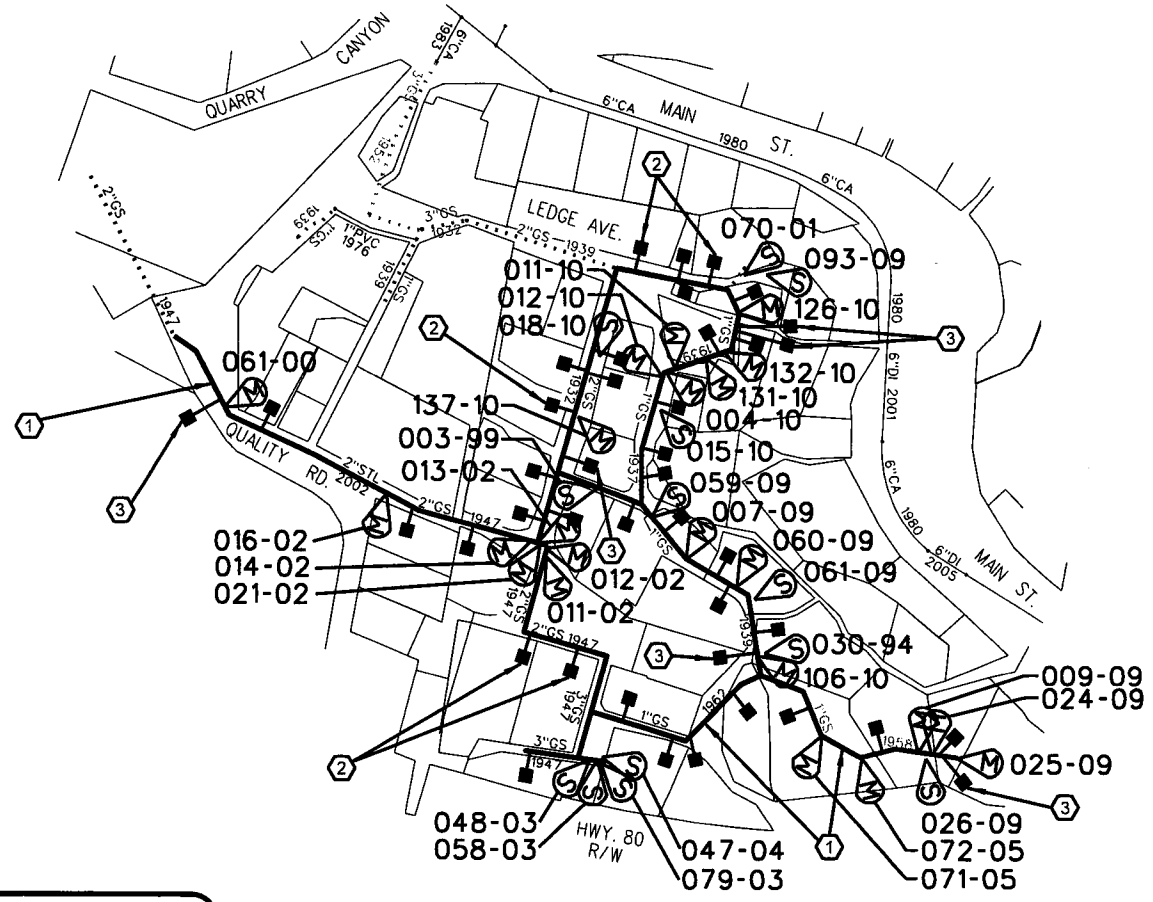
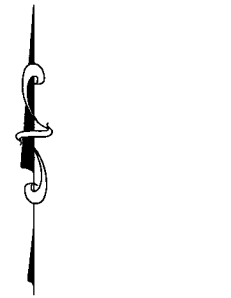
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 242,900 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 3,644 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 17,003 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 263,547** |
| (5) OVERHEAD - 15% OF LINE (4) | 39,532 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 15,813 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 318,891** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 318,891** |

AFH

# PROJECT 45



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Appendix 9.4.3 Page 7 of 21

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 2,450 LF |
| 2 | REPLACE SHORT SERVICE | 32 EA. |
| 3 | REPLACE LONG SERVICE | 9 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 2,450 LF OF 6" DIP w/POLYWRAP AND 41 SERVICE CONNECTIONS ALONG LEDGE AVENUE AND QUALITY ROAD.

**PROJECT LOCATION**
SE 1/4 SEC. 8-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-3 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC. 15-T.23S., R.24E. | 46 | MAP BE-6 |

PROJECT DESCRIPTION:

INSTALL 900 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 1 SERVICE CONNECTION ALONG HIGHWAY 80 AND WINWOOD ROAD.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 900 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 63,000 |
| 1 | EA | 1,500 | REPLACE SHORT SERVICE | 1,500 |
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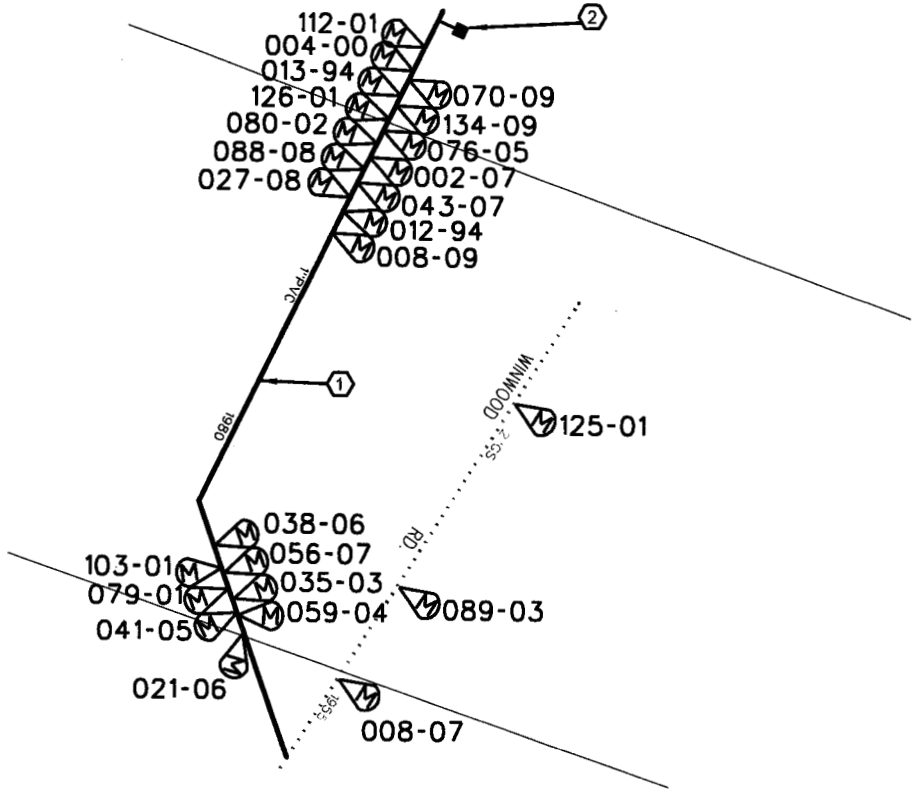
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 64,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 968 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,515 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 69,983** |
| (5) OVERHEAD - 15% OF LINE (4) | 10,497 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,199 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 84,679** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 84,679** |

AFH

# PROJECT 46






## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 900 LF |
| 2 | REPLACE SHORT SERVICE | 1 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 900 LF OF 6" DIP w/POLYWRAP AND REPLACE 1 SERVICE CONNECTION ALONG HIGHWAY 80 AND WINWOOD ROAD.

**PROJECT LOCATION**
NE 1/4 SEC. 15-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-6 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.8-T.23S., R.24E. | 47 | MAP BE-3 |

PROJECT DESCRIPTION:

INSTALL 1,650 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 20 SERVICE CONNECTIONS ALONG LEDGE AVENUE, QUALITY ROAD, AND ALLEYS.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,650 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 115,500 |
| 19 | EA | 1,500 | REPLACE SHORT SERVICE | 28,500 |
| 1 | EA | 2,600 | REPLACE LONG SERVICE | 2,600 |
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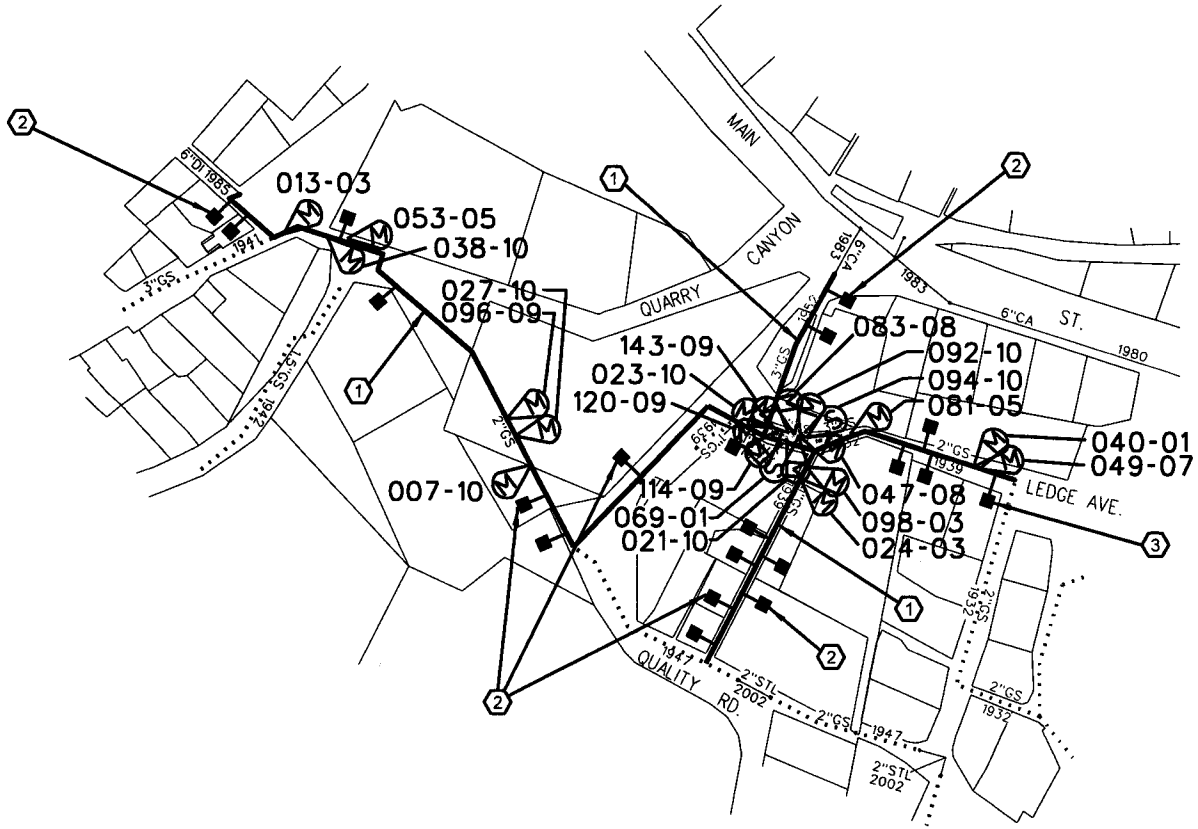
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 146,600 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 2,199 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 10,262 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 159,061** |
| (5) OVERHEAD - 15% OF LINE (4) | 23,859 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 9,544 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 192,464** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 192,464** |

AFH

# PROJECT 47



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## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,650 LF |
| 2 | REPLACE SHORT SERVICE | 19 EA. |
| 3 | REPLACE LONG SERVICE | 1 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**

INSTALL 1,650 LF OF 6" DIP w/POLYWRAP AND REPLACE 20 SERVICE CONNECTIONS ALONG LEDGE AVENUE, QUALITY ROAD, AND ALLEYS.

**PROJECT LOCATION**

SE 1/4 SEC. 8-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-3 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

| DATE PREPARED: |
|---|
| 7/15/11 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | COCHISE | COCHISE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC.22-T.23S., R.24E. | 48 | MAP BE-9 |

PROJECT DESCRIPTION:

INSTALL 2,900 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 22 SERVICE CONNECTIONS ALONG TERAN STREET, ARUIZU STREET, CARBAJAL STREET, AND VARGAS STREET.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 2,900 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 203,000 |
| 20 | EA | 1,500 | REPLACE SHORT SERVICE | 30,000 |
| 2 | EA | 2,600 | REPLACE LONG SERVICE | 5,200 |
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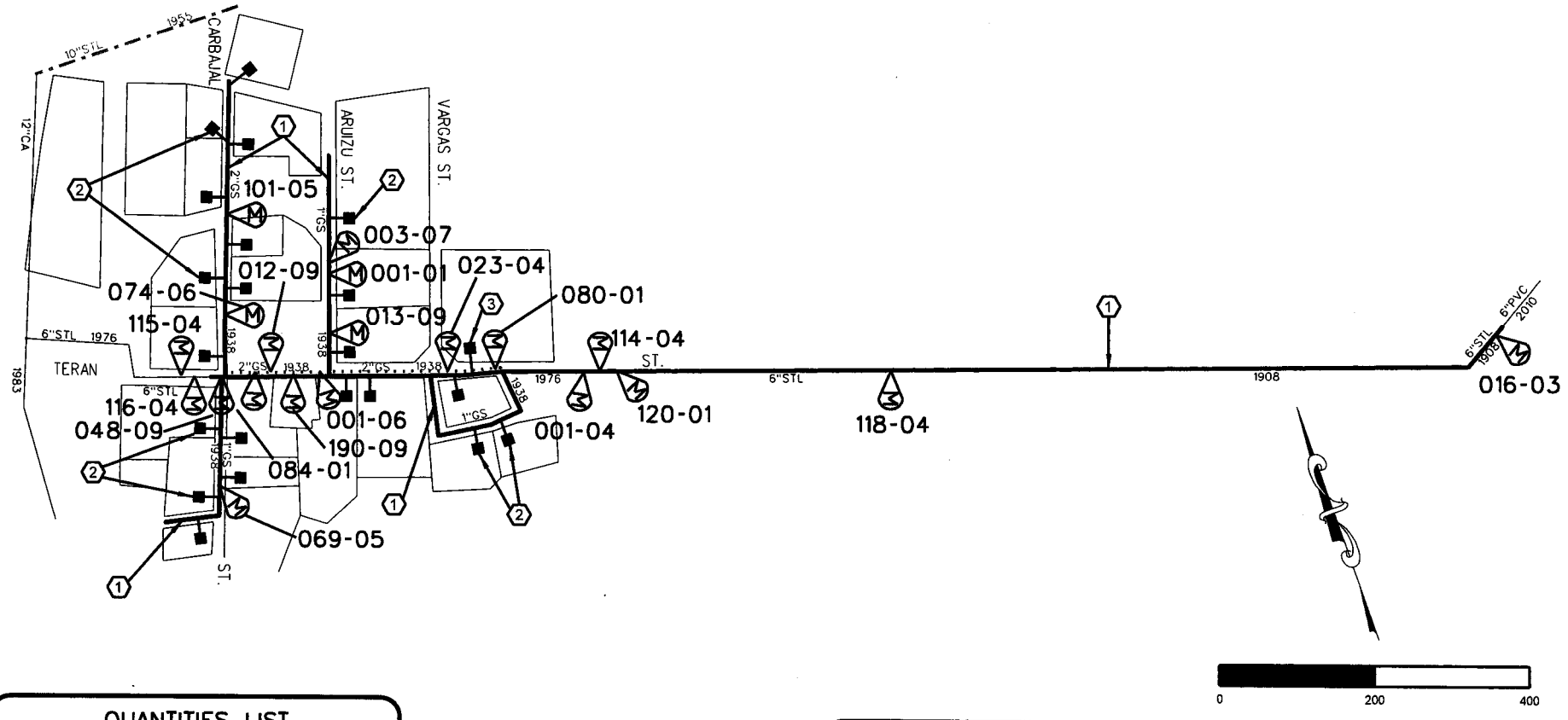
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 238,200 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 3,573 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 16,674 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 258,447** |
| (5) OVERHEAD - 15% OF LINE (4) | 38,767 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 15,507 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 312,721** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 312,721** |

AFH

# PROJECT 48




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 2,900 LF |
| 2 | REPLACE SHORT SERVICE | 20 EA. |
| 3 | REPLACE LONG SERVICE | 2 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 2,900 LF OF 6" DIP w/POLYWRAP AND REPLACE 22 SERVICE CONNECTIONS ALONG TERAN STREET, ARUIZU STREET, CARBAJAL STREET AND VARGAS STREET.

**PROJECT LOCATION**
SW 1/4 SEC. 22-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-9 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

| DATE PREPARED: |
|---|
| 7/15/11 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SE 1/4 SEC.15-T.23S., R.24E.<br>NE 1/4 SEC.22-T.23S., R.24E. | 49 | MAP BE-6 & 9 |

PROJECT DESCRIPTION:

INSTALL 700 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 12 SERVICE CONNECTIONS ALONG PARK AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 700 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 49,000 |
| 5 | EA | 1,500 | REPLACE SHORT SERVICE | 7,500 |
| 7 | EA | 2,600 | REPLACE LONG SERVICE | 18,200 |
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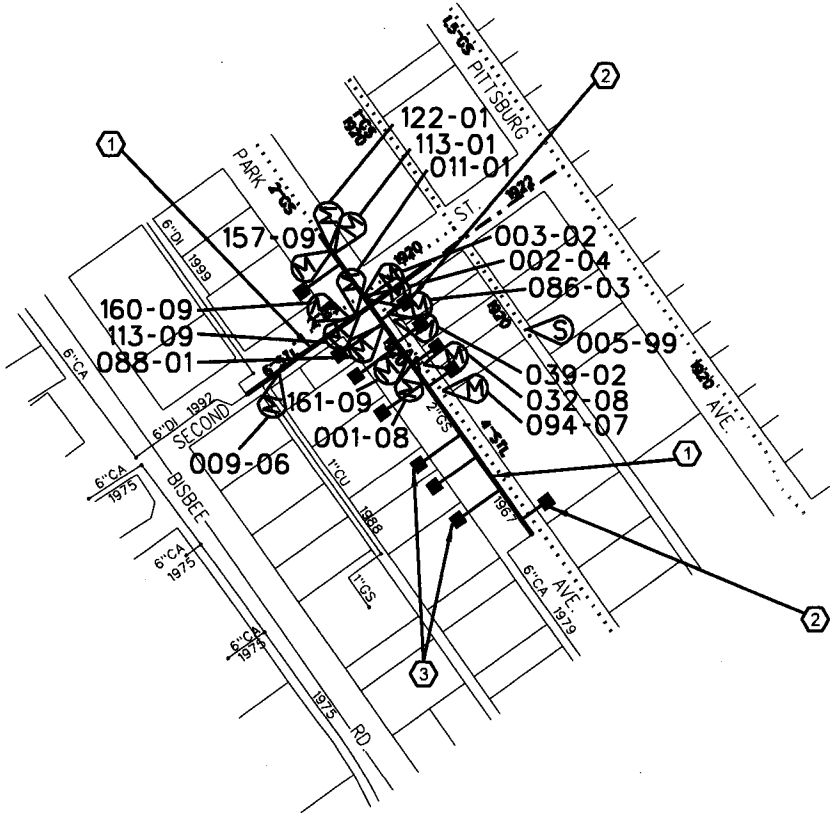
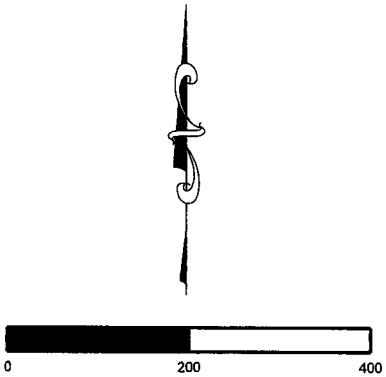
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 74,700 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,121 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 5,229 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 81,050** |
| (5) OVERHEAD - 15% OF LINE (4) | 12,157 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 4,863 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 98,070** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 98,070** |

AFH

# PROJECT 49




| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 700 LF |
| 2 | REPLACE SHORT SERVICE | 5 EA. |
| 3 | REPLACE LONG SERVICE | 7 EA. |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 700 LF OF 6" DIP w/POLYWRAP AND 12 SERVICE CONNECTIONS ALONG PARK AVENUE.

**PROJECT LOCATION**
SE 1/4 SEC. 15-T.23S., R.24E.
NE 1/4 SEC. 22-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-6 & BE-9 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NW 1/4 SEC.8-T.23S., R.24E. | 50 | MAP BE-3 |

PROJECT DESCRIPTION:

INSTALL 600 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG BROPHY AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 600 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 42,000 |
| 11 | EA | 1,500 | REPLACE SHORT SERVICE | 16,500 |
| | | | | - |
| | | | | - |
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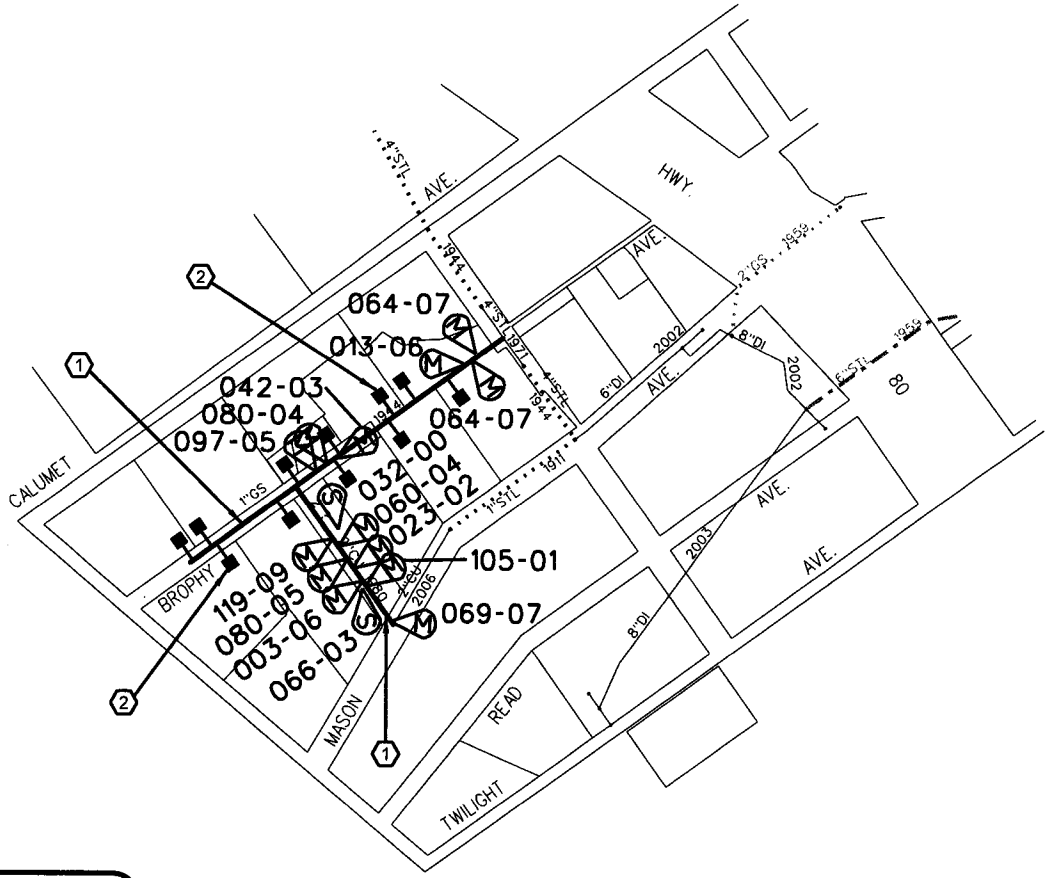
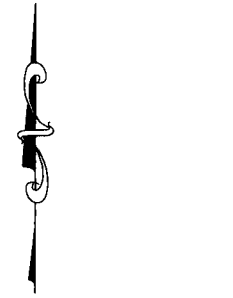
| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 58,500 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 878 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 4,095 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 63,473** |
| (5) OVERHEAD - 15% OF LINE (4) | 9,521 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,808 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 76,802** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 76,802** |

AFH

# PROJECT 50



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Appendix 9.4.3 Page 17 of 21

## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 600 LF |
| 2 | REPLACE SHORT SERVICE | 11 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 600 LF OF 6" DIP w/POLYWRAP AND REPLACE 11 SERVICE CONNECTIONS ALONG BROPHY AVENUE.

**PROJECT LOCATION**
NW 1/4 SEC. 8-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-3 |

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| NE 1/4 SEC.23-T.23S., R.24E. | 51 | MAP BE-10 |

PROJECT DESCRIPTION:

INSTALL 1,000 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 7 SERVICE CONNECTIONS ALONG COLE AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,000 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 70,000 |
| 2 | EA | 1,500 | REPLACE SHORT SERVICE | 3,000 |
| 5 | EA | 2,600 | REPLACE LONG SERVICE | 13,000 |
| | | | | - |
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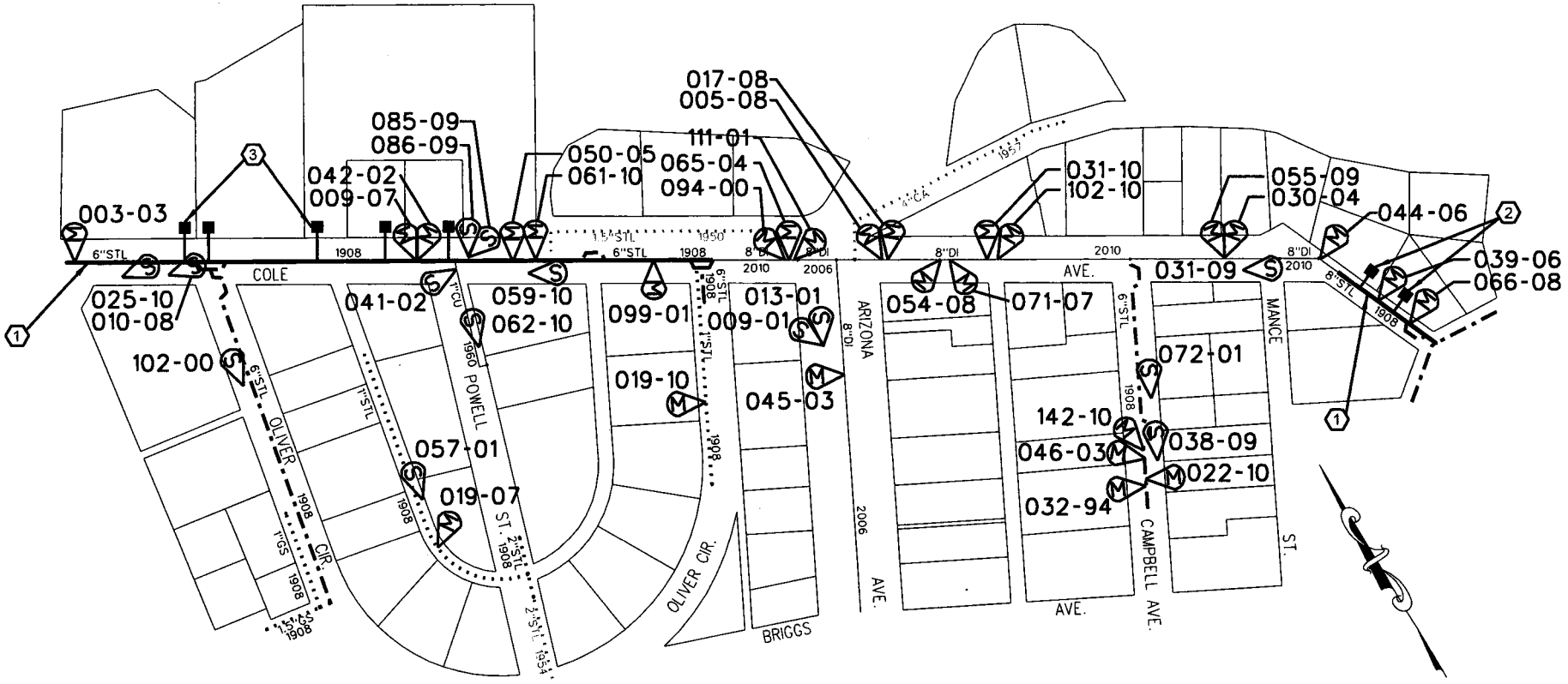
| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 86,000 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 1,290 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 6,020 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 93,310** |
| (5) OVERHEAD - 15% OF LINE (4) | 13,997 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 5,599 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 112,905** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 112,905** |

AFH

# PROJECT 51




## QUANTITIES LIST

| # | | QTY. |
|---|---|---|
| 1 | INSTALL 6" DIP w/POLYWRAP | 1,000 LF |
| 2 | REPLACE SHORT SERVICE | 2 EA. |
| 3 | REPLACE LONG SERVICE | 5 EA. |

PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 1,000 LF OF 6" DIP w/POLYWRAP AND REPLACE 7 SERVICE CONNECTIONS ALONG COLE AVENUE.

**PROJECT LOCATION**
N 1/2 SEC. 23-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-10 |

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/15/11

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| AJH | FKS | BISBEE | BISBEE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| SW 1/4 SEC9-T.23S., R.24E. | 52 | MAP BE-4 |

PROJECT DESCRIPTION:

INSTALL 400 LF OF 6-INCH DIP w/POLYWRAP AND REPLACE 7 SERVICE CONNECTIONS ALONG CHURCH STREET FROM CLAWSON AVENUE TO SOWELS AVENUE.

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 400 | LF | $ 70 | 6" DIP w/POLYWRAP | $ 28,000 |
| 4 | EA | 1,500 | REPLACE SHORT SERVICE | 6,000 |
| 3 | EA | 2,600 | REPLACE LONG SERVICE | 7,800 |
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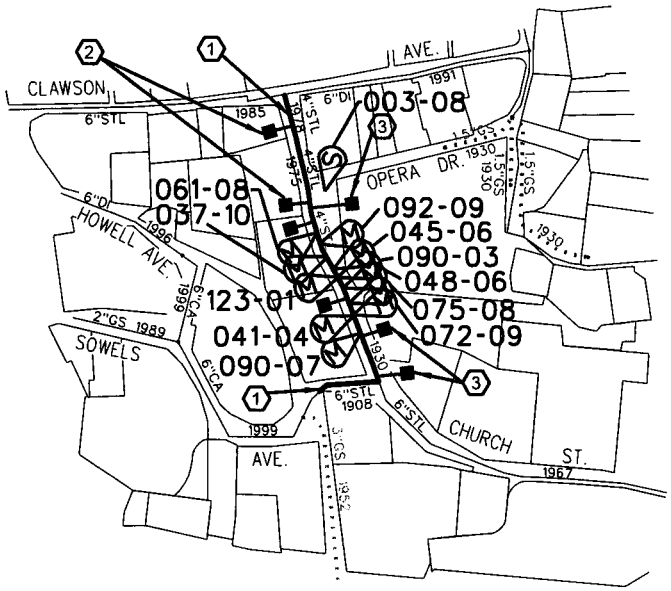
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 41,800 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 627 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,926 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 45,353** |
| (5) OVERHEAD - 15% OF LINE (4) | 6,803 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,721 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 54,877** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 54,877** |

AFH

# PROJECT 52



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| QUANTITIES LIST | | |
|---|---|---|
| # | | QTY. |
| 1 | INSTALL 6" DIP w/POLYWRAP | 400 LF |
| 2 | REPLACE SHORT SERVICE | 4 EA. |
| 3 | REPLACE LONG SERVICE | 3 EA. |
| | | |
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PRELIMINARY DRAWING
VALVE AND FIRE HYDRANT LOCATION
TO BE DETERMINED IN PROJECT DESIGN

(S) SERVICE LINE REPAIR/REPLACEMENT

(F) FITTING REPAIR/REPLACEMENT

(M) WATER MAIN REPAIR/REPLACEMENT

021-10 LEAK NUMBER

**ARIZONA WATER COMPANY**

**PROJECT DESCRIPTION**
INSTALL 400 LF OF 6" DIP w/POLYWRAP AND REPLACE 7 SERVICE CONNECTIONS ALONG CHURCH STREET FROM CLAWSON AVENUE TO SOWELS AVENUE.

**PROJECT LOCATION**
SW 1/4 SEC. 9-T.23S., R.24E.

| DRAWN BY: | APPROVED BY: | DATE: | REFERENCE MAP: |
|---|---|---|---|
| JS | AH/FS | 7/15/2011 | MAP BE-4 |

# APPENDIX

# 9.5

# Eastern Group Infrastructure

# Replacement Cost Estimate

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | EASTERN GROUP | EASTERN GROUP |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

EASTERN GROUP WATER SYSTEMS 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1 | LOT | $ 31,687,458 | Superstition Division | $ 31,687,458 |
| 1 | LOT | 1,375,395 | Oracle water system | 1,375,395 |
| 1 | LOT | 17,921,980 | Bisbee water system | 17,921,980 |
| | | | | - |
| | | | | - |
| | | | | - |
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| | | | | - |

| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 50,984,833 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 764,773 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 3,568,939 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 55,318,545** |
| (5) OVERHEAD - 15% OF LINE (4) | 8,297,782 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 3,319,113 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 66,935,440** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 66,935,440** |

AFH

# APPENDIX

# 9.5.1

# Eastern Group Infrastructure

# Replacement Cost Estimate

# Superstition Division

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | SUPERSTITION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

SUPERSTITION DIVISION 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,011 | LF | $ 68 | REPLACE 1910-1919 MAINS w/ 6" DIP | $ 68,748 |
| 860 | LF | 68 | REPLACE 1920-1929 MAINS w/ 6" DIP | 58,480 |
| 40,984 | LF | 68 | REPLACE 1930-1939 MAINS w/ 6" DIP | 2,786,912 |
| 5,903 | LF | 98 | REPLACE 1930-1939 MAINS w/ 8" DIP | 578,494 |
| 856 | LF | 128 | REPLACE 1930-1939 MAINS w/ 12" DIP | 109,568 |
| 51,333 | LF | 68 | REPLACE 1940-1949 MAINS w/ 6" DIP | 3,490,644 |
| 70,509 | LF | 68 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | 4,794,612 |
| 2,350 | EA | 3,000 | REPLACE SERVICES ON MAINS 1910-1949 | 7,050,000 |
| 4,250 | EA | 3,000 | REPLACE PLASTIC SERVICES | 12,750,000 |
| | | | | - |
| | | | | - |
| | | | | - |
| | | | | - |
| (1) **SUBTOTAL - MATERIALS AND LABOR** | | | | 31,687,458 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | | | | 475,312 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | | | | 2,218,122 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | | | | **$ 34,380,892** |
| (5) OVERHEAD - 15% OF LINE (4) | | | | 5,157,134 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | | | | 2,062,854 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | | | | **$ 41,600,880** |
| **ESTIMATED COST OF CONSTRUCTION** | | | | **$ 41,600,880** |

AFH

# APPENDIX

# 9.5.2

# Eastern Group Infrastructure

# Replacement Cost Estimate

# Oracle water system

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

| DATE PREPARED: |
|---|
| 7/1/2011 |

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

ORACLE WATER SYSTEM 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 10,689 | LF | $ 55 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | $ 587,895 |
| 450 | EA | 1,750 | REPLACE PLASTIC SERVICES | 787,500 |
| | | | | - |
| | | | | |
| | | | | - |
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| | | | | - |
| | | | | - |

| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 1,375,395 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 20,631 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 96,278 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 1,492,304** |
| (5) OVERHEAD - 15% OF LINE (4) | 223,846 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 89,538 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 1,805,688** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 1,805,688** |

AFH

# APPENDIX

# 9.5.3

# Eastern Group Infrastructure

# Replacement Cost Estimate

# Bisbee water system

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | BISBEE | COCHISE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

BISBEE WATER SYSTEM 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 40,379 | LF | $ 70 | REPLACE 1900-1909 MAINS w/ 6" DIP | $ 2,826,530 |
| 3,153 | LF | 100 | REPLACE 1900-1909 MAINS w/ 8" DIP | 315,300 |
| 20,139 | LF | 130 | REPLACE 1900-1909 MAINS w/ 12" DIP | 2,618,070 |
| 21,701 | LF | 70 | REPLACE 1910-1919 MAINS w/ 6" DIP | 1,519,070 |
| 14,077 | LF | 70 | REPLACE 1920-1929 MAINS w/ 6" DIP | 985,390 |
| 6,731 | LF | 70 | REPLACE 1930-1939 MAINS w/ 6" DIP | 471,170 |
| 23,684 | LF | 70 | REPLACE 1940-1949 MAINS w/ 6" DIP | 1,657,880 |
| 58,551 | LF | 70 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | 4,098,570 |
| 1,500 | EA | 2,000 | REPLACE SERVICES ON MAINS 1900-1949 | 3,000,000 |
| 215 | EA | 2,000 | REPLACE PLASTIC SERVICES | 430,000 |
| | | | | - |
| | | | | - |
| | | | | - |
| (1) **SUBTOTAL - MATERIALS AND LABOR** | | | | 17,921,980 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | | | | 268,830 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | | | | 1,254,539 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | | | | **$ 19,445,349** |
| (5) OVERHEAD - 15% OF LINE (4) | | | | 2,916,802 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | | | | 1,166,721 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | | | | **$ 23,528,872** |
| **ESTIMATED COST OF CONSTRUCTION** | | | | **$ 23,528,872** |

AFH

# FKS-14

# ARIZONA WATER COMPANY

## PRELIMINARY COST ESTIMATE

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | BISBEE | COCHISE |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

BISBEE WATER SYSTEM 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 40,379 | LF | $ 70 | REPLACE 1900-1909 MAINS w/ 6" DIP | $ 2,826,530 |
| 3,153 | LF | 100 | REPLACE 1900-1909 MAINS w/ 8" DIP | 315,300 |
| 20,139 | LF | 130 | REPLACE 1900-1909 MAINS w/ 12" DIP | 2,618,070 |
| 21,701 | LF | 70 | REPLACE 1910-1919 MAINS w/ 6" DIP | 1,519,070 |
| 14,077 | LF | 70 | REPLACE 1920-1929 MAINS w/ 6" DIP | 985,390 |
| 6,731 | LF | 70 | REPLACE 1930-1939 MAINS w/ 6" DIP | 471,170 |
| 23,684 | LF | 70 | REPLACE 1940-1949 MAINS w/ 6" DIP | 1,657,880 |
| 58,551 | LF | 70 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | 4,098,570 |
| 1,500 | EA | 2,000 | REPLACE SERVICES ON MAINS 1900-1949 | 3,000,000 |
| 215 | EA | 2,000 | REPLACE PLASTIC SERVICES | 430,000 |
| | | | | - |
| | | | | - |
| | | | | - |

| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 17,921,980 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 268,830 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 1,254,539 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 19,445,349** |
| (5) OVERHEAD - 15% OF LINE (4) | 2,916,802 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 1,166,721 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 23,528,872** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 23,528,872** |

AFH

# FKS-15

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | ORACLE | SAN MANUEL |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

ORACLE WATER SYSTEM 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 10,689 | LF | $ 55 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | $ 587,895 |
| 450 | EA | 1,750 | REPLACE PLASTIC SERVICES | 787,500 |
| | | | | - |
| | | | | |
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| | |
|---|---|
| (1) **SUBTOTAL - MATERIALS AND LABOR** | 1,375,395 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 20,631 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 96,278 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 1,492,304** |
| (5) OVERHEAD - 15% OF LINE (4) | 223,846 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 89,538 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 1,805,688** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 1,805,688** |

AFH

# FKS-16

**ARIZONA WATER COMPANY**

**PRELIMINARY COST ESTIMATE**

DATE PREPARED: 7/1/2011

| PREPARED BY: | APPROVED BY: | SYSTEM: | DIVISION: |
|---|---|---|---|
| MRL | FKS | SUPERSTITION | SUPERSTITION |

| PROJECT LOCATION: | PROJECT NUMBER: | REFERENCE MAP: |
|---|---|---|
| | | |

PROJECT DESCRIPTION:

SUPERSTITION DIVISION 10-YEAR INFRASTRUCTURE REPLACEMENT PLAN

MATERIALS AND LABOR

| QUANTITY | UNIT | $/UNIT | DESCRIPTION | ESTIMATED ITEM COST |
|---|---|---|---|---|
| 1,011 | LF | $ 68 | REPLACE 1910-1919 MAINS w/ 6" DIP | $ 68,748 |
| 860 | LF | 68 | REPLACE 1920-1929 MAINS w/ 6" DIP | 58,480 |
| 40,984 | LF | 68 | REPLACE 1930-1939 MAINS w/ 6" DIP | 2,786,912 |
| 5,903 | LF | 98 | REPLACE 1930-1939 MAINS w/ 8" DIP | 578,494 |
| 856 | LF | 128 | REPLACE 1930-1939 MAINS w/ 12" DIP | 109,568 |
| 51,333 | LF | 68 | REPLACE 1940-1949 MAINS w/ 6" DIP | 3,490,644 |
| 70,509 | LF | 68 | REPLACE PROBLEMATIC MAINS 1950&NEWER W/ 6" DIP | 4,794,612 |
| 2,350 | EA | 3,000 | REPLACE SERVICES ON MAINS 1910-1949 | 7,050,000 |
| 4,250 | EA | 3,000 | REPLACE PLASTIC SERVICES | 12,750,000 |
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| (1) **SUBTOTAL - MATERIALS AND LABOR** | 31,687,458 |
| (2) PERFORMANCE BOND @ 1.5% OF LINE (1) | 475,312 |
| (3) SURVEY, R.O.W. PERMITTING, TESTING AND FIELD INSPECTION | 2,218,122 |
| **(4) SUBTOTAL - LINES (1), (2) AND (3)** | **$ 34,380,892** |
| (5) OVERHEAD - 15% OF LINE (4) | 5,157,134 |
| (6) PREPARATION OF DETAILED PLANS, SPECIFICATIONS & BIDDING DOCUMENTS | 2,062,854 |
| **SUBTOTAL - LINES (4), (5) AND (6)** | **$ 41,600,880** |
| **ESTIMATED COST OF CONSTRUCTION** | **$ 41,600,880** |

AFH