



0000070763

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
JIM IRVIN
Commissioner
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner

IN THE MATTER OF THE APPLICATION OF)
ARIZONA WATER COMPANY, AN ARIZONA)
CORPORATION, FOR ADJUSTMENTS TO ITS)
RATES AND CHARGES FOR UTILITY)
SERVICE FURNISHED BY ITS EASTERN)
GROUP AND FOR CERTAIN RELATED)
APPROVALS)

DOCKET NO. W-01445A-02-0619

DIRECT
TESTIMONY
OF
LYNDON R. HAMMON
UTILITIES ENGINEER
UTILITIES DIVISION

JULY 8, 2003

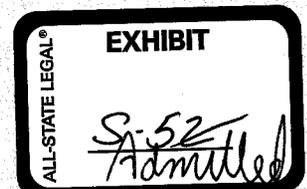


TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
DESCRIPTION OF THE WATER SYSTEMS	2
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE	3
DEPARTMENT OF WATER RESOURCES COMPLIANCE	3
WATER USE.....	4
GROWTH.....	6
DEPRECIATION RATES.....	6
POST TEST YEAR IMPROVEMENTS.....	7
<i>PRO FORMA</i> EXPENSES – WATER TESTING.....	8
<i>PRO FORMA</i> EXPENSES – TANK MAINTENANCE.....	10
<i>PRO FORMA</i> EXPENSES – CHLORINATION LABOR AND WAGES.....	11
RATE CONSOLIDATION	11
ARSENIC	12
CURTAILMENT TARIFF	13
TARIFF FOR NON-POTABLE CENTRAL ARIZONA PROJECT WATER	14
PINAL CREEK GROUP	17
PRO FORMA EXPENSES – MIAMI POWER ADJUSTMENT.....	17

FIGURES AND EXHIBITS

LOCATION OF EASTERN DIVISION WATER COMPANIES	EXHIBIT A
SUMMARY OF MAJOR EQUIPMENT	EXHIBIT B
PROCESS SCHEMATICS.....	EXHIBIT C
WATER USE.....	EXHIBIT D
DEPRECIATION RATES.....	EXHIBIT E
POST TEST YEAR PLANT IN SERVICE	EXHIBIT F
CURTAILMENT TARIFF	EXHIBIT G
NON POTABLE CAP WATER TARIFF	EXHIBIT H
BILLING EXAMPLE UNDER NP-260 TARIFF.....	EXHIBIT I
STAFF'S PROPOSED NP-260 TARIFF	EXHIBIT J

<i>Redacted Exhibits</i>	
<i>PINAL CREEK GROUP SETTLEMENT AGREEMENT.....</i>	<i>EXHIBIT K</i>

**EXECUTIVE SUMMARY
ARIZONA WATER COMPANY
DOCKET NO. W-01445A-02-0619**

- (1) The Arizona Department of Environmental Quality ("DEQ") reported that all eight water systems are in **total** compliance with its rules and regulations. DEQ determined that all eight systems are currently delivering water that meets State and Federal drinking water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4.
- (2) For Bisbee, Oracle, San Manuel, and Superior, Staff recommends that the Company perform a water audit and system analysis to determine if loss reductions to less than 10 percent are feasible or cost effective. If the reduction of water losses to less than 10 percent is feasible and cost effective, the Company shall submit to the Utilities Division Director, a plan which outlines the procedures, steps, and schedules to achieve acceptable water losses. If the reduction of water losses to less than 10 percent is not cost-effective, the Company shall submit a report, containing a detailed cost analysis and explanation demonstrating why a water loss reduction to less than 10 percent or, as an alternative, incremental reduction, is prohibitive. Such water loss plans or reports shall be submitted to the Director of Utilities within one year of a Decision in this rate case.
- (3) Staff recommends the adoption of the depreciation rates contained in Exhibit E of this direct testimony. These new component rates, by NARUC account, will be applicable to all 18 water systems of the Arizona Water Company.
- (4) *Pro Forma* Expenses:
 - (a) Routine water testing expenses were estimated on an annual basis and the adjustments are delineated on page 10 of this direct testimony. Staff recommends that the MA-262 tariff, "Monitoring Assistance Program Surcharge", be revised to conform with the new ADEQ MAP fee structure. Staff also recommends that the revised MA-262 tariff be filed with the Director of the Utilities Division for review and certification, and the filing of that revised tariff shall be made within 60 days of a decision in this matter, but no later than the Company's annual surcharge calculation for each water system participating in MAP.
 - (b) Staff accepts the Company's *pro forma* expense for tank maintenance (adjustment # 15).
 - (c) Staff recommends that actual 2002 labor and material expenses be used instead of the Company's *pro forma* expense adjustment #11 for chlorination.
 - (d) Staff recommends that the purchased power expense for Miami, be adjusted downward (decreased) by \$39,000.
- (5) Staff recommends that the Company file a curtailment tariff for each of the eight water systems within the Eastern Division, within 120 days after the effective date of any decision and order pursuant to this application. The tariff shall be submitted to the Director of Utilities Division for his review and certification. Staff also recommends that the tariff shall generally conform to the sample tariff found in Exhibit G of this direct testimony.

(recommendations continued on next page)

(6) Staff recommends that the existing Non-Potable Central Arizona Project Water tariff (herein "NP-260") be replaced with a new NP-260 tariff. Staff's proposed tariff is presented in Exhibit J.

- The new NP-260 tariff shall eliminate the fixed meter charge.
- The new NP-260 tariff shall eliminate the depreciation charge.
- The new NP-260 tariff shall contain a provision which indemnifies the customer from maintenance, repair, or replacement charges, when the damage or injuries to the CAP facilities are a result of the failure of the Company to operate the facilities or install protective devices in accordance with customary or sound construction and engineering practices.
- The customer shall continue to be responsible for repair or replacement of the meter.
- The new NP-260 tariff shall contain administrative charges, which are representative of the Company's actual costs, but the charges shall be fixed and defined as actual dollar amounts. Actual administrative costs notwithstanding, the total administrative charges in the new tariff, shall not be more than 50 dollars per month per CAP non-potable meter.

1 **INTRODUCTION**

2 **Q. Please state your name and place of employment.**

3 A. My name is Lyndon R. Hammon. My place of employment is the Arizona Corporation
4 Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix,
5 Arizona 85007.

6
7 **Q. Please list your duties and responsibilities and provide your title.**

8 A. I am employed as a Utilities Engineer, specializing in water and wastewater engineering.
9 My responsibilities include: the inspection, investigation, and evaluation of water and
10 wastewater systems; obtaining data and preparing original cost studies and investigative
11 reports; providing technical recommendations and suggesting corrective action for water
12 and wastewater systems; and providing written and oral testimony on rate applications and
13 other cases before the Commission.

14
15 **Q. Briefly describe your pertinent educational background and work experience.**

16 A. I have a Bachelor of Science Degree in Chemical Engineering from the University of
17 Missouri at Rolla. After graduation, I was employed by the Skelly Oil Company as a
18 process and environmental engineer. In 1973, I joined the Arizona Department of Health
19 Services, which later became the Arizona Department of Environmental Quality ("DEQ").
20 My responsibilities with DEQ included approval and inspection for the construction of
21 water and wastewater facilities, and the issuance of discharge permits. I remained with
22 DEQ until transferring to the Commission in January 1993.

23
24 **Q. Do you maintain any professional registrations or memberships?**

25 A. I am a licensed professional engineer in the State of Arizona. I am also a member of the
26 Arizona Water and Pollution Control Federation.

1 **Q. Were you assigned to provide an engineering analysis and recommendation for the**
2 **Arizona Water Company, Eastern Division (herein "Arizona Water" or**
3 **"Company")?**

4 **A.** Yes. I reviewed the Company's application and responses to data requests. I visited the
5 water systems during January 20 through 27, 2003. My testimony will present the
6 findings of my engineering evaluation.

7

8 **DESCRIPTION OF THE WATER SYSTEMS**

9 **Q. Please describe the water systems.**

10 **A.** The Eastern Group consists of eight independent water systems. They are named as, and
11 located in the towns of: Apache Junction, Bisbee, Miami, Oracle, San Manuel, Sierra
12 Vista, Superior, and Winkelman. Exhibit A depicts the location of the eight water systems
13 within Arizona.

14

15 The water systems are typically designed for well and gravity feed operation, with storage
16 "floating" on a single pressure zone or on each of multiple pressure zones. ("Floating"
17 means that the storage tank is elevated and directly pressurizes the water distribution
18 zone.) This configuration is very reliable and simple to operate. There are also some very
19 small booster pump and pressure tank systems where the homes are too close to the
20 storage tanks or where the topography dictates this design for a small number of homes.
21 Well and storage summaries are presented in Exhibit B. Simple process schematics are
22 presented in Exhibit C. All water systems have adequate production and storage capacity
23 to meet their respective needs. Statistical information for the eight water systems is
24 tabulated below:

	<u>System</u>	<u>Customers</u>	<u>Certificated Area (square miles)</u>
1			
2	Apache Junction	16,680	93
3	Bisbee	3,408	41
4	Miami	3,039	31
5	Oracle	1,406	23
6	San Manuel	1,577	6
7	Sierra Vista	2,308	5
8	Superior	1,306	35
9	Winkelman	192	3

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE

Q. Please discuss Arizona Water Company's compliance with the Arizona Department of Environmental Quality ("DEQ") rules.

A. DEQ reported that all eight water systems are in total compliance with its rules and regulations. DEQ determined that all eight systems are currently delivering water that meets State and Federal drinking water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4.

DEPARTMENT OF WATER RESOURCES COMPLIANCE

Q. Please discuss Department of Water Resources ("DWR") Compliance.

A. Bisbee, Miami, San Manuel, Sierra Vista, and Winkelman are not located in active management areas ("AMA") and are not subject to conservation and reporting requirements. Apache Junction and Superior are located within the Phoenix AMA, and Oracle is located within the Tucson AMA. At this time, Apache Junction, Superior, and Oracle are only required to monitor and report their water usage, and DWR reported that they are in compliance with those reporting requirements.

1 **WATER USE**

2 **Q. Please discuss water use.**

3 A. Based on information provided by the Company, water use for 2001 is presented in
4 Exhibit D, for all eight water systems. The annual average, the average during the peak
5 month, and the average during the minimum month are denoted as gallons per day per
6 service.

7
8 **Q. Please discuss non-account water.**

9 A. Based on information provided by the Company, non-account water is tabulated below
10 (for the period August 2001 through July 2002):

11	<u>System</u>	<u>% non-account</u>
12	Apache Junction	9.9 %
13	Bisbee	20.5 %
14	Miami	9.3 %
15	Oracle	13.3 %
16	San Manuel	10.8 %
17	Sierra Vista	7.6 %
18	Superior	26.5 %
19	Winkelman	0.1 %

20

21 The cost to obtain, treat, and pressurize is embedded in lost water. When water escapes
22 before it reaches the consumer, the utility loses revenue and incurs unnecessary expense.
23 Non-account water should be 10 percent or less and never more than 15 percent. Only
24 Apache Junction, Miami, Sierra Vista, and Winkelman are within acceptable limits.

25

26 **Q. Can it be inferred from your testimony that the water systems are poorly operated?**

27 A. Not necessarily. All eight water systems appear to be well maintained and operated. It
28 should be remembered that in some cases, the water lines pre-date Arizona statehood, and
29 given the age of the distribution system, some of these findings are not unexpected. Also,

1 some loses may be occurring in transmission lines not owned and maintained by Arizona
2 Water Company.

3
4 **Q. What are your recommendations for those water systems with high water losses?**

5 A. For Bisbee, Oracle, San Manuel, and Superior, Staff recommends that the Company
6 perform a water audit and system analysis to determine if loss reductions to less than 10
7 percent are feasible or cost effective. The analysis might consider the following:

- 8 ■ A water audit which identifies, measures, and verifies sources, users and losses. For
9 example, the estimation of flushing or construction amounts may bring some system
10 losses within an acceptable range. (Such losses are really not lost water, but “non-
11 metered, non-revenue” water.) Significant losses might also be found in long
12 transmission lines, where it is not cost effective to reduce losses, or where the lines are
13 not under the ownership or control of the Company.
- 14 ■ The cost to implement or improve a meter testing and replacement program.
- 15 ■ The cost (including personnel and equipment) to identify leaks, and the cost to repair
16 or replace mains after the leaks are found.
- 17 ■ The benefits and savings from incremental reductions in water losses.
- 18 ■ Any unique circumstances such as disruptions to service, historical preservation
19 constraints, and age of distribution lines.

20 If the reduction of water losses to less than 10 percent is feasible and cost effective, the
21 Company shall submit to the Director of the Utilities Division, a plan which outlines the
22 procedures, steps, and time frames to achieve acceptable water losses. If the reduction of
23 water losses to less than 10 percent is not cost-effective, the Company shall prepare a
24 report, containing a detailed cost analysis and explanation demonstrating why a water loss
25 reduction to less than 10 percent or, as an alternative, incremental reduction, is prohibitive.
26 Such water loss plans or reports shall be submitted to the Director of the Utilities Division

1 within one year of a Decision in this rate case. If the Director finds the report
2 unsatisfactory, the Director may institute a formal proceeding before the Commission to
3 require modifications to the plan(s).

4
5 **GROWTH**

6 **Q. Please discuss growth.**

7 A. Based on the past six years, this Company has experienced the following average annual
8 growth rates. It is reasonable to assume that growth will continue at these rates.

9
10

<u>System</u>	<u>Services</u>				<u>Annual Growth</u>
	<u>1996</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	
11 Apache Jct.	8,854	11,539	14,910	16,198	+ 10.59 %
12 Bisbee	3,386	3,379	3,405	3,388	00.00 %
13 Miami	3,052	3,061	3,030	3,031	- 00.12 %
14 Oracle	1,310	1,350	1,370	1,403	+ 01.15 %
15 San Manuel	1,762	1,713	1,561	1,544	- 02.22 %
16 Sierra Vista	2,139	2,161	2,272	2,295	+ 01.18 %
17 Superior	1,341	1,319	1,302	1,278	- 00.80 %
18 Winkelman	190	195	182	192	+ 00.17 %

19
20

21 **DEPRECIATION RATES**

22 **Q. Please discuss depreciation rates for plant in service.**

23 A. In the previous rate case for the Northern Group, Arizona Water Company was required to
24 include in its next rate application, a schedule of depreciation rates by NARUC account.
25 (NARUC is an acronym for National Association of Regulatory Utility Commissioners.)
26 These new component rates would be applicable to all 18 water systems. The schedule
27 contained in Mr. Ralph Kennedy's direct testimony on page 16, has been refined and
28 updated. The final depreciation rates have been received by Staff and are contained in
29 Exhibit E of my direct testimony. These rates were developed from Arizona Water
30 Company's internal equipment records, audits, or field experience, and represent actual
31 present service lives. These depreciation rates are reasonable and closely approximate the

1 customary rates used by Staff. Staff recommends the adoption of the depreciation
2 schedule developed by the Company and presented in my Exhibit E.

3
4 **POST TEST YEAR IMPROVEMENTS**

5 **Q. Has Arizona Water Company made post test year improvements?**

6 A. Yes. Arizona Water Company is requesting the inclusion of certain capital improvements
7 through December 31, 2002. The test year ended December 31, 2001.

8
9 **Q. What are the post test year improvements?**

10 A. The post test year improvements are delineated in Exhibit F of this direct testimony. Post
11 test year improvements were inspected between January 20 and January 27, 2003 and
12 represent calendar year 2002 additions.

13
14 **Q. How should post test year improvements be treated in this rate proceeding?**

15 A. The post test year improvements in Exhibit F were in service at the time of my visit and
16 appear to be used and useful. However, this "used and useful" determination does not
17 imply a specific treatment for rate base or rate making purposes. The direct testimony of
18 Mr. Ludders will discuss the post test year rate base and rate making treatment in this
19 case.

20
21 **Q. Blanket accounts are excluded in Exhibit F. What are blanket accounts?**

22 A. Blanket accounts are not ledger items for thermal beddings and linen. Instead, a blanket
23 account represents a budget allowance for unforeseen or small capital expenditures
24 (generally individual expenditures of less than \$5,000). They are annually estimated,
25 based upon the historical experience of each individual water system. Several anticipated
26 improvements cost less than estimated and were subsequently "rolled" into the blanket

1 accounts. Due to the Company's accounting and time constraints, data for the blanket
2 additions were received by Staff later in the discovery process. However, it is Staff's
3 intent to include revenue neutral blanket additions if project descriptions, work
4 authorizations, and capital costs can be correlated and audited. This is discussed at further
5 length in Mr. Ludders' direct testimony.

6
7 **PRO FORMA EXPENSES – WATER TESTING**

8 **Q. Please describe the DEQ Monitoring Assistance Program (herein "MAP").**

9 A. On December 8, 1998, DEQ adopted rules which provide for a monitoring assistance
10 program. The MAP program was fully implemented in 1999. On October 16, 2001 rule
11 amendments were promulgated, which changed the fee structure and some sampling
12 protocol. Starting January 1, 2002, water companies began paying a fixed \$250 per year
13 fee, plus an additional fee of \$2.57 per service connection, regardless of meter size.
14 Participation in MAP is mandatory for all the water systems in the Eastern Group, except
15 Apache Junction.

16
17 **Q. How did Staff calculate water testing costs?**

18 A. Water testing costs were calculated based on the following assumptions:

- 19
- 20 ■ MAP will do baseline testing on all parameters except copper, lead, nitrates, and
coliform bacteria.
 - 21 ■ ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs
22 are estimated for a 3 year compliance period and then presented as a *pro forma*
23 expense on an annualized basis.
 - 24 ■ MAP fees were calculated from the DEQ MAP rules.
 - 25 ■ All monitoring expenses are based on Staff's best knowledge of lab costs and
26 methodology.

- 1 ▪ The estimated water testing expenses represent a minimum cost based on no "hits". If
2 any constituents were found, then the testing costs would dramatically increase.

3
4 **Q. What is Staff's recommendation for the treatment of the expense from DEQ's**
5 **Monitoring Assistance Program?**

6 A. MAP fees are recovered by the Company pursuant to Tariff MA-262, entitled "Monitoring
7 Assistance Program Surcharge". In October of each year, an annual filing is made with
8 the Commission to establish the surcharge amount. It is my understanding of the
9 Company's direct testimony, that Arizona Water Company wishes to retain this MAP
10 adjuster mechanism or surcharge (See the direct testimony of Ms. Sheryl L. Hubbard,
11 "Adjustment 4", page 23 and "Adjustment 12", page 29.). Therefore, MAP fees are
12 excluded in Staff's estimation of testing expenses. With a single qualification, Staff has
13 no objection to the preservation of a MAP surcharge mechanism.

14
15 **Q. What is Staff's qualification to the MA-262 tariff, (MAP surcharge)?**

16 A. The MA-262 tariff provides for the recovery of fees based on a meter multiplier. Since
17 the MAP fees are no longer based upon meter size, the tariff should be revised to reflect
18 the new DEQ fee schedule (a fixed \$250 per year fee, plus an additional fee of \$2.57 per
19 service connection, regardless of meter size). Staff recommends that the MA-262 tariff,
20 "Monitoring Assistance Program Surcharge", be revised to conform with the new DEQ
21 MAP fee structure. Staff also recommends that the revised MA-262 tariff be filed with
22 the Director of the Utilities Division for review and certification, and the filing of that
23 revised tariff shall be made within 60 days of a decision in this matter, but no later than
24 the Company's annual surcharge calculation for each water system participating in MAP.

1 **Q. What is Staff's recommended accounting adjustment to the *pro forma* annual testing**
2 **expense?**

3 A. Following is a summary which includes Staff's estimate of the *pro forma* annual water
4 testing expense:

5
6 Summary Of Water Testing Costs

7
8

9 System	2001 10 Test Year 11 Expense	Staff 12 Estimated 13 <i>Pro Forma</i> 14 Expense	Staff 15 Adjustment	Company 16 Estimated 17 <i>Pro Forma</i> 18 Expense	Company 19 Adjustment
20 Apache Junction	34,120	36,869	2,749	28,693	(5,427)
21 Bisbee	3,540	3,257	(283)	3,610	70
22 Miami	3,068	4,548	1,480	13,894	10,826
Oracle	1,954	1,780	(174)	2,942	988
San Manuel	2,100	1,345	(755)	2,374	274
Sierra Vista	2,564	2,710	146	7,102	4,538
Superior	1,748	1,618	(130)	2,125	377
Winkelman	1,160	1,222	62	1,600	440
23 Total	50,254	53,349	3,095	62,340	12,086

24

25 Staff's difference from the Company's *pro forma* expense is mainly due to DEQ rule changes for
26 the inclusion of radio-chemicals in the MAP program.

27 ***PRO FORMA* EXPENSES – TANK MAINTENANCE**

28 **Q. Please discuss the Company's proposed expense adjustment # 15, Tank Maintenance.**

29 A. The Company has implemented a scheduled maintenance program for all storage and
30 pressure tanks. The interior of the tanks are abrasively cleaned to a near white and then
31 repainted. The exterior is either power washed or abrasively cleaned and then repainted.
32 The Company expects a 14 year life for the interiors and a 7 year life for the exteriors.

33 **Q. What methodology did you use to review the adjustment?**

34 A. Based on the interior and exterior areas of the entire tank inventory, an estimate of the cost
35 was made using "Richardson Process Plant Construction Estimating Standards". The

1 estimate was then annualized and compared with the Company's adjustment, after
2 subtracting the 2001 expenses.

3
4 **Q. What are your conclusions concerning the tank maintenance adjustment?**

5 A. Staff's computed adjustment was comparable to the Company's and therefore, Staff
6 accepts the Company's adjustment. As a side note, the maintenance account contains a
7 component for "other" maintenance, which includes cleaning and painting of piping,
8 control panels, and other miscellaneous equipment, maintenance of small structures, and
9 grounds keeping. This category represents actual 2001 expenses, and the Company is
10 proposing no adjustment to the "other" category, except for inflation. Staff's analysis of
11 the tank maintenance is separate and does not relate to this "other" component.

12
13 **PRO FORMA EXPENSES – CHLORINATION LABOR AND WAGES**

14 **Q. Please discuss Arizona Water Company's proposed *pro forma* expense adjustment #**
15 **11 for chlorination costs.**

16 A. The Company is proposing a *pro forma* chlorination expense adjustment for 2002. This
17 adjustment contains a component for materials and a component for labor. Because of the
18 uncertainties of this estimation, Staff believes that this adjustment does not meet the
19 "known and measurable" test. Instead, Staff recommends that the actual 2002 expenses be
20 used instead of relying on an estimate and extrapolation. Most well sites were chlorinated
21 in 2001, and by the end of 2002, virtually all well sites had chlorinators installed.

22
23 **RATE CONSOLIDATION**

24 **Q. Has the Company requested rate consolidation?**

25 A. Arizona Water Company has requested rate consolidation between the Superior and
26 Apache Junction water systems. At this time there is no interconnection between Superior

1 and Apache Junction, and there are CC&N voids between Apache Junction and the well
2 field at Florence Junction. Additionally, the Apache Junction and Superior water systems
3 must exhibit significant differences in revenue requirements due to the age of the
4 respective infrastructures, maintenance costs, power costs, and growth rates. A stronger
5 case for rate consolidation would have been achieved if the systems were interconnected
6 and if a detailed cost of service study was presented which addressed the inequalities.
7 Lacking these circumstances and information, consolidation may be premature. Final
8 recommendations and rate designs for Apache Junction and Superior will be presented in
9 the direct testimony of Mr. Ludders.

10
11 **ARSENIC**

12 **Q. Has the drinking water standard for arsenic changed?**

13 A. The U.S. Environmental Protection Agency ("EPA") reduced the arsenic maximum
14 contaminant level ("MCL") in drinking water from 50 micrograms per liter ($\mu\text{g}/\text{l}$) to 10
15 ($\mu\text{g}/\text{l}$). The date for compliance with the new MCL is January 23rd, 2006. Arsenic
16 concentrations are tabulated in Exhibit B.

17
18 **Q. Will the Eastern Group be facing arsenic problems?**

19 A. Based upon analytical data, it appears that Arizona Water Company will have to construct
20 arsenic removal equipment at Apache Junction, San Manuel, and Superior. The Company
21 anticipates using either adsorption or ion exchange as the treatment process for these
22 systems. At Miami, the few high arsenic wells are low producers, and the Company will
23 meet the standard by either leaving the wells out of service or by blending. Arsenic
24 concentrations are listed for each well in Exhibit B.

1 **Q. What is Staff recommending for the arsenic treatment costs in this rate case?**

2 A. No post test year plant or test year capital additions for arsenic are included in this rate
3 application, and there are no arsenic removal plants constructed and operating in the
4 Eastern Group. However, there is an open docket (Docket No. W-01445A-00-0962)
5 which will recommend and approve the cost recovery method for capital and operating
6 expenses for the Northern Group. Staff's recommendation will likely be based upon the
7 result of the final order regarding arsenic in Docket No. W-01445A-00-0962.

8
9 **CURTAILMENT TARIFF**

10 **Q. Should Arizona Water Company implement a curtailment tariff?**

11 A. A curtailment tariff is an effective tool to allow a water company to manage its resources
12 during periods of shortages due to pump breakdowns, droughts, or other unforeseeable
13 events. Arizona Water Company does not have any curtailment tariffs for the water
14 systems within its Eastern Group. This rate application provides an opportune time to
15 prepare and file tariffs for the remaining systems. Staff recommends that the Company
16 file a curtailment tariff within 120 days after the effective date of any decision and order
17 pursuant to this application. The Company shall file separate tariffs for each DEQ
18 designated public water system. The tariff(s) shall be submitted to the Director of the
19 Utilities Division for review and certification.

20
21 Staff also recommends that the tariff(s) shall generally conform to the sample tariff found
22 in Exhibit G, of this direct testimony. Exhibit G is offered as a template and Staff
23 recognizes that the Company may need to modify Exhibit G according to their specific
24 management, operational, and design requirements. For example, it may not be
25 practicable to deliver notices to over 6,000 customers in the main system. Instead, the

1 company may want to consider substituting notice by the local radio and the newspaper of
2 general circulation for stage 4 conditions.
3

4 **TARIFF FOR NON-POTABLE CENTRAL ARIZONA PROJECT WATER**

5 **Q. What is the tariff for "Non-Potable Central Arizona Project Water" (herein "NP-**
6 **260").**

7 A. The NP-260 tariff provides the terms and conditions for non-potable Central Arizona
8 Project ("CAP") water service. It was originally approved in March 1994 under Decision
9 No. 61579. Under this tariff, the customer accepts untreated CAP water for subsequent
10 non-potable use, generally landscape or golf course irrigation. Decision No. 65755
11 ordered the Utilities Division to "...review the NP-260 Tariff of Arizona Water Company
12 during the pending general rate application for its Apache Junction system and
13 recommend changes or revisions as required.". Pursuant to that Decision, Staff has
14 reviewed the NP-260 tariff. (A copy of the present tariff is attached as Exhibit H.)
15

16 **Q. What are Staff's concerns about the NP-260 tariff as it now stands?**

17 A. Staff has many concerns:
18 ▪ First of all, the Company is collecting a depreciation expense from the customer for
19 the facilities which the customer has contributed. This is equivalent to Staff
20 purchasing a car for an individual, and then that person demanding car payments in
21 addition to the gift. Even worse, under this tariff, Staff are never even able to pay off
22 the car (for the second time), because the payments go on forever. That is why, in this
23 jurisdiction, a depreciation expense for contributed assets has been treated in such a
24 manner to have a zero net effect on the revenue requirement. Exhibit I is attached
25 which shows a copy of a typical bill, itemizing a depreciation charge to the customer.

- 1 ▪ Second, the Company is collecting a fixed monthly meter charge of \$362.53. In rate
2 design theory, the fixed monthly charge is supposed to reflect, at least partially, the
3 fixed investment necessary to meet the potential demand of a customer. Such fixed
4 investments would include wells, distribution mains, and storage tanks. These fixed
5 costs occur whether the customer takes zero or 10,000 gallons of water. (Since the
6 potential demand is higher for larger meters, the fixed charge is proportionate to meter
7 size.) There is simply no evidence that this \$362.53, which was derived for the
8 Apache Junction drinking water system and not the CAP system, is relevant to the
9 fixed costs of the CAP delivery system. Moreover, the CAP fixed costs are already
10 recovered in the Central Arizona Water Conservation District (herein "CAWCD")
11 Capital Charges, which are passed on directly to the customer with a percentage
12 administrative fee collected by Arizona Water Company. In other words, the fixed
13 charges are embedded in the CAP Demand Charge and already collected. Similarly,
14 costs which are directly proportional to the volume of water used, are recovered in the
15 commodity charge and this commodity charge is represented by the CAWCD
16 Commodity Rate, which is passed through with a percentage administrative fee
17 collected by Arizona Water Company.
- 18 ▪ Third, Arizona Water Company collects administrative costs, which are directly
19 proportional to the volume of water used, with no upper limits. Staff does not believe
20 that the administrative costs are linear with the volume of use. The cost to read a
21 meter and bill is the same, whether the customer uses 100 gallons or 10,000 gallons.
22 The typical bill in Exhibit I contains approximately \$95 in such administrative costs.
- 23 ▪ Fourth, the customers' rights are ill defined and unprotected during unusual
24 maintenance episodes. This was illustrated by the complaint filed by SLV properties
25 against Arizona Water Company (Docket No W-01445A-02-0198, Decision No.
26 65755). The tariff does not define either maintenance or replacement, and in the

1 complaint it was found that SLV paid more in the sum of two maintenance charges
2 than the original cost of the meter. Moreover, while Arizona Water Company failed to
3 act reasonably and prudently in the operation of the meter facility by failing to install a
4 surge suppression system to prevent electrical damage, SLV properties had to pay the
5 repair costs even though Arizona Water Company owned and had complete control
6 over the meter. As the situation now exists, Arizona Water has no duty or incentive to
7 protect the CAP equipment when the customer bears the consequences of the
8 Company's inactivity. However, it is not necessary to revisit or retry totally the SLV
9 equity issues in this document, and more background information on this topic can be
10 found in the SLV docket.

11
12 **Q. What is Staff's recommendation concerning the NP-260 tariff?**

13 A. Staff recommends that Arizona Water Company propose and file a new Non-Potable
14 Central Arizona Project Water tariff within 60 days of the date of a final decision in this
15 rate case. The proposed tariff shall generally conform to Exhibit J of this direct testimony.

16 As a summary of the major provisions of the proposed tariff in Exhibit J:

- 17 ■ The new NP-260 tariff will eliminate the fixed meter charge.
- 18 ■ The new NP-260 tariff will eliminate the depreciation charge.
- 19 ■ The new NP-260 tariff will contain a provision which indemnifies the customer from
20 maintenance, repair, or replacement charges, when the damage or injuries to the CAP
21 facilities are a result of the failure of the Company to operate the facilities or install
22 protective devices in accordance with customary or sound construction and
23 engineering practices.
- 24 ■ The customer will continue to be responsible for repair or replacement of the meter.

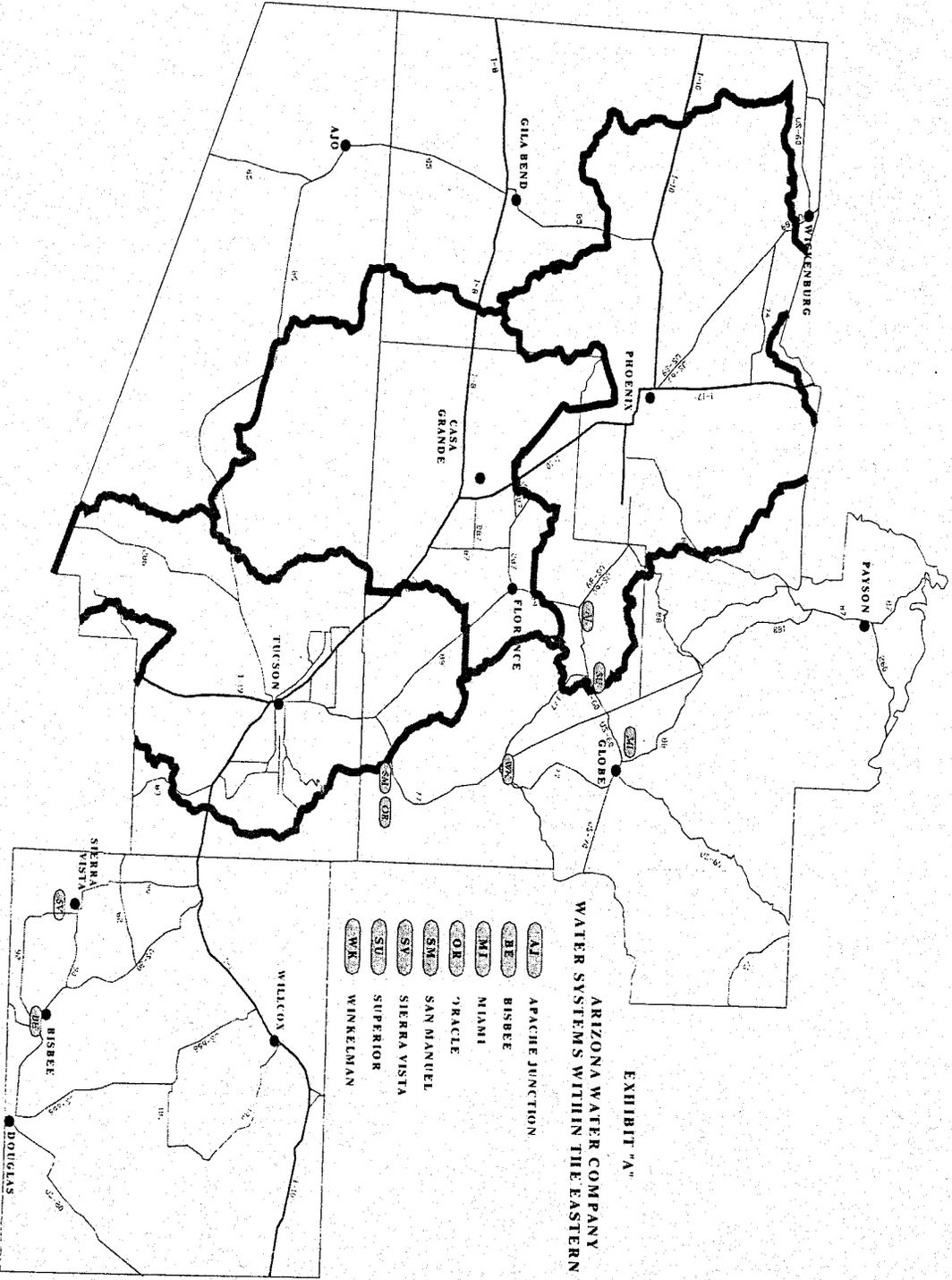


EXHIBIT "A"
ARIZONA WATER COMPANY
WATER SYSTEMS WITHIN THE EASTERN GROUP

- AJ** APACHE JUNCTION
- BE** BISBEE
- MI** MIAMI
- OK** ORACLE
- SN** SAN MANUEL
- SY** SIERRA VISTA
- STU** SUPERIOR
- W.K.** WINKELEMAN

Exhibit A

SUMMARY OF MAJOR PLANT IN SERVICE & FACT SHEET

Apache Junction

- Total system well production = 8,210 gallons per minute
- Purchased capacity from City of Mesa surface water treatment plant is 1,000 gallons per minute. The Company plans to purchase an additional 1,000 gallons per minute of capacity from Mesa's phase III expansion.
- Water is also wheeled from Mesa to the Apache Junction Water District (formerly Consolidated Water Co.).
- Well # 3 at Superior will be shared with Apache Junction when Superior and Apache Junction are interconnected.

Well Number	Arsenic Concentration ($\mu\text{g/l}$)
11	26
12	13
13	12
14	19
15	16
16	33

Mining camp tanks - 1,000,000 and 150,000 gallons
University tanks – 4,000,000, 1,000,000, and 500,000 gallons
Vista del Corazon – 1,000,000 gallons
Gold Canyon tank – 2,000,000 gallons
UDC tank – 500,000 gallons
County line tanks – 1,000,000, and 4,000,000 gallons
Lost dutchman tank – 2,000,000 gallons
Superstition tank – 300,000 gallons
Oasis tank – 550,000 gallons

Bisbee

- Total system well production = 2,405 gallons per minute.
- Without new well #5, Bisbee could not meet demand with the loss of either well 3 or 4.

Well Number	Arsenic Concentration ($\mu\text{g/l}$)	Yield
2	4	115 gal/min
3	5	840 gal/min
4	4	850 gal/min
5	5	600 gal/min

Naco tank – 100,000 gallons
Warehouse tank – 450,000 gallons

Warren tank – 100,000 gallons
Tin town tank – 1,000,000 gallons
Tombstone tank – 600,000 gallons
Spring canyon tank – 100,000 gallons

Miami

- All wells are chlorinated by erosion feed back to well casing.
- System has emergency interconnect with the City of Globe.
- Total system well production = 1,044 gallons per minute.
- Additional 600 gallons per minute is available from Pinal Creek Group
- High arsenic wells are low producers. Arsenic standard can be met by leaving high arsenic wells out of service or by blending.

Well Number	DWR #	Arsenic Concentration (µg/l)
3	55-616619	15
6	55-616621	9
7	55-616622	2
8	55-616623	2
9	55-616624	2
10	55-616625	11
11	55-616626	3
12	55-616627	6
17	55-616631	2
18	55-616632	4
19	55-616633	2
20	55-616634	2
21	55-526519	2
22	55-527760	2
23	55-528263	5
24	55-534905	2
25	55-548894	2
26	55-561712	2

Bandy heights tank – 40,000 gallons
Dalton tank - 15,000 gallons
Section 26 tanks – 1,000,000 and 44,000 gallons
Claypool tank – 100,000 gallons
Cottonwood tank – 200,000 gallons
Miami tank – 500,000 gallons
Pershing tank – 20,000 gallons
Central heights tanks – 500,000, 250,000, and 120,000 gallons

Oracle

- Well field is within Tucson AMA. No GPCD's. Reporting only.
- Oracle is served through 13 mile transmission line from well field.

Well Number	Arsenic Concentration (µg/l)	Yield
2	3	500 gal/min
3	2	430 gal/min
4	4	210 gal/min

Transmission line tanks – three 100,000 gallons
Cherry tank – 136,000 gallons
Town tank – 1,000,000 gallons
Coronado tank – 100,000 gallons

San Manuel

- Company owns no sources. Water is purchased from BHP mine.
- About 12 pressure control valves allow flow down from upper pressure zone.
- Upper zone storage tank is 750,000 gallons
- Lower zone storage tank is 250,000 gallons
- Three 50 horsepower pumps boost water from lower to upper zone.
- About 12 homes are served by mini booster system at top of upper zone.
- Arsenic concentration is 22 (µg/l).

Sierra Vista

- System consists of 4 pressure zones, with Sulger City being the fourth zone.
- Sulger city is normally “stand alone”, but water can be moved from zone 3 to Sulger if needed.
- Total system well production = 2,150 gallons per minute.

Well Number	Arsenic Concentration (µg/l)
fuller	2
stewart	2
graves	2
VM1	2
VM2	2
Sulger W #1	2
Sulger W #3	2
Sulger E #2	2

Fuller tanks – 1,000,000 and 130,000 gallons
Village meadows #1 tank – 250,000 gallons
Sulger west tank – 100,000 gallons
Sulger east tanks – 13,000, and 16,000 gallons

Superior

- Superior is served through 23 mile transmission line from well field to Queen Creek tank.
- Transmission line is steel and above ground. During the summer a chiller is operated when water temperatures can reach 110 degrees Fahrenheit.
- Well # 3 at Superior will be shared with Apache Junction when Superior and Apache Junction are interconnected.

Well Number	Arsenic Concentration ($\mu\text{g/l}$)	Yield
1	10	280 gal/min
2	22	600 gal/min
3	10	800 gal/min

Transmission line tank – 376,000 gallons

Queen Creek tank – 2,000,000 gallons

Town tank – 500,000 gallons

Winkelman

- Winkelman is served by three submersible wells near the Gila River.
- Storage floats on system.
- Town tanks are – 100,000 and 10,000 gallons

Well Number	Arsenic Concentration ($\mu\text{g/l}$)	Yield
1	3	165 gal/min
2	2	300 gal/min
3	4	305 gal/min

Apache Junction Process Schematic

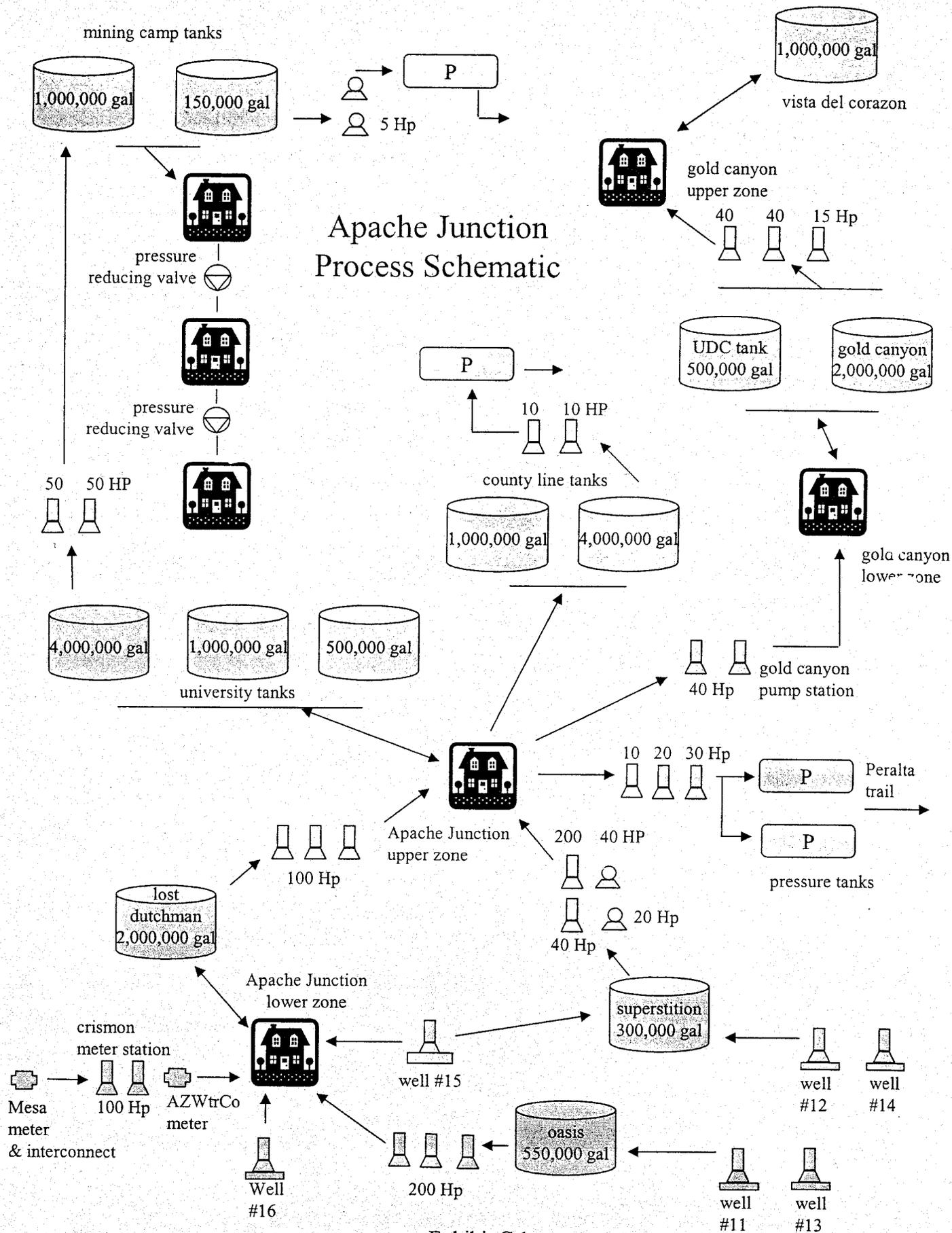
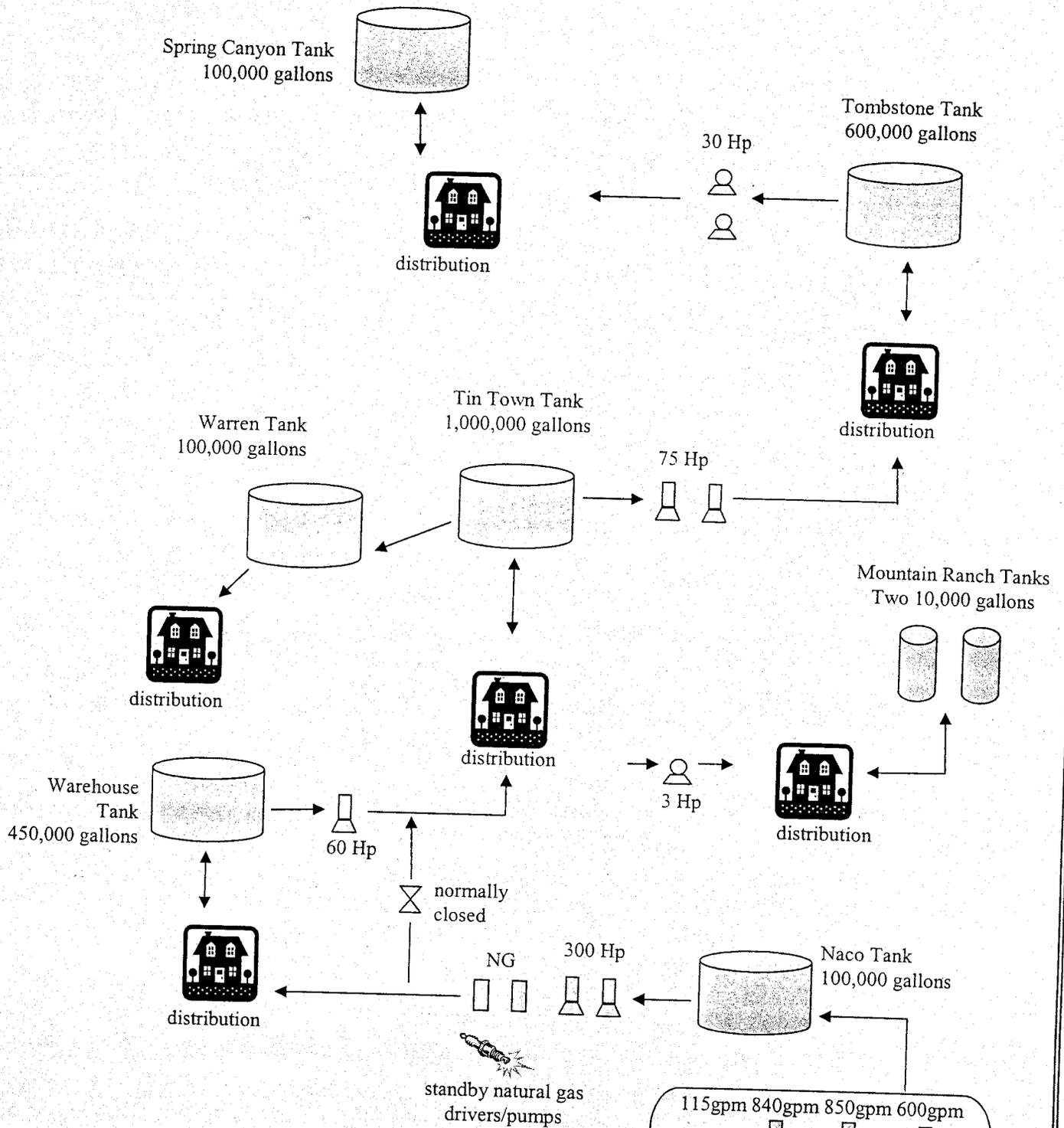
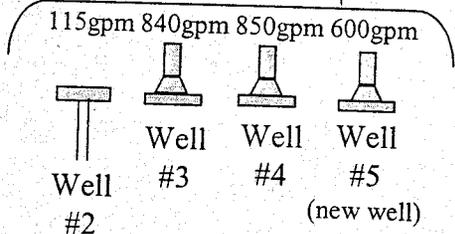


Exhibit C 1



Bisbee Process Schematic

Exhibit C 2



Well #3 has additional
standby natural gas driver
All wells are chlorinated

Miami Process Schematic

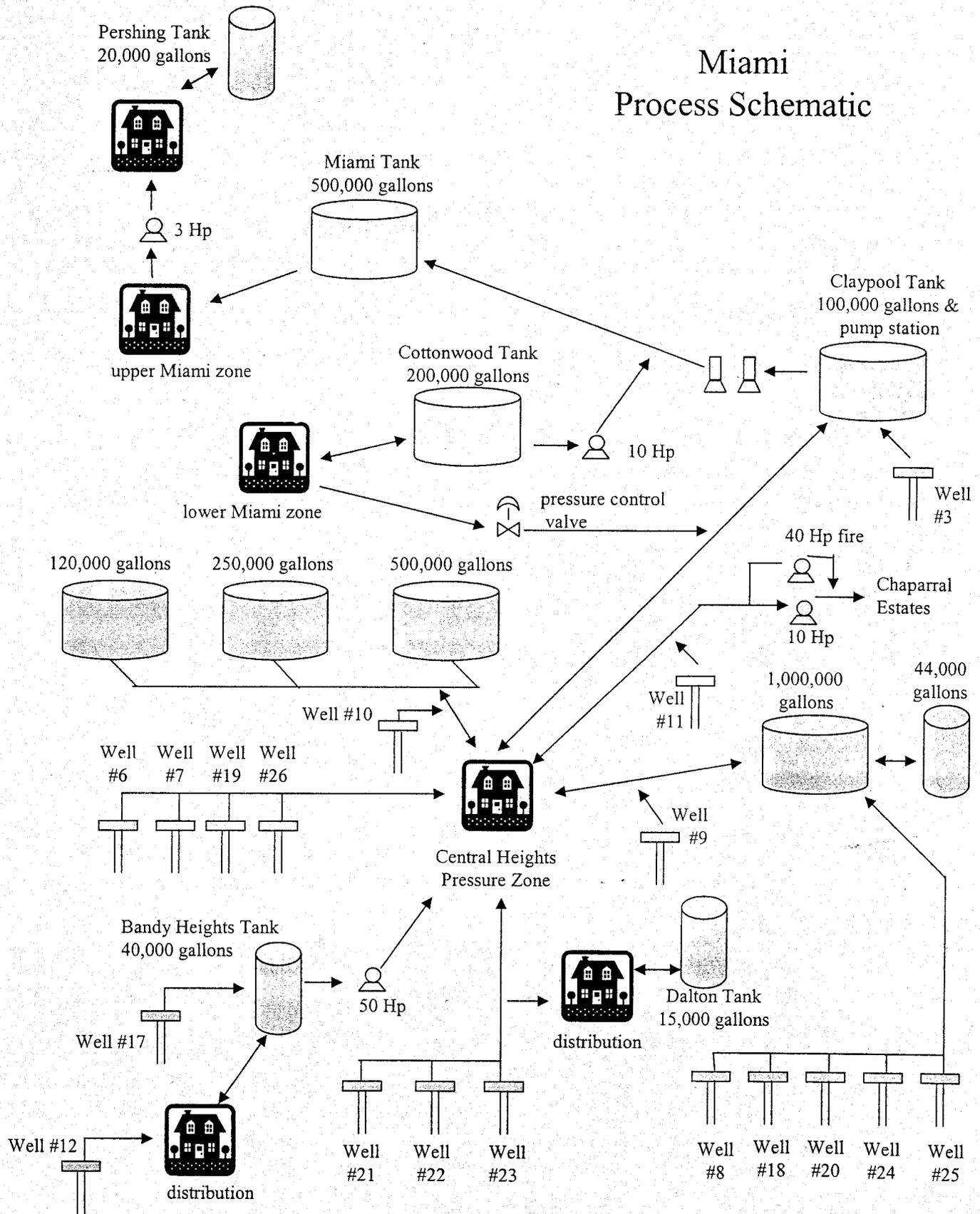


Exhibit C 3

Oracle Process Schematic

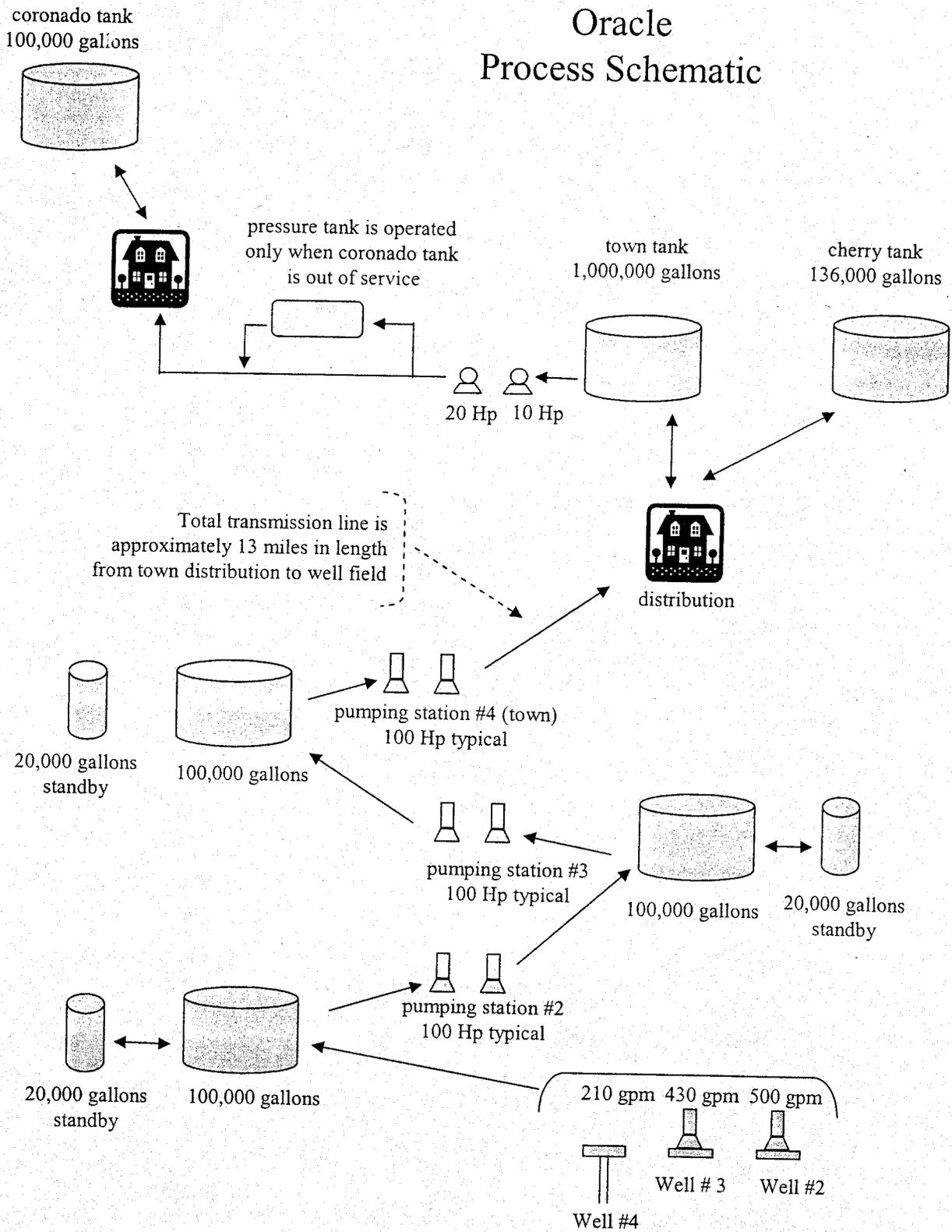
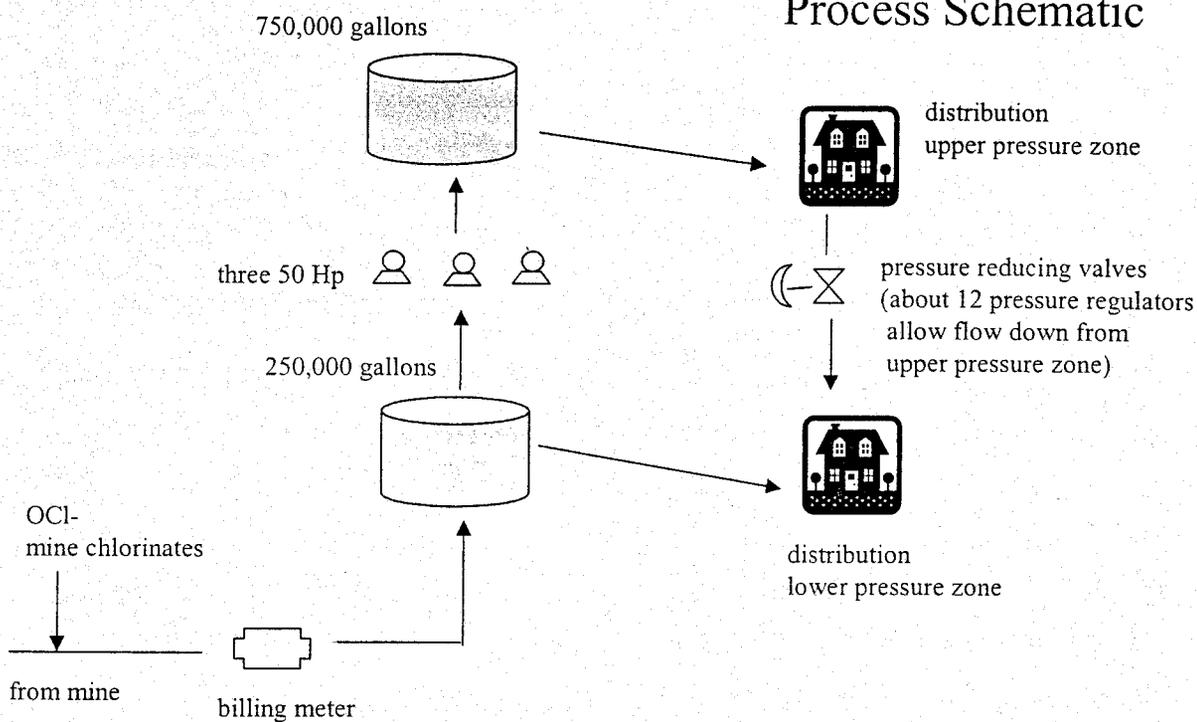


Exhibit C 4

San Manuel Process Schematic



Winkelman Process Schematic

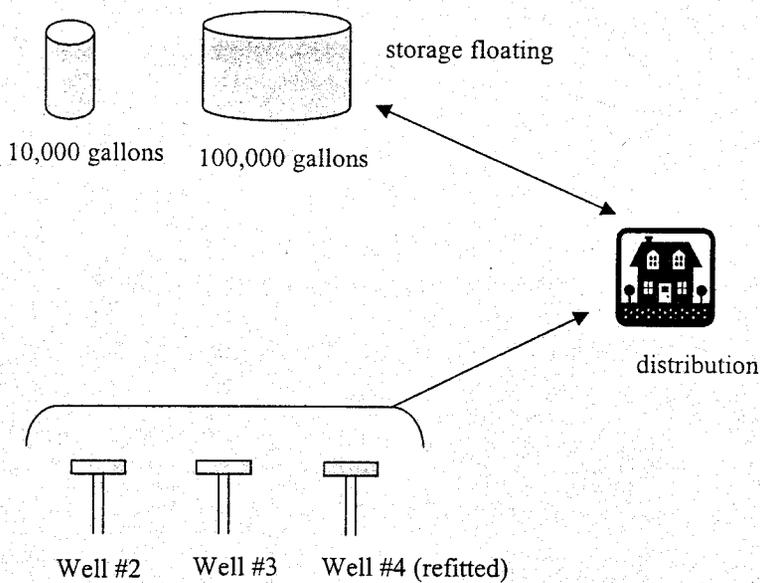
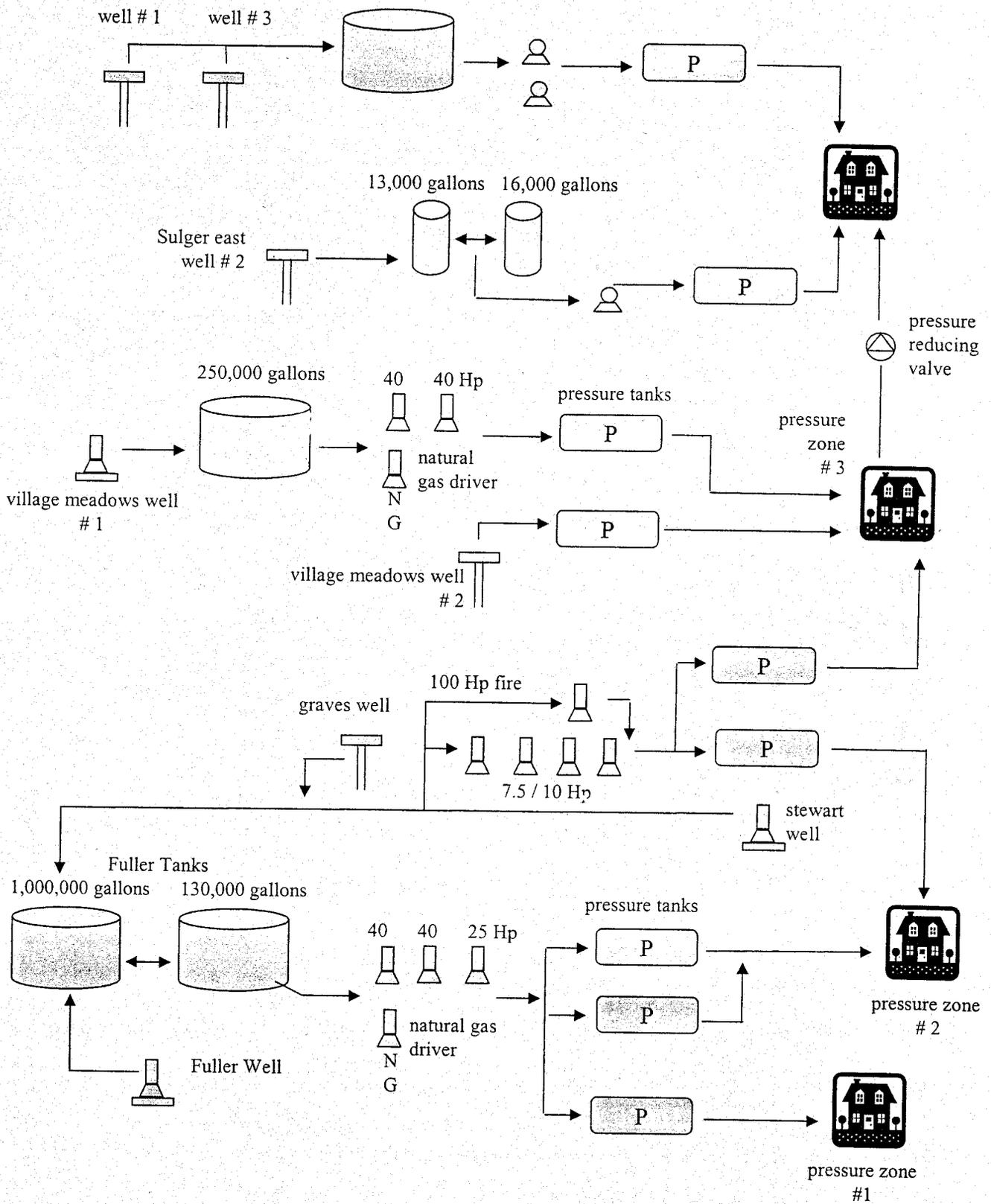
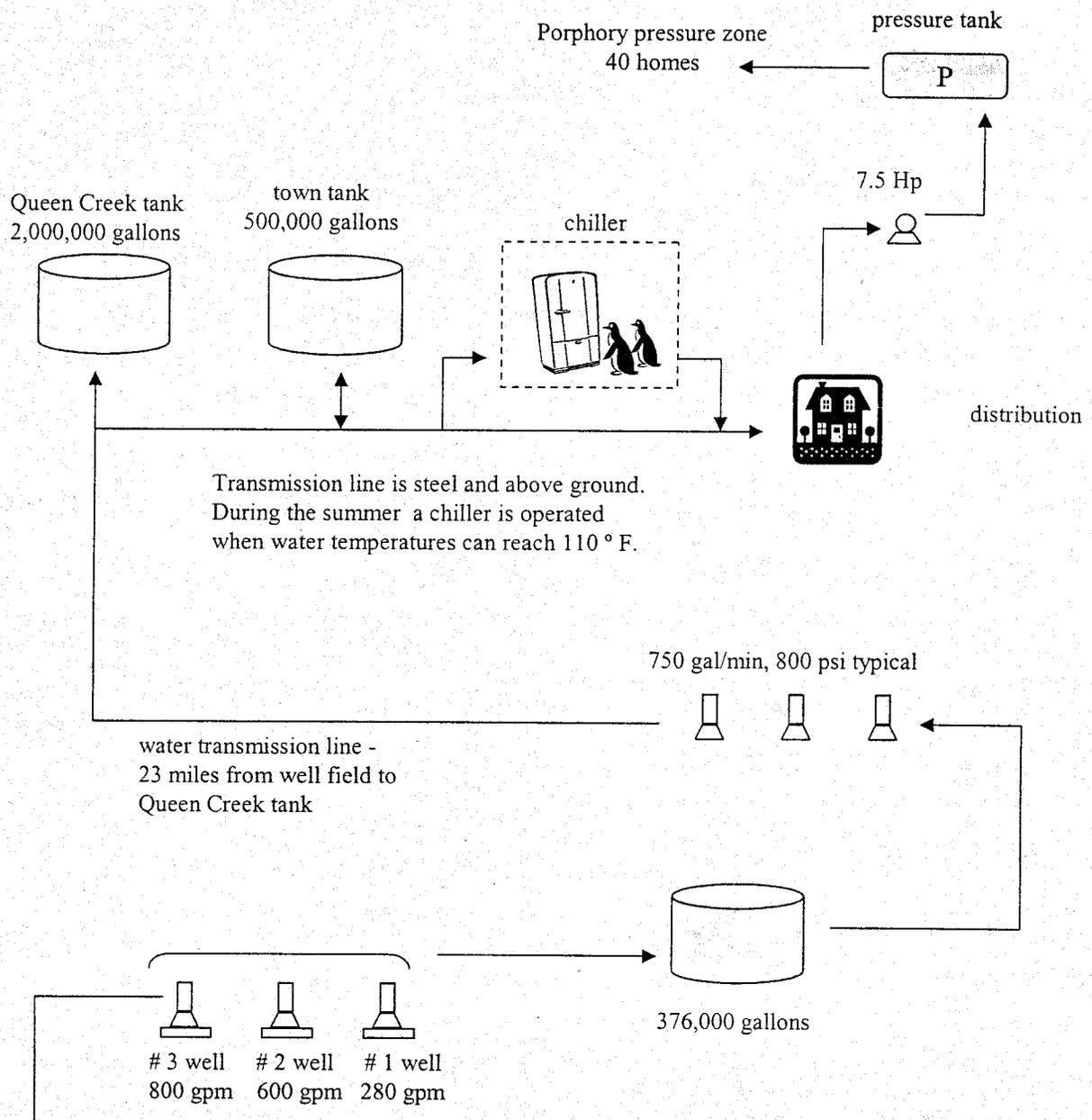


Exhibit C 5



Sierra Vista
Process Schematic



Transmission line is steel and above ground.
 During the summer a chiller is operated
 when water temperatures can reach 110 ° F.

water transmission line -
 23 miles from well field to
 Queen Creek tank

3 well 800 gpm
 # 2 well 600 gpm
 # 1 well 280 gpm

376,000 gallons

750 gal/min, 800 psi typical

distribution

7.5 Hp

Porphory pressure zone
 40 homes

pressure tank

Queen Creek tank
 2,000,000 gallons

town tank
 500,000 gallons

chiller

future interconnection to
 Apache Junction system

Superior Process Schematic

Annual Average
 Average Peak Month
 Average Minimum Month

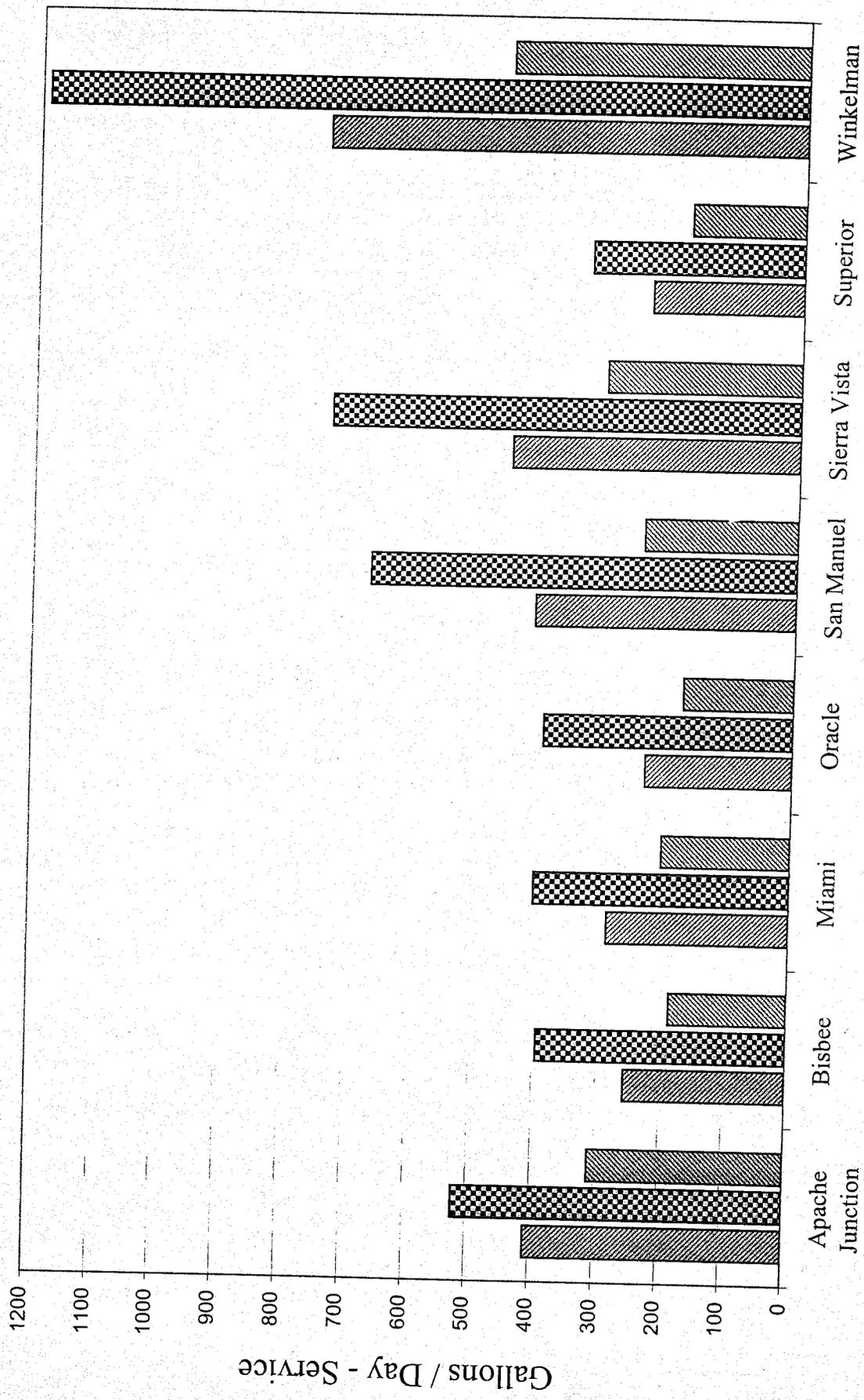


EXHIBIT D
 Eastern Group Water Use

Exhibit E

PROPOSED DEPRECIATION RATES FOR ARIZONA WATER COMPANY

Company Account No.	Depreciable Plant	Service Life (years)	AZ water Proposed Rate (%)
314	Wells & Springs	32	3.13
321	Pumping Plant Structures & Improvements	35	2.86
325	Electric Pumping Equipment	17	5.88
328	Gas Engines	25	4.00
331	Water Treatment Structures & Improvements	40	2.50
332	Water Treatment Equipment	35	2.86
341	Transmission/Distribution Structures	30	3.33
342	Storage Tanks	50	2.00
343	Transmission/Distribution Mains	56	1.79
344	Fire Sprinkler Taps	50	2.00
345	Services	42	2.38
346	Meters	22	4.55
348	Hydrants	55	1.82
390	General Plant Structures	40	2.50
340	Office Furniture & Equipment	15	6.67
393	Warehouse Equipment	20	5.00
394	Tools, Shop & Garage Equipment	25	4.00
395	Laboratory Equipment	20	5.00
396	Power Operated Equipment	15	6.67
397	Communication Equipment	15	6.67
398	Miscellaneous Equipment	30	3.33

EXHIBIT F

POST TEST YEAR PLANT IN SERVICE (a)

Work Auth.	Amount(b)	Description
Apache Junction		
2551	\$ 605,263 (c)	Retention basin for new Well 16
2981	\$ 18,285	Rehab pump assembly for Well 12
3167	\$ 14,216	Replace 8 inch gate valve at Ironwood & Apache
3212	\$ 153,925	Install 1,850ft of 6" DIP to replace 2" steel (near Merrill)
3213	\$ 45,157	Reconstruct tank overflow lines
3215	\$ 48,511	Replace pump assembly for Well 13
3216	\$ 7,423	Replace booster pump at Superstition tank site
3218	\$ 69,951	Replace services at Thunder Mountain School & Trails West
3317	\$ 11,480	Abandon 330 ft on Superstition Blvd near AJ Fire Station #2
3318	\$ 11,860	Interconnect 16" & 6" on Tomahawk and Second Ave.
3322	\$ 36,204	Replace pump & motor at Well 14
Bisbee		
3219	\$ 558,663	Drill and equip new well (Well #5)
3311	\$ 47,724	Abandon and relocate water mains in Spring Canyon
3356	\$ 13,934	Rebuild booster pump at Naco pump station
Miami		
3027	\$ 87,373	Abandon and replace water mains near Central Heights Rd.
3193	\$ 14,694	Pull and rehab pump assembly for Well 18
3249(d)		Install ladder safety systems at storage tanks
3250	\$ 84,456	Replace water mains near Hwy 60, 3 rd St, and Claypool Yard.
3251	\$ 31,608	Install MOSCAD remote controls and programming.
3252(e)		Install chlorinators at Wells 20 & 25
3253	\$ 54,273	Install 1,250 DIP on Hwy 88
3254	\$ 49,943	Replace various house connection services
3350	\$ 15,500	Replace pump and motor at Well 26

Notes

- (a) excludes capital items in blanket authorizations
- (b) dollar amounts are estimates, subject to 2002 AZ Water year end reconciliation & audit
- (c) includes drilling & equipping well 16, which is test year addition
- (d) ascender lines installed and charged to blanket accounts
- (e) installed and charged to blanket accounts

Oracle

3031	\$ 102,929	Parallel 8"CA with 2,640 ft 12" DIP on Hwy77
3033	\$ 21,760	Install pressure regulating station at Rockcliffe Blvd.
3257	\$ 32,078	Replace pump house at Booster #2
3281	\$ 16,269	Replace 350 ft of 4" with 6 " DIP near Cody Loop Road.

San Manuel

3030	\$ 21,813	Replace pressure regulator on Avenue A and 6 th Ave.
------	-----------	---

Sierra Vista

3220	\$ 52,238	Replace various house connection services
3221	\$ 17,500	Install 3 new booster pumps at Fuller

Superior

3268	\$ 44,802	Replace 800 ft pipe on Hwy 60 to Town Tank
3269	\$ 183,435	Replace 2,050 ft pip on Hwy 177 from Lobb to Terrace

Winkelman

3258(f)		Paint well yard
3352	\$ 9,319	Replace pump and motor at Well 4

Notes

(f) completed and charged to blanket account

Exhibit G
TARIFF SCHEDULE

Utility: _____
Docket No.: _____
Phone No.: _____

Tariff Sheet No.: 1 of 3
Decision No.: _____
Effective: _____

CURTAILMENT PLAN FOR: _____

ADEQ Public Water System Number: _____

_____ ("Company"), is authorized to curtail water service to all customers within its certificated area under the terms and conditions listed in this tariff.

This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff or no later than sixty (60) days after the effective date of the tariff.

The Company shall provide a copy of the curtailment tariff to any customer, upon request.

Stage 1 Exists When:

Company is able to maintain water storage in the system at 100 percent of capacity and there are no known problems with its well production or water storage in the system.

Restrictions: Under Stage 1, Company is deemed to be operating normally and no curtailment is necessary.

Notice Requirements: Under Stage 1, no notice is necessary.

Stage 2 Exists When:

- a. Company's water storage or well production has been less than 80 percent of capacity for at least 48 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 2, the Company may request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. Outside watering should be limited to essential water, dividing outside watering on some uniform basis (such as even and odd days) and eliminating outside watering on weekends and holidays.

Exhibit G
TARIFF SCHEDULE

Utility: _____
Docket No.: _____
Phone No.: _____

Tariff Sheet No.: 2 of 3
Decision No.: _____
Effective: _____

Notice Requirements: Under Stage 2, the Company is required to notify customers by delivering written notice door to door at each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.

Stage 3 Exists When:

- a. Company's total water storage or well production has been less than 50 percent of capacity for at least 24 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 3, Company shall request the customers to voluntarily employ water conservation measures to reduce daily consumption by approximately 50 percent. All outside watering should be eliminated, except livestock, and indoor water conservation techniques should be employed whenever possible.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such Notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Beginning with Stage 3, Company shall post at least _____ signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering stage 3.

Once Stage 3 has been reached, the Company must begin to augment the supply of water by either hauling or through an emergency interconnect with an approved water supply in an attempt to maintain the curtailment at a level no higher than Stage 3 until a permanent solution has been implemented.

Stage 4 Exists When:

- a. Company's total water storage or well production has been less than 25 percent of capacity for at least 12 consecutive hours, and

Exhibit G
TARIFF SCHEDULE

Utility: _____
Docket No.: _____
Phone No.: _____

Tariff Sheet No.: 3 of 3
Decision No.: _____
Effective: _____

- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 4, Company shall inform the customer of a **mandatory** restriction to employ water conservation measures to reduce daily consumption. Failure to comply will result in customer disconnection. The following uses of water shall be prohibited:

- ◆ Irrigation of outdoor lawns, trees, shrubs, or any plant life is prohibited
- ◆ Washing of any vehicle is prohibited
- ◆ The use of water for dust control or any outdoor cleaning uses is prohibited
- ◆ The use of drip or misting systems of any kind is prohibited
- ◆ The filling of any swimming pool, spas, fountains or ornamental pools is prohibited
- ◆ Restaurant patrons shall be served water only upon request
- ◆ Any other water intensive activity is prohibited

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Company shall post at least _____ signs showing curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering stage 4.

Once Stage 4 has been reached, the Company must augment the supply of water by hauling or through an emergency interconnect from an approved supply or must otherwise provide emergency drinking water for its customers until a permanent solution has been implemented.

Customers who fail to comply with the above restrictions will be given a written notice to end all outdoor use. Failure to comply within two (2) working days of receipt of the notice will result in temporary loss of service until an agreement can be made to end unauthorized use of outdoor water. To restore service, the customer shall be required to pay all authorized reconnection fees. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

WATER RATES**ARIZONA WATER COMPANY**

Phoenix, Arizona

Filed by: James R. Livingston
 Title: President
 Date of Original Filing: March 7, 1994
 System: APACHE JUNCTION, CASA GRANDE,
 COOLIDGE, WHITE TANK

A.C.C. No. 440
 Cancelling A.C.C. No. (not applicable)
 Tariff or Schedule No. NP-260
 Filed: February 2, 1999
 Effective: March 15, 1999

ORIGINAL**NON-POTABLE CENTRAL ARIZONA PROJECT WATER****AVAILABILITY:**

In the Company's Apache Junction, Casa Grande, Coolidge and White Tank water systems, where and when Central Arizona Project ("CAP") water is available.

SUITABILITY:

It is the customer's responsibility to determine the initial and continuing suitability of the non-potable CAP water furnished under this tariff for any intended uses. The Company does not treat, test or monitor non-potable CAP water and furnishes it to customers strictly on an "as received" basis from the Central Arizona Water Conservation District ("CAWCD"). The customer agrees to accept non-potable CAP water "as received." Compliance with any requirement of the Arizona Department of Environmental Quality, or any other agency having jurisdiction, concerning the use or quality of non-potable CAP water shall be the sole responsibility of the customer. The Company will not be liable for, and the customer will hold harmless, indemnify and defend the Company against, any injuries or damages arising from its service of non-potable CAP water.

FACILITIES AND DEMAND:

When applying for non-potable CAP water service, the customer shall specify the maximum annual quantity of CAP water in acre feet (AF) that it intends to use under this tariff schedule and pursuant to a Non-Potable Water Facilities Contribution Agreement. This quantity of water will be used to determine the facilities required to serve the customer and will be the customer's maximum demand for non-potable CAP water ("CAP Demand") during any calendar year. The customer will be responsible for both the deferred (including holding costs) and the current annual CAWCD M&I Water Service Capital Charges on the CAP Demand and on any water use in excess of the CAP Demand.

The customer will contribute the funds required to install all facilities needed to provide CAP water. Such facilities will be owned by the Company.

The Deferred CAP Demand Charge includes the deferred annual CAWCD M&I Water Service Capital Charges and associated holding costs for the customer's CAP Demand. The Deferred CAP Demand Charge is payable prior to the start of service or within fifteen (15) days of any approved increase in CAP Demand. The Deferred CAP Demand Charge will be payable only on any future increase in CAP Demand for those customers receiving service under this tariff as of the effective date. The Deferred CAP Demand Charge is not refundable if the customer's CAP Demand is later reduced.

APPROVED FOR FILING**DECISION #:** 61579

Effective 3/15/99
 Revised 1/18/95
 Revised 1/15/99

ARIZONA WATER COMPANY

NON-POTABLE CENTRAL ARIZONA PROJECT WATER - continued

NP-260

MONTHLY BILL:**ORIGINAL**

The monthly billing will consist of the following components:

1. A monthly CAP Demand charge equal to 1/12th of the customer's CAP Demand in AF times the applicable CAWCD M&I Water Service Capital Charge per AF plus four percent (4%) of such costs to cover the Company's administrative and handling costs. Should the customer's actual water use exceed the customer's CAP Demand, the customer will be billed an additional demand charge, based on the applicable CAWCD M&I Water Service Capital Charge, on the excess water use, plus a four percent (4%) administrative and handling fee.

2. A meter charge based on the applicable monthly minimum charge by meter size as set forth in each system's General Service tariff schedule. This meter charge shall not include any water.

3. A commodity charge designed to pass on all costs of non-potable CAP water, except the monthly CAP Demand charge, as billed to the Company during the previous month by the CAWCD or any other authorized governmental agency, plus one percent (1%) of such costs to cover the Company's administrative and handling costs.

4. A power, maintenance and depreciation charge based on the specific requirements of each customer.

A. The power component will be the direct and separately metered cost of the power billed to the Company during the previous month for CAP water delivered to the customer, plus one percent (1%) of the power cost to cover the Company's administrative and handling costs. If multiple customers are being served by common facilities, the power component will be prorated based on CAP water actually used during the month by each customer.

B. The maintenance component will be the actual costs of maintaining the facilities required to serve the customer, plus a ten percent (10%) charge to provide for overhead and margin. If multiple customers are being served by common facilities, the maintenance component will be prorated based on each customer's CAP Demand.

C. The depreciation component will be 1/12th of the product of the Company's book depreciation rate, as authorized by the Arizona Corporation Commission, times the original cost of the plant facilities serving the customer. If multiple customers are being served by common facilities, the depreciation component will be prorated based on each customer's CAP Demand.

Late Charge: Any payment not received within fifteen (15) days from the postmark date of the bill will be delinquent and subject to a late charge of one and one-half percent (1½%) per month.

Adjustment: An adjustment for state and local taxes, which will be the applicable proportionate part of any taxes or governmental impositions which are, or in the future may be, assessed on the basis of the gross revenues of the Company and/or the price or revenue from the water or service sold and/or the volume of water pumped or purchased for sale and/or sold hereunder. In the event of any increase or decrease in taxes or other governmental impositions, rates shall be adjusted to reflect such tax increase or decrease.

TERMS AND CONDITIONS:

Subject to the Company's Tariff Schedule TC-243.

APPROVED FOR FILING

DECISION #: 61579

Effective 3/15/99
Revised 1/18/95
Revised 1/15/99

Arizona Water Company

1/01/2002

SLV Golf Properties, L.L.C.
 DBA Mountain Brook Golf Club
 Attn. Ken Vegors
 Non-Potable CAP Water Billing
 November 2002 Statement For January 2003 Order

Acct No. 021 - 10 - 99905 - 1

Invoice No. 5110102

(1) MONTHLY 2003 CAP DEMAND CHARGE		Amount	
1/12 Annual CAP Demand in Acre Feet	33.33		
CAWCD M&I Water Service Capital Charge per AF	<u>\$43.00</u>		
	\$1,433.33		
4% - Administrative and Handling Costs	57.33		
Total CAP Demand Charge	<u>\$1,490.67</u>	\$1,490.67	
(2) MONTHLY MINIMUM CHARGE - 6" METER		\$362.53	
(3) MONTHLY 2003 COMMODITY CHARGE			
1/12 Annual CAP Order in Acre Feet	25.00		
CAWCD Commodity Rate per AF	<u>\$66.00</u>		
	1,650.00		
1% - Administrative and Handling Costs	16.50		
Total Commodity Charge	<u>\$1,666.50</u>	\$1,666.50	
(4) ADDITIONAL 2002 COMMODITY CHARGE			
Additional CAP Order in Acre Feet	34.00		
CAWCD Commodity Rate per AF	<u>\$62.00</u>		
	2,108.00		
1% - Administrative and Handling Costs	21.08		
Total Commodity Charge	<u>\$2,129.08</u>	\$2,129.08	
(5) MONTHLY DEPRECIATION CHARGE			
Original Cost of Plant Facilities	\$2,446.00		
Company's Book Depreciation Rate	<u>2.59%</u>		
Annual Depreciation	63.35		
1/12 Annual Depreciation	\$5.28	\$5.28	
(6) MAINTENANCE			
September 3, 2002 - Repair Water Meter	\$890.66		
10% - Administrative Overhead	<u>\$89.07</u>		
	\$979.73		
Late Charge 1.5%	\$14.70		
Total Repair Services		\$994.42	
	Sub-Total	<u>\$6,648.48</u>	
(7) SALES TAXES @ 6.813%		\$452.96	
(8) TOTAL AMOUNT NOW DUE		<u><u>\$7,101.44</u></u>	
2002 DEMAND		2002 ORDER	
Annual CAP Demand in AF	400.00	Annual CAP Order in AF	300.00
Acre Feet Billed Year to Date	400.00	Acre Feet Billed Year to Date	300.00
Acre Feet Used Thru	0.00	Acre Feet Used Thru September	339.00
Additional CAP Demand in AF	0.00	Additional CAP Order in AF	0.00
Additional Previously Billed	<u>0.00</u>	Additional Previously Billed	<u>5.00</u>
Additional to be Billed	0.00	Additional to be Billed	34.00
<p>Bills are due and payable when rendered, and are delinquent and subject to a 1.5% Late Charge 15 days after the mailing.</p>		<p>Please Send Payment To : ARIZONA WATER COMPANY Attention : David Kupres Post Office Box 29006 Phoenix Arizona 85038-9006</p>	

R-8

EXHIBIT J

Arizona Water Company – Application For A Rate Increase
Docket No. W-01445A-02-0619

WATER RATES

ARIZONA WATER COMPANY

Phoenix, Arizona

Filed By

Title:

Date of Original Filing

Systems

**APACHE JUCTION,
CASA GRANDE, COOLIDGE, WHITE TANKS**

Canceling ACC No.

Tariff No.

Filed

Effective

NP-260 1/15/99 revision

NP-260

NON-POTABLE CENTRAL ARIZONA PROJECT WATER

APPLICABILITY:

To the Company's Apache Junction, Casa Grande, Coolidge and White Tank water systems, where and when Central Arizona Project ("CAP") water is available.

SUITABILITY:

It is the customer's responsibility to determine the initial and continuing suitability of the non-potable CAP water furnished under this tariff for any intended uses. The Company does not treat, test or monitor non-potable CAP water and furnishes it to customers strictly on an "as received" basis from the Central Arizona Water Conservation District ("CAWCD"). The customer agrees to accept non-potable CAP water "as received". Compliance with any requirement of the Arizona Department of Environmental Quality, or any other agency having jurisdiction, concerning the use or quality of non-potable CAP water shall be the sole responsibility of the customer. The Company will not be liable for, and the customer will hold harmless, indemnify, and defend the Company against any injuries or damages arising from its service of non-potable CAP water.

FACILITIES AND DEMAND:

When applying for non-potable CAP water service, the customer shall specify the maximum annual quantity of CAP water in acre feet (AF) that it intends to use under this tariff schedule and pursuant to a Non-Potable Water Facilities Contribution Agreement. This quantity of water will be used to determine the facilities required to service the customer and will be the customer's maximum demand for non-potable CAP water ("CAP Demand") during any calendar year. The customer will be responsible for both the deferred (including holding costs) and the current annual CAWCD M&I Water Service Capital Charges on the CAP Demand and on any water use in excess of the CAP demand.

The customer will contribute the funds required to install all facilities needed to provide CAP water. Such facilities will be owned by the Company.

The Deferred CAP Demand Charge includes the deferred annual CAWCD M&I Water Service Capital Charges and associated holding costs for the customer's CAP Demand. The Deferred CAP Demand Charge is payable prior to the start of service or within fifteen (15) days of any approved increase in CAP Demand. The Deferred CAP Demand Charge will be payable only on any future increase in CAP Demand for those customer receiving service under this tariff as of the effective date. The Deferred CAP Demand Charge is not refundable if the customer's CAP Demand is later reduced.

EXHIBIT J

Arizona Water Company – Application For A Rate Increase

Docket No. W-01445A-02-0619

MONTHLY BILL:

The monthly billing will consist of the following components:

1. A monthly CAP Demand share equal to 1/12 of the customer's CAP Demand in AF times the applicable CAWCD M&I Water Service Capital Charge per AF. Should the customer's actual water use exceed the customer's CAP Demand, the customer will be billed an additional demand charge, based on the applicable CAWCD M&I Water Service Capital Charge, on the excess water use.

2. A commodity charge designed to pass on all costs of non-potable CAP water, except the monthly CAP Demand charge, as billed to the Company during the previous month by the CAWCD or any other authorized governmental agency.

3. A power and maintenance charge based on the specific requirements of each customer.

A. The power component will be the direct and separately metered cost of the power billed to the Company during the previous month for CAP water delivered to the customer. If multiple customers are being served by common facilities, the power component will be prorated based on CAP water actually used during the month by each customer.

B. The maintenance component will be the actual costs of maintaining the facilities required to serve the customer, plus a ten per cent (10%) charge to provide for overhead and margin. If multiple customers are being served by common facilities, the maintenance component will be prorated based on each customer's CAP Demand.

The customer shall not be liable for maintenance, repair, or replacement charges, when the damage or injuries to the CAP facilities are a result of the failure of the Company to operate the facilities or install protective devices in accordance with customary or sound construction and engineering practices.

The customer shall be responsible for the repair or replacement of the meter. However, the repair charges, during a single maintenance event, shall not exceed the replacement cost of the item under repair.

4. A fixed administrative cost of fifty dollars (\$50) per month.

Late Charge: Any payment not received within fifteen (15) days from the postmark date of the bill will be delinquent and subject to a late charge of one and one-half per cent (1 1/2%) per month.

Adjustment: An adjustment for state and local taxes, which will be the applicable proportionate part of any taxes or governmental impositions which are, or in the future may be, assessed on the basis of the gross revenues of the Company and/or the price or revenue from the water or service sold and/or the volume of water pumped or purchased for sale and/or sold hereunder. In the event of any increase or decrease in taxes or other government impositions, rates shall be adjusted to reflect such tax increase or decrease.

TERMS AND CONDITIONS:

Subject to the Company's Tariff Schedule TC-243.

EXHIBIT K

OK
~~CONFIDENTIAL~~ SETTLEMENT AGREEMENT

PINAL CREEK GROUP

AND

ARIZONA WATER COMPANY

SETTLEMENT AND RELEASE AGREEMENT

THIS SETTLEMENT AND RELEASE AGREEMENT is dated this _____ day of July, 1998 (this "Settlement Agreement") by and among Arizona Water Company, an Arizona corporation ("AWC") and Cyprus Miami Mining Corporation, a Delaware corporation, BHP Copper Inc., a Delaware corporation, and Inspiration Consolidated Copper Company, a Delaware corporation (each a member of and collectively, the "PCG").

RECITALS:

WHEREAS, the parties desire to fully and completely resolve all claims and issues presented by AWC unless expressly excluded in this Settlement Agreement; and

WHEREAS, this Settlement Agreement is entered into in the spirit of cooperation and to arrive at a fair settlement of this matter; and

WHEREAS, all of the discussions during negotiation of the terms of this Settlement Agreement have been made by both parties, solely for the purposes of facilitating settlement and are protected from any form of disclosure or subsequent use pursuant to Rule 408 of the Arizona Rules of Evidence.

NOW THEREFORE, the parties covenant and agree as follows:

1. **Replacement Water.** PCG will provide replacement water in a total capacity of 600 gpm meeting the Water Quality Parameters set forth in Exhibit F to AWC's Miami water system at no capital cost to AWC. PCG will provide the replacement water on an incremental basis that meets or exceeds the following schedule:

Date:	Aggregate volume of capacity provided:
October 30, 1998	100 gpm
October 30, 1999	200 gpm
October 30, 2000	300 gpm
October 30, 2001	400 gpm
October 30, 2002	500 gpm
October 30, 2003	600 gpm

~~CONFIDENTIAL~~

OK

2. **Source of Replacement Water.** PCG will select the replacement water source(s) for Paragraphs 1, 3 and 5 of this Settlement Agreement, provided, that the location of each such source of replacement water shall comply with applicable legal requirements for wells. Without limitation of the foregoing, PCG may restore or increase the capacity of wells already conveyed to AWC by PCG pursuant to this Settlement Agreement, provided that any party or their agents comply with AWC's standard requirements for performing work on AWC's property. PCG will not use remediated water as the replacement supply for Paragraphs 1, 3 and 5. If PCG is unable to provide replacement water to AWC in accordance with AWC's requirements set forth in this Settlement Agreement, the PCG may elect in its sole discretion to provide replacement water from the Old Dominion Mine in a maximum amount of 100 gpm from the "domestic" source currently delivered from the Old Dominion level 12 water drift through a tie-in to AWC's system in the proximity of the intersection of the existing Old Dominion water line and AWC's distribution main as set forth on Exhibit A.

3. **Maintenance of Replacement Water.** After October 30, 2003 and until October 30, 2028, PCG shall maintain the quantity of replacement water meeting the Water Quality Parameters in an aggregate amount equal to 600 gpm. This obligation will be maintained by replacing any depletion below 600 gpm as determined pursuant to the annual depletion testing conducted pursuant to the depletion testing protocol attached hereto as Exhibit B ("Depletion Testing"). Any replacement water required as a result of the annual Depletion Testing shall be delivered by the month of May following annual Depletion Testing. Moreover, until October 30, 2028, AWC may present a claim for depletion by conducting Depletion Testing at any time during a calendar year and any disputes regarding such claims shall be decided by the technical advisory panel identified in Paragraph 11 (the "TAP"). Following any Depletion Testing, the parties shall meet and confer to determine whether AWC complied with the operating and maintenance standards set forth in Exhibit B attached hereto ("O&M Standards"). If there was a violation of the O&M Standards and such violation was non-material, PCG's obligation to replace any depletion from the replacement well in which the violation occurred shall be deferred until the next annual Depletion Testing where there is no violation of the O&M Standards for that well. If a violation of the O&M Standards was material, PCG will not be obligated to replace any such depletion caused by the violation. If the parties disagree whether a violation of the O&M Standards was material or non-material or whether a material violation resulted in depletion, any party can present the issue to the TAP. As of October 30, 2028, PCG will provide or have provided to AWC wells in the Gila Conglomerate, unless an alternate source has been agreed upon by the parties, and such wells or alternate sources or combination thereof shall

provide an aggregate capacity of 600 gpm meeting the Water Quality Parameters.

4. **Restrictions on Wells.** After the date of this Settlement Agreement and until October 30, 2028, PCG will not drill any wells for replacement water to be provided under this Settlement Agreement within 2000 feet of any then-existing AWC wells and AWC will not drill any future wells within 2000 feet of any then-existing wells for replacement water to be provided under this Settlement Agreement. Notwithstanding the foregoing sentence and until October 30, 2028, any party may drill a well within such 2000 feet if such party (i) obtains written consent of the other party, or (ii) fails to obtain written consent and therefore is deemed to have assumed the risk or responsibility for any resulting depletion or draw down resulting in the then-existing well located within such 2000 feet. The replacement or deepening of a well in the same general location by any party shall not alter the allocation of risk or responsibility set forth in the foregoing sentence at the time the well was placed. Nothing in the Settlement Agreement shall limit either party's right to drill a new or replacement well or deepen an existing well located more than 2000 feet from the other party's then-existing wells.
5. **Future Impacts on Wells.** With respect to any of AWC's existing wells not currently impacted by activity or conduct described in this paragraph or future wells (other than replacement wells to be provided by PCG pursuant to this Settlement Agreement) that are, in the future, either reduced in capacity as a result of PCG's remediation activities or rendered unable to produce water meeting the Water Quality Parameters due to contamination from mining activities at Cyprus' or BHP's properties at the Pinal Creek Site, PCG will replace such water on an equal gallons per minute basis with water meeting the Water Quality Parameters until the problem is corrected.
6. **Obligations of PCG With Respect to Each Replacement Water Source.** For each source of replacement water, technical representatives of AWC and PCG shall meet and confer and agree upon the reasonable requirements of AWC with respect to, and thereafter PCG will provide, well materials and equipment, any necessary and compatible pumping equipment and related appurtenances; linkage to AWC's Miami water system; and all necessary easements for ingress/egress, pipelines, and utilities. If PCG chooses to provide an interim replacement water supply from mining properties (e.g. Old Dominion Mine), PCG shall not be required to convey or cause to be conveyed to AWC fee title or possessory title to such property or replacement water sources. However, if PCG chooses to provide new or existing wells for replacement water, PCG shall convey or cause to be conveyed to AWC fee title by Special Warranty Deed for each well, as well as an appropriate bill of sale for all fixtures, improvements and

~~CONFIDENTIAL~~
CAN

set forth below, appurtenances (both documents in the form attached hereto as Exhibit C), it being understood that PCG shall assign to AWC any warranty on equipment and supplies purchased by PCG in connection with any source of replacement water, it being further understood that, except as specifically set forth herein, PCG makes no representation or warranty regarding the replacement water, the wells or any of the equipment or supplies provided by PCG to AWC. AWC will not accept any wells for replacement water until receipt of the Approval of Construction ("AOC") from the Arizona Department of Environmental Quality ("ADEQ"), provided however, the failure of ADEQ to issue the AOC on or before six (6) months following application shall not cause PCG to be in breach of its obligations hereunder, and provided further that ADEQ's failure to issue the AOC does not relieve PCG of its obligation to provide an interim replacement water supply or the obligations set forth in Paragraph 1. Denial of the AOC by ADEQ will require PCG to secure a substitute source of replacement water.

7. **Allocation of Responsibility.** In recognition of the fact that AWC is in the business of providing water supplies to customers, PCG will not be responsible for (a) the ongoing operation and maintenance expenses associated with any well provided to AWC by PCG; (b) any risk for fire, lightning, earthquake, pump or motor failure, and intentional or tortious acts of AWC's employees or third parties; (c) all costs associated with storage of water pumped or otherwise received by AWC but not immediately used; (d) depletion resulting from a failure to comply with the O&M Standards; and (e) any other incidental costs and expenses associated with the business of providing water supplies to customers. Until October 30, 2028, PCG shall be responsible for all other risks associated with the replacement wells including well collapse or loss of wells as a result of floods.

8. **Well Protection Program.** Until October 30, 2028, for each proposed well AWC covenants with PCG that as of the date of this Settlement Agreement AWC will meet and confer with PCG and agree upon a well protection program before drilling in or through any alluvial aquifer at the Pinal Creek Site, as generally depicted on Exhibit D. After AWC and PCG agree upon a well protection program, subject to the provisions of Paragraph 4, AWC may drill through the alluvial aquifer at the Pinal Creek Site to produce water from the Gila Conglomerate and provide that water for any use including potable use provided that it meets applicable standards upon delivery to AWC's customers. If AWC proposes to produce water from an alluvial aquifer within the Pinal Creek Site and PCG advises AWC based on results of water quality sampling or modeling, which will be made available for review by AWC upon request, that the well will produce contaminated water, AWC may: (i) dispute the PCG's information of contamination by

raising the issue to the TAP; or (ii) produce water from such location at the sole risk and expense of AWC provided that such water will not be used as potable water and provided further such water meets applicable standards for non-potable use. If PCG does not advise AWC that a proposed alluvial well will produce contaminated water or the TAP concludes that the proposed alluvial well will not produce contaminated water, AWC may drill such alluvial well and use such water except for any limitation imposed by the well protection program, subject to the provisions of Paragraph 4. After October 30, 2028, AWC is not prohibited from drilling in or producing water from any alluvial aquifer in the Pinal Creek Site, provided, however, AWC shall not use water from the alluvial aquifer of the Pinal Creek Site for potable use unless it meets applicable standards when delivered to AWC's customers.

9. Release, Subrogation and Assignment of Claims.

- A) In consideration of the covenants contained herein, AWC completely releases and forever discharges each of the PCG members, Hecla Mining Company, Phelps Dodge Corporation and each and all of their past, present, and future officers, directors, employees, representatives, agents, subsidiaries, affiliates, successors, any assigns, insurers and all other persons or entities with whom any of the same have been, are now, or may hereafter be affiliated with, of and from any and all past, present, and future claims, demands, obligations, actions, causes of action, rights, damages, costs, losses of income, expenses, and compensation of any nature whatsoever, whether known or unknown, whether based on a tort, statute, equity, contract, eminent domain or the threat or imminence thereof, or inverse eminent domain, or other theory, or other damages, whether brought individually, jointly or in connection with any class action, which AWC now has or which may hereafter accrue, including, without limitation, claims for violation of any local, state, and/or federal statute or regulation (but not including any claim for breach of the Settlement Agreement) or the exercise of power of eminent domain, or the threat or imminence thereof, or inverse eminent domain, arising from or relating in any manner to (including, but not limited to, contamination and remediation issues) the impact of mining activities within the Pinal Creek Site or adjoining areas. Notwithstanding the foregoing, this release and covenant not to sue is not intended to and shall not apply to new claims or causes of action arising out of a New Release.
- B) The release and covenant not to sue set forth in the preceding subparagraph A) is not intended to and shall not apply to any claims for indemnity or contribution, arising under common law or equity

~~CONFIDENTIAL~~
CAR

or created by federal or state statute (including CERCLA), that AWC may have against the PCG members for any claims, causes of action, lawsuit or demands subsequently asserted against AWC by a third party relating to the exposure to, if any, contaminants in water extracted from AWC wells; nor shall the release and covenant not to sue contained in the preceding subparagraph apply to any of the claims arising out of or relating to the performance, or nonperformance by the PCG members of this Settlement Agreement or any duty or obligation contained herein, or any subsequent written amendment or modification thereof.

- C) The parties hereto agree that the PCG members reserve all rights they may have to bring any action, cause of action, lawsuit, claim, or demand against any person or entity other than AWC to recover all or any part of the consideration provided by PCG to AWC pursuant to this Settlement Agreement, and AWC agrees to subrogate to the PCG members any action, cause of action, lawsuit, claim or demand AWC may have against any party to enable the PCG members to recover such costs from responsible third parties.
- D) AWC shall be entitled to reimbursement of all of its reasonable costs and fees required due to the litigation brought by the PCG members in the name of AWC arising under this Settlement Agreement, including, but not limited to, attorneys' fees incurred for litigation support for monitoring or reviewing any claims or counterclaims involving AWC. The PCG members shall pay such costs to AWC upon presentation of an invoice therefor.
- E) The PCG members will indemnify and defend AWC against counterclaims and for any costs or fees awarded against AWC in connection with any lost claim(s) brought by the PCG members or lost counterclaim(s), to the extent such counterclaims arise out of the subrogated claims. The PCG members shall not take a position adverse to AWC's interest in pursuing or defending any claims in AWC's name. The indemnity and defense obligations contained in this paragraph apply only to counterclaims and all resulting costs from actions brought by the PCG members in AWC's name. The PCG members shall keep AWC reasonably informed of the status of any litigation arising out of this subrogation agreement and provide AWC's attorney with all pleadings and court documents.
- F) If the Arizona Department of Water Resources or ADEQ promulgates rules that mandate abandonment or modification of any of AWC's existing Bloody Tanks Wash wells due to the existence of contamination in the Bloody Tanks Wash caused by mining

activities, nothing in this Settlement Agreement shall bar any claims by AWC against the PCG members for reimbursement of such costs nor shall it bar any defenses by PCG members made in response thereto.

10. **Consent Decree; Public Support.** AWC will not file any motion to intervene or comments on the pending Consent Decree involving the Pinal Creek Site. AWC shall file a written notice with the Federal District Court in the Consent Decree proceeding stating that it (i) has settled with PCG, (ii) will not submit comments on the Consent Decree, (iii) will not move to intervene in the proceeding and (iv) will withdraw AWC's notice of CERCLA citizen's suit. AWC will publicly support the PCG and its environmental response actions at the Pinal Creek Site by signing a public support statement in a pre-approved form attached hereto as Exhibit E. Finally, AWC agrees not to oppose PCG's Feasibility Study or any interim environmental response actions, and AWC will not oppose or make formal public comments upon the Final Remedial Action Plan for the Pinal Creek Site without first conferring with PCG. AWC agrees that: (i) PCG's agreement to provide the replacement water supply is consistent with and sufficient to satisfy the alternative water supply requirements of CERCLA and WQARF; (ii) that the consideration provided by PCG in settlement of this matter is consistent with the NCP; and (iii) that AWC's concerns with the Consent Decree and Scope of Work are settled and will not be the basis for future comments on the PCG's work or the Final Remedial Action Plan. AWC agrees to (i) cooperate with the PCG's reasonable requests for assistance in the legal actions PCG is currently involved in including the private party cost recovery litigation, the pending toxic tort class action and the insurance recovery action, it being understood that AWC will not be required to directly become a party to or co-litigate with the PCG or to incur significant unreimbursed expenses associated therewith, and (ii) not foster claims by persons or entities making or contemplating possible claims against the PCG members related to the Pinal Creek Site, including the voluntary or informal disclosure of any information related to the subject matter underlying this Settlement Agreement. Nothing set forth in the foregoing sentence shall prohibit AWC from performing any legal obligations, such as responding to a subpoena, or performing those obligations ordinarily provided by AWC to its customers. AWC shall permit PCG reasonable access to any relevant documents or data, otherwise subject to disclosure to the general public or to other individuals or entities through judicial procedures, pertaining to the Bloody Tanks Wash water supply.
11. **Technical Advisory Panel.** It is the intent of the parties that the following determinations, subject to a reasonable good faith meet and confer period, may be submitted to the TAP:

- A) Claims made under Paragraph 5;
- B) Claims made under Paragraph 3 for depletion caused by alleged violations of the O&M Standards or location of a well within the 2000 feet limit set forth in Paragraph 4;
- C) Claims made under Paragraph 7(d);
- D) Determinations of areas of contamination for purposes of Paragraph 8; and
- E) Any other matter agreed upon by the parties.

The TAP shall be comprised of three unbiased technical experts to be selected by mutual agreement of the parties. Should the parties be unable to agree on three technical experts, AWC shall select one expert, the PCG shall select the second expert, and the third expert shall be selected by the mutual agreement of the AWC and the PCG experts. The TAP shall render its decisions by concurrence of two or more members and such decisions shall be final and binding on the parties. The party petitioning the TAP shall have the burden of proof on the issue presented to the TAP. The costs of the TAP shall be borne initially by the party seeking review by the TAP but the TAP shall have the discretion to award all or a portion of such costs to a party. Time periods for each of the required procedures to be followed in the TAP process shall be agreed to by the parties.

12. **Definitions.** For purposes of this settlement offer, the following terms have the following meanings:

- A) **"Water Quality Parameters"** means water that, at the point of receipt by AWC, or in the case of a well provided to AWC, at the well head, meets the standards set forth on Exhibit F.
- B) **"Pinal Creek Site"** means the property within the boundaries depicted as the Pinal Creek WQARF Site in Appendix 2 to the Consent Decree dated August 22, 1997, attached hereto as Exhibit G.
- C) **"New Release"** means an incident or event caused by a member of PCG after the date of this Settlement Agreement that meets the following criteria:
 - 1. It introduces a hazardous substance into the environment in a quantity that is reportable under CERCLA or WQARF;

~~CONFIDENTIAL~~
CR

2. It is not caused by circumstances existing before or as of the date of this Settlement Agreement; and
 3. It causes AWC to incur losses or damages other than those described in Paragraph 5 or otherwise provided for under this Settlement Agreement.
13. **Confidentiality.** AWC and its affiliates and subsidiaries and its and their directors, officers, shareholders, employees, agents, and representatives shall keep the terms and conditions of this Settlement Agreement and the content of the negotiations leading to this Settlement Agreement strictly confidential and shall not disclose or offer to disclose them to any other person or entity, except that the following disclosures shall be allowed:
- A) Disclosures of technical information about the replacement water supply, including, without limit, water quality analyses for the replacement water supply (but not the Water Quality Parameters), and the location, design, construction, depth, value, capacity of replacement water wells, and other non-cash property and facilities provided by PCG pursuant to this Settlement Agreement as well as costs associated therewith.
 - B) Information legally required to be disclosed pursuant to a subpoena or a formal request or order of the Arizona Corporation Commission, the ADEQ, a court of law or other governmental entity having jurisdiction to request such information.
 - C) AWC may disclose the terms of this Settlement Agreement to the extent it is necessary in connection with the issuance of any bonds, securities or other finance transactions, in connection with any insurance claim or application for insurance coverage related to the replacement water supply, replacement wells or any of the related equipment supplied to AWC by PCG pursuant to this Settlement Agreement, or in connection with any determination of insurance coverage. If AWC desires to disclose the terms of this Settlement Agreement in connection with any other legitimate business purpose, AWC shall notify PCG in advance of such disclosure and request the consent of PCG, which such consent shall not be unreasonably withheld. PCG shall promptly respond to any such request for disclosure by AWC. AWC will accompany any permitted disclosure pursuant to this subparagraph C) with an assertion of confidentiality.

Before making any disclosure under subsection B) above, AWC shall (i) provide each of the PCG members with prompt notice (written, if

practicable) and, where applicable, a copy of any subpoena, written request or order; (ii) allow and not inhibit any timely efforts by one or more of the PCG members to legally prevent or limit the requested or ordered disclosure; and (iii) with respect to any information or document that ultimately must be disclosed pursuant to a governmental request, AWC shall (a) disclose only the specific information or document portions that must be disclosed and (b) assert and comply with any applicable legal procedures for establishing the confidential non-public status of the disclosure. Notwithstanding the foregoing, the PCG shall not require AWC to become directly involved as a party or to co-litigate any issue of confidentiality.

14. **Consideration.** Without any admission of liability or responsibility, and with such liability or responsibility being expressly denied, upon execution and delivery of this Settlement Agreement, PCG shall pay to AWC a sum of Four Hundred Sixty-Six Thousand Six Hundred Sixty-Six Dollars and Sixty-Seven Cents (\$466,666.67). On each of the first and second anniversaries of this Settlement Agreement, PCG shall pay to AWC a sum equal to Four Hundred Sixty-Six Thousand Six Hundred Sixty-Six Dollars and Sixty-Seven Cents (\$466,666.67). The parties agree that the foregoing compensation and the provision by PCG of replacement water, wells, facilities, properties, rights and other consideration and covenants of this Settlement Agreement are in exchange for a release of all losses, damages and liabilities arising out of AWC's disputed claims some of which are referred to in Paragraph 15.
15. **No Admission of Liability by PCG.** The parties expressly understand and acknowledge that this is a settlement and compromise of AWC's disputed claims, and that the payment and receipt of the aforesaid compensation, agreements or covenants are not to be construed as any admission or acknowledgment of liability or responsibility whatsoever on the part of any PCG member, any individual, person, or corporation, or agent, servant, employee, or representative thereof herein released, by each of whom all liability or responsibility is expressly denied. The parties to the Settlement Agreement acknowledge that among the claims that AWC has asserted are one or more causes of action for its claims for just compensation pursuant to the Fifth and Fourteenth Amendments of the United States Constitution and similar provisions of the Arizona Constitution and other applicable law for the alleged taking or damaging of AWC's property and rights in its Miami, Arizona water service area for a public purpose by the exercise of the power of eminent domain or the threat or imminence thereof or pursuant to the doctrine of inverse eminent domain.
16. **Representation upon Execution.** Each party in executing this Settlement Agreement understands and agrees and each PCG member and AWC

specifically warrant and represent that they have been fully advised and represented by legal counsel of their own selection and are fully familiar with all of the circumstances surrounding this Settlement Agreement, and, in executing this Settlement Agreement, each party does so relying wholly upon its own judgment and advice of counsel, and that it has not been influenced whatsoever in executing this Settlement Agreement by any representation or statement whatsoever regarding the matters set forth herein, or any other matter made by any person, individual, or corporation, or any agent, employee, or servant thereof, or by any persons representing any of them, or attorney by any of them employed. The parties further declare that this Settlement Agreement has been carefully read, that the contents thereof are fully known and understood, that the same is signed as the free and voluntary act of each party.

17. **Entire Agreement; Headings.** This Settlement Agreement, including the recitals hereto, contains the entire agreement between the parties hereto. The headings to this Settlement Agreement are inserted for convenience only and shall not be used for interpretation hereof.
18. **Force Majeure.** Neither party shall be liable to the other for failure to perform its obligations hereunder if and to the extent such failure to perform results from reasonably unforeseen causes beyond its reasonable control, all of which causes herein are called "force majeure," including but not limited to strikes; civil disturbances; fires; earthquakes; floods; unusual climatic conditions; acts of God; governmental action preventing performance; or acts of a public enemy. Each party shall use its best efforts to overcome an event of force majeure, provided that no such party is obligated to settle any labor dispute. Financial difficulty on the part of the party asserting force majeure shall not be considered a cause beyond a party's reasonable control. The party unable to perform as a result of force majeure shall promptly notify the other in writing at the beginning and ending of each such period.
19. **Amendments; Mutual Negotiation.** No change in, addition to, or waiver of any of the provisions of this Settlement Agreement shall be binding upon either party unless in writing signed by an authorized representative of each party. No presumption shall be deemed to exist in favor or against either party hereto as a result of the preparation and/or negotiation of this Settlement Agreement.
20. **Successors and Assigns.** This Settlement Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of the parties hereto.

21. **Severability.** In the event that any of the provisions, or portions or applications thereof, of this Settlement Agreement are held to be unenforceable or invalid by any court of competent jurisdiction, AWC and PCG shall negotiate an equitable adjustment in the provisions of this Settlement Agreement with a view toward effecting the purpose of this Settlement Agreement and the validity and enforceability of the remaining provisions, or portions or applications thereof, shall not be affected thereby.
22. **Counterparts.** This Settlement Agreement may be executed in any number of counterparts, all of which will constitute one agreement.
23. **AWC's Water Rights.** The parties agree that in accepting and using replacement water pursuant to this Settlement Agreement, AWC does not intend to forfeit or abandon any rights it may have to surface water in Bloody Tanks Wash.
24. **Statutes of Limitation.** Except as set forth below, PCG and AWC agree to toll the running of any applicable statutes of limitation, and any and all statutes, laws, rules or principles of equity of similar effect (collectively "Statutes of Limitation"), and the tolling will remain in effect until October 30, 2028 for any and all claims or causes of action existing as of the date of this Settlement Agreement that would or might be asserted to arise out of or in any way connected with or related to contaminants in the Pinal Creek Site. This tolling agreement does not apply to any (i) Statutes of Limitation that expired prior to the effective date of this Settlement Agreement, (ii) Statutes of Limitation for breach of this Settlement Agreement, or (iii) matters covered by the release set forth in Paragraph 9 of this Settlement Agreement.
25. **Governing Law.** The validity, interpretation, and enforcement of this Settlement Agreement shall be governed by the laws of the State of Arizona.
26. **Notices.** Any notice required or permitted hereunder shall be deemed to have been properly given when delivered personally to the party for whom it is intended or seventy-two (72) hours after deposit in the U.S. Mail (certified and return receipt requested) of an original or conforming copy or twenty-four (24) hours after entrustment to a professional overnight courier service, or upon receipt of transmission by facsimile, with all necessary postage or charges fully prepaid, addressed to the party for whom it is intended, as follows:

If to PCG:

~~CONFIDENTIAL~~

CM

Name: Law Department
Title: Cyprus Miami Mining Corporation
Address: 9100 East Mineral Circle
Englewood, Colorado 80112
Fax: (303) 643-5181

Name: Legal Department
Title: BHP Copper Inc.
Address: 7400 North Oracle Road, Suite 200
Tucson, Arizona 85704
Fax: (520) 575-5639

Name: Van Velsor Wolf, Jr., Esquire
Title: Inspiration Consolidated Copper Company
c/o Snell & Wilmer
Address: One Arizona Center
Phoenix, Arizona 85004-0001
Fax: (602) 382-6070

If to AWC:

Name: Mr. James R. Livingston
Title: President
Address: Arizona Water Company
3805 North Black Canyon Highway
Phoenix, Arizona 85015
Fax: (602) 240-6878

27. Exhibits. The Exhibits which are attached hereto and made a part hereof are as follows:

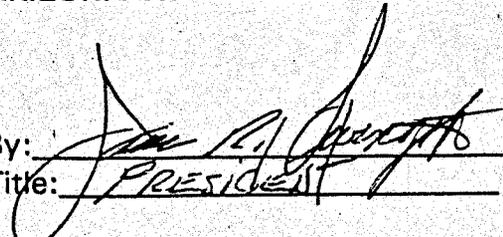
- Exhibit A: Tie In Location for Old Dominion
- Exhibit B: Depletion Testing Protocol
- Exhibit C: Form of Special Warranty Deed / Form of Bill of Sale
- Exhibit D: Map of Alluvial Aquifer Including Pinal Creek Site
- Exhibit E: Form of Public Statement of Support of Environmental Response Actions
- Exhibit F: Water Quality Parameters
- Exhibit G: Map of Pinal Creek Site

CA

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first written above.

AWC:

ARIZONA WATER COMPANY

By: 
Title: PRESIDENT

PCG:

BHP COPPER INC.

By: _____
Title: _____

CYPRUS MIAMI MINING CORPORATION

By: _____
Title: _____

INSPIRATION CONSOLIDATED COPPER COMPANY

By: _____
Title: _____

~~CONFIDENTIAL~~
CAN

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first written above.

AWC:

ARIZONA WATER COMPANY

By: _____
Title: _____

PCG:

BHP COPPER INC.

By: Arthur G. Gooden
Title: VICE PRESIDENT

CYPRUS MIAMI MINING CORPORATION

By: _____
Title: _____

INSPIRATION CONSOLIDATED COPPER COMPANY

By: _____
Title: _____

~~CONFIDENTIAL~~

IN WITNESS WHEREOF, the parties have executed this agreement as of the date *CA*
first written above.

AWC:

ARIZONA WATER COMPANY

By: _____
Title: _____

PCG:

BHP COPPER INC.

By: _____
Title: _____

CYPRUS MIAMI MINING CORPORATION

By: *[Signature]*
Title: _____

INSPIRATION CONSOLIDATED COPPER COMPANY

By: _____
Title: _____

No transmission information available for 'UOLFY'
JUL 10 '98 11:26AM CYPRUS LAW DEPART. 6029294428

WORKSRV4 printed ADM35ASPAFA5311 on Jul 10 01:54PM 1998 = Pg 3/3
P.3/3

~~CONFIDENTIAL~~

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first written above. *CAH*

AWC:

ARIZONA WATER COMPANY

By: _____
Title: _____

PCG:

BHP COPPER INC.

By: _____
Title: _____

CYPRUS MIAMI MINING CORPORATION

By: _____
Title: _____

INSPIRATION CONSOLIDATED COPPER COMPANY

By: *G. Van Nelson*
Title: *Smell + Wilmer*

Counsel for Inspiration Consolidated Copper Co

~~CONFIDENTIAL~~
CM

EXHIBIT A
Tie In Location for Old Dominion

CAR

~~CONFIDENTIAL~~

GLOBE/MIAMI AREA

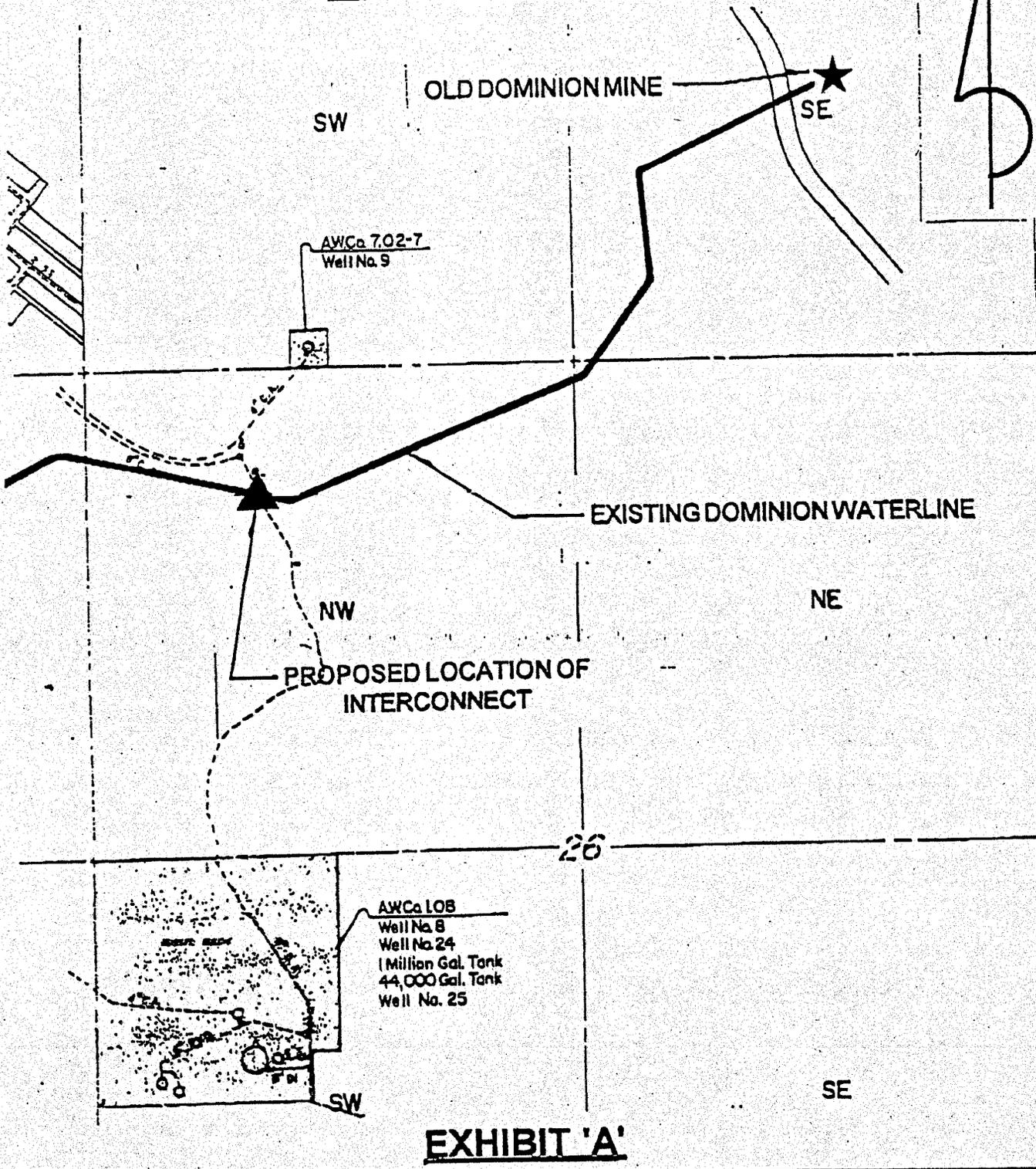


EXHIBIT 'A'

**ARIZONA
WATER
COMPANY**

PROPOSED INTERCONNECT LOCATION DRAWING

LOCATION: Northwest Quarter Section 26 - T.1N.,R.15E.

DESCRIPTION: Proposed Interconnect Between The Dominion Mine Water Line And Arizona Water Company's Facilities.

DATE: 7-08-98

SCALE: 1"=800'

DRAWN BY: CB

~~CONFIDENTIAL~~ ^{CA}

EXHIBIT B
Depletion Testing Protocol

See attached.

~~CONFIDENTIAL~~ ^{CM}

EXHIBIT B

Depletion Testing Protocol

Compliance with the aggregate capacity requirements set forth in Paragraph 3 of the Settlement Agreement will be determined by well capacity testing in the fourth quarter of each year. The capacity of any replacement well shall be deemed to have the capacity as determined by well capacity testing as defined below. Additional replacement well capacity will be deemed to be required if after any period of well capacity testing, the aggregate well capacity of the replacement wells falls below the above schedule by 100 gpm or more.

The aggregate replacement well capacity will be determined as follows:

A. During the fourth quarter of every calendar year, starting in the year 1999, AWC will conduct well capacity tests of the replacement wells provided by PCG.

B. AWC will pump each well during the fourth quarter of each calendar year for four consecutive days and for twenty hours per day. AWC will use its best efforts to pump each replacement well at its maximum test capacity pumping level as determined by the following paragraph. If necessary, AWC will install an in-line booster pump to increase replacement well output capacity sufficient to achieve the maximum test capacity pumping level. Likewise, if the replacement well pump capacity could cause pumping levels to exceed the maximum test capacity pumping level, the discharge rate will be throttled to limit the maximum pumping level. AWC will use its best efforts to achieve pumping rates that will demonstrate maximum well pumping capacity, limited to the maximum test pumping level. The capacity of each replacement well will be calculated by expressing the accumulative water pumped over the four day test divided by the total minutes pumped. Such results will be expressed in gpm. The aggregate replacement well capacity will be expressed as the arithmetic sum of all active replacement wells test capacity.

C. All replacement wells provided to AWC by PCG will be equipped and maintained for the purpose of conducting the four-day well capacity test such that:

1. For Replacement Wells drilled to a total depth between 600 feet and 1500 feet:

The pumping equipment will be placed at a depth determined by the following equation:

$$\text{Pump Depth} = (50 \text{ Feet}) + (0.833 \text{ Times Total Drilled Well Depth})$$

The maximum pumping level allowed during the four-day well capacity test will be determined by the following equation:

$$\text{Maximum Pumping Level} = (200 \text{ Feet}) + (0.5 \text{ Times Total Drilled Well Depth})$$

2. For Replacement Wells drilled to a depth between 1500 feet and 2000 feet:

~~CONFIDENTIAL~~
CR

The pumping equipment will be placed at a depth determined by the following equation:

$$\text{Pump Depth} = (700 \text{ Feet}) + (0.4 \text{ Times Total Drilled Well Depth})$$

The maximum pumping level allowed during the four-day well capacity test will be determined by the following equation:

$$\text{Maximum Pumping Level} = (800 \text{ Feet}) + (0.1 \text{ Times Total Drilled Well Depth})$$

The attachment on the following page illustrates by tabular form and through graphical representation, the pumping equipment placement and maximum test pumping level.

D. The above provisions will serve as the standards for replacement well capacity determinations unless a mutually agreed upon method is developed for circumstances of individual well performance and aquifer characteristics.

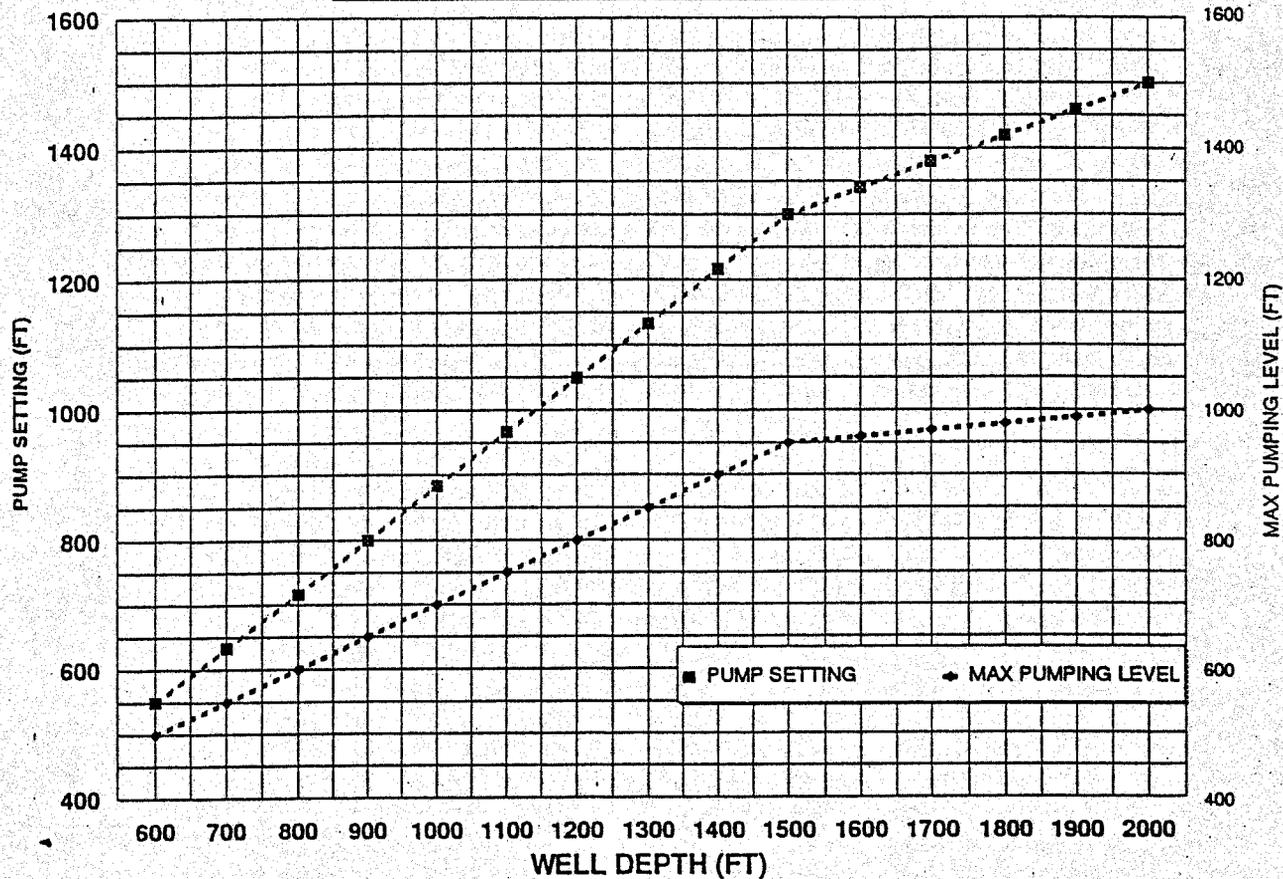
O&M Standards

A. AWC will maintain the replacement wells by brushing, bailing, swabbing and acid treating each well at a minimum frequency of once every seven years.

B. In an effort not to overpump the replacement wells, AWC will limit the use of replacement wells to 18 hours per day on an annual average basis. It is understood that pumping of replacement wells by AWC may exceed 18 hours per day during peak months.

C. The above O&M Standards will serve as the baseline well operation and maintenance standards for all replacement wells unless a mutually agreed upon alternative standard is developed on an individual well basis.

**ARIZONA WATER COMPANY - MIAMI
WELL DEPLETION TESTING PROTOCOL**



**MAX PUMPING LEVEL = MAXIMUM PUMPING LEVEL ALLOWED DURING WELL CAPACITY TEST
MINIMUM WELL DEPTH = 600 FEET, MAXIMUM WELL DEPTH = 2000 FT**

WELL DEPTH (FEET)	PUMP SETTING (FEET)	MAX PUMPING LEVEL DURING TEST (FEET)
600	550	500
700	633	550
800	716	600
900	800	650
1000	883	700
1100	966	750
1200	1050	800
1300	1133	850
1400	1216	900
1500	1300	950
1600	1340	960
1700	1380	970
1800	1420	980
1900	1460	990
2000	1500	1000

~~CONFIDENTIAL~~
CAR

SW

SE

AWCa 7.02-7
Well No. 9

8" C.A.

NW

NE

26

BASEL BACH

AWCa 1.08
Well No. 8
Well No. 24
1 Million Gal. Tank
44,000 Gal. Tank

8" C.A.

8" C.A.

AWCa 15.16
Well No. 20

SW

SE

8" C.A.

8" C.A.

AWCa 14.15
Well No. 18

M I A M
T. IN., R. 15

~~CONFIDENTIAL~~
CAR

EXHIBIT C
Form of Special Warranty Deed

When recorded, mail to:

Information This Space Reserved For Recording

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED, made effective the _____ day of _____, 1998, is by and between **ARIZONA WATER COMPANY**, an Arizona corporation with an address of 3805 North Black Canyon Highway, Phoenix, Arizona 85015 ("Grantee") and **[INSERT NAME AND ADDRESS]** ("Grantor").

WITNESSETH, THAT, Grantor, for and in consideration of the sum of Ten and no/100 Dollars (\$10.00) and other good and valuable consideration to the said Grantor, in hand paid by the said Grantee, the receipt of which is hereby acknowledged, has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell and convey unto the said Grantee, its successors and assigns forever, all the estate, right, title, interest, claim and demand whatsoever, of the said Grantor, whether in law or in equity, in those certain properties situated in Gila County, State of Arizona, more particularly described in Exhibit "A" attached hereto and made a part hereof (the Property") free and clear of all encumbrances that render the Property unuseable for the intended purpose and liens other than liens for taxes due but not yet payable;

TOGETHER with all and singular hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all estate, right, title, interest, claim and demand whatsoever, of the said Grantor, both in law and in equity, of, in and the Property.

TO HAVE AND TO HOLD, the Property with the hereditaments and appurtenances, unto said Grantee, its heirs, successors and assigns, forever; and the said Grantor for its successors and assigns does covenant and agree to and with the said Grantee's heirs, successors and assigns that it is lawfully seized in fee of the aforesaid property; that it has good right to sell and convey the same to Grantee as aforesaid; and that it will specially warrant the title to the Property hereby conveyed against all acts of Grantor and no others.

IN WITNESS WHEREOF, Grantor has executed this Special Warranty Deed by and through its duly authorized officers effective the date first above written.

~~CONFIDENTIAL~~
CAR

GRANTOR:

[NAME OF GRANTOR],
a _____ corporation

By: _____
Title: _____

~~CONFIDENTIAL~~

CM

CORPORATE ACKNOWLEDGMENT - ARIZONA

STATE OF ARIZONA)
)ss:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by _____ known to me to be the _____ of [NAME OF GRANTOR], a _____ corporation.

Notary Public
Address:

My Commission expires:

~~CONFIDENTIAL~~
CAR

Form of Bill of Sale

BILL OF SALE

THIS BILL OF SALE, made and delivered this _____ day of _____, 19____, by _____, a _____ corporation ("Seller") and Arizona Water Company, an Arizona corporation ("Buyer").

WITNESSETH:

For good and valuable consideration, receipt of which is hereby acknowledged, Seller does hereby assign, sell, transfer, grant, and convey, without warranty or representation of any kind whatsoever to Buyer, and Buyer's successors and assigns, except as set forth below, Seller's interest in that certain personal property ("Property") more particularly described in Exhibit "A" attached hereto and made a part hereof.

TO HAVE AND TO HOLD the Property hereby transferred and conveyed unto Buyer, and Buyer's successors and assigns, forever, free and clear of all liens and other encumbrances.

By execution hereof, Buyer accepts the Property "WHERE IS, AND IN AN AS IS CONDITION, WITH ALL FAULTS, WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, AND/OR WITHOUT ANY OTHER TYPE OF WARRANTY WHETHER EXPRESSED OR IMPLIED BY LAW OR IN FACT." Notwithstanding the foregoing, Seller warrants that the Property is in good operating condition upon execution hereof, it being understood that Seller makes no warranty or representation concerning the good operating condition after execution hereof.

Seller warrants that it has title to and the right to convey the Property.

IN WITNESS, WHEREOF, Seller has caused this Bill of Sale to be executed on the day and year first above written.

SELLER:

By: _____
Title: _____

BUYER:

By: _____
Title: _____

~~CONFIDENTIAL~~
AR

EXHIBIT D

Map of Alluvial Aquifer Including the Pinal Creek Site

Neville, Chris & J. G. Brown, 1994. Hydrogeology and Hydrologic Systems of Pinal Creek Basin of Gila County, Arizona, U.S.G.S. Water-Resources Investigations Report 93-4212.

~~CONFIDENTIAL~~

OMR

EXHIBIT E

Form of Public Statement of Support of Environmental Response Actions

[LETTERHEAD OF PRESIDENT, ARIZONA WATER COMPANY]

Arizona Water Company and the Pinal Creek Group have worked together to ensure an adequate future drinking water supply within the Arizona Water Company's Miami service area. Drinking water supply issues have been resolved in a cooperative and mutually beneficial manner, and Arizona Water Company fully supports the Pinal Creek Group Consent Decree and the Pinal Creek Group's remediation efforts and objectives within the Pinal Creek Site.

~~CONFIDENTIAL~~
CAM

EXHIBIT F
Water Quality Parameters

CONTAMINANT NAME	PRIMARY MCL (mg/L)	SECONDARY MCL (mg/L)	PCG HBGL (mg/L)	NEGOTIATED STANDARDS (mg/L)
ANTIMONY	0.006			
ARSENIC	0.05			
BARIUM	2.0			
BERYLLIUM	0.004			
BORON			0.600	
CADMIUM	0.005			
CHROMIUM	0.1			
COPPER				1.3
CYANIDE	0.2			
LEAD				0.015
FLUORIDE	4.0			
MERCURY	0.002			
NITRATES	10.0			
NITRITE	1.0			
NITRATES/ NITRATE	10.0			
SILVER	0.05			
STRONTIUM			17.0	
SULFATE				500 (to be replaced by any future Primary MCL)
THALLIUM	0.002			
TIN			21.0	
URANIUM	20.0			
ZINC		5.0		
SELENIUM	0.05			

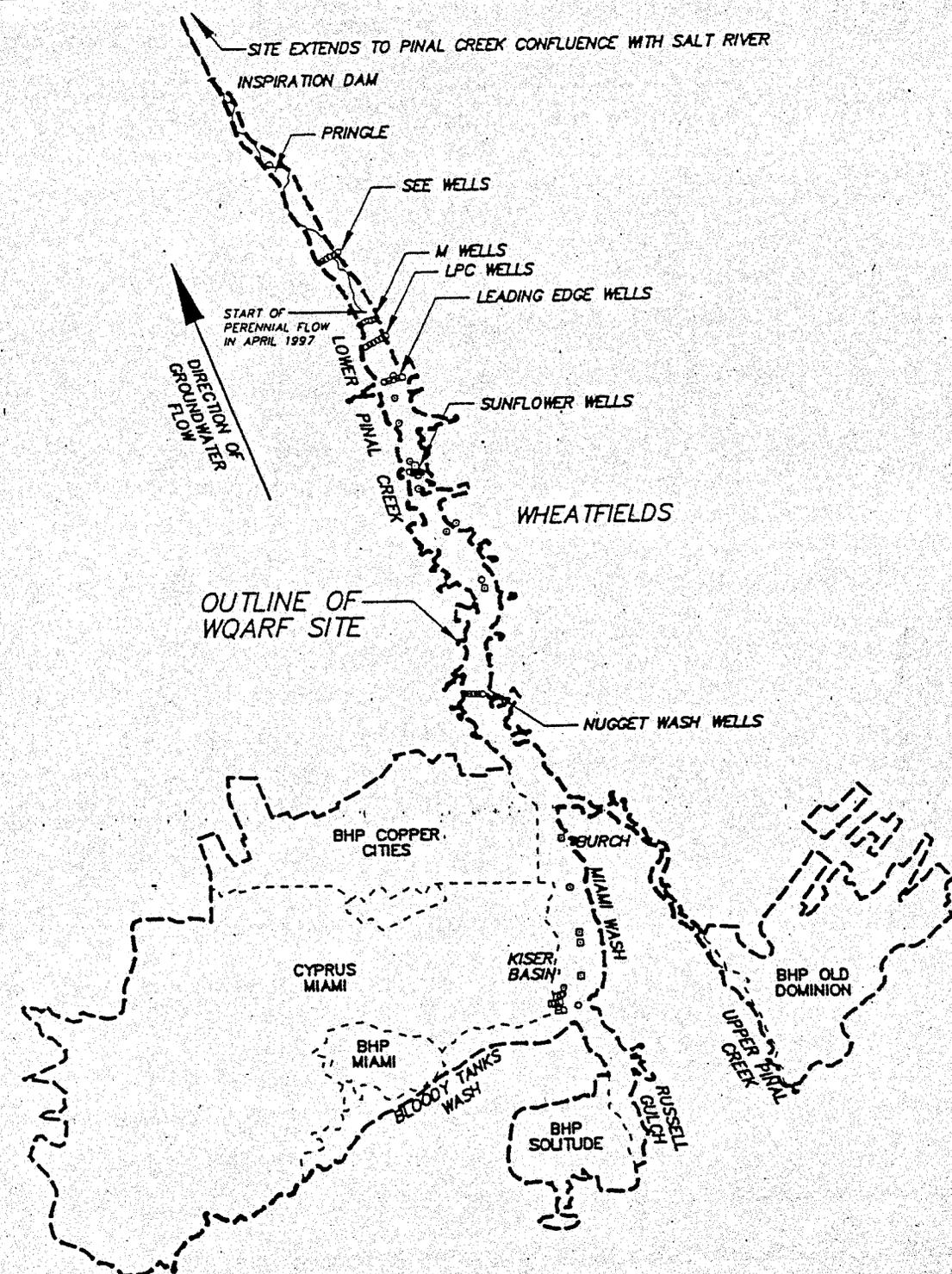
~~CONFIDENTIAL~~
CM

CONTAMINANT NAME	PRIMARY MCL (mg/L)	SECONDARY MCL (mg/L)	PCG HBGL (mg/L)	NEGOTIATED STANDARDS (mg/L)
TDS				800
NICKEL	0.1			
pH		6.5 to 8.5		
ODOR		3 Threshold #'s		
MANGANESE			1.600	
COBALT			0.875	
MOLYBDENUM			0.040	
VANADIUM			0.250	
IRON				0.6

~~CONFIDENTIAL~~
AR

EXHIBIT G
Map of Pinal Creek Site

CAR



EXPLANATION

- ALLUVIAL AQUIFER MONITORING WELL
- REMEDIAL PUMPING WELL
- WQARF SITE BOUNDARY
- PROPERTY OWNERSHIP BOUNDARY

SCALE APPROXIMATE

NAME: K:\28804\28804A19.DWG DATE: AUG 20, 1997 TIME: 10:45 AM



**HYDRO
GEO
CHEM, INC.**

1430 NORTH SIXTH AVENUE
TUCSON, ARIZONA 85705-6671
(520) 623-6981 (520) 623-6984 FAX

BOUNDARIES OF PINAL CREEK WQARF SITE *

* Boundaries may be altered pursuant to Section 30 ("modifications") to reflect new information concerning the areal extent of contamination.

Approved	Date	Revised	Date	Reference:	FIG.
JRN	8/5/97			28804A19	2